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Special Issue

on

INTERNATIONALISATION FOR TRANSFORMATIVE HIGHER EDUCATION

on the occasion of

AIU NORTH ZONE VICE CHANCELLORS' MEET–2022-23

hosted by

GALGOTIAS UNIVERSITY, GREATER NOIDA

on

November 10-11, 2022

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Opinions expressed in the articles are those of the contributors and do not necessarily reflect the views and policies of the Association

EDITORIAL

Internationalisation of higher education has been with us in India, ever since the first universities or *Vishwavidyalayas* were established. The name *Vishwavidyalaya* itself signifies its international character. However, the process of internationalization of higher education has attracted increasing interest and a quickening pace of operation in recent years due to several obvious reasons like disruptions in Information and Communication Technologies; globalization, massification of higher education, etc. Now, Internationalization has become an inevitable dimension of higher education despite its several advantages and disadvantages.

Many national, international, and institutional players came into the picture operating in different ways at different levels, and with patterns varying between regions, nations, and institutions. India has also escalated its efforts towards the Internationalisation of Higher Education after the launch of the National Education Policy--2020 which placed special emphasis on it. The Policy has particularly stressed on attaining the highest global standards in higher education to attract a greater number of international students, and creating India as a knowledge hub. Promoting research collaboration and student exchanges between Indian institutions and global institutions through organized efforts; exchange of credits between foreign universities and home institutes for the award of a degrees, and other forms of arrangements such as offshore campuses of foreign HEIs in India and *vice versa* are some of the recommendations of the Policy. The policy justifies the critical need to promote India as a "global study destination" providing premium education at affordable costs thereby, helping to restore its role as *Vishwa Guru.*

Steps that have been taken by the Government towards promoting the internationalization of Higher Education include providing autonomy to Institutes of Eminence to collaborate freely with certain categories of foreign institutions without regulatory approval requirements, hiring foreign faculty, making efforts to allow the top 100 universities of the world to establish campuses in India, etc. Most importantly, the University Grants Commission has come out with Guidelines for 'Internationalisation of Higher Education (IHE). The important of all strategies mentioned in IHE Guidelines is "Internationalisation at Home", which means integrating the dimensions of the international learning environment within our higher education institutions which involves capacity building in internationalisation initiatives; collaborative communication between Indian and international faculty; international dimension to curricula in the sciences, social sciences, and beyond to spark a deeper reflection about course content and effective pedagogy to promote better learning outcomes for all students, etc. These guidelines also act as a means to improve the quality of Indian Higher Education.

On pondering the opportunities and challenges brought in by the process of Internationalisation we find that the opportunities outweigh the challenges. The opportunities are the increased supply of higher education, greater access for students, support for the knowledge economy, development of joint degrees, fusion or hybridization of cultures, growing comparability of qualifications, an increasing role for the market-based approach, economic benefits for education providers, and the diversification and generation of new academic environments**.** The challenges include concern about the quality of provision, inequality of access leading to a two-tier system, the growing problem of physical and virtual brain drain on the developed country---developing country axis, homogenization of culture, weakening role of the state in establishing national policy objectives, growth in market-oriented programmes, such as business and information technology and decline in Liberal Arts and pure science disciplines which are essential for sustainable harmonious development. Internationalisation is a significant process that benefits seamless education and jobs across the globe.

A successful internationalisation process requires commitment and support, as also ethos and conditions that welcome it. The universities and other institutions must first create a favourable environment and it is only then that they will derive the full benefits of internationalization. For the successful internationalization of higher education all stakeholders (students, faculty, management, government, and society) need to work hand-in-hand with a sense of dedication. The efforts of only a few individuals may not suffice. Finally, internationalization of higher education is not only a concept but also a transformational process that needs to be promoted by all Indian higher education institutions.

This Special Issue of the University News is being brought out on the occasion of the North Zone Vice Chancellors' Meet of the AIU being hosted by Galgotias University Greater Noida on the theme of great national and international consequence '***Internationalization for Transformative Higher Education'.*** This Special Issue contains articles on Internationalisation of Higher Education contributed by eminent academics and experts in the field. These articles will supplement the outcome of the Vice Chancellors' Meet to create a roadmap for the higher education institutions to work towards Internationalisation. This is a small but significant effort to contribute to the Government of India's initiatives towards making India a *Vishwa Guru.*

Sistla Rama Devi Pani

Conceptualising the North Zone Vice Chancellors' Meet on Internationalisation for Transformative Higher Education

Pankaj Mittal* and Sistla Rama Devi Pani**

Indian Higher Education is going through the most interesting revolutions in the centuries, and that too at a very rapid pace. These revolutions are being reinvigorated and accelerated through both natural and manmade happenings. The most important happenings among others are the launch of the National Education Policy –2020 amidst the global Pandemic COVID-19. The National Education Policy geared the academia of the country to build an education system rooted in Indian ethos while following the best global education practices to provide high-quality education to all. The need of the hour is to adopt Transformative Education and Transformative Pedagogies. Transformative education equips learners with the core knowledge, values, attitudes, and skills needed to address pressing local and global challenges in addition to preparing them to contribute to a more just, inclusive, diverse, equitable, secure, and sustainable future for all.

One of the key activities of the AIU is to convene the Vice Chancellors' Meets at the Zonal and National levels to discuss various issues related to higher education. India is a country with a large geographical area, for ease of reaching out, AIU has grouped the member HEIs into 5 zones—East, West, North, South and Central. Each zone is constituted of HEIs located in 5-6 States grouped in that Zone. Thus, five Zonal Meets and one National Vice Chancellors' Meet are organized in each academic session. These Meets are important platforms to discuss the significant issues of higher education and play a catalytic role in finding solutions for different problems of higher education through collective wisdom. Further, AIU carries forward the voice of the participating leaders of higher education to appropriate agencies and authorities for their dispensation. Every year in the Annual Vice Chancellors' Meet, a specific theme which is of topical significance for the higher education community is taken up for discussion. As a run-up, subthemes related to the main theme are discussed in the Zonal Vice Chancellors' Meets.

In this academic session 2022-23, AIU as a representative body of HEIs in India has set out to organize all the Zonal and National Vice Chancellors Conferences in 2022-23 on the theme: **Transformative Higher Education for *Atmanirbhar Bharat*** in order to guide and support the Indian HEIs in imparting state-of-the-art Transformative Education to the student. In Zonal Vice Chancellors Meets, themes on different essential aspects of teaching-learning in the light of Transformative Higher Education will be discussed exclusively.

a. *North Zone*: Internationalization for Transformative Higher Education
b. *East Zone*: Pedagogies and Use of Technologies for Transformative Higher Education
c. *Central Zone*: Transformative Curriculum for a holistic and Multidisciplinary Higher Education
d. *South Zone*: Research & Excellence for Transformative Higher Education
e. *West Zone*: Evaluation Reforms for Transformative Higher Education

The Present Meet

The present Meet is the North Zone Vice Chancellors' Meet. The theme for this Meet is ***Internationalization for Transformative Higher Education.***

Internationalization of higher education is a reality which is influencing policymakers in most countries of the world. Somehow, the Indian higher education system has been very slow in reacting to the wave of internationalization that is sweeping the world. It has been particularly slow in creating conducive platforms for the students and faculty of different countries in Indian Universities. According to the latest data from the Ministry of External Affairs, only around over 49,348 foreign students are enrolled in India for higher education whereas, a big number of around 13,24,954 lakh students from India go for studying abroad. This wide gap between

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the students going to other countries and students coming from other countries is because of the limited capacity of our institutions, both academically as well as infrastructurally, to meet the requirements of international students. Consequently, India had not been able to take advantage of the opportunities that internationalization offers. However, NEP-2020 has targeted the internationalisation of higher education as an important goal and several measures have been initiated to promote Internationalization of the Higher Education, some of which *inter alia* include facilitating research/teaching collaborations and faculty /student exchange with high-quality foreign HEI and signing of relevant mutually beneficial MOUs with foreign countries; encouraging high-performing Indian universities to set up campuses in other countries; selected universities e.g., those from among the top 100 universities in the world to be permitted to operate in India; setting up of International Student Office at each HEI for welcoming and supporting students arriving from abroad; counting credits acquired in foreign universities, wherever appropriate as per requirement for each HEI; and promoting courses and programmes in subjects, such as Indology, Indian Languages, AYUSH systems of medicines, yoga, arts, etc. Post NEP--- 2020, some of the steps taken to promote internationalization are:

i. Guidelines released for setting up of Office for International Affairs and Alumni Connect Cell in the campus of universities hosting foreign students.

ii. 179 Universities have established Office for International Affairs and 158 Universities have set up Alumni Connect Cells.

iii. In order to foster academic collaboration between Indian HEIs and foreign HEIs, "University Grants Commission (Academic Collaboration between Indian and Foreign Higher Educational Institutions to offer Twinning, Joint Degree and Dual Degree Programmes) Regulations, 2022" have been notified on 2nd May, 2022.

iv. World-class foreign universities and institutions will be allowed in the GIFT City, Gujarat to offer courses in Financial Management, FinTech, Science, Technology, Engineering and Mathematics free from domestic regulations, except those by the International Financial Services Centres Authority (IFSCA) to facilitate the availability of high-end human resources for financial services and technology.

v. UGC Institutions of Eminence Deemed to be Universities Regulations have been amended to allow Institutions of Eminence to set up Off-Shore campuses. The amendment to existing UGC institutions of Eminence Regulations delineates terms, conditions and approval processes for the establishment of Off-Shore campus by Institutions of Eminence (IoEs) deemed to be universities.

vi. Increase of supernumerary seats for foreign students to 25% over and above the total sanctioned strength for admission to various UG and PG courses.

vii. For permitting credits acquired in foreign countries to be counted for the award of a degree, UGC has framed the draft UGC (*Academic collaboration between Indian and foreign Higher Education Institutions to offer Joint Degree, Dual Degree and Twinning Programme) Regulations, 2021*. These Regulations shall apply to Indian Higher Education Institutions intending to collaborate with Foreign Higher Education Institutions leading to the award of diploma(s) and degree(s) including Postgraduate and Doctoral programmes, and Foreign Higher Education Institutions intending to collaborate with Indian Higher Education Institutions. Academic Collaboration between Indian and foreign higher education institutions under these Regulations shall facilitate Credit Recognition and Transfer, Twinning Arrangement, Joint Degree Programme and Dual Degree Programme. The promotion of foreign academic collaboration shall be strengthened through the introduction of the provisions of a joint degree, dual degree and twinning arrangement. This initiative will provide global exposure to the students; promote multidisciplinary and interdisciplinary education with an internationally relevant curriculum; improve employability; attract foreign students to study in India; and improve the standing of the Indian universities in international rankings as internationalization is an important parameter.

Under *"Twinning Arrangement*", students enrolled with Indian higher education institutions shall be able to undertake their programme of study partly in India, complying with relevant UGC

regulations, and partly in a foreign higher education institution. Moreover, credits earned by the students at a foreign education institution shall be counted towards the degree/diploma awarded by the Indian higher education institution.

In the case of the *"Joint Degree Programme*", the curriculum shall be designed jointly by the collaborating Indian and foreign higher educational institutions and the degree shall be awarded by both the collaborating institutions with a single Certificate bearing the crests and logo of both collaborating institutions, upon completion of the programme. "Dual Degree Programme" under these Regulations shall be conferred by the Indian and foreign higher education institutions, separately and simultaneously, upon completion of degree requirements of both the institutions.

Being the third largest higher education system in the world with around 44000 HEIs and several indigenous courses, India has immense scope to become an attractive destination for international students. To showcase the potential of Indian higher education, the Government of India initiated the ***'Study in India'*** programme. The main objective of it is to objective is to target foreign students by branding India as an attractive education destination. It encourages international students to explore valuable educational opportunities enabled by top Indian universities.

The Government has approved an expenditure of Rs. 150 crores for the 'Study in India' programme for two years 2018-19 and 2019-20 which will be primarily for brand promotion activities. This programme is designed to provide scholarships or fee waivers for international students to study in any of the empanelled Indian Universities. In years 2018 to 2021, the programme covers tuition, accommodation and feeding. But for the year 2022 academic session, the programme shall cover the only tuition fee.

Indian Council for Cultural Relations administers various scholarship programs annually and awards about 3000+ scholarships under 26 different schemes to foreign students from about 140 countries. Amongst these 23 schemes, six are funded by ICCR from its grant and others are administered on behalf of MEA and the Ministry of Ayush. Each academic year, ICCR has about 6000+ of its foreign scholars who are studying at various Central/ State Universities, Institutes, NITs, Agricultural Institutions etc. In a step forward toward "Digital India," ICCR developed the "Admissions to Alumni (A2A) Portal) to streamline the enrolment process. There are many other apex bodies of higher education which are working for the cause of higher education *vis a vis* internationalization.

AIU Initiatives in Internationalisation of Higher Education

The Association of Indian Universities setup in 1925 determines the Equivalence of the Degrees and other Qualifications awarded by foreign Universities which *inter alia* signifies promoting internationalization of higher education and the inevitability of AIU in the process of internationalization. The AIU maintains a close relationship since its inception with university organizations in many nations for facilitating international collaboration in areas of common interest particularly the exchange of students/ faculty/research and technical staff, joint research projects, sharing of information, joint capacity building programme, credit transfer, dual/joint degree programmes, recognition of courses and programmes, the equivalence of degree, etc. between the universities of India and other countries.

AIU with its strong network of universities and HEIs nationally and internationally is also contributing to getting Indian degrees recognised abroad through our counterparts in that country. AIU has already moved to futuristic credit-based evaluation and has updated its equivalence policy in line with the NEP--2020. To enhance and facilitate student mobility and catch up with international trends, AIU has shifted to a credit-based approach for the ***equivalence of degrees,*** rather than insisting only on the duration of the programme. The mutual recognition of qualification is now envisaged to be based on the credit approach rather than the duration approach. This has led to a larger number of beneficiaries who can come to India for higher education or jobs. For this, the exercise of credit mapping over various nations is being undertaken by AIU. It is felt that mutual recognition of qualifications is one of the key areas to promoting the internationalization of higher education where AIU plays a major role.

On the recommendations on various forums of Vice Chancellors and other dignitaries to have a consortium of universities for internationalization,

AIU has launched an Indian ***Network for Internationalization of Higher Education (INIHE)*** as an independent, autonomous, Pan-India consortium dedicated to the advancement of internationalization of higher education at all universities/institutions in India. As a research-based collaboration entity, it aims to serve as the nation's think tank for all matters related to the internationalization of higher education and globalization. The INIHE shall commit its resources to quality research, capacity building, information sharing and advocacy so as to ensure that Indian institutions are able to appreciate and avail the benefits of internationalization, and to ensure that a better understanding of Indian higher education is enabled internationally. It will be the leading think tank/advisory body on all matters related to the international dimension of higher education in India. The creation of INIE also results in a bigger role for AIU to engage with the national and international community.

To aid the 'Study India Programme' being conducted by the Government of India AIU contemplated an ***AIU Collaboration Portal*** wherein all the member universities of AIU can showcase their best departments/centres/facilities where they wish to collaborate nationally or internationally. The information will be available on the AIU Collaboration Portal about the credibility of these departments in terms of academic programmes, research publications, faculty with Ph.D. qualifications, patents, awards, facilities and infrastructure in terms of books, journals and equipment. These will help the partner institutions to decide on the university to collaborate with in specific subject domains.

Internationalization of higher education is not just a concept but also a transformational process which requires strong will and concerted efforts from the Indian higher education institutions. In this Meet, there will be deliberations on strategies for the Internationalization of Higher Education. The two-day event will include the following 3 Technical Sessions to discuss the concerned topics:

Technical Session--1: International Student and Faculty Mobility

Technical Session-2: International Collaborations in Research and Teaching

Technical Session-3: Promoting Indian Higher Education Abroad

Format and Approach

The Sessions will be of 1 Hour and 30 Minutes each. In each Session, there will be experts from Government and HEIs. Presentations will be followed by interaction and Q and A. On the basis of deliberations, a commitment statement will be framed for the universities to further the cause of Higher Education in India. In addition to academic deliberations, capacity development initiatives will be taken by forming a group of Vice Chancellors who will work on various dimensions of Transformative Higher Education.

Questions that the Sessions Seek to Address

Each speaker of the session will speak for about 10 Mts and the talk of the speakers will have recommendations for Government, HEI Management, Academics and Practitioners.

Apart from these, the following questions are proposed to guide the discussions during the conference:

Questions which may be addressed by Speakers from Overseas

1. Likely cooperation and collaboration from them to the HEIs in India for implementing Transformative Education.
2. What are the Best Practices and Bottlenecks they are having and possible takeaways for Indian HEIs from them?
3. How can Indian HEIs support HEIs of other needy countries in implementing this.

Questions which may be addressed by Government Officials and Policy Makers

1. What are the administrative, financial and other ways of support that the government can provide to HEIs in their process of adopting Transformative Education?
2. How can the Government facilitate national and international collaborations among HEIs to adopt Transformative Education?

Questions which may be addressed by Academics and Practitioners

1. What are the various social, financial, administrative, governance and other dimensions of adopting Transformative Education?
2. What are the structural barriers/challenges for HEIs in adopting Transformative Education?

3. How can HEIs mainstream this SDG in all key strategies, policies, curriculum, governance, operational and administrative aspects in the HEIs and embed sustainable development component in teaching, research and community engagement?
4. In what ways can HEIs create capacity, generate skills and produce suitable manpower required to achieve this goal?
5. How can HEIs create quality and resilient systems which can sustain crisis situations like COVID-19?
6. What are the areas of common interests of different universities which can lead to linkages and collaborations and how can the HEIs engage stakeholders and form partnerships with local authorities, private players, civil society and philanthropic organizations, among others, for strengthening the efforts towards adopting Transformative Education?
7. What is the support which HEIs need from the Government?

Session Details

Technical Session-1: International Student and Faculty Mobility

International students have different reasons to choose a particular course programme and study location. This flow of international students has been a reflection of national and institutional strategies and decisions of individual students worldwide. According to the 2017 edition of *Education at a Glance*, an annual Organisation for Economic Cooperation and Development (OECD) report that scrutinises worldwide education developments, over four-and-a-half million students were enrolled in higher education outside their home countries. The stupendous challenge confronting higher education today is how to make international opportunities available to all equitably. The challenge for India is how to attract international students as well as faculty to Indian Universities. There will be deliberations on both these challenges in the session.

Faculty mobility is important for creating an effective mechanism for the transfer of thoughts, values and practices, as a teacher or researcher frequently interacts with a number of students and colleagues. Faculty mobility is largely on the basis of individual initiatives but is promoted by international programmes like the Fulbright programme, UKIERI, Erasmus Mundus Programme, etc. The government of India has signed Cultural Exchange Agreements with a number of countries that have provisions for the visits of scholars on an exchange basis which are implemented through ICSSR, ICCR, UGC, etc. ***The Global Initiative for Academic Network (GIAN)*** programme approved by the Union Cabinet in Higher Education is also aimed at tapping the talent pool of Scientists and Entrepreneur Internationally to encourage their engagement with the institutes of higher Education in India so as to augment the country's existing academic resources, accelerate the pace of quality reform, and elevate India's scientific and technological capacity to global excellence.

Therefore, in this session, there will be discussions on efforts needed from Indian HEIs to promote student and faculty mobility from other countries to India.

Technical Session-2: International Collaborations in Research and Teaching

Student mobility is simply the most visible part of a greater topic of Internationalisation which encompasses a wide range of exchanges and collaborations. International Collaborations in Research and Teaching is one such area which has been in practice for several years, though mostly on individual initiatives. Collaborative teaching and research involving institutions are now taking off. In this context, it may be pointed out that a strong research base is crucial for a fruitful collaboration. So far, the collaborations are mostly between institutions in developed and developing countries with the developed country institutions as the main players and preceptors and the developing country institutions as followers. However, such collaborations are short-lived. Therefore, as regards Teaching and Research, the partnership has to be between equal or near-equal partners. The government of India is signing MoUs with many countries especially the US, UK, Germany, Australia, Korea, Japan, Taiwan, Singapore, etc. Governments of developed countries are keen to promote research collaboration in key sectors between institutions in their countries and Indian institutions. So, this is high time to develop strategies for collaboration and Research.

The government of India has come out with many schemes to promote research and teaching at the international level. The NEP—2020 has also

come out with strong recommendations to improve teaching and research in the country so that it can create a level playing field for universities across the world. Most importantly, it has recommended the creation of the National Research Foundation. At the behest of the Ministry of Education, IIT Kharagpur is coordinating the *Scheme for Promotion of Academic and Research Collaboration (SPARC)* which is aimed to promote international research outreach. It is working along with 450 institutions in India and 470 institutions worldwide since the inception of the programme in 2018. The Ministry of Education has released a grant for the amount of 80 crores to it for coordination. In 2019-20, more than 300 international experts visited Indian institutions registered under SPARC for various projects and workshops.

The need of the hour is to ensure proper implementation of these initiatives of the Government of India and various apex bodies like UGC, AIU, etc. In this session, there will be a discussion about various initiatives for promoting internationalization for realizing transformative education in the country.

Technical Session-3: Promoting Indian Higher Education Abroad

In the late 90s, a Committee for Promotion of Indian Higher Education Abroad (PIHEAD) was formed by the University Grants Commission (UGC) for the marketing and promotion of Indian Higher Education but for want of favourable policies in place, all these years inhibited overseas universities to set up their campuses in India. Consequently, India's role in international education has traditionally been as a major sending country. For the country, it was a great loss in the form of brain drain. However, the NEP—2020 has renewed its focus on India becoming a destination country for international students and ramping up internationalization efforts on campuses across India. To attract international students, the policy recommends low-cost quality education; simplifying visa and internship policies; allocating funding for Indian universities to develop courses designed for international students, and encouraging international research partnerships and agreements for mutual recognition of degrees. The aim is to promote India as an attractive destination for affordable quality education for overseas students.

However, this is not sufficient to attract students and campuses to India. To support this initiative of the Government of India, there needs to be a mission-mode scheme of things to popularize and promote Indian Higher Education abroad which includes marketing also as a strategy. In India, the marketing of education across national borders is in its nascent stage. Till now Indian institutions have had a non-professional, non-aggressive approach based mainly on the personal understanding of things. Professional efforts need to be made to market Indian Education on a large scale. Particularly, in those parts of the developing world where the need for quality education is high and facilities are insufficient. In this session, there will be deliberations on strategies for promoting Indian Higher Education Abroad.

Participation and Organization

Vice Chancellors of Indian Universities, Experts from the Government of India, Apex Bodies of Higher Education, and Academia will be Speakers and Session Chairs. Experts from international organizations will also be invited to contribute. Discussions will be conducted in English. Sessions will be in a blended mode. The speakers, chairs and participants need to inform in advance about the mode through which they would like to attend the Meet.

Internationalization of higher education has become an inevitable trend in higher education. It is no longer regarded as a goal in itself but is being seen as a means to improve the quality of education. It not only promotes international relations among universities but also has the benefits of knowledge translation and acquisition, mobilization of talent in support of global research, and alignment of the curriculum with international content, etc. Though internationalization holds many positives to higher education, there are grave risks associated with this multifaceted and growing phenomenon including commercial profit, academic colonization, and difficulty in ensuring quality education. The North Zone Meet ***Internationalization for Transformative Higher Education*** has implications for educational leaders, managers, practitioners, policymakers, etc, to ensure positive benefits to the Indian higher education institutions and the country on the whole. ❑

Galgotias University, Greater Noida: A Profile

Galgotias University, Greater Noida is hosting the Association of Indian Universities North Zone Vice Chancellors' Meet —2022-23 on November 10-11, 2022.

The Galgotias University, Greater Noida is one of the highly reputed and highly graded private universities in India. The University was established by Smt. Shakuntala Educational and Welfare Society has been established by the State of Uttar Pradesh under section 2(f) of the UGC Act, 1956 vide The Galgotias University Uttar Pradesh Act, 14 of 2011. It is recognized by the University Grants Commission, Ministry of Education (MoE), Government of India and accredited with an A+ grade by the National Assessment and Accreditation Council(NAAC).

The University commenced its operation in the academic session 2011-12 and in the year 2022-2023, the university has grown into one of the big universities with more than 18000 enrolments. The 'students-first' philosophy is a big reason why Galgotias University is consistently ranked among India's top universities. The university is recognized as one of the best universities under the affordable fees categories.

It has 13 schools, and 19 Departments with 100+programmes in Polytechnic, Undergraduate, Postgraduate, and Ph.D. programmes. It sought approvals from various Councils [Pharmacy: Pharmacy Council of India (PCI); Law: Bar Council of India (BCI); Nursing: Indian Nursing Council (INC); Education: National Council for Teacher Education (NCTE); Hotel Management: Norms of National Council for Hotel Management (NCHM)].

The University is recognized in the band "Excellent" in ARIIA Ranking 2021, covered under granted UGC-12B status and DSIR SIRO. The University is also listed in 151-200 top universities of India, 147 in the Engineering Category, in the band of 59 for Pharmacy, and 93 for Management in NIRF India Rankings 2021 as declared by MoE. The accreditation of two programmes, MBA & B.Pharma has been granted by the National Board of Accreditation (NBA) under Tier (I). Three programmes B.Tech. CSE, B.Tech. ME, B.Tech. EC was re-accredited by the National Board of Accreditation (NBA) under Tier (II). Galgotias University is the youngest in the country to get such accreditations from NBA.

The Galgotias University has received various awards and recognition, to name a few -1st Private University in Uttar Pradesh for uploading the maximum E-Contents on Online Digital Library Uttar Pradesh Portal. Platinum Band in OBE Ranking. Institute of Excellence category in MHW Ranking 2021 by R World Institutional Ranking, Ranked in the top 10 patent filers. University got a Certificate of Excellence in Stakeholders Sentiment Survey 2022 (Diamond Band).

The Vision of Galgotias University is 'To be known globally for Value Based Education, Research, Creativity and innovation'. The brand colours as reflected in our Logo are Red (representing 'enthusiasm & energy), Yellow (representing 'innovation'), and Blue (representing 'trust, dependability, and commitment').

The Mission of the University is to:

- establish state-of-the-art facilities for world-class education and research
- collaborate with industry and society to align the curriculum
- involve in a societal outreach programme to identify concerns and provide sustainable ethical solutions.
- encourage life-long learning and team-based problem-solving through an enabling environment.

The Quality Policy of Galgotias University is *"Continuous Improvement of Professional Skills and Ethical Values of the Next Generation Human Society by means of Quality Education and Research".*

The University has the following Core Values:

1. Enthusiasm to Innovate
2. Quest for Excellence
3. Zeal to Inspire the next generation of leaders
4. Openness and Transparency in Communication
5. Trust, Dependability, and Commitment.

Achievements and Rankings

The Galgotias University achieved the Highest Benchmark towards Academic Excellence NAAC A+ Accreditation in First Cycle. This makes Galgotias the Only Private University in Uttar Pradesh with the Highest NAAC Score of 3.37 out of 4 Awarded by NAAC.

The University is recognized in the band "Excellent" in ARIIA Ranking 2021, granted with UGC-12B status and DSIR SIRO. The University is also listed in 151-200 top universities of India, 147 in Engineering Category, in the band of 59 for Pharmacy, and 93 for Management in NIRF INDIA RANKINGS 2021 as declared by MHRD. The accreditation of two programmes (MBA &B.Pharma) has been granted by the National Board of Accreditation (NBA) under Tier (I). Three programmes (B.Tech. CSE, B.Tech. ME, B.Tech. EC) are under consideration by the National Board of Accreditation (NBA) under Tier (II). Galgotias University is the youngest in the country to get such accreditations from NBA.

The University is Awarded 4 Star Rating by Institution Innovation Council (IIC), and Ministry of Education Innovation Cell, ranked in the "Platinum Band with A++ Grade" in the OBE Rankings 2022, and is positioned as the Premier Institution for Academic Excellence in India, 1$^{s\ in}$ the Zonal Region of Uttar Pradesh & Delhi-NCR 2022 and received a 5-star rating (Diamond Band) in the Stakeholders Sentiment Survey 2022 for HEI.

The Galgotias University has received various awards and recognition, to name a few -1st Private University in Uttar Pradesh for uploading maximum E-Contents on the Online Digital Library Uttar Pradesh Portal, 10th across India in the 'A1 Band: Institution of Excellence' category in MHW Ranking 2021 by R World Institutional Ranking, Ranked in top 10 patent filers, Ranked 2nd in Uttar Pradesh and 16th in All over India for Top Placement across Universities and Ranked 2nd in Uttar Pradesh and 12th in All over India for Best Research Capability across Universities.

Research, Innovations, and Extension

The 'research' in the Vision statement of the University carries a lot of importance to drive research-related initiatives. University has set up University Center for Research & Development (UCRD) and also various committees like Research Advisory Committee having experts from National and International domains, SRC, ethical committee, doctoral Committee, PhD coordinators, PG coordinators. The Research Mandates are developed and applied to all. The UCRD formulates and promotes the organizing of Indexed conferences, sponsoring registration fees and travel, research incentives for publishing papers, filing patents and safeguarding intellectual property, organizing workshops and seminars at department, school, and university levels on research Methodology, book writing, research paper writing, funding opportunities, and National and international collaborations, lectures of Nobel laureates, sharing revenue generated, supporting Undergraduate and postgraduate projects, providing seed money, etc.

The University has signed close to 200 MoUS with Academic and industrial organizations. The university has NSS and NCC which are established to promote regular engagement in social service to promote their holistic development and society as well. University has organized many programmes for neighborhood communities like free Health Camps, Health Education drives, role plays, street plays, Tuberculosis, AIDS, and Heart Day. The Centre for Legal Aid is open to everyone for free legal aid.

More than 10,000+ Publications, 1000+ Patents Published, 57 patents have been granted so far and many are in pipeline.

Student Support and Progression

Galgotias University Student Council is a conglomerate of student clubs and societies. The student council is represented by Administrative Committee which is the main governing body for all student clubs at Galgotias University. It is constituted of General Secretary and Chief Secretary. Joint Secretary, Vice Secretary, Regent secretary, Deputy Regent Secretary. With around 40 plus different clubs, the Council also provides students with an appropriate platform to showcase their talent.

With Students First Philosophy university has a well-established system for student mentoring and counseling through the Class Teacher, Faculty Advisor, Psychological Counselor, Dean of Students Welfare, Programme Chair, and School Dean. A well-defined structure identifies slow learners in the first year and remedial teaching is carried out for them.

We provide scholarships for Merit students, Merit on admission, financially weaker students,

and Sports Scholarships to students. 45% of students receive financial assistance from various bodies and universities. University has an International Cell to take care of PIO/NRI students. Students Council publishes newsletter 'Gpost'. University has a full-time sports officer.

Class representatives and Country Representatives are nominated for each year of every programme of the University. They represent the academic and other general matters pertaining to students and also take part in the meeting of QCM.

University has a well-defined mechanism for Grievance Redressal such as a Grievance Cell for students, a Grievance Cell for employees, a Grievance Cell for Prevention for Atrocities Act (SC/ST), and ICC. There is anti-ragging committee and a discipline committee. There is a code of conduct for students and teachers which is available on the institute website and handbook.

We offer a various number of capability enhancement programmes including guidance for competitive examinations, career counseling, soft skill development, remedial coaching classes for weak students, and bridge courses for lateral entry students every year. Yoga and meditation are offered as part of their curriculum for their active life. Students can also be benefited from higher education training.

Galgotias alumni are laced globally and very connected for their alma matter. Galgotias Alumni Foundation is a registered body. Annual events of alumni are very popular amongst alumni and they wait for awards night. There are 6 extension chapters GU alumni.

Institutional Values and Best Practices

Green Campus

University works on the Zero waste concept and strives to continue in the journey to preserve natural resources such as energy, water, and air.

- Green campus policy in place
- Solid Waste Management.
- Liquid waste Management
- Biomedical Waste Management
- E-waste Management
- Hazardous Chemicals: All chemicals are disposed to the drainage after neutralizing their PH value
- Yearly Energy audit, Green Audit, and Environment Audit
- Inclusiveness and Distinctiveness
- Implementation of Gender Sensitization policy
- Separate hostel facility and women wardens, lady guard, and CCTV cameras
- Zero tolerance against any harassment against women and the constitution of the Internal Complain Committee (ICC) and rules and regulations
- Self-defence courses
- Women Empowerment Committee
- Mentor-mentee system
- Equal opportunity for all the students
- Separate girl's NCC wing led by the woman instructor.
- Psychological Counselling Center

Harmony Inclusiveness and Distinctiveness

- Celebration of birth and death anniversaries of Eminent personalities
- Celebration of National Festivals
- Celebrations of days like Nursing Day, Optometry Day, pharmaceutical day, doctors day, Engineers day, teachers day, World Health Day, International Women's Day, Pharmaceutical Day, cancer awareness day etc.
- Inclusion of professional ethics across disciplines.
- Celebration of Important events/ festivals such as Holi, Diwali, Lohri, Eid
- National festivals Republic Day and Independent Day, Constitution Day
- Admissions at national and international levels
- Institutional scholarships
- The School of Lifelong learning to inculcate human values and life skills
- zero tolerance for violence, unethical issues
- 300 extension activities in association with NSS and NCC
- Various medical and rural camps
- Programmes like blood donation, Organ donation, health check-ups, eye check-ups

Entrepreneurship, Innovation and IPR

The university has set up an Innovation cell to safeguard intellectual property rights and add value to national Intellectual property. Galgotias University has established Institution's Innovation Cell (IIC) under MoE's Innovation Cell. In 2018-2019. The innovative findings often give rise to patentable inventions even though the research was conducted for the primary purpose of gaining new knowledge. Mostly these are simple applications based on the needs of society. 20 plus faculties have done certification on innovations and transforming the same amongst students' innovators. IIC-Galgotias University has organized 30+ events in the year 2020-21, 55+ events in the year 2021-22 along with the Entrepreneurship Cell & IPR Cell of Galgotias University.

Galgotias University has set up its Incubation Center as "Galgotias Incubation Centre for Research Innovation Start-up and Entrepreneurship (GICRISE)". GIC-RISE is supporting student start-ups by incubating them. Currently, 30 startups are in the pre-incubation stage and 08 Startups are incubated under GICRISE. Galgotias Incubation Centre for Research Innovation Start-up and Entrepreneurship (GIC-RISE)" is organizing various programmes on Start-up Bootcamp, Start-up Fellowship, Pitch Competition, etc wherein e- Cell is in existence since 2016, which has been nurturing the ideas of students to make viable industry products. Course in entrepreneurship is embedded in the curriculum.

Galgotias University has adopted and implemented the National innovation and start-up policy NISP) under the aegis of the Ministry of Education Innovation Cell (MIC). The policy aims at promoting innovation and start-up culture among the students and faculty of higher education institutes. The committee members frequently meet to discuss policy implementation, Brainstorming, Identifying Thrust areas for intervention, and short- and long-term plans.

Galgotias University is amongst the top 10 universities/Institutes for patent filing in 2019-20. A dedicated IPR Cell housing a patent team of provides free IPR services to all the students, research scholars, and faculty members; the University bears all costs, besides providing incentives to the inventors. The following support is provided to students and faculty:

- Patent drafting workshop
- Patent attorney support
- Social Innovation Awareness
- Business plan preparation based on innovation.

With 1000+ faculties & 18000+ students and vibrant management, the University is one of the most sought-after universities of Delhi NCR and is further marching towards its global recognition.

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India and International Collaborations in Education and Research

N V Varghese*

Knowledge is a global public good which enjoys a universal appeal and it crosses national boundaries. The development of a country is based on its capacity to produce knowledge and to absorb knowledge produced elsewhere. Traditionally universities and their Research and Development (R&D) activities were the main sources of knowledge production. A recent trend is that the traditional mode of knowledge production that emphasises basic research and disciplinary boundaries is giving way to application-oriented and trans-disciplinary research (Mode 2 Knowledge production) promoting collaborative research within the country and across countries. In the process, non-university sectors in research emerged in many countries challenging the near monopoly traditionally enjoyed by the universities.

No country enjoys a monopoly on the production and transaction of knowledge. The capacity for knowledge production varies among countries, leading to a knowledge divide. The UNESCO Science Report of 2021 notes that countries in the North American region have the highest number of researchers per million people (4 432), while those in the South Asian (263) and African regions (124) have the lowest. Furthermore, countries such as China and India, with the largest higher education sectors, remain at the lower end with 1 307 and 253 researchers per million people, respectively. This calls for cross-border collaboration in knowledge production.

Cross-border collaboration and co-authored publications have become an increasing trend in R&D activities. In 2017, nearly 60% of articles in the *Nature* Index were the result of international collaboration. One of the incentives to collaborate is that co-authored papers, especially those involving cross-border authors, are cited more often than single-authored publications. Furthermore, multiple-author papers are more likely to be accepted for publication by high-impact journals. While a major share of the scientific papers published in the US, UK, France, Germany, Australia, New Zealand and Canada is co-authored, the collaborative publications among academics in the Asian region are less, according to the UNESCO Science Report of 2021.

These trends imply that academic collaborations among countries and between institutions have become necessary to ensure a broad base for R&D activities and knowledge production. Surveys by the International Association of Universities (IAU) have shown that North America and Europe are considered priority regions for academic collaboration by all other regions. Asian countries including India have a tendency to look westward for academic collaborations.

Changing Orientation of Collaborations in Education

International collaborations in most less developed countries and in India can be seen in terms of three distinct stages. Asian countries' international academic collaborations evolved in three distinct but related stages: a) collaborations for national capacity development; b) collaborations as part of the globalisation process; and c) collaborations to enhance academic credibility and national institutions' global ranking.

Collaborations to Develop National Capacity

The role of international academic collaborations in the post-independent period in most countries was developing national capacities for higher education. This involved establishing higher education institutions and developing teachers to teach in less developed countries. It involved the cross-border flow of students under the study abroad programmes. Multilateral agencies such as the World Bank and the European Union (EU), and bilateral agencies played an important role in promoting academic collaborations at this stage. Various scholarship programmes such

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as the USAID and the Fulbright programmes, Colombo Plan, British Council and Commonwealth scholarship programmes, and the German Academic Exchange Service, commonly known as DAAD have facilitated cross-border education of those from the newly independent countries.

Technological self-reliance and industrial progress formed the basis for international collaborations in the initial years following India's independence. Many technological institutions such as the IITs were established in collaboration with foreign countries. The first, Kharagpur in West Bengal, was established in 1951 it received support from foreign countries and it attracted faculty members from the US and European countries. The IIT Bombay received experts and substantial financial support from the USSR through UNESCO. The IIT Madras received support from Germany; IIT Kanpur received technical assistance from a consortium of nine leading US institutions and the IIT in Delhi was established with the help of the British government. Similarly, the Indian Institutes of Management were established in collaboration with the Harvard Business School.

Many first-generation professors in many Indian universities were educated abroad mostly through the scholarships offered by multilateral and bilateral agencies. India sent a large number of students to the UK and US for Master's and Doctoral programmes, to prepare them to become faculty members back in India. This trend continues even today. Many of India's prestigious higher education institutions have a relatively fair share of faculty members with teaching and research experience in reputed international universities.

Collaborations for the Global Market

The initial euphoria of public investment in education for national development gave way to private investment and market-mediated growth during the globalization stage. The emergence of the knowledge economy shifted the focus of educational priorities from national concerns to global markets. Economic globalisation incentivised the internationalisation of knowledge production. The advent of the Internet fostered the rapid expansion of cross-border research collaboration and co-authored publications. The private sector realized that investing in knowledge production is rewarding and corporate investment in R&D activities and knowledge production increased.

Globalization had its effects on the education and employment of graduates. The orientation of skill development moved towards the global labour market. The higher education sector experienced new forms of internationalisation-franchising and twinning arrangements became common, the establishment of branch campuses became an attractive area of investment and a larger number of students opted for cross-border studies. In all instances, the revenue-generating capacity of different forms of engagement made the orientation of the sector different from what it used to be in the past. These collaborations in the context of globalization reversed the pattern flow of revue – from less developed to developed countries. The major student-sending countries such as China, India and the Republic of Korea contributed to the multi-billions dollar cross-border education industry. The increase in student mobility also led to a rise in the number of internationally co-authored publications

Collaborations to Improve the Ranking of National Institutions

In recent years the orientation of international academic collaborations is to gain academic credibility and global recognition. This is more so after world university rankings became popular. Global ranking became an accepted benchmark to measure the success of research and knowledge production. India, like many other less developed countries, has been worried about the low ranking of its institutions. The establishment of world-class universities became a priority in many countries. Rankings also highlighted the importance of research and collaborations to go up on the ranking list and to gain academic credibility. Low-ranked institutions have been eager to collaborate with higher-ranked institutions abroad.

India started its own national ranking–the National Institutional Ranking Framework (NIRF) - started publishing the ranking of institutions annually. The National Policy on Education 2020 (NEP 2020) promoted international institutional collaborations and it recommended that universities ranked within the top 100 can establish branch campuses in India. The widespread reliance on online facilities, especially during the covid 19 period, contributed

to the rapid expansion of cross-border learning opportunities and research collaborations.

International Collaborations through Student Mobility

Indian Education Policies of India's 1968 and 1986 were relatively silent on internationalisation and international collaborations. During the 10th five-year plan (2001-06), the University Grants Commission (UGC) introduced a scheme, 'Promotion of Indian Higher Education Abroad (Pinhead)'. The Association of Indian Universities (AIU) formed a Task Force on the internationalisation of higher education in 2004 and in 2009 the UGC prepared a plan for such collaborations. The 12th five-year plan (2012-17) included proposals for faculty and student exchange programmes and collaborations for teaching and research. It was also envisaged that an India International Education Centre (IIEC) would be created; however, it seems that this is yet to materialise.

Collaborations were also created through the cross-border flow of qualified professionals. The CSIR maintained a National Register of Scientific and Technical Personnel from the 1940s and it included a section on 'Indians Abroad' in 1957 which showed that most highly-qualified Indians migrated to the US and other OECD countries. Many were graduates of prestigious institutions. According to the Government of India estimates in 2001 more than 30% of graduates in STEM and 80% in Computer Sciences from prestigious IITs migrated to the US during the 1990s. Indian students abroad have traditionally been hosted by three countries – the USA, the UK and Canada - which together accounted for 85% of Indian students abroad in 1995. The new player on the scene is Australia which increased its share of Indian students in this century.

Canada's Post-Graduation Work Permit Program (PGWPP) and Australia's point-based immigration policy-induced student flows and collaborative research activities between these countries and India. These mobility arrangements are promoted by India-US higher education dialogue, strategic partnership agreements between South Korea and India and research collaboration agreements between Canada and India in Science and Technology. Similarly, India has enjoyed Science and Technology collaborations with South East Asian countries since the 1990s.

Establishment of Chairs on Indian Studies

The Government of India offers fellowships to international scholars specializing in Indian studies through the Indian Council of Cultural Relations (ICCR). The Council has established 108 chairs of Indian Studies in various foreign universities including those in BRICS countries. The chairs in Hindi at Peking University, Beijing, in social sciences at Shenzhen University, Guangzhou and peace studies at the University of KwaZulu-Natal, South Africa are good examples. The AIU has MOUs with university associations in many countries including the UK, Canada, France, Germany, the Netherlands, Australia, Singapore, and Taiwan. These agreements commit to mutual recognition of qualifications, faculty and student exchange, staff development, collaborative research and publications, and infrastructure sharing.

Institutional Collaborations

A noticeable trend is that elite institutions in India seek to collaborate with elite institutions abroad. Collaborations in science, technology, and medical disciplines occur between institutions like the Indian Institute of Science (IISC), IITs, and AIIMS and elite foreign universities such as Harvard University, Massachusetts Institute of Technology (MIT), the Universities of Tokyo, Toronto, and Paris-Sud and the National University of Singapore. Some also maintain significant research engagements in humanities, arts, and the social sciences with universities such as JNU, University of Delhi, University of Hyderabad, Tata Institute of Social Sciences (TISS), Banaras Hindu University (BHU), Jadavpur University, Anna University, and the University of Pune.

Demand is increasing for collaborations with foreign higher education institutions. A study conducted by NIEPA in 2005 found that there were 131 foreign-affiliated institutions in India; 59 of which partnered with universities in the UK and 66 with those in the US. Many involved offering courses, mainly in business or hotel management. According to the AIU study of 2012, the number of foreign collaborations with Indian higher education institutions had increased to 631. The largest number of collaborating institutions was in the UK (158), followed by Canada (80) and the US (44).

More recently, Indian institutions, mainly in the private higher education sector, have started establishing campuses abroad, either independently or in collaboration with existing national institutions. For example, the JSS Academy of Technical Education is an independent institution in Mauritius while the DY Patil Post-Graduate School of Medicine at Quatre-Burnes was established in partnership with the University of Technology, Mauritius (UTM) in 2009. An off-shore campus of Manipal University operates in Malaysia and Amity University operates campuses in the US, UK, China and Singapore. Four Indian private institutions are represented in the Dubai International Academic City.

As a follow-up to NEP--2020 there are efforts to establish branch campuses in India. It is expected that institutions from among the top 100 in world rankings are encouraged to start branch campuses in India. Recent newspaper reports indicate that the initiatives are already in progress to establish branch campuses of foreign universities in Gujarat. The credit transfer systems and Academic Bank of Credits created by the public authorities facilitate cooperation and collaborations with institutions abroad.

Government Schemes to Promote International Collaboration

The government of India has launched several schemes in the recent past to promote international academic cooperation and collaboration. The 'Study in India' programme was launched in 2017 with provision for scholarships. The number of applicants increased substantially. In 2021-22 more than 56.000/ students from 136 countries applied for admissions.

The MHRD started another programme - the Global Initiative for Academic Network (GIAN) - in 2017-18 to attract foreign faculty members to teach for short periods at Indian universities. The objective is to encourage Higher Education institutions to augment the existing academic resources and elevate India's scientific and technological capacity to global excellence.

The Scheme for Promotion of Academic Research and Collaboration (SPARC) aims to improve Indian higher education institutions' research ecosystem by facilitating academic and research collaborations between Indian institutions and the best institutions in the world in selected countries. The activities include academic visits, workshops, collaborative research and joint publications. With an allocation of Rs. 4 18/ crores for a period of two years (2018-19 and 2019-20), the scheme was expected to support around 600 joint research projects.

Other initiatives to promote collaboration include the Scheme for Trans-Disciplinary Research for India's Developing Economy (STRIDE) to promote trans-disciplinary research culture in Indian colleges and universities, IMPRINT (Impacting Research Innovation and Technology), IMPRESS (Impactful Policy Research in Social Science) and STARS (Scheme for Transformational and Advanced Research in Fundamental Sciences). The Consultative Group on International Agricultural Research (CGIAR), an international organisation with its headquarters in Montpellier, France works in collaboration with the Department of Agricultural Research and Education (DARE) and the Indian Council of Agricultural Research (ICAR). It has 15 research centres across the world, including the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) in Hyderabad, India.

The Department of Science and Technology (DST) under the Ministry of Science and Technology's International Cooperation Division implements science and technology agreements between India and other countries. Bilateral cooperation agreements are in place with 83 countries including Australia, Canada, the EU, France, Germany, Israel, Japan, Russia, and the UK and US. In association with the Academy of Finland, India's Department of Biotechnology has initiated bilateral research cooperation and researcher mobility, mainly at the post-doctoral level between the two countries.

The Commonwealth Government's flagship scheme, the Australia-India Strategic Research Fund supports research collaborations between higher education institutions in the medical sciences, biotechnology, and engineering. It also provides funding for international doctoral student scholarships at Australian universities, some of which are allocated to Indian students. A few universities have gone further in providing additional scholarships specifically for Indian nationals as

part of their commitment to increase engagement with India and Indian higher education institutions. Some universities have used the government's New Colombo Plan scholarship scheme to organise undergraduate study programmes and internships in India.

Concluding Observations

International collaborations have helped India to develop a strong research base and gain academic credibility. Many of the reputed universities and academic institutions in India continue to recruit faculty members with training at international institutions and foreign universities. Many of the foreign-trained faculty members find it easy to establish individual and institutional collaborations with universities abroad. These collaborations help maintain academic quality and increase international research publications. Co-authored publications by Indian academicians in globally reputed academic journals are a sign of increasing international collaborations.

A closer analysis will reveal that India's approach is to establish collaborations with universities in developed countries mostly located in English-speaking countries. Collaborations with institutions located within the Asian region are limited. While individual aspirations to collaborate are considerable, institutional constraints to realize the collaborations are substantial. The NEP 2020 and several new initiatives of the government are encouraging international collaborations both by reducing interventions by the regulatory authorities and granting more autonomy to the institutions of higher education to establish international collaborations. These opportunities are open more to institutions that score high in the accreditation assessments. Further, the credit transfer policies and ratifying the UNESCO convention for global recognition of qualifications will further strengthen India's move towards international collaborations in education and research.

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The Association of Indian Universities

The Association of Indian Universities (AIU), is one of the premier apex higher education institutions of the Country established in 1925. It is a research-based policy advice institution to the Government of India in the field of Higher Education, Sports, and Culture. Since its inception, it has been playing a vital role in shaping Indian higher education. Most importantly, AIU is vested with the power of according equivalence to Degrees/ Qualifications offered by the universities across the world with those offered in India. AIU has also been mandated by the Department of School Education, Ministry of Education, Government of India to accord equivalence to the Indian Boards for the Secondary/Senior Secondary Examination vide Gazette Notification. AIU is a think tank body with the responsibility of undertaking academic activities such as: conducting Research Studies in higher education; acting as the bureau of information on higher education; liaising with international bodies and universities for the internationalisation of Indian higher education among many others. AIU conducts inter-university sports and cultural events at national and international levels. As a National Sports Promotion Organization (NSPO) it promotes sports among Member-Universities and maintains the standards in sports.

Being an apex advisory institution, it constitutes an integral part of all major decision-making committees and commissions in the country. As a representative body of Indian universities, it facilitates cooperation and coordination among Indian universities and liaises between the universities and the Government (Central as well as the State Governments) and also National and International bodies of higher education in other countries in matters of common interest. Whereas all the Indian universities benefit from its contribution, at present it has a membership of about 898 universities including 14 overseas universities from other countries viz. Bhutan, UAE, Kazakhstan, Mauritius, Malaysia Nepal, as Associate Members.

Some of the legends among many, who served AIU as its Presidents are Dr. Sarvepalli Radhakrishnan, Dr Zakir Hussain, Dr. Syama Prasad Mukherjee, Dr K L Shrimali A.L Mudaliar, Dr Akbar Hydary, Prof A C Woolner, Pandit Amarnath Jha, Sir Maurice Gwyer, Dr K L Shrimali, Prof Shiv Mangal Singh 'Suman', Prof M S Gore, Prof M S Adiseshiah, Prof M S Valiathan.

Cross Border Mobility in Higher Education and Capacity Development: Considerations in the Indian Context

Vidya Yeravdekar*

Cross-border mobility is undoubtedly the most prevalent and researched aspect of the internationalisation of higher education. Historically, it has been a large and important subset of internationalisation in India. Studies have demonstrated that cross-border mobility contributes significantly to national capacity building in developing countries. In India, this relationship is productive across many dimensions. The Indian Government has recently undertaken unparalleled policy-driven initiatives to improve mobility-based outcomes in the internationalisation of higher education and paved the way for more reformative action in the future. The paper outlines important theoretical and operational considerations in the Indian context and makes recommendations to further improve the outcome of national policy and action on cross-border mobility.

The internationalisation of higher education is an undeniably crucial component of the present globalized society. Knight (2004) defines it as, "the process of integrating an international, intercultural, and global dimension into the purpose, functions (teaching, research, service) and the delivery of higher education". It is arguably the most important instrument of capacity-building for those countries that aspire to be connected to globalized knowledge networks.

In the present globalized world, higher education is increasingly an element of international trade—it crosses national and regional borders as do finance, goods, and services. This "institutionalization of the provision of higher education across national boundaries" (Powar, 2012) is the cornerstone of the *operation* of internationalisation of higher education and is referred to as transnational education, cross-border higher education, offshore higher education, etc. Knight (2003) defined cross-border higher education as "the movement of people, programmes, providers, curricula, projects, research and services in tertiary (or higher) education across national jurisdictional borders". Thus, it is through the movement or mobility of one or more aspects of higher education that internationalisation actually takes place. Studies have delineated three such aspects or elements of mobility: people (students and faculty), programme, and institution mobility.

International student mobility is the most researched and analyzed element within cross-border mobility. It is the oldest and most extensively practised aspect of internationalisation. Although categories that do not involve student mobility, such as Internationalisation at Home or Internationalisation of Curriculum have gained popularity, international student mobility continues to hold center stage. Programme mobility is certainly next to student mobility in popularity and prevalence. Knight (2007b) has listed the following common modes through which programme mobility takes place: "franchising, twinning, double/joint degrees, validation, distance/ virtual and various articulation models" (pp. 134-146). Institution mobility, also termed provider mobility, (Knight, 2007b, p. 138) refers to many arrangements such as branch campuses, affiliation/ network, and merger/acquisition; of these, branch campuses are the most prominent manifestations of an institution or provider mobility.

Cross-border mobility is undoubtedly conditioned by the economic imperative and market forces; however, it would be erroneous to overlook other rationales. Knight (2004) states that rationales for cross-border mobility at the national level include the following: development of human resources development, strategic alliances, economic (revenue generation, trade), nation-building, sociocultural development and mutual understanding.

Educationists as well as policymakers in the Global South must not undermine the nation-strengthening contribution of the internationalisation of higher education. Cross-border mobility has the potential to be the chief lever of capacity building through development collaboration, academic exchange programmes, and research partnerships. Developing countries must specifically deliberate on cross-border higher education as a strategy for

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capacity development, which is defined as "the process through which individuals, organizations and societies obtain, strengthen and maintain the capabilities to set and achieve their own development objectives over time. Capacity development is fundamentally about unlocking transformative change: change that is generated, guided and sustained by those whom it is meant to benefit" (UNDP, n.d.).

Higher Education leads to capacity development by optimizing knowledge generation and empowering the workforce. Vincent-Lancrin (2004) has argued that higher or tertiary education is central to *any* capacity building strategy. ". . . education has a unique privilege as a built-in feature of any capacity development strategy. Whatever the sector, the capacity building relies on the strengthening of individual capacity through training and learning, in order to raise the domestic stock of human capital in a specific field."

Many developing countries can benefit from academic collaborations with higher education institutions in other countries. Cross-border education goes a long way in expanding the human capital base in developing countries. It also allows educationists, policymakers, and institution leaders to set benchmarks, incorporate best practices, and improve quality assurance mechanisms at national and institutional levels. Furthermore, cross-border mobility enhances standards in higher education by strengthening competition and diversifying choices for students and faculty members alike.

Mobility across the spectrum (student, teacher, programme, or institution/provider) facilitates collaboration in research and innovation. Such collaboration is crucial for development, especially technological and infrastructural since it encourages the exchange of scientific innovations. Student and faculty mobility contributes to capacity building at the *individual* level too. Internationally mobile students and researchers return to their home country with newly-acquired knowledge, intercultural experience, high skills, and connections to global academic and professional networks.

"Encouraging and supporting domestic students to study abroad is probably the best way to get a well-trained international workforce which could improve the quality and quantity of human capital in the economy as well as in the domestic education sector. This is true for academics too, who can thus access international networks of knowledge in which many developing countries do not participate much. This allows them to be at the top of their profession. Moreover, mobility enables a cultural experience that may lead them to look at their country in a different way, especially at the societal level; it may give better linguistic skills than cross-border education without people mobility; finally, mobility is more likely to lead to the creation of an international network of elites relying on personal ties between professionals" Vincent-Lancrin (2004, pp. 19).

Countries in the Global South, such as India, aspire to recast themselves as knowledge economies by boosting knowledge production and aiming for sustained growth and competitive advantage in knowledge-intensive sectors. As middle and low income countries compete for gaining shares of global knowledge production, technological and scientific innovations and value chains, and international collaborations in higher education assume unparalleled significance. The Indian Government, as with governments in other developing countries, places scholarly research at the front and centre of policy initiatives to optimize competitive advantages, but harnessing the potential of global technological advances requires a facilitating, supportive environment, which necessitates a bare minimum level of research and development. Developing countries often lack domestic capacity and resources to enable such research and development. In this context, cross-border collaborations offer opportunities to developing countries to benefit from the resources of countries with a stronger knowledge base. The Indian higher education system is positioned such that it both benefits from collaborations with other countries and allows other countries to benefit from its higher education prowess. India has long enjoyed a headship role in South-South academic collaborations. According to a report jointly published by the World Bank and Elsevier, [between 2012-16], "India accounted for 88 percent of South Asia's scholarly publications" (Elsevier & World Bank, 2019, pp. 6).

The Indian Government has recently undertaken many initiatives to facilitate academic and scholarly exchanges and partnerships such as scholarship, project grants, and postdoctoral research assistantships that address both national, regional, and Global South-specific challenges. Such collaborations, which are overwhelmingly mobility-based, have the potential to

improve capacity-related limitations within domestic higher education institutions, mediate cross-border knowledge exchange, and provide opportunities for accessing advances in global knowledge networks and the graduate labor market.

Cross-border Mobility in the Indian Context

Cross-border mobility in India is most prominently observed in outbound mobility. According to MEA, as many as 13,24,954 students are studying abroad in 2022 (MEA, 2022). Open Doors noted that "between the 2000–01 and 2019–20 academic years, there was a 253 per cent increase in the number of Indian students studying in the United States" (Tobenkin, 2022).

On the other hand, inbound student mobility in India has been poor, in the relative context of outbound mobility as well as total enrolment: According to AISHE 2019-20 (2020), only 49,348 international students out of a total of 38.5 million were enrolled in Indian higher education institutions in 2019-20. The demographic information on international students in India demonstrates that this population typically originates from some clearly identifiable sources, with respect to geographic location, ethnicity, and sponsorships. The overwhelming majority of international students come from neighbouring countries in Asia and Africa. According to AISHE 2019-20, the highest number of foreign students came from Nepal (28.1%), followed by Afghanistan (9.1%), Bangladesh (4.6%), Bhutan (3.8%) and Sudan (3.6%).

On a positive note, the Indian Government and institutions have undertaken many reformative actions recently to improve internationalisation initiatives, with a dedicated focus on improving inbound student mobility. The National Education Policy 2020 has consolidated and reinforced many earlier and current efforts at the level of central and state governments as well as institutions. Further, it is welcome that the initiatives cover the whole spectrum of cross-border mobility, and are poised to improve outcomes across student, programme, and institutional mobility.

Capacity Development and Mobility—Multifaceted Presentation in India

As discussed above, in order for a country to scale the global value chain, it must be connected to the global knowledge networks, such that its higher education and research have access to knowledge production and dissemination processes. In other words, a knowledge society is one where students and the workforce have opportunities to optimize their potential and gain competitive advantages.

In the Global South, the Indian higher education system has held a leadership role in contributing to capacity development mainly through mobility-oriented internationalisation initiatives. Indian institutions have drawn students from countries in Asia and Africa for several decades; Symbiosis International University, Indira Gandhi National Open University, Savitribai Phule University, Delhi University, and Manipal University are prime examples. The percentage of international students from middle-to-low-income, developing countries is as high as 95%. These are typically formerly colonized countries; another distinct feature of these "source" countries is that economic challenges are tied to gross deficits in higher and tertiary education (Vincent-Lancrin, 2007).

The Indian Government has an extensive network of programmes and projects that enhance the human capital base in Asian and African countries through specialized programmes that address infrastructure- and capacity-related requirements. In recent years, noteworthy steps in this context are the Scheme for Promotion of Academic and Research Collaboration (SPARC) in 2018, the Global Initiative for Academic Networks (GIAN), Indo-Africa Virtual University (IKAVU) (MEA, 2011) in collaboration with IGNOU, and Pan African e-Network Project for Tele-education and Tele-medicine (MEA, 2012).

An analysis of the Indian Government's policies on internationalisation, specifically mobility-related initiatives leads us to conclude that the strengthening of India's soft power has been a very strong motivator. In the context of international affairs, the expression "soft power" refers to the capacity to influence another country's policies through non-coercive elements such as socio-cultural and intellectual factors (Nye, 2005). Expressing their views on India's National Education Policy 2020, Varghese and Mathews (2021) have made arguments along the same lines: "India's efforts to internationalize higher education do not seem to be motivated by market processes, but by a wish to extend its soft power and increase the country's global role. The New Education Policy 2020

(NEP 2020) reflects this perspective and prioritizes internationalisation in order to promote Indian education abroad and facilitate the establishment of foreign higher education institutions in India" (n.p.).

Soft power, in the context of cross-border mobility in higher education, is aligned with Knight's (2004) fourth rationale for internationalisation: "socio-cultural development and mutual understanding". Strong evidence of the position that soft power is one of the top rationales for the Indian Government's internationalisation policy is the fact that a large segment of initiatives to improve cross-border mobility in higher education is managed by the Indian Council for Cultural Relations (ICCR). In close partnership with the Ministry of External Affairs and the Ministry of Human Resources and Development, the ICCR offers more than 3000 scholarships under 21 different schemes to foreign students from 180 countries. Each year, ICCR provides financial allocations for more than 6000 foreign scholars enrolled at Indian institutions. A portal titled "Admissions to Alumni" (A2A) was launched in 2018 to digitize all the information and processes related to studying in Indian institutions (ICCR, n.d.).

Recent Mobility-related Initiatives in India

As noted earlier, India's most visible role in cross-border mobility has been one of sending countries. However, the Indian Government as well as the private sector, have taken many steps in the last several years to diversify India's participation in internationalisation by strengthening other aspects of mobility. The National Education Policy (NEP) 2020 has consolidated national policy on internationalisation in an unprecedented manner by outlining a streamlined approach, identifying priority areas, and drawing up wide-ranging initiatives at the central, state, and institutional levels.

In order to improve inbound mobility, the NEP 2020 has created provisions to make Indian universities and campuses more attractive by offering courses that uniquely boost India's cultural standing and soft power, for instance, courses in subjects such as Indology, Indian languages, Yoga, AYUSH system of medicine, etc. The NEP 2020 also recommends improving infrastructural facilities to modernize residential facilities, and classrooms, setting up international offices in institutions, improving social engagement opportunities for international students, simplifying visa and other bureaucratic formalities, and most importantly, reducing tuition fees/other student costs and offering scholarships to make education in India affordable for international students.

The NEP 2020 makes several recommendations for improving programme mobility by facilitating research and teaching collaborations, faculty/student exchange, and relevant mutually beneficial MOUs with high-quality international institutions. The NEP promotes provider or institutional mobility by encouraging high-ranking institutions to set up campuses in India and similarly making provisions for Indian institutions to set up campuses abroad. In the past, legislative roadblocks have posed a substantial hurdle to the operation of foreign branch campuses in India as well as those of Indian branch campuses abroad. To overcome this, the NEP 2020 proposes to put forth a legislative framework to ensure the smooth functioning of branch campuses: "A legislative framework facilitating such entry will be put in place, and such universities will be given special dispensation regarding regulatory, governance, and content norms on par with other autonomous institutions of India" (Ministry of Human Resource Development, Government of India, n.d.).

Apart from NEP 2020, many other landmark steps related to international mobility have been initiated by the Indian Government recently. According to the National Institute of Educational Planning and Administration (NUEPA), with the express aim of increasing inbound mobility, the Indian Government has made allocations for short-term programmes and memorandum of understanding with foreign institutions based on the demands and requirements of students in the US and Europe (Varghese and Matthews, 2021)

Further, the Indian Government has made several strides in strengthening and expanding the Study in India programme. Through the Study in India programme, several countries have been identified for focused, targeted efforts to increase inbound mobility in Indian institutions. The programme has partnered with at least 160 universities, providing over 2,600 courses in 136 countries (Study in India, n.d.). The programme has prospered year by year and the number of participating students continues to grow exponentially. The Indian Government has recently signed several Memorandum of

Understanding with the governments of France and Morocco and is exploring MoU with other countries (Tobenkin, 2022). In a very positive step forward, the Governments of India and Australia entered into agreements to formulate a new framework by 2023 for increasing student mobility between the two countries by instituting a task force for the mutual recognition of qualifications (ICEF Monitor, 2022).

In a noteworthy development, in May 2022, the University Grants Commission issued regulations regarding Twinning, Joint Degree and Dual Degree programmes (UGC, 2022). These regulations and directives are a tremendous boost to programme mobility, in particular. The regulations have laid down clear and detailed provisions that facilitate and regulate a variety of programme mobility collaborations between Indian and foreign institutions. The UGC mandate boasts comprehensive stipulations related to eligibility requirements for Indian and foreign institutions, credit transfer and recognition, course or curriculum overlap, degree requirements and awards, clauses of the written agreement between institutions etc. As per the UGC regulations, as many as 230 Indian and 1,256 foreign institutions are now eligible to offer twinning, joint degree and dual degree programmes. The UGC has noted that, currently, thirteen Indian institutions offer twinning, eight offer joint degrees, and nine offer dual degree programmes (Sujatha, 2022, September 22).

An equally pathbreaking development in institution/provider mobility is the recent announcements in October 2022 regarding the Gujarat International Finance Tec-City (GIFT City) as an education hub for the establishment of foreign branch campuses. The GIFT City is a "special economic zone" within which foreign institutions are by and large exempt from the governing control of the University Grants Commission (UGC). The regulations are devised with the intent of removing impeding administrative and bureaucratic obstacles, compliance with domestic regulations related to faculty appointment, fee structures, reservation policies, institutional not-for-profit status etc. The most striking breakthrough is the extent of operational freedom that foreign institutions will now have, for instance, foreign institutions can offer the same courses or programmes as the one in their home country and award identical degrees or diplomas: [foreign institutions] "enjoy the same recognition and status as if they were conducted by the parent entity in its home jurisdiction" (The Hindu Bureau, 2022, October 16). It is relatable that, according to the present legislative framework, foreign institutions operating in India must invest profits back into the Indian branch campus and are prohibited from repatriating profits to the home country. This limitation was a considerable deterrent to provider/institution mobility. In the GIFT City, the legal provisions of the International Financial Services Centres Authority (IFSCA) hold valid, which allow repatriation of profits to the home country among other exemptions and incentives.

As the Indian Government moves forward in its aim to enhance internationalisation through mobility, the author recommends two focus areas. First, it is proposed that the Indian Diaspora be brought into the discussion as a priority agenda item. According to a recent UN report, India has the largest Diaspora in the world at 18 million in 2020 (PTI, 2021, January 15). The Indian Diaspora has traditionally been a very strong "sender" group of inwardly-bound students to Indian higher education institutions. The countries that have strong Indian Diaspora presence overlap remarkably with the prominent "sending" countries. The Indian Government has taken notice of the opportunities in inbound student mobility that this group presents and tried to work on them in the past, examples include the Committee for the promotion of Indian Education Abroad (COPIE) and the Ministry of Overseas Indian Affairs' "scholarship programmes for Diaspora children". However, there is plenty of untapped potential in this realm. Initiatives to attract students from this population are likely to yield positive outcomes if armed with empowering legislative support, clear and decisive executive action, and wide-ranging marketing and public relations efforts.

The private sector is a severely under-optimized resource with regard to internationalisation. Agarwal (n.d.) has argued that the inbound mobility of international students in India is due in large part to the concerted efforts of private institutions. Further, private institutions have contributed tremendously to programme mobility as well as institution mobility. Dual degree programmes, twinning programmes, and study abroad programmes, all of which are extremely popular modes of programme mobility in India, are far more prevalent amongst private institutions than their public counterparts. Similarly, a very large segment of Indian branch campuses abroad

is privately owned and managed (Agarwal, n.d.). Financial incentives to private institutions along with opportunities for public-private partnerships would go a long way in improving mobility outcomes across all modes.

Concluding Observations

The internationalisation of higher education is a crucial component of national development strategy. Cross-border mobility has the potential to be a valuable instrument of capacity development for developing countries. An over-arching prototype for tying together cross-border education and capacity building cannot be determined for any country. Rather, each country must find a way to strike balance between higher education regulatory frameworks, foreign opportunities, and the domestic context of higher education requirements and challenges.

In the current globalized world, the knowledge economy construct is robustly linked to higher education. The knowledge economy model emphasizes that knowledge is the engine that drives the economy forward. Higher education prepares and enhances the human capital base, thereby contributing to economic development and global competitiveness. Higher education institutions thus assume a pivotal role in a knowledge economy; they create a skilled workforce and generate innovation through research and development.

In developing countries of the Global South, these dynamics are even more important. These countries, many of which are low-income countries, exhibit great disparities in both access to and quality of higher education. It could be argued that higher education systems in these countries do not optimally co-relate with the knowledge economy model. This implies that developing countries of the Global South must rely on collaborations in knowledge exchange with each other as well as with developed countries of the Global North to overcome domestic and regional deficits in higher education systems. Against this backdrop, cross-border mobility in higher education becomes imperative.

In India, the relationship between capacity development and cross-border mobility presents a multi-dimensional pattern. Higher education has driven capacity development nationally of course. Additionally, Indian institutions have enormously contributed to capacity development in neighbouring countries through cross-border mobility in higher education. This has earned India significant recognition as a regional leader in higher education as well as soft power. The Indian Government, cognizant of the potential advantages of international mobility, has undertaken unprecedented action to consolidate and prioritize national policy on student/teacher, programme, and provider/institution mobility. As we move forward, it is recommended that policymakers bring Indian Diaspora and private participants into the mainstream of internationalisation efforts; dedicated action in this regard is likely to result in exponential gains.

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International Student Mobility Strategy at Manipal Academy of Higher Education

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We all know that education pattern is not uniform across the globe and Student mobility is the means that empowers students to become global citizens. National agencies and Universities are equally responsible for ensuring that internationalisation practices are instilled in the University curriculum. Universities have to take the task seriously to promote the mobility of students in all possible ways. In general, students prefer to study abroad for degree-seeking or short-term courses. For students, mobility experience assists in the development of cross-cultural awareness, understanding the complexities and global challenges, and practical implementation of their learnings.

At Manipal Academy of Higher Education (MAHE), we have internationalized our curriculum in order to promote bilateral student mobility. MAHE supports student mobility in various forms such as joint degrees, semesters abroad, research internships, and global volunteerships, and is in search of innovative pedagogical methods to promote internationalisation and transnational mobility. Recently, MAHE has initiated cross-country capstone classroom projects (C4) in which students from multiple countries study a particular course in a virtual mode with faculty mentorship. This paper showcases a general structure available for students' mobility and MAHE's best practices for student mobility.

Learning is a continuous process with no limit to the amount of knowledge one can gain. The knowledge becomes sustainable only when put into practice. Experiential learning has a vital role in knowledge upgradation. Education is all about acquiring the right knowledge and skills needed to build a better future for a better society to live in. Internationalisation is the key to wielding the individual needs and interests of each higher education entity [1]. With this comes the package of questions – How What and Why? How do we improvise higher education? What are the parameters that amicably facilitate the growth of higher education on a global platform? Why internationalisation of higher education is needed? A deep-rooted analysis of the education system becomes important to assess and transform the ecosystem.

Internationalisation over the years has shifted the campus culture to accommodate students from the varied cultural background. International Student Mobility holds an integral part in framing the organizational strategy. The education sector needs to be glocalised eventually facilitating social and interpersonal networks on the local as well as the global front.

International Student Mobility

There is no specific set of indicators for internationalisation as the process is tailored to meet the individual needs and interests of each higher education entity. Consequently, there is no 'one size fits all' model of internationalisation. Student mobility is the base for any international activity. Over the years, it has gained prominence and has created awareness among the youth about the importance of studying abroad and how it acts as a stimulating factor for their holistic development in the long run.

We all know that education pattern is not uniform across the globe and harmonization is the need of the hour for a balanced curriculum with a focus on internationalisation. It is important that the student is exposed to varied education patterns and gain the best knowledge for holistic development and experience the teaching-learning methodologies across borders. With mobility, they learn new ideas, adaptability, independent decision-making, and the rationale to implement their learnings to practice. Internationalisation is the key to unlocking young minds, giving them wings to think big and act big on the global platform.

Different Perspectives on International Student Mobility

It is important to understand the different

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perspectives of student mobility on an international platform. The factors that influence mobility are influenced at a) National and global levels, b) University level and c) Student level. It requires a synchronized thought process at all three levels and cannot be mutually exclusive thereby ensuring optimal payback to its stakeholders. Hence, it becomes important to understand the perspectives at each level and analyze their relevance and execution further.

National and Global Perspective

While student mobility has its impact on a University projection, studies have also focused on the geopolitical dimensions and consequences of student mobility. Student mobility is said to be directly proportional to promoting greater humanity across borders. It also enhances cultural diplomacy ensuring affable correlation and peace among nations. Student mobility can contribute to science diplomacy and adds possible impact on economic development and policy reform. International student mobility also envisages support towards national foreign policy objectives.

India is at the forefront of promoting internationalisation with a focus on student mobility bilaterally. The New Education Policy 2020, has made room for several collaborative joint ventures to support mobility across borders. The virtual summit in May 2021 between the Prime Ministers of the UK and India, promoted bilateral cooperation to enable student mobility between the two countries evenly and help in developing stronger institutional collaboration to widen the scope of academic and research collaboration between the Higher Education Institutions of both countries. India hosted the 6th India-Norway Joint working group on higher education in October 2022, towards reviewing the Indo-Norwegian Cooperation Programme deliberated upon overall higher education policy and priorities, student/faculty mobility, and cooperation in the field of skill development.

The Ministry of Education, Government of India has introduced a flagship project 'Study In India (SII) programme' to endorse India as an education hub for international students. Such initiatives in the pipeline clearly indicate support towards internationalisation, undoubtedly showing a progressive graph for India in the global arena. The New Education Policy 2020 is designed with a clear goal of making India a "global study destination" and has charted an ambitious roadmap for making internationalisation of higher education a reality by 2030.

These developments show an upward trend in internationalisation of higher education thereby driving the universities to constantly upgrade and transform their education standards to be at par with international standards.

Institutional Perspective

Internationalisation of higher education is directly proportionate to an academic reputation for University ranking. Cross-border mobility is considered as the most traditional means to enhance visibility and networking across the globe. Students ultimately are the ambassadors who promote and reflect upon the best practices leading to increased transnational mobility numbers. Internationalisation develops networking and collaboration with other universities facilitating visibility on international platforms and setting the standards at par with the top-ranked universities. Academic mobility while paving the way to create opportunities for students towards better prospects, it generates financial propositions as well for universities. Students choose the university based on academic reputation, flexibility of choosing the courses, adaptability, socio-political conditions, and so on. Universities need to have detailed analyses of the above factors while facilitating international student mobility to ensure that they become the chosen destination for these students. This healthy competition drives the Universities to perform better in the market and self-upgrade to meet the standards of excellence.

Academic mobility of students can be grouped as - (a) institution sponsored and (b) self-sponsored. It becomes important that the University take primary responsibility to enhance students' exposure to internationalisation on these lines. Institutions should have a bursary funding arrangement to support international mobility and promote other sources of scholarship opportunities to promote mobility. Besides, Internationalisation of the Curriculum has to be an integral part of the organizational strategy. Promoting mobility alone should not be the prerogative of the University. It is equally important to cater to the non-mobile cadre of students and ensure that they too reap the benefits of internationalisation. This is possible only when we enhance the quality of education and ensure that the curriculum is at par with international standards. The onus is on the University management

to create awareness about internationalisation of the curriculum and ensure that every stakeholder contributes towards its attainment.

Students' Perspective

In order to challenge the traditional educational understanding and to develop valuable skills, it becomes important for students to have an international study experience even if for a shorter span. For students, mobility experience assists in the development of cross-cultural awareness, understanding the complexities and global challenges, and practical implementation of their learnings.

Students, the ultimate beneficiary of international student mobility can count on endless benefits with the exposure and experience made available. With traveling opportunities to a new country, students get to represent the University that comes as an added responsibility. The responsibility of good conduct, the responsibility of better employability and ultimately better career prospect. International mobility facilitates networking leading to life changing opportunities from further studies to joint collaborations to research or any other productive future initiative. This is a chance to explore a new academic setup with experiential learning, learn a new language and most importantly bring back the best international practices to be implemented at the home university and ensure knowledge transfer among peers.

Transnational mobility concerns not only academics but also has a deep cultural influence attached to it. Cultural competence forms an integral part of international mobility. Cultural competence is nothing but the skills needed for effective communication with people of different cultures and adapting to them over a period of time. Cultural sensitivity is important to understanding and accepting other cultures and cultural identities. It becomes essential to orient the students in advance to avoid cultural shocks and prepare them to adapt to the situation without any preconceived notions. Orientation for international students helps in sensitizing them about the law of the land and provides clarity on the do's and don'ts thereby preparing them to adapt to the local values and be one among others.

Different Category of International Student Mobility

Internationalisation of higher education may not be just about mobility, but it remains the most visible and dominant aspect of internationalisation. Institutions need to complement traditional mobility with innovative programmes including transnational education, institutional partnerships, and online learning. A generic overview of different forms of student mobility may be listed below –

a. *Semester Programmes*: Students' visit to a partner university is facilitated for a semester on exchange programme carrying back the credits to the home university. This allows the students to spend a part of their academic study in a foreign university and have a comparative assessment of the teaching-learning methodologies between the two universities

b. *Degree-Seekinging Programmes*: Students visit partner universities enrolling full time for a degree-seeking programme where credits earned at both universities are recognized and accepted for awarding degrees.

c. Interning in research labs: Mostly a research-oriented opportunity for a student to visit the lab in a foreign university for research analysis in the domain of expertise under the supervision of an expert overseas. Exposure to advanced resources and technical expertise adds value to the study and brings back the best practices to the home country

d. *Internships*: Internships are paid opportunities in relevant streams in multinational corporations or university research centers to startups in an international setup. These internships encourage experiential learning eventually preparing the students for challenges in the global market

e. *Field Coursework*: Students working on theses in their home university, visit a foreign university to study and analyse the conditions of similar study in an international university thus providing larger scope for studying varied sample size and varied demographic conditions

f. *Fellowships*: Fellowships are mostly joint projects between two foreign universities agreeing to work on a jointly funded project allowing a bilateral exchange of ideas, travel, and research work. Fellowships are mostly long-term visits that require students to visit a foreign university for deeper research engagements and joint publications

g. *Cultural Immersion Programmes*: These are short-term programmes exclusively tailor-made for foreign university students to visit and understand the socio-cultural aspects of a given region and gain unique insights into another country's culture and ethnicity.

Internationalisation of Student Mobility at MAHE

Manipal Academy of Higher Education has been synonymous with excellence in higher education. Its vision policy highlights on Global leadership in human development, and excellence in education and healthcare with an aim to become the choicest destination for international students, faculty, and industry. MAHE has left no stone unturned to bring in the changes needed to give that experience for students to enjoy and understand the transformation in higher education ultimately providing them with experiential learning.

When it comes to transformative education, MAHE has given the best experience to its students. MAHE believes that every student should get an opportunity to experience international learning and makes every effort to materialize this into reality. Some of the initiatives to highlight would reflect the work MAHE has been doing in line with the education transformation from internationalisation purview.

Research Internships

Internships abroad are a unique opportunity provided bilaterally to students for a learning experience abroad be it university or industry. Besides experiencing new teaching learning methodologies, they get to understand the global trends in their area of expertise allowing them ample opportunities to explore at different levels of learning. While a University set up will give them academic experience, the Industry set up will help in gaining technical experience and expertise. MAHE students have been given an opportunity to work in research labs at partner universities. Most the of the cases the outcome is joint research publication and it leads to PhD admission at partner universities.

International Student Associations

Student associations foster student engagement and inculcate leadership skills in students. At MAHE, students independently manage the student associations exhibiting exceptional entrepreneurial skills, and have been managing these modules successfully for over a decade. Independent administering not only enhances their potential but also helps them understand and analyse the current market trends. These entrepreneurial skills are lessons for life making them industry ready and enabling them to think and act intellectually. Also, these support internationalisation of the universities In a sense it is a win-win situation for students and universities.

International Association for Exchange of Students for Technical Experience (IAESTE) holds a local chapter in Manipal that provides paid technical/ industry internship opportunities to students internationally. The local chapter is fully managed by students and in a way, it is internationalisation at home. The other student organization is International Association of Students in Economics and Business (AIESEC) offers internship opportunities in two categories i.e., (a) the Global Talent programme facilitates international internship in their respective field of interest with scholarships. (b) Global Volunteer programme that develops their leadership skills through volunteering for projects of social causes that impacts society in general. While the former is more on professional interest the latter serves on the societal front with lateral thinking and developing community skills and teamwork etiquettes. The third student-managed mobility programme is the International Pharmaceutical Students Federation (IPSF) which offers professional pharmacy internships through MAHE Association of Pharmacy Students (MAPS) and is one of the first pharmacy colleges in India to gain IPSF membership. MAHE as an active member of the International Society for Optics and Photonics (SPIE) has successfully enabled paid internships and technical conferences for student researchers and developers in the areas of physics, optics, photonics, and imaging engineering.

Pathway Programmes

Articulation pathways are an excellent means to encourage student mobility. Pathway programmes facilitate exchange experience to students allowing them to pursue a semester or two at an international partner university following a lateral entry into pursuing master's programme further. Undergraduate students tend to benefit as these programmes provide

wider international exposure at the bachelor's level and give enough space to befit to the international ambiance by the time they attain their masters. MAHE offers a unique 2+2 programme wherein undergraduate students study two years at MAHE and consecutive two years further at a partner university abroad leading to a degree from the university abroad. Besides, we also have other constituent institutions that propose articulation patterns like 3+2, 3+1+1 at the undergraduate and 1+1 at the graduate level. Cotutelle doctoral programmes are making a wave in the education sector and MAHE is already in the race with registering its students giving them the experience to study the modalities of presenting a thesis at their home and host university with supervising from both the end and imbibe the learnings from different perspectives. Pathway programmes are a head start for the students to set the foundation and prepare them mentally to adapt to the new environment, cultural differences, etiquettes, practices, and so on. As the word suggests it is a pathway for new-fangled opportunities to experience and foster skill development techniques.

Intercultural Competence

Intercultural skills play an important role when a student witnesses diverse cultures and traditions. A steady mix of adjusting to the new ethos, language, behavior, and so forth. Centre for Intercultural Studies and Dialogue (CISD), MAHE is a platform that facilitates learning and research on communication across cultures. The centre offers well-curated cultural training and experience programmes for the international population who visit Manipal.

MAESTRO

Faculty researchers often hire interns to assist them with their research projects. MAHE offers a repository of faculty projects on campus that are open for international students to work on in their respective domain of interest. Manipal Academic Exchange for Student Traineeship and Research (MAESTRO) is the portal that registers international students to enroll for internships in their respective domain for a stipulated period to work with the professors and gain research experience. The portal provides flexibility to the students and faculty to align their areas of interest mutually and feasibly execute the work pattern.

Virtual Programmemes

MAHE has been a pioneer in promoting online courses and has been jointly offering programmes virtually in collaboration with its foreign collaborators. During COVID mobility came to a standstill at a given point, but education cannot afford to be immobile. That's when virtual mobility gained pace. Digitalization forms an integral part of transformative education that has time and again ensured that internationalisation can still be experienced staying back in your home country. MAHE has organized several virtual projects, internships, symposiums, and conferences and is even delivering online courses. MAHE has a strong e-learning wing to create an ecosystem using innovative learning tools, thereby enabling learners to foster their intellectual growth in a virtual environment. The Directorate of Online Education has a programme lineup of courses across different streams that are successfully being offered across the globe and several new initiatives in the pipeline definitely would enhance the visibility and feasibility of online education on campus.

Other initiatives:

Buddy Programme

With inviting international students comes the responsibility of their safety and ensuring a comfortable stay during their tenure at the host university. MAHE takes utmost care of these amenities and is known for its hospitality towards international students and visitors. State-of-the-art facilities are provided to students on campus and the international students by every means are treated at par with the full-time degree-seeking students on campus. MAHE hosts students from over 60 countries reflecting a global blend of cultures on campus. To ensure that an international student feels at home, a local student buddy is appointed along for any queries and needs on campus. The intercultural correlation acts as an icebreaker for further networking.

Internationalisation at Home

Internationalisation at Home is a concept wherein global perspectives are integrated within their programme of study thereby enriching the quality of education thereby benefitting the local students whether or not they visit abroad. MAHE firmly believes in blended learning modules and ensures

experiential learning is provided wherever possible besides the theoretical sessions. A conducive student-friendly environment allows students to be part of the curriculum-setting forum and also have ample opportunities on campus like joint research, student projects, Bio-incubator, and many more. University stands to its commitment to providing value-based education to its students and strives to provide the best of the amenities to meet the global standards of education

Networking with Foreign Universities

Maintaining connectivity with universities abroad, especially partner universities is required to build exchange opportunities for students. Networking enhances the scope of mobility and provides newer opportunities to experience study abroad. Universities mutually understand the issues and concerns related to mobility and constant discussions and communication with universities and associations abroad often give rise to unexpected openings.

International and Local Blend

Campus Ambassadors MAHE (CAM), a student volunteer group on campus facilitates several activities to showcase Indian festivities and cultures to international students. Cultural awareness of the region is equally important for blended learning at a host university. Besides, interpersonal communication gives them access to know the local people and local culture better by exchange of ideas and communication and vice versa. Leading by example, MAHE practically implements intercultural aspects in academics, allowing students to freely exchange and exhibit their ideas and concepts.

Conclusion

MAHE is striving to provide value-based education ensuring a balanced weightage between curricular and extracurricular activities thereby promoting holistic development of its students on the global front. It is of paramount importance to any given University to explore and expand its horizon and achieve larger goals. Transformation is part and parcel of our ecosystem and education is no exception to this. The need of the hour is that the Universities look up to each other and adopt the best practices from each other – both nationally and internationally and join hands in utilizing the available resources to the fullest ultimately ensuring an enriching and delightful international student mobility experience.

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Internationalisation for Transformative Higher Education

Ajit K Motwani*

The internationalisation of education is not a new phenomenon, it has been there for centuries! Nalanda and Takshashila Universities in India, Daigaku-ryo in Japan, Taixue in China, Platonic Academy in Athens were some of the ancient learning Centres that attracted international students/scholars and faculty. In modern times Cambridge emerged as the centre for global eminence, and in the last century, the US Universities have been the prime attraction for students and faculty mobility internationally.

Economic growth and educational eminence have often accompanied each other. Travel, especially international or to a long-distance geographical region has always been associated with learning. In modern history, the nations that collaborated at international levels have developed and progressed much faster than the closed economies and cultures.

Higher Education is often the foundation for international connect and collaborations. In the long run, Student's and Faculty's internationalisation benefits both the home country and the host nation.

The internationalisation of Higher Education in the Indian context has two important dimensions. Indians moving to the learning centres abroad and international students/faculty traveling to India. The first one is well established with Indian students being among the top 2 in international students' mobility (167,582 next only to China's 317,299 in the US as per IIE's open doors 2021 fact sheet; out of about 5 million international students, China's share of international students is one million plus followed by India's about 0.5 million as per LEK Consulting report dated June 2021); also, a large number of trained Indian Manpower have taken faculty positions abroad especially after acquiring higher degrees in the host counties. The second dimension of inward mobility of international students and faculty to India has been a challenge for decades and it needs a few critical/undermentioned concerns to be addressed as a prerequisite:

- Infrastructure, particularly at the host institutions and cities/towns needs to be of comparable quality and comfort with other attractive/competing international destinations.
- Work opportunity in the host country is a very important factor. The countries that attract large numbers of international students have a policy in place that allows students to earn post qualifications to be able to pay back their educational loans and gain valuable international work experience. This is an important bottleneck in Indian educational institutions attracting foreign students.
- Recognition of Degrees/programmes in the home country of the international students coming to India is a must.
- The initial settling period for all international students is a critical comfort factor not only for the students but also for their families. Office of international students that guides the students in important matters such as safety & security, healthcare, and basic day-to-day issues/needs must become dependable to cater to routine as well as emergency situations. Dedicated local student contact/mentor and faculty in charge go a long way in adding the comfort of the international students.

International Collaborations in Research and Teaching

International collaborations in India are limited to a small elite group of institutions. Even within these institutions, in many cases, it is based on individual faculty's networks and benefits do not percolate to the department and entire institutions. Exceptions to this is of course the institutions such as IITs, IIMs, ISB, IISc, AIIMS, TISS, TIFR, departments in the Universities such as Delhi School of Economics.

International collaborations in the discipline of engineering and sciences are easier to foster and have a long history as compared to other disciplines, including humanities and social sciences, that also train significant populations and contribute to the ever-growing services sector.

International Collaborations in Research and Teaching need planning as a part of institutional DNA. Quality unlike quantity can seldom be scaled

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in phases, it needs to be actively pursued from the inception. In the discipline of management/ business, Case based teaching with many of the Indian case studies listed on the international sites has contributed to international collaborations. The interdisciplinary research focus is another area that goes a long way in promoting international collaborations.

Promoting Indian Higher Education Abroad

Educational Consultants India Ltd. (Ed.CIL) did the pioneering work during the 1990s and the first decade of this century to promote Indian Education Abroad as the nodal agency of Govt. of India. This was a good start but for the country of the size of India and its diversity, this was just not enough. Indian Higher Education has been growing at a rapid pace and it needs constant innovation to promote India as an Educational Destination.

First, as a country we need to be an attractive destination. Given India's state of economic growth/ Indian multinationals' visibility in world regions; it's time Indian education gets marketed well. This will require some of the key pre-requisites listed above appropriately addressed to make a justifiable case for India becoming a preferred destination for the international students, at least from a select group of countries/ neighbouring regions. Also, there cannot be a single strategy to promote the diversity of Indian Institutions abroad and in various world regions. It will need a targeted approach that's well planned and has buy-in from important stakeholder institutions and agencies that need to get involved in the implementation. ❑

Mainstreaming Sustainable Development Goals and Internationalisation SCCN-Network of Universities

Rajendra Shende*

As the world faces ever-escalating, cascading, and entwined global crises and conflicts, two interlinked scenarios emerge. First, the extreme risk that threatens life on our planet and second, unprecedented opportunities appear on the horizon of turmoil.

The aspirations set out at the beginning of the 21st century and capsuled by United Nations in Millennium Development Goals and later boosted in 2015 by a dose of the 2030 Agenda for Sustainable Development Goals (SDGs) are indeed in jeopardy in spite of booster dose. At the same time, the youth in universities and Higher Educational Institutes (HEIs) are emerging as the force to dilute the risks and address the challenges of 21st century. Youth do not constitute just the demographic dividend but a distinctive group that can act and walks the talk. However, that would be possible if the skilling, teaching, learning, and educating process is molded according to the changing needs of this century.

United Nations Secretary General Antonio Guterres recently urged IIT in Mumbai that students should use their talent to tackle the planetary emergency facing humanity to develop renewable energy, while also urging them to not work for those wrecking our climate. Addressing the gathering of the students and faculty at the Indian Institute of Technology (IIT), Bombay, Guterres said, "I can see here today that India's the research and innovation ecosystem is strong and vibrant. I urge the students to use their considerable talents to tackle the planetary emergence we face to develop renewable technology and to find new solutions to pollution and to biodiversity loss. I respectfully urge you not to work for those who are wrecking our climate." UN Secretary General put the finger on the right button that triggers the potential of youth and of our education system. However, both need a further boost by positioning the Indian Knowledge System and our education domain from an international perspective.

With the COVID-19 pandemic in its third year, the carry-over adverse impacts of the pandemic, conflicts between countries and societies, and war in Ukraine are all exacerbating food, energy, humanitarian and refugee crises–all against the background of a full-fledged climate emergency. Youth, the education system, and the learning process have been victims of the pandemic. Using current data, The Sustainable Development Goals Report 2022 provides evidence of the destructive impacts of these crises on the achievement of the Sustainable Development Goals (SDGs).

It is not only SDG 4 that aims to improve the quality of education and education for all Higher education institutions. SDGs 17, the last of the SDGs is definitely not the least. It is about developing partnerships to speed up and scale up the transformation to a sustainable society. Internationalisation of the education and learning is part of SDG17.

Creating and spreading knowledge are required to address the interlinked global challenges faced by humanity. This role is frequently linked with the concept of the internationalization of higher education, but it has pros and cons. Let us start with the concept of 'localising 'the SDGs in the university and HEIs campus. Mainstreaming (SDGs) into the educating and learning process, partnerships, research, and reimagining of institutions has the potential to transform institutions and improve society through internationalization.

Many have pointed to the dormant ability of the United Nations (UN) sustainable development goals (SDGs) as an integral part to guide universities' international activities. Universities should reorient their activities in global citizenship education, special institutional initiatives, international research partnerships, international mobility programming, and cross-cultural bridge-building toward the achievement of SDGs and for the betterment of society. A comprehensive approach even at a time when mobility is restricted could be achieved through digitalisation like virtual reality.

Efforts are needed to reduce the environmental footprints of education in the campus and international programs. Prime Minister Narendra Modi's LiFE initiative (Lifestyle For Environment) such as providing students and faculty with environment-friendly tool kits, sustainable campus guidelines, encouraging the use of environmentally friendly travel schemes, offsetting greenhouse gas emissions resulting from

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mobility, promoting more sustainable consumption patterns, or even providing students with free bike passes and encouraging as well as incentivising the electrical mobility. Learning about the responsibility as global citizens in tackling global problems and being responsive to the changes around would make the continental shift from the existing stereotypical education system.

The internationalisation of higher education has taken the world of education by storm due to the need to mainstream SDGs on educational campuses. SDGs include a blueprint set by the United Nations to achieve its 2030 Agenda, aimed at "a better and more sustainable future for everyone" – which are gaining importance. Indian higher education institutions are also striving towards achieving these 17 goals. Indeed, there is a two-way link for SDGs and education institution and their campus. SDGs aim to educate all through quality learning and education helps in speeding the SDGs. Globally, higher education institutions are important stakeholders in implementing the SDGs as they function as hubs of critical thinking and innovation.

Emerging Scenario

India has paved the way for transforming education to align it to 21st century challenges and opportunities. The implementation of the SDGs is also an integral part of this transformation. National Education Policy—2020 (NEP 2020) is the seminal guide where the principles of global citizenship education, are embedded in the target of SDG 4.7 which aims for quality education. The National Education Policy aims to establish India as a '*Vishwaguru*' – a global study destination –to spread the Indian Knowledge System which is derived from nature. Developing policies towards internationalisation globally and at home could create a pathway toward fulfilling the principles of the Sustainable Development Goals.

The words like *inclusive, value-based, integral, lifelong learning, and transforming life* are frequently seen and often talked about by the heads of HEI's. Their missions and vision statements highlight that internationalisation principles, however, are given more prominence than the SDGs and without any reference to how SDGs and internationalisations are gainfully linked. Precisely to eliminate such gaps and set the HEI's on the road to SDGs and achieve meaningful internationalisation, Green TERRE Foundation initiated 'Smart Campus Cloud Network' in January of 2016, when the worldwide wide-implementation of SDGs began. SCCN in short is a global network of universities and HEIs. It is the first-ever partnerships and alliance of universities that localises SDGs on university campuses by deploying smart technologies like IoT, AI, Cloud dashboards, Virtual reality, and Data Science. Localising SDGs in villages and cities is the movement initiated by the UN and applied by NITI Aayog in tracking the progress of implementation. Green TERRE Foundation is focussing on localising SDGs in campus and also integrating the internationalisation in education.

Internationalising through Localising

SCCN is a skill-building initiative to help the youth to be prepared for building Smart Cities in India and abroad for a sustainable future and contributing to the SDGs through practical projects in their own education campus. In a way, the campus is transformed into a living lab of SDGs and climate neutrality and practical projects related to SDGs and Carbon Neutrality provide skill-building and training for the future careers of students

A network of Smart Campuses that make a tangible contribution by youth to the United Nations SDGs provide an opportunity to students in 'learn by doing' through a set of protocols to develop applications like carbon footprint displays, water conservation, analytics for smart/micro grid, emission trends, zero waste management. The network also enhances the cooperation of faculty, students, private sector for gainful employment and encourages sustainable entrepreneurship and participation. The cloud dashboards internationalise the initiatives and can trigger cooperative research, exchange programme, and innovative piloting of the projects. SCCN is also an opportunity to establish technology centers of excellence in SDGs on each campus.

Uniqueness of SCCN

There are already university networks for ranking, exchange programmes, and knowledge sharing. What makes SCCN stand apart is its strong emphasis on SDGs, internationalisation, learning by doing, and accelerating by sharing. Digitalisation of the campus activities to measure manage, perform to achieve, meeting the goals by modeling the roles'. It brings together students and faculty to shape the minds and muscles for their leadership role of tomorrow. Students are tomorrow's leaders, business managers, entrepreneurs, academicians, researchers, and civil society stewards to act locally to go global. Such distinct characteristics of SCCN has till now attracted

400+ universities and HEIs in its network, including 20 from abroad. It is heartening to see that SCCN has initiated a dialogue among the universities around the SDGs, for which UNESCO, AICTE, and UGC among others are important and strategic partners.

How primed are universities to implement the SDGs?

The most appealing and useful projects that universities can undertake in campus are :

- Carbon Neutrality /Net Zero Emission.
- Water Recycling and Conservation.
- Organic Food in Canteen.
- Solar Water Heaters in Hostels.
- Carbon Credits between Campus.
- Waste, Composting.
- Ecopreneurship Skilling.
- Deployment of Digital Technologies for SDGs and Carbon Neutrality.
- Annual Sustainability Report.
- University Sustainability Ranking Index.
- Awarding Campuses on Sustainability Rankings.

List of some of the inspiring and leading examples where internationalisation and implementation of SDGs are linked:

- Two global mentors are internationally renowned former Under Secretary-General of United Nations and second, former environment minister and Human Resource Development of India
- University students used the COVID-19 guidelines developed by SCCN in the campus
- Five universities from Peru joined SCCN and started SDGs activities in the field of water and climate.
- Universities from Egypt, China, Portugal, Japan have chalked out plans for use of digital technologies for net-zero campus.
- Nearly 250 Universities/Colleges pledged to become carbon neutral as per resolve of PM Modi to make India 'Net Zero'
- Fergusson college (deemed University) was one of the first campuses to go Single-Use Plastic-Free.
- AICTE in Designing and implementation of National Awards for 'Clean and Smart Campus in close cooperation with SCCN
- UGC published SATAT guidelines for the smart campus in close association with SCCN
- MIT Academy of Engineering, Maharashtra was one of the first campuses to launch E-Waste Management project
- 75 universities from India are selected for net-zero campus projects in coming year to mark the occasion of 'Azadi ka Amrut Mahotsav', of which 20, work started.
- Air Quality Index monitoring station was installed at MIT World Peace University in Pune . It has become the first university in India to have AQI on campus and digitalized AQ is available on the National Portal of SAFAR India.
- Carbon Emission was reduced by 60 percent in the large campus of MIT ADT in Loni through EE and RE.
- Organized five International E-Internship Programme (IEIP) for students who could not get business-internships during COVID19.
- Universities in Maldives, Shri Lanka, dialogue with, Nepal, Afghanistan, Bhutan, Bangladesh, Myanmar, and India have started interaction on Open Access Data and Carbon Disclosure in collaboration with UNESCO.
- Universities are taking advantage of 'SDG Help Desk' of UN ESCAP to link to SCCN

What More is Needed

In India, university-level research and team-projects related to SDGs should be the driving force. Hydrogen energy, e-waste utilization, enhancing Energy efficiency of solar panels, mimicking photosynthesis for carbon-sink, plastic disposal, water recycling, high productivity natural farming, digital farming, measuring carbon-sink of deforestation are some of the area of research. One rupee invested in research would return tenfold in near future. India's soft power has now been truly internationalised which can help in increased research investment. Indian Knowledge System could be deployed even in the modern world. NEP 2020 has shown the way in that direction. Investments in collaborative research could be increased by internationalisation and associated exchange programme. India's leadership in STEM disciplines are well known. Virtual internships have seen an exponential increase, as students and faculty utilise this accessibility for targeted learning and development for all students on campus.

Molding the minds of students to activate their energy for actions by forging dedicated partnerships and internationalising education is the right way to mainstream SDGs in educational campuses. ❑

Evidence of Digital Divide in Indian Higher Education: References from Neighbouring Countries

Rupa Ghosh*, Biswajit Sarkar and Sudeshna Lahiri*****

The need for technology has been never realised so direly before the pandemic. The pace of globalisation and the development of new information technologies, including the Internet, are fuelling both economic prosperity and advancement in the twenty-first century. However, the digital divide remains an alarming concern, especially in the context of a multi-layered society in India and many other countries. In the multinational context, the digital divide among countries refers to the gap between the countries that have and that do not have access to Information Technology (Van Dijk, 2006). The phenomenon of the digital divide, in a country, questions its economic development, government machinery and functionary, social structure, and ultimately ability to compete in the global market (Kaba & Said, 2014; Pick & Azari, 2008). On the contrary, developed countries, being the advantaged counterparts, continue to enjoy the fruits of technological advancement to increase their lead over developing countries (Parker, 2001; Van Dijk & Hacker, 2003). The inequality in accessing economic growth and henceforth unequal distribution of wealth among the underprivileged sections became more prominent during the COVID-19 pandemic through the manifestation of the digital divide among the lower-paid sections of society in terms of access to the digital world and skills. The existing literature raises the obvious quest, that is, how does higher education respond to the digital divide caused by the economic disparity within the society and geographies? The discussion reported in the present article investigates if the digital divide exists in higher education (HE) campuses in India.

The divide may not be new, in case, the root cause of the digital divide is to be attributed to the wealth gap between the better off and the worse off (Tarman, 2003). It has only surfaced from the late 1980s to the early 1990s. The digital divide let out quantifiable significant inter-societal and intra-societal differences in the ownership of computers and access to information technology. It is understood as a gap in accessing information and communication technologies constrained by poverty and illiteracy (Lester, 2011). The phenomenon may also be reiterated as inequality of opportunity manifested as the difficulty of some members of society not knowing to use and access computers and the Internet that others have (Dictionary of Cambridge, 2022). In this regard, there may be glaring multidimensional digital inequalities existing within the system in terms of - access to digital platforms, deficiency in skill among students and teachers, inadequate learning outcomes, unavailability of adequate information communication technology (ICT) infrastructure, incapacity to buy technical and digital gadgets and poor internet facilities (UNESCO, 2021). Hence, the digital divide is more economical and social in its nature, than technological discrimination. The research question in this article is: How does digital media prevail in India in reference to the countries in the developed world? The comparison in this regard will be drawn with one of the super-developed countries, the People's Republic of China (PRC) during the pandemic. A further probe on the digital divide also keeps pertinence: how well India is bridging up the gap by digital divide in society and HE in comparison to its neighbouring countries? The article employs the meta-analysis of the existing researches, Government documents and notifications, digital and physical archives, etc to draw the inference. As a qualitative research approach, document analysis is used to frame the hypotheses.

The study addresses the digital divide experienced by higher educational institutes (HEIs) in south-east Asian countries in terms of access to HEIs and digital skills. A further probe has been done on the digital divide keeping India as a reference and compared with neighbouring countries. This status report on Indian HEIs is important because of having the highest number of universities globally (Szmigiera, 2021) after the United States and the

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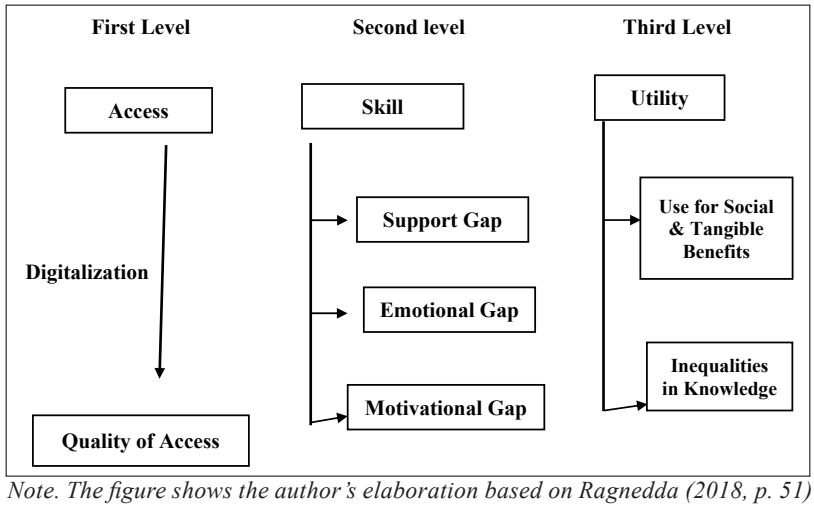
People's Republic of China (PRC) stands among the first three players. This research article employs a qualitative approach for secondary data analysis of documents from government websites, research articles from Government notifications, news articles (online and print), policy documents, and international reports on India, and from other Asian higher education institutions published during the pandemic to explore the causes and challenges of remote learning. The following section is a discourse on the comparative analysis of the higher education scenario of India with neighbouring developing countries and developed nations like the PRC during the pandemic.

Digital Divide as a Concept

The concept of the digital divide is related to the steep advent of technology over the past two decades. The term 'digital divide' is referred to inequalities in access to Information Communication Technologies (ICTs), framing it as a matter of having or not having access to ICTs (Compaine, 2001). Further, digitalization may not have been equally distributed among the entire society (Norris, 2000). Thus, the major issue is how to make ICT available and internet access among all the groups who do not have the economic resources to avail of digital devices and internet connections. For this, it was imperative to identify the various levels of the digital divide. The levels have been depicted in a schematic diagram below in Figure 1.

Various levels of the digital gap have been represented in Figure 1. The first level of the digital gap is termed the "first-level digital divide" (Ragnedda, 2018; Van Deursen et al., 2013). It is primarily referred to the socio-economic gap between communities with access to computers and the Internet and those do not have. With the digitalization widely, the internet was no longer a key issue of accessing digital support in developed countries, except for the most vulnerable social groups. The major focus moves beyond access to the different ways of using digital technologies and skills. This digital gap is termed a "second-level digital divide" (Correa, 2016). The further probe revealed that the third level of the digital divide is referred to such digital gap outcomes and benefits that people get by using digital devices (Ragnedda, 2018). These three levels explain the digital divide and its penetration in the society in relation to the affordability.

Figure 1: The Three Levels of Digital Divide



Note. The figure shows the author's elaboration based on Ragnedda (2018, p. 51) and Gómez (2018) of the three levels of the digital divide.

Researches on Digital Divide

It is needless to mention that the education sector of India is the centre point for many students from the neighbouring countries for pursuing higher education. With the introduction of the New Education Policy 2020 as a landmark transformative initiative for making the Indian education system globally competitive and to tackle the issue of inwardly oriented education, India may prove to be one of the lucrative destinations for pursuing quality higher education at minimum cost (Joshi, 2021). Investigation on digital divide has the pertinence in a society since remote teaching or online education has the importance in the wake of Sustainable Development Goal (SDG) 2030. It has been envisioned that the youth will have the access to higher education by 2030, irrespective of the gender.

The phenomena, digital divide, has been resurfaced in the pandemic situation in countries and regions worldwide in varying magnitude affecting marginalized groups, women, and the poor of rural communities, specifically in the low-income developing countries. A study by the United Nations estimates that 60 per cent of the world's population in developed countries could work online compared to only one out of five in less developed countries

(Opp, 2021). However, the situation of the developed nations was not any better. Due to economic inequality among African American and Hispanic households, low-income families continued to suffer from limited digital accessibility and digital unavailability (McDonald, 2020). While the the People's Republic of China experienced income inequality in their respective societies, it acted similarly in transforming their educational institutions to give their students a global advantage (Neal & Pho, 2014). Hence, digital divide denying the access to the education is a grave problem in many nations.

As the world embarked on a three-way blended learning involving technology, the Internet and education, it is important to investigate how China displayed a significant digital divide as an effect of the COVID-19 pandemic. A survey by Liu (2020) reveals that seventy-one (71) per cent of students did not own an e-book reader, thirty-six (36) per cent reported not having a tablet computer at home, and twenty (20) per cent does not have access to an internet-capable computer at home. Interestingly, Davidson (2019) shows the USA as bagging third place behind China and India in a ranking of the leading global economies by 2030. During its second wave of COVID 19, India has been the second most COVID-19 impacted country globally after the USA and might have suffered less in terms of lesser recorded death rates (UNESCO, 2021) than counties in the western hemisphere, confronted extreme adversity in terms of access to education during pandemic times.

Under the circumstances, institutional closures, and transition from face to face to online mode has affected students from all ranks and files, from primary to higher educational institutions. In this regard, glaring multidimensional inequalities exist within the system in terms of - access to digital platforms, deficiency in skill among students and teachers, inadequate learning outcomes, unavailability of adequate ICT infrastructure, incapacity to buy technical and digital gadgets and poor internet facilities (UNESCO, 2021). The situation may have improved at the end of the pandemic. However, a report by UNESCO revealed that 32 per cent of the rural population and 54 per cent of the urban population had internet access, and only 11 percent of Indian households had computer desktops, laptops, and tablets before 2019. The higher educational institutions showed no exception that was present across the globe.

Digital Divide in the Indian Higher Education

For cradling one of the largest education systems in the world, India has won laurels having approximately 993 universities and 40,000 colleges nationwide (UGC, 2021). The whole system came to a halt in terms of both digital access and skills with the closure of HEIs due to the outbreak of corona. Teachers who are considered the main drivers for quality education suffered from a lack of digital skills, and students remained way beyond inclusivity due to the cease of educational activities. While there is a dearth of government data on the gap in digital skills among college and university teachers, QS IGUAGE's (2020) study on college and university faculties in India revealed 46% are trying their best to continue to learn and improve their digital competencies and skills. The India Report on Digital Education (2021) further authenticated the existence of the skill gap among the teaching-learning community (Ministry of Education, 2021). To bridge up, Ministry of Education, Government of India, has released various new initiatives and remodelling of the previously existing ones by the government portals at national and state levels to train the teachers and students in e-learning through SWAYAM, SWAYAMPRABHA, National Digital Educational Architecture (NDEAR), PM e-VIDYA Program, DIKSHA, NISHITA, e-Pathshala, MOOC Courses. However, the access to education during the pandemic also does not reveal a promising picture.

A press release by the Ministry of Statistics and Program Implementation (MOSPI) on the National Sample Survey (NSS) 75th Round Survey during July 2017-June 2018 revealed that approximately 4.4 per cent of the rural households and 23.4 percent of the urban households had a computer. Only 14.9 percent of the rural households and 42.0 percent of the urban households had internet facilities. Thus, the economically marginalised and the disadvantaged were the worst hit accentuating and widening the digital divide further. Moreover, Kundu (2020) reveals a pertinent issue like a student's need for a computer is much more than a smartphone, which is valid for college students whose studies are much more research-based and lengthy assignments. The proportion of households with access to a computer varies from Bihar (4.6 per cent) to Kerala (23.5 per

cent) and Delhi (35 per cent). In states like Delhi, Kerala, Himachal Pradesh, Haryana, Punjab, and Uttarakhand, whereas more than 40 per cent of households have internet access less than 20 per cent for Odisha, Andhra Pradesh, Assam, Bihar, Chhattisgarh, Jharkhand, Madhya Pradesh, and West Bengal. Hence, the digital divide is not only existing within the society, but also an inter-state gap is visible. A prerequisite for the occurrence of digital divide may be a surge in anxiety and panic that, in turn, may be responsible for creating a cascading fear to learn the simple e-learning.

Evidences from Neighbouring Countries

Denying access to education when society and region is digitally divided may lead to inequalities and a threaten to the education system. It further worsens with the announcement of the closure of educational institutions due to the COVID-19 pandemic (UNESCO, 2020b). The closure of educational institutions has unearthed the sorry state of limited infrastructure facilities to adapt the online learning and lack of skilled teachers (UNESCO, 2020). Therefore, no matter online teaching and learning are an excellent opportunity to continue education during the pandemic, it is challenging to make it a part of educational system for developing countries (Sun et al., 2020). The existence of digital divides at all three levels (Access, Skill, Utility) and across genders is observed due to shifting from a face-to-face system to an emergency remote learning system. This scenario is more crucial in developing countries. Policymakers must find ways to bridge the prevailing divides by installing network infrastructure and scaling internet access (Tadesse & Muluye, 2020). The subsequent sub-sections illustrate the status of neighbouring countries that are part of Asian continent if there are any digital divide existing.

Bangladesh

A report of Bangladesh Telecommunication Regulatory Commission (BTRC) (2021) highlighted that 92.08 per cent of internet users use mobile Internet, which is dominant over broadband internet service. Dependency on mobile Internet and subscription costs has submerged the students into a new dimension of the first-level digital divide. Consequently, they are deprived of e-learning activities during the COVID-19 pandemic, resulting in inequality in access to education. Over half of Bangladesh's rural households lack access to the Internet (Bangladesh Rehabilitation Assistance Committee [BRAC], 2020). There is an explicit deviation in online class participation patterns between the students from the rural and city-urban areas. Many students were deprived of e-learning during the COVID-19 pandemic in Bangladesh. Despite having access to digital devices, the high internet rental packages and dependency on mobile Internet is driving the digital divide. A study by Badiuzzaman et al. (2021) revealed that students who have access to devices can arrange an internet connection but cannot afford it. In line with existing researches, the South Asian Network on Economic Modeling (SANEM) (2020) reports that rural institutions lack digital equipment and digitally skilled teachers and are comparatively underprivileged to deal with the pandemic.

Meanwhile, private institutions in Bangladesh have quickly adopted online learning, using social media platforms like Facebook and YouTube to deliver lectures. The urban population usually attends these private institutions that may afford the expensive education. Therefore, availability is enough, but affordability is another critical barrier. Inadequate mobile network infrastructure and poor signal quality in rural areas are significant drivers of the digital divide during the COVID-19 pandemic (Rafe, 2020). The digital divide in Bangladesh moves from the first-level access divide to the second-level skill gap, and the disparity of ICT outcomes is defined as the third-level digital divide. The outcomes of using ICT are not guaranteed by spending more time with ICT; it depends on how and why a person uses ICT. During the COVID-19 pandemic, students are forced to participate in online learning irrespective of their digital device skills (Badiuzzaman et al., 2021). Hence, Bangladesh has been majorly hit by digital divide during the pandemic, the nation and the private bodies have done much to mitigate, though.

Pakistan

Pre independence (before 1947), Pakistan had been the part of the India and currently, it is sharing the land boundary, post-independence. While access to education has been already a problem in Pakistan – 22.8 million 70 million children in Pakistan (UNICEF, 2016) are out of school – the coronavirus outbreak has exposed its profound technological inequities. Over 50 million school and university-going Pakistanis now risk falling behind. A study by Ahmed (2020) reports that 37 per cent

of people belonging to the age group of 15–65 years know about the Internet, 17 per cent of the population use it, and 14 per cent are reported to be on social media. Also, a gender-based report of internet users confirms that only 21 per cent of males and 12 percent of females are online in Pakistan. Adding to that, some of its provinces like Baluchistan, Gilgit-Baltistan, and Khyber Pakhtunkhwa have reported poor connectivity. A significant issue associated with Internet usage in Pakistan results online and distance learning is highly challenging during the pandemic (Ahmed, 2020).

The broadband connection on the domestic front is found to be expensive in Pakistan when not in big cities. Also, smartphone usage is exceptionally low among students (Zahra-Malik, 2020). A significant reason for these challenges in implementing online learning during COVID -19 is that educational technology had not been a priority of the Ministry of Education, Pakistan. However, the Ministry of Education seems to be acknowledging the role of technology in education as the way forward in the country nowadays (Zahra-Malik, 2020). About 40 million Pakistani children have access to a television, the Government introduced a new strategy of 'Tele-school'. To overcome the issue of access, the Ministry of Education has introduced a "student relief package" with low-cost internet packages and reduced smartphone duties for students (Zahra-Malik, 2020). Moreover, Soomro, et.al. (2020) reveals that there are significant differences in the faculty's access in Higher education in Pakistan to technology at the four levels in respect of their personal and positional categories (motivational, physical, skills, and usage level). The survey discloses that HEI faculty in Pakistan has limited access to the ICT with no access to adequate infrastructure.

As a neighbouring country of India, Pakistan produces a gloomy picture regarding the access to education during pandemic due to unequal access to internet package; uniformity in streaming; and availability of digital devices.

Sri Lanka

The country, Sri Lanka, may not share a land border with India. However, it shares the culture and history as a part of South Asian country and the neighbouring country. Digitalized education during the COVID – 19 pandemic in Sri Lanka is lagging due to obstacles, such as lack of students' access to the digital world, lack of availability of technology, challenges with the Use of technology and preparedness of teachers, lack of access to effective online platforms it is and inefficient practices for using digital devices effectively (Lucas, 2020). As a result, only 30 per cent of the student population in Sri Lanka have access to or can afford online learning during the COVID – 19 pandemic (Fazlulhaq, 2021). As one of the best methods, digitalized education is a solution for Sri Lanka's education system to reach out to areas with teacher shortages and pandemic situations. However, the problem of the access to education is accessibility and affordability to the appropriate technology and digitalization (Nanayakkara, 2021).

The computer and internet penetration has slowly increased in the past decade in Sri Lanka. The percentage of households owning a desktop or laptop varies widely between urban and rural areas. Though 'E-Thaksalawa,' the national e-learning portal of the Ministry of Education (MoE), facilitates e-learning for students (Grade 1 to Advanced Level) was introduced during the pandemic, most students cannot access it due to the lack of facilities or means. The internet facilities, a computer/laptop or a smartphone, and sufficient data are essential to download available study material (Nanayakkara, 2020). The television broadcast 'Guru Gedara' was introduced to reduce the access divide to target those without access to online learning facilities. Sri Lanka Broadcasting Corporation broadcast lessons covering science and technology, mathematics, and language subjects, especially in rural and estate areas in both Sinhala and Tamil languages (Nanayakkara, 2021). Thus, there is evidence of existence of the first and second levels of the digital divide in Sri Lanka in imparting education during COVID -19.

The above analysis thus reveals prevalence of the first level digital divide in India and its neighbouring countries during the pandemic. The study confirms the gap in access to ICTs between the haves (the privileged class) and the have-nots (the underprivileged class), which conforms to a previous study by Venkatesh & Sykes (2013). Thus, this gap would impact the have-nots, when the face-to-face education system is forced to change its form to online learning.

People's Republic of China: A Case Study from a Developed Country

A qualitative analysis has been performed in this research paper to find out the status of access to education in digital platform when developed countries are considered. As a neighbouring country, the Peoples Republic of China (PRC) shares a land boundary with India. This section discusses the status of the digital divide that has been analyzed in relation to Indian HEIs and south countries.

The PRC or China, the country first hit by the pandemic, undertook several corrective steps on an emergency basis to combat the situation and maintain a smooth teaching-learning environment as much as possible. An Australian Government Department of Education Skills and Employment study (2020) on the international education situation portrayed China's efforts in detail.

According to the study, the Ministry of Education (MoE), China issues the *Guidance on the organization and management of online teaching and learning in regular higher education institutions* to sail into the smooth online system from face-to-face mode and to help the HEIs with online platforms (most of which were creations of top Chinese Universities or enterprises) for virtual mode teaching. It recommended twenty-two (22) online platforms in China for providing twenty-four thousand (24,000) higher education courses free of cost. The course materials were in the form of MOOCs (massive open online courses), SPOCs (Small Private Online Courses) and virtual simulation experiments covering twelve (12) disciplines at the undergraduate level and eighteen (18) fields at the higher vocational level. The platforms, organizations, and target audience list are given below in Table 1.

It is evident in Table 1 that shows how Ministry of Education (MoE), PRC, facilitates online learning for educational inclusivity. In the wake of this situation, the Beijing Normal University (BNU) initiates the new semester with a total of four thousand thirty-six (4,036) courses for the students with three thousand two hundred twenty-eight (3,238) online faculty-driven courses involving one thousand fifty-one (1,151) faculty with immediate effect. In equal measure, the university requested cooperation from the faculty, staff, and students to succeed (Zhu & Liu, 2020). Despite of that, students and institutions, specifically in the rural areas, faces several technical and socio-economic constraints to accessing online materials and specialized instruments. Similarly, He & Wei (2021) offers multiple perspectives in locational area. Although ICT and online education have always been a part of the higher education system in China, the matter has invoked further attention during the pandemic. The PRC government has offered several educational opportunities through the Youth Active Learning Network and open online courses, distributed technical gadgets and accessories through institutes to the teachers and students, developed a range of digital teaching models and own learning systems, to have an undisrupted teaching-learning process but may have been unsuccessful in making it completely inclusive. Despite these noteworthy endeavours, teachers and students in Universities in China were found to use e-mails to contact each other, assignment submissions, doubt clearance and classroom quizzes. Many faculties even used telephonic conversations to teach and instruct students. To quantify the percentage of usage, forty-four per cent of the teachers used to zoom and 30 percent zoom and other platforms, while only classrooms 20 per percent and 15 per percent of students received instructions, respectively. Further to clarify, 45 per cent of the students participated in university online seminars to enrich their e-learning knowledge and 30 per cent viewed online uploaded lectures which almost 65 per cent of the teachers uploaded. The use of video streaming is found to be quite unpopular. Research further stated that both teachers and students lacked the required skills to keep the rhythm of offline learning in the online learning mode during the pandemic (He & Wei, 2021). Further, investigation responses identified unreliable network links and unavailability of resources to participate in the network as two main technological and conceptual learning challenges to the teaching community. In this investigation, students were concerned about continuous power connections and irregular mobile signals and those with low socio-economic backgrounds neither had instruments nor had enough energy to be a part of the learning process, especially Chinese female students. The Government is alert and have mammoth infrastructure regarding digitalisation of education and reaching out to the stakeholders.

The digital divide for India, like PRC, is directly inversely proportional to its economic growth trajectory. While both the Asian countries strived

Table-1: Various Online Platforms and Target Audience for Digital Learning in China

Code	Platform	Host Organization	Target Audience (during COVID-19 period)
1	iCourse	Higher Education Press Youdao	All Chinese HEI teachers and students, as well as the public
2	XuetangX	Tsinghua University	All Chinese HEI teachers and students
3	Zhihuishu	Shanghai Zhuoyue Ruixin Digital Technology Co., Ltd	HEI teachers and staff
4	Xueyin online	Open University of China, Beijing Century Superstar Information Technology Development Co., Ltd	Regular undergraduate institutions and higher vocational institutions
5	Erya Mooc	Beijing Chaoxing Erya Education Technology Co., Ltd	Regular HEIs, primary and secondary schools and learners from the society
6	PMPHMOOC	People's Medical Publishing House	Chinese medical HEIs and learners from the society that are interested in medical studies
7	UOOC	Shenzhen University	Non-central government-affiliated HEIs
8	CNMOOC	Shanghai Jiao Tong University	Chinese HEIs
9	Rong You Xue Tang	Renmin University of China	Chinese HEI teachers and students
10	Chinese MOOC	Peking University	Chinese HEI teachers and students, and learners from the society
11	UMOOCs	Beijing Foreign Studies University	Chinese HEI teachers and students, and foreign language learners from the society
12	Gaoxiaobang	Huike Group	Chinese HEI teachers and students, and learners from the society
13	Ulearning	Beijing Ulearning Online Education Technology Co., Ltd.	Chinese undergraduate level institutions and vocational institutions
14	MOOC.people.cn	People.cn	Chinese HEI teachers and students, and learners from the society
15	ICVE	Higher Education Press	Chinese higher vocational institution teachers and students
16	Chinaacc	China Distance Education Holdings Ltd., CDEL	Chinese HEIs; Academic office, teachers, and students at technical secondary schools
17	Netinnet	Xiamen Netinnet Software Co., Ltd	Chinese HEIs; Academic office, teachers, and students at technical secondary schools
18	ZJOOC	Zhejiang Radio and TV University	Zhejiang based HEI teachers and students; HEI teachers and students from other provinces and learners from the society
19	Anhui Provincial Online Course Learning Center Platform	Department of Education of Anhui Province University of Science and Technology of China	Anhui based HEIs, students, teachers
20	CQOOC	Chongqing Municipal Education Commission	Chongqing based HEIs students and learners from the society
21	Sharing Platform for National Virtual Simulation Experiment Teaching Projects	Higher Education Press	Chinese HEI students, medical workers, and learners from the society
22	EduCoder	Hunan Zhiqing Technology Co., Ltd (unofficial translation) Directed by: Chinese Higher Education Computing Education MOOC Association, Information technology New Engineering Industry-University-Research Alliance (unofficial translations)	Undergraduate institutions and higher vocational institutions

Note. This table shows a list of programmes undertaken by the Peoples Republic of China to train students and teachers as surveyed by the Australian Government, Department of Education, Skills, and Employment.

hard to close the gap, PRC has succeeded in outpacing India in reaching out to the student and teacher community through training, infrastructure, and asset distribution. The available literature suggests that the population in China are more cohesive socially and have thinner socio-economic layers in compared to India. However, the country is still experiencing its share of digital divide resulting in poor internet connections and mobile signals.

Conclusion

In the wake of pandemic, it is needless to state that digitalization of learning regarding access and skills would bring more inclusivity in teaching-learning in the higher education sector. Moreover, this has been pre-supposed throughout the world to make education accessible to those who are not able to attend conventional mode. There is research on theorizing the issues regarding the digital divide and that had resulted in a mixed outcome. While the countries under investigation in this article does not display similar results, but, they have not shown very different results on digital divide when developed and developing countries considered. These countries, irrespective of their development status, suffer from inaccessibility and lack of skills to use the digital world to varying degrees. During pandemic, countries in all over the world did their best in provisioning technical gadgets, infrastructure and training to students and teachers to access and reap the benefits of remote learning during the pandemic to close the sudden gap in learning, but efforts remained half-hearted. Majorly, the developing nations and to an extent, the PRC had to tolerate such deprivation and non-inclusivity in digital learning due to the existence of the underprivileged and poorer sections of society. These socio-economically marginalized sections remained untouched by growth going around in the nation and unattended by the market. It is the respective governments to let the economically marginalised section in the loop of inclusivity. The Asian countries, like China and India, has created several platforms for training teachers and students and many open learning sources to encourage learning and inclusivity. Further, the lack of access to technology and skill gap among the beneficiaries may lead to tremendous anxiety and stress to make it a success. When each country was struggling with health sectors and its services for combating Coronavirus, the existing human resources were struggling to maintain its quality through education and its access through digital platform. The more significant role of the state may have saved the situation in terms of more infrastructural support, more public-private partnerships in the mobilization of funds to expand the education network and counselling the academe to build self-confidence.

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Reimagining Technical and Vocational Education and Training: Insights from South Korea

Suprabha Dey* and Asheesh Srivastava**

As skills are the new global currency in the 21st century world, education should not only aim to contribute towards making learners jobs-ready and skilled but also pave the way for entrepreneurship and being self–reliant. Technical and Vocational Education and Training or TVET comprehensively involves education and training that includes technological, scientific, and learning activities aiming for the development of attitude, skills and practical knowledge among learners catering to their holistic development. The National Education Policy (NEP) 2020 urgently calls for "Re-imagining Vocational Education" where it has clearly mentioned South Korea being the country having the highest population of people formally trained in vocational education. The purpose of this paper is therefore to explore the TVET provisions in South Korea and to look at how TVET in South Korea has led to the rapid advancements and development in the country. The paper discusses how the implications of TVET in South Korea can be exemplary for other countries to encourage and promote TVET for their national development. The analysis of the paper can serve as valuable pointers for the policymakers in planning future engagements in the Vocational Education and TVET sector in India.

Into the two decades of the twenty-first century, globalization and technology have polarized the workforce creating a paradigm shift in transforming the labour market. There exists a wide gap between the skill profile of the current labour force and the ever-growing demand for efficiently skilled workers. Thus, to thrive in the new age of technology and make a positive contribution to the country's progress, there should be need-specific skilling, up-skilling and re-skilling of the learners with the integration of technology and TVET. The term Technical and Vocational Education and Training or TVET is defined 'as comprising education, training and skills development relating to a wide range of occupational fields, production, services, and livelihoods' (UNESCO, 2015). It is recognized as an umbrella term that broadly incorporates similar educational and training activities like technical-vocational education.

The National Education Policy (NEP) 2020 has used the word "Vocational" sixty-six times in the policy document and section 16 of the policy clearly states about re-imagining vocational education. NEP 2020 here mentions the estimate from the 12th five-year plan (2012-2017) that a very small percentage (less than 5%) of the Indian workforce in the age – group of 19-24 has received formal vocational education whereas the numbers in countries such as the USA is 52%, Germany is 75% and South Korea it is as high as 96%. Also as per the report compiled by the UNESCO-UNEVOC International Centre for Technical and Vocational Education and Training on TVET country profiles Republic of Korea (2018) the percentage of youth/adults in South Korea who have achieved at least a minimum level of proficiency in digital literacy skills is 90%. Education in South Korea is praised for playing a major role in creating one of the world's most educated workforces thus leading to its rapid economic development. It is indeed commendable for South Korea which formed its own government in 1948 after being liberated from 36 years of a Japanese colonial regime followed by the US military rule and The Korean War. In this regard, these data not only underline the urgency of fastening the spread of vocational education in India but also generates an acute curiosity to know more about the South Korean education system with special reference to TVET. The subsequent section presents an overview of South Korea throwing light on its education system with special regard to its TVET system.

Republic of Korea: An Overview

The Republic of Korea or South Korea constitutes the southern part of the Korean peninsula and

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shares a land border with North Korea. The country has a population of around 51.75 million which is almost 0.66% of the total world population. Almost half of the population of South Korea lives in Seoul which is the nation's capital and one of the largest metropolises in the world. The Korean Peninsula was ruled by the Goryeo dynasty (918–1392), the Joseon dynasty (1392–1897) and was further annexed in 1910 into the Empire of Japan whose rule ended following Japan's surrender in World War II. This led to the division of Korea into - the north occupied by the Soviet Union which became the Socialist Democratic People's Republic of Korea and the South occupied by the United States that later became the Republic of Korea in August 1948.

In 1950, the Korean War began with a North Korean invasion, where the North was supported by China while extensive American-led United Nations intervention was in support of the South. In 1953 after the war ended the country started rebuilding itself through its own efforts. In the late 1950s, the Korean government successfully universalized primary education and then shifted its investment focus to secondary education in the 1960s and 1970s and to higher education in the 1980s and 1990s. The universalization of primary education in the 1950s contributed to the supply of quality manual workers to the labour-intensive light manufacturing industry in the 1960s. Furthermore, the expansion of secondary education made it possible to supply skilled workers to heavy and chemical industries in the 1970s. As the academic education system alone was unable to supply the labour needed to implement the economic development plans, the government introduced a vocational training system in 1967 and a training levy system in 1976 which was replaced by an Employment Insurance System (EIS) in 1995 to meet the demand for lifelong learning. The two systems of education and vocational training have played a crucial role in Korea's skills development.

Education in South Korea is a source of pride for families and within society at large. It is regarded as a high priority and an important propeller of social mobility to improve one's socioeconomic position in society. Even though a resource-poor nation, South Korea's obsession with education not only makes it one of the top-performing OECD countries in sciences, reading literacy and mathematics but also one of the world's highest-educated labour forces among OECD countries. Higher education in South Korea is viewed as one of the fundamental cornerstones of life. Over 80 per cent of South Korean high school graduates go on to university. The nation's high university entrance rate has created a highly skilled workforce, making South Korea among the most highly educated countries in the world with one of the highest percentages of its citizens holding a tertiary education degree. South Korea's high academic performance was praised by the former U.S. President Barack Obama and also persuaded the British education ministers to remodel their own curriculums and examinations to inculcate high educational achievement and passion for excellence among learners.

The Republic of Korea widely credits the introduction of Technical and Vocational Education and Training (TVET) for constructively supporting the rapid economic growth of the nation in the last 40 years. To meet the rising labor demands during the 1960s and 1970s, TVET in South Korea was geared towards providing the initial training for large populations of learners**.** It was further upgraded in the 1980s to raise the skill levels of workers and in the 1990s, there was an expansion in the TVET institutions which together with the Employment Insurance Act, helped South Korea come out of the Asian financial crisis.

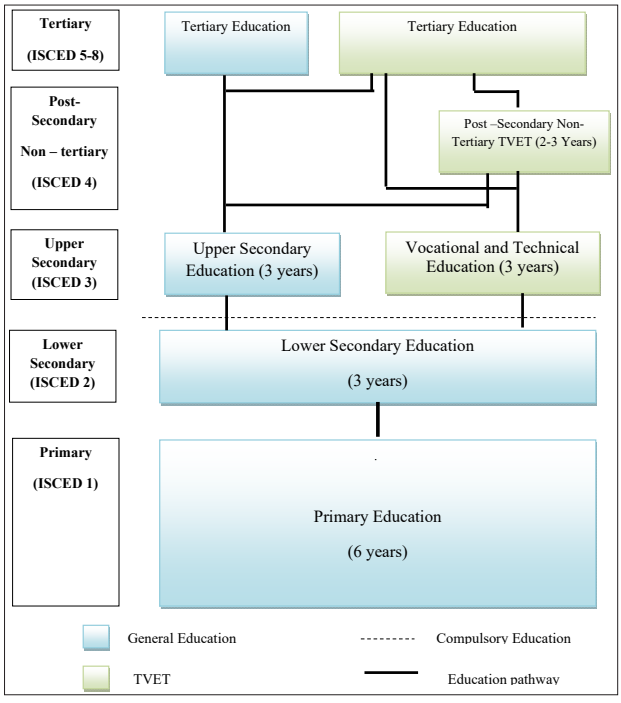
All these efforts and initiatives made the economy of the nation to soar high recording the fastest rise in average GDP per capita in the world between 1980 and 1990. The economy of the Republic of Korea ranks as the tenth largest by nominal GDP among 191countries for a third straight year in 2022 despite lacking natural resources. Along with having one of the largest foreign-exchange reserves in the world, South Korea is one of the largest exporting nations and has become one of the Four Asian Tigers, based on international trade and economic globalization. In addition to this the country is also considered among the most advanced democracies in Asia ranking 19th on the Human Development Index in the World (HDI 2021). Furthermore, the nation has the highest level of press freedom on the continent, world's fastest Internet connection speeds and the densest high-speed railway network.

TVET Provisions in South Korea

Type of TVET Institutions

As per the data compiled by the Korea Research Institute for Vocational Education and Training (KRIVET) mentioned in the report compiled by the UNESCO-UNEVOC International Centre for Technical and Vocational Education and Training on TVET country profiles Republic of Korea (2018) the TVET institutions present in South Korea includes 495 Specialized Vocational High Schools, 50 Meister High Schools and 137 Vocational Colleges under the Ministry of Education while around 34 Polytechnic Colleges, 8 HRD Centre, Korea Chamber of Commerce and Industry and 8 Vocational Training Centre, Korea Employment Agency for Disabled under the Ministry of Employment and labour. The Specialized Vocational High Schools, Meister High Schools, HRD Centre, Korea Chamber of Commerce and Industry and 8 Vocational Training Centre offer TVET provisions to the Upper secondary [International Standard Classification of Education (ISCED) -3] while the Vocational Colleges and the Polytechnic Colleges provide vocational provisions up to Associate Bachelors.

Fig-1: Flow Chart of TVET in the South Korean Education System



Source : Compiled by UNESCO-UNEVOC International Centre as cited in the report on TVET country profiles Republic of Korea (2018)

Formal TVET System

Table -1 gives an account of the formal TVET system in South Korea

Vocational and Technical Education is offered at the upper secondary level (ISCED 3)	
Duration	3 Years
Admission requirements:	Graduation from lower secondary school (middle school), or equivalent academic credentials
Taught in:	Specialized vocational high schools and Meister High Schools under the Ministry of Education
Graduates from vocational and technical education are able to go on to vocational colleges at the post-secondary non-tertiary levels (ISCED 4) and universities and polytechnic colleges (four-year programmes)	

Colleges and polytechnic colleges provide TVET at the post-secondary non-tertiary level (ISCED 4)	
Duration	2-3 Years
Admission requirements:	Graduation from upper secondary high school (vocational high school and general high school), or equivalent academic credentials
Taught in	Vocational colleges under the Ministry of Education, and Polytechnic Colleges under the Ministry of Employment and Labour
Graduates from post-secondary non-tertiary courses are able to go to universities at the tertiary level (ISCED 5),	

Universities and polytechnics provide TVET at the tertiary level (ISCED 5)	
Duration	Various (3 month to 1 year for non-degree courses, 2 years for industrial degree and associate degree courses)
Admission requirements:	Graduation from high school (vocational high school and general high school), or equivalent academic credentials.
Taught in:	Korea polytechnics, which confer industrial bachelor's degree, HRD Centres under Korea Chamber of Commerce, industry, and private vocational training institutes.

Source: As cited in the UNESCO report on TVET country profiles Republic of Korea (2018)

Non-formal and Informal TVET systems in South Korea

The non-formal TVET programmes are offered by the Ministry of Education and the Ministry of Employment and Labour. Some of the examples of these are mentioned below:

- The Re-employment Programme of non-profit Vocational Training Centres offered by the Ministry of Employment and Labour for the unemployed graduates who have some required certification according to the programme.
- On-the-job training and College Lifelong Education Programme offered by the Ministry of Employment and Labour for new and existing employees. This programme is being supported through the insurance fund.
- Work-based training system in the form of apprenticeships.
- The College Lifelong education Centre Programme is offered by the Ministry of Education for all citizens without any particular admission requirements.
- In addition to the above programmes a central agency for continuing education the Academic Credit Bank System, aims to foster lifelong learning and provide greater access to a variety of educational opportunities to all citizens.

Governance and Financing Involved in the TVET System in South Korea

The Republic of Korea makes a distinction between vocational education and vocational training covering the formal, informal and non-formal systems. Vocational education comes under the Ministry of Education and is taught in schools whereas vocational training is governed by the Ministry of Employment and Labour and is offered by public and private institutes through various programmes. The Korean Council for University College Education (KCCE) coordinates and manages vocational colleges and research. The Human Resource Development Services of Korea under the Ministry of Employment and Labour implements the policies on skill development while the research related to vocational education are undertaken by the Korea Labour Institute (KLI) and the Korea Research Institute for Vocational Education and Training (KRIVET).

South Korea also has a Technical Qualifications Framework that is divided in national and private qualifications. There are around 23,500 private qualifications registered, and 99 private qualifications officially recognized and accredited by the ministries as nationally recognized qualifications as of June 2017 [as per the report compiled by the UNESCO-UNEVOC International Centre for Technical and Vocational Education and Training on TVET country profiles Republic of Korea (2018)].

TVET Teachers and Trainers

TVET teachers in the Republic of Korea are classified as professional teachers, general teachers and on-site training teachers. TVET teachers teach in vocational high schools and vocational colleges and are required to have both industry and pedagogical knowledge. The TVET trainers are responsible for vocational training programmes and for providing career guidance in TVET institutes and industries. Vocational trainers are required to acquire a national technical qualification in their area of expertise along with some work experience and are trained at the Korea University of Technology and Education. The VET institutions approved by the Ministry of Employment and Labour provide in-service training courses to vocational teachers and trainers for contracted training.

Current Reforms on TVET

There have been various reforms on TVET in the Republic of Korea some of which are mentioned below:

- **National Competency Standards:** This ensures that the skills that are linked to the labour market needs are provided to learners through the TVET system.
- **College Lifelong Learning Programme:** This provides an opportunity of lifelong learning to adult learners along with the high school graduates.
- **Work First College Later Programme:** This programme meets the demand for high school-level workers and curbs the lower unemployment rate of college graduates.
- **Learning Voucher Programme:** This programme issues vouchers that cover the cost of training in order to assist unemployed people and workers in small businesses and promote skills training.

- **Employment Success Package:** This package supports low-income disadvantaged job seekers in accordance with their individual plans for employment.
- **Meister High School:** These are specialized vocational high schools that are designed in a way to respond to the demands of a particular industry sector. These schools enhance professional vocational education by operating curricula that are based on the demands of the industry using high-level technology.

Discussion

India since its ancient Vedic age has imparted an education that leads to the holistic development of an individual rendering him/her self-reliant. The 64 *kalas* or arts mentioned in Banabhatta's Kadambari were believed to be indispensable for both men and women for their overall development, to attain universal respect and high praise as well as to support themselves easily even in a distant foreign nation. The great educationist and scholar of India Rabindranath Tagore established the Ashram Vidyalaya or Patha Bhavana in 1901 with the very aim of providing an education to the learners that can make them self–reliant by exposing them to various scientific and vocational knowledge amidst their natural surroundings so that they can observe and learn the various needs of the society and contribute towards it. Mahatma Gandhi envisioned India of his dreams through *Nai Talim* and proposed the concept of work-centric education or *Nai Talim* at the all–India National Education Conference held in Wardha on 22–23 October 1937 which aimed to impart the entire education through some vocation. Both Gandhi and Tagore envisioned a self–reliant India by making its villages and the common people self-reliant through education. Yet it is sad that even after centuries we still haven't achieved our goals of vocational education in India. The recommendations made by the various education commissions and national policies of independent India though addressed the need for vocational education in the country failed to implement them properly.

The Sustainable Development Goal (SDG) 4 relates specifically to TVET as it targets a substantial increase in 'the number of youth and adults who have relevant skills, including technical and vocational skills, for decent jobs, employment and entrepreneurship. The NEP 2020 also urgently calls for re-imagining vocational education in India underlining the very low percentage of the Indian population being formally trained in vocational education. The paper presented a brief account of South Korea which through its well-formulated education system and a better-designed TVET system emerged as the leading OECD nation even with scarce resources. South Korea invests 5.3% of its GDP in education. Although the National Education Policies which were brought out from time to time, emphasized investing 6% of GDP in education, it has never touched this number yet. However, the Union Budget 2022 has increased from that of the previous year with new plans for education development, and the Indian government through the Ministry of Skill Development and Entrepreneurship (MSDE), National Skill Development Corporation (NSDC) and also the Ministry of Education (MoE) is engaging in TVET. In this regard, the TVET system of South Korea with well-designed TVET institutions, varied formal non-formal and informal TVET provisions, good governance and financing, well-structured pathways and qualification systems as well as the upgraded current reforms on TVET including the acceleration of technology innovation, provision of financial and administrative support to start-ups, and the promotion of small and medium-sized enterprise employee training by the government has boosted its national economy which stands exemplary for India and the entire world. South Korea's strong investment in education especially TVET, and its militant drive for success and excellence has transformed the war-torn resource-scarce nation into a prosperous first-world country over the past 60 years is indeed inspirational.

India with its high youth population of 66% in the working-age group of 15–59 (Sample Registration System Statistical Report 2018) acknowledges the urgency of quality TVET provisions, education, training, jobs, and entrepreneurship initiatives in the country for its rapid advancement. Thus, re-imagined TVET will be an instrument to develop the skills needed for employment, and entrepreneurship, promoting equitable, inclusive and sustainable economic growth in India. TVET will be a way to rejuvenate the spirit of self-reliance among Indians and therefore integrating Technical and Vocational

Education and Training in the formal education system of India becomes the utmost need of the era.

Implications of the Study

- In this 21st century world of Industry 4.0 where skills are the global currency, education along with inculcating values should also cater to the needs of the industry so that the gap between the output of the education system and the requirement of the industry can be minimized.
- Extensive research must be taken up to understand the grass root reality and challenges coming in the way of achieving TVET in India like the perception of students and society in considering vocational education inferior to mainstream education, lack of well-designed pathways to pursue a career in chosen vocation in higher education etc.
- Initiatives must be taken up for mainstreaming vocational education in India.
- Countries like South Korea with well-structured TVET systems can provide insights to develop India's own model for TVET customized as per the needs and requirements of the learners and the society.
- Re-imagined TVET will help young learners as well as adults by addressing their multiple demands be they social, economic or environmental through formal, non-formal, informal and lifelong learning opportunities.
- Re-imagined pedagogy, curriculum and framework in the direction of TVET can be a crucial step towards achieving the targets of Technical and Vocational Education and Training as well as the Sustainable Development Goals in India.

Conclusion

India is at an exciting stage today and is making considerable progress towards its goal of creating a skilled workforce. Over 20 ministries of the government are presently engaged in providing vocational training therefore if concrete initiatives can be taken up in the area of vocational education as well by re-imagining TVET with a well structured framework along with technology integration, it will surely ensure the rapid and effective economic development of India leading to its emergence as a superpower.

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Implementation of the STEAM Education through Blended Mode in Indian Subcontinent

Sujoy Kundu* and Mukesh Kumar**

In 21st century, blended mode of teaching & learning and STEAM education are popularized out of different innovative inventions in the world. These two innovative discoveries are very useful to bring drastic changes in education system of nation. The world is progressing wonderfully due to huge changes in all disciplines of knowledge sphere. Even, India is seventh largest country which is recognized as a subcontinent with respect to the distinct geographical, political and cultural identity (Blog.forumlas.com, 2022). Also, all features or identity of a continent are observed in Indian subcontinent. In ancient India, the rich heritage, eternal Indian knowledge and thought were nurtured in the world- class multidisciplinary institutions like Takshashila, Nalanda, Vikramshila & Vallabhi to achieve the highest standards of human goal, multidisciplinary teaching and research (National Education Policy, 2020). In contemporary time, National Education Policy 2020 recommended to transform the existing higher education institutions into large multidisciplinary universities, colleges & higher education institution clusters or knowledge hubs by removing the fragmentation of higher education to come back the ancient rich heritage & culture in Indian education system (NEP, 2020). Presently the Indian education system is progressing as well as controlling through the Ministry of Education with two hands coordinating the department of school education & literacy and the department of higher education. Also, various bodies lie to run the Indian education system properly and systematic way like *Central Advisory Board of Education, union & state governments, education related ministries, state department of education, the regulatory bodies of school education & higher education, National Council of Educational Research and Training, State Council of Educational Research and Training* (NEP, 2020). In Indian subcontinent, the Science, Technology, Engineering, Arts and Mathematics (STEAM) Education are not unknown concept that was existed in ancient Indian multidisciplinary institutions like Takshashila and Nalanda in the form knowledge of 64 Kalaas and this components of STEAM Education also have been studying unconsciously primary education to junior secondary education (NEP, 2020). So, STEAM Education is invented as a new form and it is popularized in many western countries. Thus, this education is adopted to implement for progressing, developing the nation in 21st century.so, the researchers explored the roles of blended mode to implement the STEAM education in Indian subcontinent.

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Rational of the Study

India is a sovereign, socialist, secular, democratic, & republic country which maintains justice, liberty, equality & fraternity for securing, progressing and developing among Indian citizens (Vasishta, 2021). The STEAM Education can be implemented in large Indian subcontinent through blended mode. So, the researchers explored how do the STEAM Education implement through blended mode in Indian education system?

Objective of the Study

To explore the roles of blended mode to implement the STEAM education.

Research Question

What are the roles of blended mode to implement the STEAM education?

Methodology of the Study

The researchers wrote a review paper using different research papers, reports and web contents and the content analysis method is followed.

Discussion of the Study

Blended Mode

Blended mode is preferably used in teaching and learning process as instructional medium. Blended mode of teaching and learning is combining or mixing or integrating the traditional or conventional or face to face mode and web based or online mode. Also, blended mode is integrating between synchronous

mode and asynchronous mode in teaching, learning and evaluation processes. Also, blended mode is used in this study as the form of combination or integration for implementing the STEAM Education (Martha & Dan, 2018).

Changeable concept of STEM Education

In 21st century, different nations are trying to implement STEM or STEAM education for their improvement in science, technology, engineering, arts and mathematics fields. The concept of STEM is changed time to time for better improvement of knowledge sphere.

- **STEM Education:** It refers to the field of science, technology, engineering and mathematics for teaching & learning from pre-school to post-doctorate level (Gonzalez & Keienzi, 2012). A key turning point is observed for STEM Education policy in the united states with the launch of the Soviet Union's Sputnik Satellite in the 1957 (Gonzalez & Keienzi, 2012). So, STEM education is adopted in the education system because it has positive & very big implications like improving life skills & 21st century skills, career development, enhancing academic achievement etc. (Razi & Zhou, 2022).
- **iSTEM Education:** A new framework of Integrated Science, Technology, Engineering and Mathematics education is developed in 2007 that which intentionally integrates concept & practices of science and mathematics education with concept & practices of technology and engineering education based on learning approach ((Razi & Zhou, 2022).
- **STEAM Education:** It is an extension form of STEM that integrates Science, Technology, Engineering, Arts and Mathematics as interdisciplinary field for the resolution of the daily life problems of students (David & Jairo, 2021).

Blended Teaching & Learning in light of NEP 2020

In early childhood care and education, teachers and workers will be trained through digital /distance mode using DTH channels & smartphones. Also, at least one-month contract classes will be provided for their continuous assessment. This initiative indicates the blended mode of teaching & learning to train them. Multidisciplinary higher education institutions will be given the accreditation for offering high-quality B.Ed. programmes in blended or open distance learning mode to students of remote or difficulty assessing locations for enhancing the quality of in-service teachers. Top higher education institutions also will be identified to run open distance learning and online programmes for improving the accessibility, Gross Enrollment Ratio, and providing the opportunities of lifelong learning. So, these initiations will prefer the blended mode to run those programmes with traditional teaching in undergraduate and vocational programmes (NEP, 2020).

STEM Education in light of NEP 2020: STEM education is a new innovative form that is popularized in western countries. But actually, this education was existed in ancient Indian multidisciplinary institutions like Takshashila and Nalanda in the form knowledge of 64 Kalaas. Banabhatta described 64 kalaas in the Kadambari book in respect scientific fields, vocational fields, professional fields and soft skills; those fields reflected as science, technology, engineering, arts, and mathematics. Also, this policy focused to integrate the humanities and arts with science, technology, engineering and mathematics (STEM) in undergraduate education (NEP,2020).

The Roles of Blended Mode for Successful and Enhancing the STEAM Education:

- **Blending the Objectives Domain of Learning:** Education as well as learning focus on balance development of personality with respect conative, cognitive and affective domains that reflected holistic development of students. Thus, curriculum maker will give the priority to construct the curriculum of STEAM Education that proper blending must be done among the conative, cognitive and affective domains.
- **Blending Online Education and Conventional Education:** *Online or digital education cannot replace classroom learning* (the department of school education & literacy, Ministry of Human Resource Development, Government of India). It is flexible and personalized learning of learners with their own speed, own time, own pace, and own location through using some technologies (Moore et al, 2010 & the department of school education & literacy, Ministry of Human Resource Development, Government of India). This online education is maintained and accessed through two modes like Synchronous mode e.g. it is real time

teaching and learning where learners & teachers engaged same time through video conference & audio conference and Asynchronous mode e.g. it is self-paced teaching & learning where learners and teachers engaged their own time, own place to upload learning resources by the teachers and to use prerecorded learning materials by the learners (The department of school education & literacy, Ministry of Human Resource Development, Government of India). Conventional education is a face to face teaching learning process where teachers and learners engaged physically in a natural environment as well as artificial environment of education institution with equipped basic requirement chalk, duster, blackboard, and furniture.

- **Blending the Digital Content and Printed content**: STEAM Education can be implemented through blending the digital content as well as printed content as a study material because these contents are the ways of achieving the STEAM Education.
- **Blending the Medium of Instruction:** India is diversity, multicultural, multilanguage and democratic country; wherein the teacher will blend sufficiently the medium of instruction to teach STEAM Education in inclusive as well as multilanguage classroom.
- **Blending the Virtual labs and Physical Labs:** The students and teacher can acquire the practical and hands on experience in labs. But sufficient resources are not available in traditional/ Physical labs. Thus, students and teachers can learn the practical experience appropriately through blending the virtual labs and Physical labs.
- **Blending the Online Assessment and Offline Assessment**: During pandemic situation, our education system is temporarily closed and further time teaching & learning processes have been conducted through online mode. So, students' performances and achievement are assessed through online mode. Thus, teacher will take to access the performances and achievement in STEAM education the blended mode assessment.
- **Blending the Digital Infrastructure and Physical Infrastructure:** Digital infrastructure is web-based initiator as the delivery of educational content like with using digital technologies like wi-fi, high speed internet, data center, smart classroom, ICT laboratories, auditorium, learning management system etc. But physical infrastructure wherein, teaching and learning activities are accomplished face to face mode in natural as well as artificial environment. So, STEAM Education can be success through blending the digital infrastructure and Physical infrastructure.
- **Blending Digital Libraries and Physical Libraries:** Digital library is recognized as different names like online library, internet library, digital repository, digital collection or eLibrary. It is accessible through internet & online database of digital objects which includes text, image, audio, video, digital documents (Wikipedia). The ministry of education, Government of India has sponsored & mentored to establish National Digital Library of India (NDLI) through National Mission on Education through Information and Communication Technology (NMEICT) for providing user group specific services like examination preparatory of school & college students, job aspirants, researchers and general learners with ten mostly useable Indian languages. It is developed, operated and maintained by Indian Institute of Technology, Kharagpur for facilitating all types of learners. Also, physical libraries preserve different documents in print form like books, journals, newspaper, periodicals, encyclopedias for easily accessing of learners.
- **Blending e-learning Platforms and Traditional institution:** There are various e-learning platforms which are developed, designed and implemented to progress the Indian education system. These e-learning platforms are maintained by the Government initiatives as well as private initiatives. Different Government e-learning platforms like Swayam, Swayam Prabha, Diksha etc. are running under PM e-VIDYA; which is a comprehensive initiative that creates one nation one digital platform.so, blended is needed between e-learning platforms and Traditional institution for implementation STEAM Education

Analysis and Interpretation of the Study

In 21st century, different nations are trying to implement STEM or STEAM education for their improvement in science, technology, engineering, arts and mathematics fields. The concept of STEM is changed time to time for better improvement of knowledge sphere from STEM to iSTEM and STEAM which is an extension form of STEM that

integrates Science, Technology, Engineering, Arts and Mathematics as interdisciplinary field (Aguilera & Revilla, 2021). Blended mode of teaching and learning is combining or integrating both modes like face to face mode and online mode. Also, blended mode is integrating between synchronous mode and asynchronous mode in teaching, learning and evaluation processes (Martha & Dan, 2018). So, blended mode is used in this study as the form of combination or integration for implementing the STEAM Education. The researchers used the blended mode in different perspectives to implement the STEAM Education. These perspectives are very relevant & important for implementing the STEAM Education through blended mode. The curriculum of STEAM Education will be constructed to blend the objectives domains of learning properly for holistic development of learners. Even, we can implement the STEAM Education through proper blending of online education & conventional education. Also, blending must be done in respect of digital content & printed content, the medium of instruction, the virtual labs & physical labs. Moreover, we may blend the digital infrastructure & physical infrastructure, digital libraries & physical libraries and e-learning platforms & traditional institution.

Conclusion

In 21st century, two innovative initiatives like blended mode of teaching & learning and STEAM Education are popularized in all over Nation. If any Nation can used both initiatives properly in education system; then that nation will be progressed, developed in global context. So, the researchers explored the roles of blended mode to implement the STEAM Education in education system of Indian subcontinent through content analysis of different documents. STEAM Education is an extension form of STEM that integrates Science, Technology, Engineering, Arts and Mathematics as interdisciplinary field. Also, blended mode not only integrate the synchronous mode and asynchronous mode rather it combines face to face mode and online mode in teaching, learning and evaluation processes. So, blended mode is used in this study as the form of combination or integration for implementing the STEAM Education. Thus, STEAM Education can be implemented in Indian subcontinent with blending different perspectives or dimensions like the curriculum of STEAM Education will be constructed to blend the objectives domains of learning properly for holistic development of learners. Even, we can implement the STEAM Education through proper blending of online education & conventional education. Also, blending must be done in respect of digital content & printed content, the medium of instruction, the virtual labs & physical labs. Moreover, we may blend the digital infrastructure & physical infrastructure, digital libraries & physical libraries and e-learning platforms & traditional institution.

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Internationalisation of Higher Education and Global Rankings

Ankita Masih* and Vidyapati**

Internationalisation of Higher Education is the primary focus of all nations in this globalized era to improve the standards of educational institutions as well as to produce skilled and knowledgeable workforce for an economy based global market. Globalization opened several opportunities for India to engage with knowledge based economy . In order to build capacity, quality standards, relationship and creating human resource capital through international links, we must improve the quality of education we provide.

What is Internationalisation?

Internationalisation is the process of designing or modifying products to meet the needs of consumers in many countries or designing/making them in such a way that they can be easily modified, to fulfil the requirements. Internationalisation is a broad term. It might mean designing a website or a web page in such a way that when it is translated from English to any other language, the aesthetic layout still works properly ensuring meaningful translations. This could be difficult to achieve as many words in Spanish/ French/ Mandarin have more characters than their English counterparts and while translating, it may change the complete sense.

Internationalisation of Education

Internationalisation of higher education demands multilevel complex initiatives from individuals, institutions, local bodies, state and centre. As education has always been an important state subject, it requires multilevel interventions from individuals, educational institutions, corporations, and the state in order to overcome multiple challenges and internationalize the same by integrating inter-cultural and multi-cultural dimensions into roadblocks towards Internationalisation of education. A comprehensive policy, strategic planning, strict innovative regulatory framework to balance the public - private partnership along with independent monitory body and standardized practices are the pre-requisites for India to become a hub in emerging higher education based globalized economy.

Internationalisation has become a hot topic at policy level by authorities (Ministry and Government) and higher education institutions globally. The interpretations of Internationalisation are often largely associated with competition, markets and economy in the current scenario, but it is shifting from only human resource to joint research activities as well. Globally, higher education institutions are searching for ways to develop how to teach learning, research and student services. India is a no exception; it is also trying to follow the same path. There are some initiatives taken by the Indian government to promote Internationalisation of Education. Some are: General Cultural Scholarship Scheme (GCSC); the Global Initiative for Academic Networks (GIAN); and the Connect to India programme. Additionally, some leading Indian higher education institutions engage in student exchange programmes and academic collaborations with a number of foreign countries throughout the world through various programmes such as UK-India Education and Research Initiative (UKIERI) initiative, the Generation UK India initiative, the Indo-US 21st Century Knowledge Initiative and the Fulbright-Nehru programme. “Study in India Programme”. Fellowships and institutional collaborations are designed to promote India as a destination for study (education hub). These initiatives suggest that the Internationalisation of higher education has found a place in Indian higher education system. Still, India’s policies on Internationalisation of higher education have had limited or nil impact on the development. We need to take some strict actions to overcome the barriers.

Traditional vs. Emerging Pathways of Internationalisation

The mobility of learners, professors, and research scholars is the most important and readily visible element of Internationalisation of higher education in any country. From ages Indian scholars have gone abroad to attain higher education and many great scholars from all over the world have been attracted to Indian

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universities even during ancient times like Takshsila, Vikramshila, Vallabhi, and Nalanda. These universities can rightly be called as 'pioneer universities' as they introduced Indian culture, education and knowledge to the outside world. We earned a special respect globally in the past.

In past three decades, the number of learners enrolled in institutions outside their country of citizenship or birth has risen positively, from 0.8 million worldwide in 1975 to an approximate 5 million in 2016—a more than five times increase. Moreover, it is believed and expected that this number will grow to 7.2 million by 2025 with the probability that 400,000 Indian students will enrol in foreign institutions by 2024 compared to 255,030 in 2016. The growing numbers of mobile Indian students seem to indicate that India is becoming a leading actor in the international student market. It is now the second largest country sending students outside country after China. In contrast to the increase of outbound students, the numbers of international students (inbound) in India is discouraging sharply—in 2014 the number of international students in India was only 30,423.

Not only students are on the move, institutions are too. In present time, new term- 'transnationalism' is emerging as a pathway to Internationalisation. Academic institutions from one country operates in another; academic programs are offered in collaboration by universities from different countries. Higher education is increasingly made available to the masses through online education or open education. As per recent study in 2010 there are only a limited number of international collaborations—631 foreign institutions had activities in India of which 440 did so from their home campuses; 186 had twinning or some other arrangements with the involvement of local institutions. The programs offered by international collaborators in India are in the professional areas like management and engineering predominantly.

One of the primary strategy of Internationalisation is setting up of overseas campuses. A total of approximately 313 institutions have branch campuses across the world. According to Bert (2017), seven Indian institutions have campuses overseas—five in the UAE as well as programs in Mauritius and Nepal. Popular destinations for Indian branch campuses are often countries with a strong Indian Diaspora, particularly countries in the Gulf region, the Caribbean, Mauritius, Fiji, Nepal and Southeast Asia. Some private institutions like Birla Institute of Technology, Symbiosis International University and Manipal University promotes programmes like twinning programs, study abroad programs, dual degree programs and branch campuses in other countries.

Many countries and academic institutions have developed strategies for Internationalisation of higher education. India is a developing country and hence been slow in identifying and responding to the necessity of Internationalisation despite the tremendous benefits that could occur due to limited availability and accessibility of resources. The data provided above highlights that India has experienced a rapid growth in student outflow, but it has not been able to attract a comparable volume of incoming international students. The volume of student inflow is not equivalent with developed neighbour- China. As a result, India is losing charm and glory as well as advantages such as generation of revenue (economic growth) and also diversity, develop, digitalize and modernize the country's campuses with a globalized ambience. In research and post graduate courses along with other academic collaborations, India has a great deal yet to accomplish many tasks.

Quality Issues and Challenges Related to Internationalisation

It is forecasted that by the year of 2025 the demand for international education will grow and rise upto 7.2 million students- a huge leap from 1.2 million students in 2000. Most of all of this demand will be met by mobility of the students resulting in growth of the number of new providers who are striving to deliver programs to students in their home countries. It is accelerating at an unprecedented rate. It is no longer just students, faculty, and researchers who are internationally mobile but also academic programs are being delivered across borders and branch campuses are being established in developing and developed countries around the world.

The new developments are intended to increase access of all the students to higher education and meet the appetite for foreign credentials, degree, career options and employment. There are some serious issues related to the quality of the academic courses offered, the integrity of the new types of providers (institutions) and the recognition of credentials. It is observed that there is an increase in the number of foreign degree selling factories ('parchment' only degrees) and accreditation mills (selling bogus accreditations for programs or institutions), and

rogue for-profit providers (not recognized by national authorities) are realities that are often left unquestioned. These results in problems faced by students, parents, employers, and the academic community in the long run. Nobody would have guessed two decades ago that international education would be struggling to deal with fake degrees and accreditations; academic credentials that are earned but not recognized; and non-regulated 'fly by night' institutions. Having said that, we must not forget to acknowledge the innovative developments by bona fide and genuine new providers and universities who are striving and working hard in delivering high quality programs and legitimate and meaningful degrees through new types of arrangements and partnerships (franchise, twinning, branch campus). The perpetual issue of balancing cost, quality and access significantly challenges the benefits and risks of cross-border education.

Academic Mobility

Today, expansion of academic mobility schemes is a hallmark of Internationalisation. Two and a half decade ago, nobody would have anticipated that international academic mobility for students, research scholars and academicians have the capacity to grow and develop into a highly competitive multi-million-dollar international recruitment business and help in economic growth of the country. Most of the developed nations and several developing countries are investing in higher education sector and major marketing campaigns to attract the best and brightest talent to study in their institutions and work in their countries in order to supply the 'brain power' for innovation and research agendas. Internationalisation of higher education has also helped in keeping a check on 'brain drain' in developing countries where bright students tend to go abroad usually to western nations for higher studies and better future prospects. Neither the complexities, disadvantages and challenges related to academic and professional mobility should not be underestimated nor the potential benefits should be ignored. The original goal of helping students of developing countries is to complete a degree in another country and then return home to contribute to economic development of their nation is fading fast as nations compete in the 21st century brain race and people are going crazy for materialistic things.

To improve the opportunities for employment of students, we require joint programs which are intended to provide a rich international and comparative academic experience. But, with all new ideas, some points needs attention. For example, in many cases, double degrees can be merely double counting of one set of course credits. Situations might exist or arise where two/three credentials (one from each participating institution) are conferred for little more than the work load required for one degree. While it may seem alluring for students (and potential employees) to have two degrees from institutions in two different countries, the situation may be seen as academic fraud if requirements for two full degree courses are not completed or differentiated learning results are not achieved.

Massive Open Online Courses

It is quite evident that Massive Open Online Courses (MOOCs) have a positive impact on Internationalisation of higher education. MOOCs play a powerful role in widening the access to non-formal learning opportunities which is still an underdeveloped area of international higher education and requires special attention. Now, the question arises, how long it will take before the majority of MOOCs will be able to offer formal credentials accredited by the providing institution or a third party. Further, it is apparent that it is still difficult to provide platforms for students to customize their own menu of programs by combining courses offered by local, regional and international public and private providers according to their individual needs through face to face, distance or a combination of the two.

Universities Rankings

These days ranking system has become very popular. We tend to rank everything right from educational institutions to railway stations and airports. Hence, international and regional rankings of universities/institutions have also become extremely popular and complicated in the last five years. There is a heated debate about their validity, reliability, authenticity, credentials and value continues. But at the same time, it can be stated that a measurable result of Internationalisation is the achievement of a specific position in one or more of the global ranking tables and leagues. But it is not hundred percent true that the purpose of a university's Internationalisation efforts is merely to improve global brand or standing. This often confuses an international marketing campaign with an Internationalisation plan. The former is simply a promotion and branding exercise; the latter is an intense strategy to integrate an international, multicultural and global dimension into the goals and teaching-learning, research and service functions of a university.

Conclusion

It is high time for India to understand need and advantages of Internationalisation of higher education and capitalize on its strengths. As mentioned earlier, India had a good reputation as a provider of quality higher education in ancient time. Now it is time to regain the reputation and dominate once again. In context of South East Asia, India has a well-established education system in comparison to other nations which have small higher education sector. Moreover, the higher education experience in India seem to be often more affordable when compared to other developed nations.

India must develop special 'education zones' in different regions along with the conditions important to make these regions/ locations appropriate to attract internationally mobile students. Strategies for improving quality of existing higher education institutions, curriculum, teaching learning environment, availability of resources will help India not only attract international students, but also check the outflow of Indian students and eventually brain drain. Currently, international collaborations for faculty exchange, curriculum development, student exchange, joint research, training, internship etc, are a result of initiatives taken by individual institutions, rather than public policy. Public policies must be developed to look after the above mentioned issues. These initiatives are mostly concentrated in the private sector of education system in India. Internationalisation is also concentrated in specific cities and regions like metropolitan cities, but India needs to develop measures to develop national approach to reap the academic as well as economic benefits that results through focused, well drafted policy that would eventually expand the horizons of opportunities for international collaboration in both the state and private sectors.

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International Students in Canada: Patterns, Trends and Economic Contribution

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The knowledge-based economy of the 21st century has fostered the growth of globalized academic institutions. Consequently, the process of international student mobility has become more profound and inevitable. The last two decades witnessed a substantial rise in international student mobility with most of the students migrating from developing to developed nations. With this, many advanced nations have acquired the unique status of the reservoir of highly skilled personnel. Students' mobility patterns show that a major chunk of enrolments is concentrated in countries such as Japan, Australia, Canada, and Britain. Besides, the various student exchange programs like SOCRATES, ERASMUS, and others of the European Union have ominously contributed significantly to student mobility among the students. The globalization of economic activities, rise in tradable services, and the emergence of high-tech skill-oriented commercial and financial platforms have caused a real surge in academic migration. Cross-border deepening and widening of the movement of skilled persons, which was earlier viewed as a unidirectional phenomenon of brain drain, has now acquired new meaning and purpose and thereby has been perceived as 'brain gain' and 'brain circulation'. Out-migration has now increasingly been viewed as an opportunity rather than a colossal threat. The new realities signify that the borders have gone beyond control and the ability to curtail out-migration of students has been reduced significantly. The emergent global education market has enhanced developed nations' appetite for international students manifold.

Canada, with its liberal immigration policies and dynamic education market, has been attracting a large number of international students from all over the world. In the situation of an ageing population, where a growing number of people are withdrawing from the labour market, the developed nations are under immense pressure to keep their immigration rates at higher levels. Further, globalized education institutions have started impacting immigration policies. The advanced nations have been facing a unique opportunity wherein the legions of the older populations are now being superseded by a more educated and younger population entering their labour market (Barakat and Durham 2014; Meyer et al. 1977; and Wilis and Goujon 1998). The Canadian Education Strategy (2019- 24) particularly aims to attract foreign students from all over the world into diverse courses and to strengthen and promote return migration for its own students. The approach is based on strategic objectives such as the diversification of the Canadian Education Sector, boosting the education capacity and disseminating global ties for cultivating a vibrant Canadian economy.

Extent and Pattern

Canada's Education market for international students witnessed noticeable expansion. The information pertaining to international students has been generated by the Government of Canada's Ottawa based federal department namely Immigration, Refugee and Citizenship Canada (IRCC). For this purpose, it defines foreign students as those 'temporary residents who entered Canada mainly to study and have been issued a study permit (with or without other types of permits). A study permit is an official document issued by an officer that allows someone who is not a Canadian citizen or a permanent resident to study in Canada'. The number of study-permit holders has been used as a proxy for assessing the number of international students. As per Table 1, the overall number of study-permit holders rose from 62, 875 in 2015 to 1, 77,755 in 2018; thereby registering 182 percent growth. The data further reveals that out of the ten provinces, only two provinces namely Ontario (67 per cent) and British Columbia (21 per cent) prove to be the primary choice of study destination within the country.

Canada witnessed a significant shift in the inter-regional inflow of international students over the period from 2002 to 2019 (Table 2). It has received the highest number of students from two

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regions, viz. South Asia (32.04 per cent) and East Asia (35.16 per cent) during 2017-19 (TA). The proportionate share of South Asia increased from just 10,408 students (6.62 per cent) to 1,44,298 students (32.04 per cent) over the period from 2002-04 (TA) to 2017-19 (TA). Importantly, the proportionate share of East Asia declined from 49.87 percent to 35.16 percent during the respective periods. Further, the proportionate shares of the USA and Europe too declined to 2.59 and 8.63 per cent respectively. Canadian education market for international students (Table 3) got centred around South Asia as it grew by 19.41 per cent per annum. Further, out of 1,44,298 students from South Asia, the share of Indian students was equivalent to 93.07 per cent, followed by Bangladesh and Pakistan. Furthermore, as reported in Table 4, during 2018, amongst the top 10 foreign student source countries in Canada, India's share was the highest (30.23 percent), and importantly it was higher than that of China (24.99 percent) also. The movement of students to Canada has been found to be closely related to the level of development and stage of demographic transition (Table 5). The perusal of data shows that the countries which fall in the region of Early Demographic Dividend such as India had experienced a steady rise in their share of international students in Canada. For example, the share of students from this region has increased from 16.62 percent to 40.66 percent from 2002-04 (TA) to 2017-19 (TA) with a growth rate of 14.19 percent per annum. Similarly, another region namely Late Demographic-Dividend too witnessed a rising share of their students 37.05 per cent during 2017-19 (TA).

Economic Impact

Academic migration, apart from making direct monetary benefits to educational institutions, results in innumerable benefits to the economy and thereby to the government of the host country. The rise in affordability, which emerged from the active participation of financial institutions, immigration agencies, and education consultants, has made the student migration sector highly selective and choice driven also. In recent years, it has been noticed that both the traditional (UK, USA, Australia) and the newly emerging competitors (China and Malaysia) are investing more in their higher education sector in order to market their educational offerings globally and thus, exerting a strong pull on the top talent. International students are being increasingly viewed as strong candidates for improving the economic, financial and social health of the Canadian economy which has been facing current and future shortage in terms of human resources and skills. The Canadian government has been introducing measures since the beginning of 21st century to help such students by providing better work opportunities, acquiring skills and experience not only during the study duration but also after completion of the study program so as to smoothen their transition in becoming permanent residents. International students are on average younger and have a considerable number of years to make a significant contribution to the labour market of the host nation as compared to late-age migrants.

Income and Employment Impact

International students' contribution to the various dimensions of the Canadian economy has been estimated to be decisive. Table 6 shows

Table 1: Province Wise Number of Study-Permit Holders in Canada: 2015-2018

Province	2015	2016	2017	2018
Newfoundland and Labrador	215(3.42)	270(0.29)	320(0.22)	345(0.19)
Prince Edward Islands	35(0.05)	45(0.05)	95(0.07)	110(0.06)
Nova Scotia	720(1.15)	880(0.95)	1495(1.02)	2260(1.27)
Quebec	2850(4.53)	3450(3.74)	4405(3.01)	5980(3.36)
Ontario	41995(66.80)	63260(68.60)	100655(68.90)	119495(67.20)
Manitoba	1245(2.0)	1925(2.10)	3155(2.20)	3935(2.20)
Saskatchewan	740(1.17)	1020(1.10)	1465(1.00)	2000(1.10)
Alberta	3035(4.80)	3370(3.70)	4825(3.30)	6240(3.50)
British Columbia	12040(19.10)	18015(19.50)	29690(20.30)	37390(21.00)
Total	62,875 (100.00)	92,235 (100.00)	146,105 (100.00)	177,755(100.00)

Source: Immigration, Refugee and Citizenship Canada, Government of Canada, Ottawa.

Table 2: Region Wise Number of Study-Permit Holders in Canada: 2002-2019

Region	2002-04 (TA)	2005-07 (TA)	2008-10 (TA)	2011-13 (TA)	2014-16 (TA)	2017-19 (TA)	Growth Rate 2002 to 2019
1.United States of America	12692 (8.07)	12922 (7.70)	12088 (6.10)	12142 (4.55)	12377 (3.49)	11683 (2.59)	-0.92
2.Latin America and Caribbean	12087 (7.69)	12003 (7.15)	14960 (7.55)	19695 (7.38)	25730 (7.25)	34002 (7.55)	-10.27
3.Europe	22292 (14.17)	22277 (13.27)	25320 (12.78)	31052 (11.64)	39362 (11.09)	38883 (8.63)	4.36
4.Middle East and North Africa	10260 (6.52)	12222 (7.28)	21977 (11.09)	30123 (11.29)	30395 (8.56)	30802 (6.84)	8.32
5.Africa	10110 (6.43)	9592 (5.71)	12632 (6.37)	17517 (6.57)	26733 (7.53)	28680 (6.37)	8.31
6.South Asia	10408 (6.62)	11795 (7.03)	18287 (9.23)	38053 (14.26)	62350 (17.56)	144298 (32.04)	19.41
7.East Asia	78425 (49.87)	85780 (51.10)	90755 (45.79)	114528 (42.92)	153732 (43.30)	158330 (35.16)	5.15
8.Eastern Europe and Central Asia	992 (0.63)	1285 (0.77)	2168 (1.09)	3713 (1.39)	4323 (1.22)	3687 (0.82)	10.5
Total	157265 (100.00)	167875 (100.00)	198187 (100.00)	266823 (100.00)	355002 (100.00)	450365 (100.00)	7.5

Source: Immigration, Refugee and Citizenship Canada, Government of Canada, Ottawa.

Table 3: Number of Study-Permit Holders from the South-Asian Region: 2002-2019

Country	2002-04 (TA)	2005-07 (TA)	2008-10 (TA)	2011-13 (TA)	2014-16 (TA)	2017-19 (TA)
Afghanistan	82 (0.79)	38(0.32)	100(0.55)	140(0.37)	123(0.20)	103(0.07)
Bangladesh	1523(14.63)	1638(13.89)	1688(9.23)	2117(5.56)	2772(4.45)	5005(3.47)
Bhutan	65(0.62)	60(0.51)	43(0.24)	40(0.11)	25(0.04)	65(0.05)
India	5812(55.84)	7507(63.65)	13393(73.24)	31372(82.44)	54495(87.40)	134297(93.07)
Maldives	17(0.16)	20(0.17)	7(0.04)	2(0.01)	8(0.01)	8(0.01)
Nepal	120(1.15)	148(1.25)	208(1.14)	245(0.64)	288(0.46)	617(0.43)
Pakistan	1905(18.30)	1845(15.64)	2307(12.62)	3587(9.43)	4067(6.52)	3325(2.30)
Sri Lanka	885(8.50)	538(4.56)	540(2.95)	552(1.45)	572(0.92)	878(0.61)
Total	10408	11795	18287	38053	62350	144298

Source: Immigration, Refugee and Citizenship Canada, Government of Canada, Ottawa.

Table 4: Number of Long-Term International Students in Canada, by Top 10 Source Countries, 2018

Country	Number	Per Cent	Country	Number	Per Cent
1.India	171730	30.23	7.Brazil	13770	2.42
2.China	141995	24.99	8.Nigeria	11190	1.97
3.Korea	24070	4.24	9.Iran	10535	1.85
4.France	22540	3.97	10.Japan	8335	1.47
5.Vietnam	20185	3.55	Total (1-10)	438790	77.23
6.USA	14440	2.54	All Countries	568130	100.00

Note: Long-Term here means those students who pursue study for periods more than six months.

Source: Canmac Economics Limited (2020), Table 3.2

the international students' contribution to the Canadian economy in terms of addition to GDP and employment. In 2018, the various types of spending by international students, their visiting families, and friends translated into a $ 19.7 billion contribution to Canada's GDP, and it further supported 2,18,577 jobs. The contribution by international students to GDP increased during 2018 over 2017 by 22.14 percent to GDP and 21.40 percent to employment. Further, out of overall additional GDP contribution, two provinces Ontario and British Columbia have gained a maximum equivalent of $ 1.08 billion (54.96 percent) and $ 0.39 billion (20.20 percent).

Taxes and Revenue Impact

Spending by international students benefits the host country in the form of realization of various types of taxes. As per Table 7, the total tax revenue collected from international students was equivalent to $3.78 Billion in 2018; which consists of $ 1.65 billion (43.77 percent) as indirect taxes and $ 2.12 billion (60.88 percent) as personal income tax. Among all provinces and territories, the maximum benefits accrued to Ontario are $ 2.10 billion (55.76 percent), British Columbia $ 0.64 billion (17.07 percent), and Quebec $ 0.51Billion (13.71 percent).

Fees and Spending

Importantly, the spending by international students has emerged as a key financial metric for the Canadian economy (Table 8). Their overall spending increased steadily from $12.6 billion to $ 22.23 billion over the period from 2015 to 2018. The increase in absolute amount was $ 3.9 billion during 2018 over 2017 with yearly addition of 17.49 percent. The share of spending by international students in overall service exports of Canada nearly doubled from 12.50 percent to 24.50 percent during the period of four years from 2015 to 2018.

The international students have made their place as key revenue generators for educational institutions in Canada. This comes clearly from the comparison of the tuition fee borne by Canadian students and that of foreign-born students (Table 9). It can be noticed that international students pay a much higher level of fees as compared to their Canadian counterparts for the same course. For example, during 2021-22, for an undergraduate course, the level of fees for an international student was $ 33,623 as compared to $ 6,693 for the Canadian student, which means 402.36 percent higher. Similarly, for graduate courses, it was higher by 169.27 percent with corresponding levels of $ 20120 and 7472 $. Among all provinces, the difference was found to be highest in case of Quebec for both graduate and post-graduate courses.

Summing Up

From the above, it clearly emerged that the international education market has come of age. It has acquired its own distinct identity, growth drivers, and financial metrics in the realm of the international movement of services. Apart from other factors, it became possible with the emergence of the General Agreement on Trade in Services (GATS) framework of WTO. Out of GATS[2] specified four modes, it has been happening under the second mode of 'Consumption Abroad' where students from one country move as consumers of educational

Table 5: Total Number of Study-Permit Holders Based on Demographic Dividend[1]

Region	2002-04 (TA)	2005-07 (TA)	2008-10 (TA)	2011-13 (TA)	2014-16 (TA)	2017-19 (TA)	Growth Rate
Early-Demographic Dividend	78350 (16.62)	89610 (17.76)	139390 (23.31	231105 (28.58)	310420 (28.85)	568445 (40.66)	14.19
Late-Demographic Dividend	157430 (33.40)	168240 (33.35)	212415 (35.53)	324710 (40.15)	462760 (43.01)	517955 (37.05)	9.12
Post-Demographic Dividend	215260 (45.67)	226695 (44.94)	218510 (36.55)	212745 (26.31)	240840 (22.38)	242995 (17.38)	0.55
Pre-Demographic Dividend	20285 (4.30)	19880 (3.94)	27585 (4.610	40120 (4.96)	62010 (5.76)	68540 (4.90)	0.01
Total	471325 (100)	504425 (100)	597900 (100)	808680 (100)	1076030 (100)	1397935 (100)	7.71

Source: Immigration, Refugee and Citizenship Canada, Government of Canada, Ottawa.

Table 6: Direct Economic Impact of All International Students on the Canadian Economy (Thousand Dollars), 2017 and 2018

Province/ Territories	GDP			Employment (in number)		
	2017	2018	Per Cent Increase	2017	2018	Per Cent Increase
Newfoundland and Labrador	68,127 (0.42)	83,134 (0.42)	22.03	793	972	22.57
Prince Edward Island	61,346 (0.38)	79,599 (0.40)	29.75	751	971	29.29
Nova Scotia	3,34,300 (2.07)	4,21,594 (2.13)	26.11	4564	5732	25.59
New Brunswick	1,14,281 (0.71)	1,42,375 (0.72)	24.58	1519	1882	23.90
Quebec	1,967,561 (12.17)	23,51,332 (11.91)	19.50	22978	27324	18.91
Ontario	8,727,941 (53.98)	1,08,54,670 (54.96)	24.37	95596	118206	23.65
Manitoba	3,76,805 (2.33)	4,60,082 (2.33)	22.10	4400	5340	21.36
Saskatchewan	206,529 (1.28)	2,45,361 (1.24)	18.80	2209	2628	18.97
Alberta	9,27,831 (5.74)	11,06,277 (5.60)	19.23	8640	10228	18.38
British Columbia	33,70,592 (20.85)	39,88,723 (20.20)	18.34	38478	45164	17.38
Territories	13,412 (0.08)	15,261 (0.08)	13.79	112	130	16.07
Total	161,68,725 (100)	197,48,407 (100)	22.14	1,80,041	2,18,577	21.40

Note: Canada has three Territories namely Northwest, Yukon, and Nunavut. Territories are distinct administrative units having those powers delegated by the federal government.

Source: Canmac Economics Limited (2020), Summary Table 2

services provided by institutions located in other countries. Canada's higher education sector tilted strongly towards international students. And, South Asia particularly India has emerged as the epicenter of the supply of students to educational institutions there for graduate-level studies. Further, India has supplied a maximum number of students to Canada even among the top ten suppliers of students; much higher than China also. It further seems that such a trend would be strengthened in the future, apart from usual push and pull factors, by the process of early demographic dividend in which India is likely to stay for a longer period. Within Canada, so far two provinces Ontario and British Columbia have absorbed an overwhelming number of international students but other provinces too are following the suit as international students' contribution to academic institutions, service exports, government revenue, general business activity, jobs, human resources, overall economic life, and state income has proved to be decisive.

The emergence of Canada as the nuclei of the international education market raises several pertinent questions. It needs to be understood that this segment of global services market, in fact, represents by and large the unidirectional flow

Table 7: Total Tax Revenue Collected by Canada Government from Spending by International Students 2018, Thousand Dollars

Region	Indirect Taxes	Personal Income Tax	Overall Tax Revenue
Newfoundland and Labrador	8253 [0.50] (47.19)	9235 [0.43] (52.81)	17488 [0.46] (100)
Prince Edward Island	7060 [0.43] (47.64)	7759 [0.36] (52.36)	14819 [0.39] (100)
Nova Scotia	35919 [2.17] (43.94)	45818 [2.16] (56.06)	81737 [2.16] (100)
New Brunswick	13754 [0.83] (51.43)	12988 [0.61] (48.57)	26742 [0.71] (100)
Quebec	268287 [16.21] (51.76)	249997 [11.76] (48.24)	518284 [13.71] (100)
Ontario	896041[54.14] (42.51)	1211937 [57.01] (57.49)	2107978 [55.76] (100)
Manitoba	44527 [2.69] (49.36)	45678 [2.15] (50.64)	90205 [2.39] (100)
Saskatchewan	14267 [0.86] (39.00)	22316 [1.05] (61.00)	36583 [0.97] (100)
Alberta	59019 [3.57] (33.86)	115286 [5.42] (66.14)	174305 [4.61] (100)
British Columbia	252521 [15.26] (39.12)	392907 [18.48] (60.88)	645428 [17.07] (100)
Territories	55280 [3.34] (82.28)	11908 [0.56] (17.72)	67188 [1.78] (100)
Total	1654928 [100] (43.77)	2125829 [100] (56.23)	3780757 [100] (100)

Note: Square brackets refer to vertical percentage shares. And, round brackets for horizontal shares.
Source: Government of Canada, International Education,

Table 8: Spending by All International Students in Canada, Annual: 2015-2018

Year	Overall Spending (Billion Dollar)			Per Cent of Canada's Service Exports
	Amount	Annual Increase (Absolute Amount)	Per Cent Increase	
2015	12.6	-	-	12.50
2016	15.5	2.9	23.02	14.50
2017	18.4	2.9	18.71	22.30
2018	22.3	3.9	17.49	24.50

Note: The term All International Students here means both short-term and long-term students.
Source: Canmac Economics Limited (2020), Table 4.2 and Table 4.4

of students from certain regions of developing countries to Canada. For example, in the case of India, it is the Punjab state, though some other states like Kerala, Gujarat, Haryana, and Chandigarh are following, which account for a large flow of such students to Canada. The phenomenon which essentially operates as the movement of students is actually driven and guided not only by purely academic pursuits but also by migration (permanent settlement) interests. Acquiring academic degrees from host countries' institutions facilitates this process of getting permanent residency, green cards, work permits, citizenship, etc. That is why the international movement of students has been

Table 9: Tuition Fees by Level of Study in Canada: 2021-22 (Current Dollars)

Province	Under-Graduate			Graduate		
	National Students	International Students	High (Per Cent)	National Students	International Students	High (Per Cent)
Canada	6693	33623	402.36	7472	20120	169.27
Newfoundland and Labrador	3078	12037	291.07	2825	4082	44.50
Prince Edward Island	6954	20417	193.60	5187	10564	103.66
Nova Scotia	9028	20397	125.93	10147	23048	127.14
New Brunswick	7983	16458	106.16	6988	13123	87.79
Quebec	3274	27406	737.08	3443	18577	439.56
Ontario	7938	42185	431.43	9765	26236	168.67
Manitoba	5082	17786	249.98	5406	11887	119.89
Saskatchewan	8545	22197	159.77	4694	7583	61.55
Alberta	6567	28014	326.59	7020	15167	116.05
British Columbia	6109	30903	405.86	9720	20295	108.80

Source: Statistics Canada, Table No.37-10-0045-01

gearing more towards such countries which offer more scope for later residential settlements there. In fact, the international education market has been much more than that of the apparent study-purpose-based movement of students but a typical case of international academic migration. The fast-paced movement (better say craze) of students resulted in the proliferation of mega immigration-based businesses like study and visa consultants, language proficiency training centers, study financers, traveling managers, currency exchangers, health and life insurers, etc., among the source countries. Thus, besides integrating the economies of host and source countries, the international education market has made noticeable inroads into the functioning of their respective economies which calls for designing of appropriate policy framework so that the country can translate the demographic dividend into social, economic, and community dividend.

Note

1. The World Bank, on the basis of demographic dividend, classifies countries into four categories, viz. (a) Pre-Dividend countries-mostly low income countries with fertility levels above four births per woman, (b) Early-Dividend countries-mostly lower-middle-income countries with fertility rates below four births per woman and the rising share of the working-age population, (c) Late-Dividend countries-mostly upper-middle-income countries with fertility rates typically above replacement levels of 2.1 births per woman (d) Post-Dividend countries-mostly high-income countries where fertility has transitioned below replacement levels *(https://data.worldbank.org/country/demographic-dividend).*

2. The four modes of GATS are: (1) cross-border supply (2) consumption abroad (3) commercial presence (4) presence of natural persons.

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INIHE Consortium: A Pioneering Initiative of AIU

Indian Network for Internationalisation of Higher Education (INIHE) is a consortium of universities and other higher education institution in the country which primarily aims at facilitating the internationalisation of higher education in terms of networking, collaborations in teaching and research, mobility of students and faculty, exchange programmes, etc. This is a pioneering initiative of the Association of Indian Universities (AIU) in this session in the direction of promoting the internationalisation of higher education by providing a structured platform to the universities and other HEIs dedicated to the internationalisation of higher education in Indian universities. INIHE will ensure the connect and coordination among associations of universities of different countries, promote collaboration among foreign universities, and facilitate joint degrees and student exchange programmes.

The proposed consortium can serve the purpose in terms of bringing together multiple organisations and institutes, both public and provide in a collective platform to address a common set of goals and concerns within a structured format and under a predetermined governance structure. Their independence outside this collaborative group offers multiple and diverse perspectives through which the members can learn much from mutual experiences and practices.

The initiative is necessary as India, despite having good educational institutions, fails to attract enough foreign students. Hardly around 50,000 foreign students chose India as their academic destination a year. Over half of them are from neighbouring Nepal and Afghanistan, whereas a sizeable number of students from India go abroad for pursuing their education. The establishment of INIHE consortium is also envision to fill this void and address this concern regarding the mismatch in inflow and outflow of students.

Foreign students face a number of challenges when applying for higher education in India, starting from searching for relevant academic programmes; absence of a standardised admission process; uncertainty about eligibility and equivalence of the degrees acquired in the resident country; concerns about the fee, medical insurance, and safety; and lack of infrastructure.

INIHE invites proposals for membership. It shall commit its resources to quality research, capacity building, information sharing, and to advocate the benefits of internationalisation and build a better understanding of higher education internationally.

Amongst some of the important developments in higher education across the globe today, internationalisation is one of the more critical ones. Over the last two decades, the internationalisation of higher education has gathered enormous attention among policymakers and educators, especially after the inclusion of education as a service sector under GATS and WTO. As a result, the governments and other apex agencies of different countries which are at the helm of affairs have been discussing and devising policies, designing strategies, and investing concerted efforts to facilitate the process of internationalisation. The society too expects students to be transformed into global citizens, equipped with globally relevant skills and competencies, and capable of succeeding personally and professionally in today's interconnected world. As a nation, India must surely propel itself to a position of strength in the field of higher education.

India possesses one of the largest education systems in the world with 993 universities, 39931 colleges, and 10725 stand-alone institutions (AISHE, 2018-19). As per the All-India Survey of Higher Education (2018-19), the GER in higher education is 26.3. While India has made rapid strides in many aspects/parameters of higher education, not much progress has been achieved in the area of internationalisation. Some guidelines have been prepared by the apex agencies like UGC, MHRD, etc., but in the absence of regular and structured policy, the institutions often face difficulties or lack clarity in dealing with issues on networking, student and faculty exchanges, institutional collaborations, designing and launching joint degrees, establishing campuses aboard, etc. As a result, institutions often work alone in isolation without the benefit of shared experiences in this area.

It is observed that the very concept of internationalisation is often misconstrued/ misinterpreted. Though internationalisation actually should encapsulate a broad range of activities under its ambit, in practice it has been largely confined to the mobility (inflow and outflow) of students. It is viewed in terms of economic gain only or as an input for better positioning in international rankings, which fails its broad objective of universalization of knowledge and its application to the creation of a truly global society. As a matter

of fact, internationalisation of higher education should include many aspects/criteria under its ambit beginning from making sure that the education provided to all students has, wherever required, an international dimension and related skills. An important way to achieve this is by internationalising the curriculum of academic programs, enhancing student mobility, training faculty and administrative support staff, creating international infrastructure, establishing meaningful and effective collaborations with foreign partner institutions, launching joint degrees, enabling faculty exchange and mobility, simplifying visa processes for international and study abroad students, networking with higher education organisations across the world and much more.

The support of government policies is necessary for the creation of such an ecosystem. The increasing competition among countries largely focused on economic gain and growing commercialisation could be attributed to the absence of such an ecosystem. So far as India is concerned, it has been slow in responding to the opportunities and challenges of internationalisation of higher education. The fear of foreign institutions overshadowing the indigenous system of education was initially one of the strongest factors which held it back from accepting and opening its boundaries for internationalisation. Subsequent policies have also not been very supportive in this regard. In the late 90s, a Committee for Promotion of Indian Higher Education Abroad (PIHEAD) was formed by the University Grants Commission (UGC) for the marketing and promotion of Indian Higher Education. During its launch, around 20 potential universities expressed their desire to actively participate in the process. More recently, another initiative to actively promote internationalisation is the ambitious '*Study in India'* Programme which was launched just in 2018 to attract foreign students to study in India. However, the implementing agency, EdCIL, lacks the experience and in-depth knowledge of both Indian higher education as well as foreign education providers. Due to procedural and process-linked problems in the implementation of the program, in spite of the initiatives, limited internationalisation of higher education in the country is not witnessing the expected results. Even in the case of student mobility, student inflow to India from foreign countries has not greatly improved. The student inflow is drastically lopsided as compared with the student outflow from India to other countries. As per the Ministry of External Affairs, GoI, in 2018 the number of Indian students going abroad to study in various countries was more than 7,00,000 (seven lakhs) whereas the number of foreign students studying India was not more than48,000 (forty-eight thousand as per AISHE, 2018-19) (*Confirmed student numbers including foreign students who come to India for short term courses are not available and remains an area for research and reform).*Similarly, in other areas such as institutional collaboration, faculty exchange programmes, launching of joint degrees, opening campuses abroad, etc. much headway has not been made. It has become increasingly apparent that it is vital for the Indian Universities to enhance their quality of higher education and be comparable to international standards, ensure global visibility by creating world-class universities to attract the best talent from across the globe, and attempt to convert the 'brain drain' into a potential 'brain gain'. These goals cannot be achieved if universities work in silos, delinked from each other, the government and other stakeholders. One important contributing reason for universities working in silos is the clear distinction between private and publicly funded universities. This affects universities' priority on dedicating resources toward internationalisation. Most internalization efforts in universities are on self-financing model as universities do not have earmarked resources to support internationalization. A lack of Corporate Social Responsibility (CSR) support for internationalization in HEIs are also seen. In a nutshell, the progress of Indiatowards internationalizing its higher education has neither met global expectations nor has it taken advantage of the global opportunities available.

For the first time Internationalization of Education has been given a thrust in the National Education Policy document. In a special reference to internationalization, the newly formulated National Education Policy—2020 envisages to give added momentum to the issue by bringing some structured policy reforms. Some of the major reforms recommended are – (i) setting up of International Students Office at each HEI for hosting foreign students, coordinating all matters relating to International students, facilitating research/teaching collaborations and faculty/student exchanges with high-quality foreign institutions, and signing of MoUs with foreign countries for mutual benefit; (ii)

Encouraging high performing Indian universities to set up campuses in other countries, (iii) inviting selected universities i.e., those from among the top 100 foreign universities to operate in India, and (iv) permitting the credits transfer system as per the requirements of each HEI for the award of a degree. The most important recommendation is to enact/create a legislative provision for facilitating the entry of such universities with regulatory framework on their governance, and content norms on par with other autonomous institutions of India. Furthermore, research collaboration and student exchanges between Indian institutions and global institutions will be promoted through special efforts. The sole purpose is to promote India as a global study destination providing premium education at affordable costs.

Though the policy initiatives of the government are well grounded, without the efforts of the other stakeholders such as apex bodies in higher education and other implementing agencies and institutions, including CSR/industry support, it is difficult to accomplish the objectives. It is often observed from the experiences of other countries that govt alone cannot achieve this gigantic task unless the efforts are supported by the other stakeholders, especially the institutions**.** The institutions need to raise their teaching standards and delivery methods to world-class levels, internationalize the curriculum, produce quality study material and follow blended teaching-learning methods including flipped classroom models. To promote internationalisation, the personal safety and security of an overseas student/scholar are of paramount importance for which the institutions need to create a mechanism. There would be a need of providing world-class residential facility/student residences which are secured and offer hygienic living and international cuisines. Attention has also to be given to providing world-class medical/health care facilities also. On the whole, a conducive eco-system has to be created to ensure that the international students feel at home.

Globally, a number of *networks/consortia* have been developed both by government and private organisations to help accelerate the process of internationalisation as well as offer consultative, research, and experiential support. These facilitate the process of internationalisation by promoting student mobility, faculty exchange, and all other related activities. The need for such a consortium/network for India is strongly felt given the fact that at present there is no dedicated consortium or network to promote the internationalisation of higher education.In the absence of a structured network of international educators, the process of internationalisation in India has made very tardy progress and the HEIs/institutions, in isolation, are establishing their own contacts with different networks/associations for collaborations in the areas of teaching, research, student & faculty mobility and exchange, outreach programmes, launching joint degrees, establishing campuses abroad, etc. In various meetings of AIU, the issue under reference has been raised and discussed threadbare. Unfortunately, in the absence of structured guidelines and policy direction, there is no clear way forward.

(*In a meeting held with Dr. Esther D Brimmer, CEO, NAFSA at the World Bank Office by AIU, on January 13, 2020 this issue was discussed. It was unanimously agreed that the countries which have a strong and active network have been able to support the internationalisation agenda, mission and activities by facilitating the institutions and their international educators to enter into productive collaborations and networking with other consortia and networks of different countries*.)

The Association of Indian Universities (AIU) in the past has been working oninternationalisation of higher education to some extent. A strong need is now felt for establishing such a consortium in India. Discussions held in various fora of AIU and other agencies involving the universities, policymakers, heads of apex bodies underscore this need. Therefore, this proposal for the establishment of a consortium of Indian higher education institutions experienced in the internationalisation of higher education is positioned against this critical new opportunity.

The Consortium

In view of the premise stated above initially, it was proposed to form a Section 8 Company under the Company Act 2013. After exploring the legal aspects, it was realised that establishing a Section 8 Company under the ambit of AIU is a complex process as it requires much procedural paraphernalia which is a time-consuming proposition. Therefore, it was thought that rather than setting up a Section 8

Guarantee Company not having share capital under the Companies Act, 2013 at present, it may be the fitness of purpose to form a consortium of higher education institutions and organisations having interest and experience in internationalisation. The proposed consortium can serve the purpose in terms of bringing together multiple organisations and institutes, both public and providing a collective platform to address a common set of goals and concerns within a structured format and under a predetermined governance structure. Their independence outside this collaborative group offers multiple and diverse perspectives through which the members can learn much from mutual experiences and practices.

The idea of setting up a consortium is well accentuated by a fact that the Sustainable Development Goals (SDGs) promote multi-stakeholder partnerships through collaborative endeavours. Working in consortia is a partnership structure that is evidently practiced as a successful model among developed organisations in the world and one that higher education in India can learn from. AIU believes that today, a consortium as an association/network of higher education institutions and organisations can help focus on the goal of establishing and expanding collaborative efforts to revitalise internationalisation and benefit collectively as a nation. This interinstitutional cooperation, bolstered by ICT, will ensure that Indian Higher Educationis able to respond positively to market shifts that have necessitated long-term planning and cooperation among diverse partners. This 'big picture' learning is critical at the moment.

Nomenclature: The Indian Network for Internationalisation of Education (INIHE)

As a consortium, the Indian Network for Internationalisation of Higher Education (INIHE) is envisioned to be an independent, autonomous, Pan-India consortium dedicated to the advancement of internationalisation of higher education at all universities/institutions in India. As a research-based collaboration entity, it aims to serve as the nation's think tank for all matters related to the internationalisation of higher education and globalisation. The INIHE shall commit its resources to quality research, capacity building, information sharing, and advocacy so as to ensure that Indian institutions are able to appreciate and avail the benefits of internationalisation, and to ensure that a better understanding of Indian higher education is enabled internationally.

Vision

The INIHE will be the leading think tank/ advisory body on all matters related to the international dimension of higher education in India.

Nature, Functions and Outreach

The INIHE shall be a non-proprietary autonomous consortium providing voluntary service to the higher education sector with a nonprofit motive. The INIHE shall function from the Association of Indian Universities (AIU) as its Headquarters and Secretariat, and shall reach out to all member universities/institutions of AIU having experience and expertise in internationalisation to become members of this new network.

The INIHE will seek to enroll universities, international educators, other international and national networks, individual faculty, administrators, research scholars, and heads of apex agencies such as FICCI, as its members (and associate members) who will support the objectives of the network.

The functions of the INIHE *inter alia* will be to act as an advisory body to the GOI and higher education institutions on matters relating to internationalization of higher education as highlighted below:

The INIHE will strive to assist its members to create a favorable environment for promoting internationalisation by encouraging dialogue, supporting policy reform, and exchange of foreign academic experts among the members, guiding them to create a favorable climate in their campuses to attract full and short term mobility of foreign students and faculty, inviting experts for conducting training for creating networks with international partners to promote joint research for the benefit of the society.

Further, in the post COVID-19 scenario, it is important that the foundational framework of a network like INIHE should be based on the edifice of Industry 4.0 technologies. This will not only enable the INIHE network to function effectively but will also help in widening its ambit of offerings and services to member institutions, thereby augmenting the quality of the higher education sector as a whole. Post COVID-19 pandemic, there may be limited

Objectives	Policy	Strategic	Tactical
Internationalisa-tion at Home	1. Offering research-based critique, policy advise & thought leadership interventions on internationalization of higher education 2. Organize Discussion Forums on internationalization of higher education. 3. Promoting courses which are India rich like Indology, Indian languages, AYUSH systems of medicine, Yoga, Arts, Music, History, Culture, and Modern India and internationally relevant curricula in the sciences and social science and advocate establishment of India Study Centres through INIHE	1. Disseminating information about best practices, facilities, research in Indian universities. 2. Promote internationalisa-tion of higher education in Indian universities/institutions. 3. Harmonization of the higher education system to enhance cooperation including recognition of qualification that facilitates movement of people and services 4. Develop a framework to transfer credits to or carryout research at institutions abroad, and vice versa counting for the award of degree	Capacity building of Indian Universities to improve their efficiency and performance through - Building 21st century global competencies - Providing leadership training - Handholding to develop best in class facilities
Tran-global Alliances	1. Collaborate to provide solutions for common problems and challenges related to internationalisa-tion. 2. Development of a National Qualification Framework for higher education 3. Resolving issues related to equivalence of qualifications	1. Strengthen relations with international, national and regional networks/ organizations 2. Integrated curricula (teaching-learning, research and community outreach) that embeds internationalization 3. Introducing joint/ twinning programmes and research collaborations in futuristic disciplines	1. Facilitate matters of admissions and credit transfer. 2. Organize Faculty engagement with foreign partners for training in innovative delivery of content and new media including online, co-teaching, joint publications, collaborative research, curriculum revision, early career support and mentorship 3. Internal quality assurance by benchmarking 4. Facilitate faculty and student Exchange programmes 5. Promote the fellowship programmes for studying abroad. 6. Develop Knowledge and Experience Repository for students, scholars and faculty
Export of Services	1. Develop a national policy for positioning Indian higher education in the world 2. Develop guidelines for standards, equivalence and credit banks for online education for foreign students	1. Facilitate Indian universities to establish campuses abroad 2. Facilitate Indian universities to develop online programs of global standards	1. Publicize Indian higher education programs to the Indian and foreign stakeholders and members of the consortium through periodicals, blogs and social networking sites.

physical engagement between higher educational institutions and universities across geographies. This is seen as an immediate area for INIHE to focus on: the critical need to create substantial (and innovative) opportunities for faculty and student engagement on joint research projects, collaborative teaching-learning, etc. through the online/virtual mode.

INIHE shall also commit itself to promote quality online education by Indian universities as per international standards and shall encourage universities/HEIs to be as flexible and pragmatic as possible in using digital tools to enhance learning and research experiences and outcomes. This has huge relevance today, particularly for those international students, who have returned to their home countries (due to the COVID-19 or other exigencies), and need to complete their programmes/courses through an online or hybrid mode provided by the host university or higher education institution. INIHE will be able to recommend pragmatic policy guidelines for recognizing the credits received through such remote/ virtual learning and completion of programmes/ courses (for both the host and sending country), and other related aspects for the operationalization of the Academic Bank of Credit.

Modalities of INIHE Consortium

- The INIHE consortium shall function under the ambit of the Association of Indian Universities including the Governing Council as the principal decision-making/Approving body.
- The INHIE will function with a separate staff structure for which staff will be recruited on a contractual basis.
- The consortium shall be guided by a Standing Committee which shall be serviced by INIHE Secretariat (housed at AIU) to take care of all administrative duties. This Secretariat is envisioned to be a robust and progressive body with officers drawn from professional backgrounds and with experience in the internationalisation of education.
- The Standing Committee will recommend policy decisions to the Governing Council of AIU and take action required for the promotion of Internationalization of Education. The President, AIU shall be the Chairman of the Standing Committee, Secretary General as Member Secretary, and Head of Research Division as Secretary in their ex-officio capacities.
- The meeting of the Standing Committee will be held at least once in every six months for an appraisal of the progress of its proposed activities and to decide the further line of action.
- In case of any emergent situation additional meetings can be convened with the consent of one-third members of the Consortium.
- The INIHE will have a general body meeting of all its members once a year for which at least one month of the notice period will be given.
- Member Universities /degree granting Institutions of the Network will consist of both Institutions. The institutions such as universities/degree granting Institutions of Higher Education having the presence of international students on their campuses shall be represented by their head's representatives of the Institute.
- The members of the Network shall be represented by the heads or their representatives not below the rank of Dean / Professor / Director.
- An International Advisory Committee may be formed under the proposed Network for advising on various activities of the Network and their promotion. Other similar international organizations will also be contacted for the consortium.
- The proposed network will be self-sustainable with paid membership. The fee for various types of membership should be decided after examining the fee structure of similar networks abroad. A separate account will be maintained by AIU to manage the financial aspects of the consortium.
- INIHE shall be authorized and standing to collect funds, membership fees, donations, subscriptions, etc. A separate account will be open to process the financial transactions of INIHE. The account shall be operated by the Secretary General and the Finance officer of AIU with a condition of having at least two signatories.

Benefits to the Members

The INIHE will be a membership-based autonomous consortium aimed at creating a strong cohort of educators and administrators experienced

in the field of international education. Through research, collaborative projects, capacity building, policy advocacy and networking it will offer its members the following opportunities:

1. Strengthened understanding of the international dimension of higher education, including orienting faculty in HEIs about internationalization
2. Dialogue with member universities, government and other international organisations engaged with the development, management and promotion of internationalisation of higher education, and opportunities to collaborate effectively with them.
3. Research-basedsed contributions to policy on higher education at the university, state, national and international level
4. Learning and scholarship on the understanding, appreciation and respect for diversity as the foundation for a world that is safer, more peaceful and nurturing of wellbeing for all.
5. Extensive opportunities for national and international networking
6. A periodic e-newsletter.
7. Mentoring of universities less experienced in internationalisation
8. Discounts for annual workshops, conferences, and leadership retreats.
9. Opportunity for advanced training and development through seminars, workshops, conferences.
10. Setting uniform standards for organizational (functional, administrative, academic and cultural) and systemic (economic and financial) preparedness.

Governance of INIHE

The INIHE will function under the governance structure of the Association of Indian Universities including the Governing Council as principal decision-making/Approval body. A Standing Committee shall be constituted to recommend policy decision to the Governing Council of AIU and taking action required for the promotion of Internationalization of Education. The President, AIU shall be the Chairman of the Standing Committee, Secretary General as Member Secretary and Director/Head of Research Division as Secretary in their ex-officio capacities. The other members of the Committee shall be the Vice President of AIU, immediate past president of AIU as a member, two Vice Chancellors of AIU Member Universities to be nominated by the President, AIU, two experts from industry out of which one will be nominated by the President, AIU and one by Governing Council as member. One Vice Chancellor having the knowledge of internationalisation to be nominated by the Governing Council from the member university other than that of Governing Council to be nominated by the President.

The meeting of the Standing Committee will be held at least once in every six months for an appraisal of the progress of its proposed activities and to decide the further line of action. In case of any emergent situation, additional meetings can be convened with the consent of one-third members of the Consortium. The INIHE will have a general body meeting of all its members once a year for which at least one month of the notice period will be given.

Members of the Consortium

Members of the Consortium will consist of both Institutions and Individual educational practitioners. The institutions such as universities/ colleges/Institutions of Higher Education having the presence of international students on their campuses shall be represented by their nominated representatives. The Individual members shall be educational practitioners, Vice Chancellors, Heads of International Division, Heads of Research Division/ Units, Deans/Directors, Director of Internal Quality Assurance Cell (IQAC), Professors, Associate Professors and Administrative functionaries such as Registrars and Controllers of Examination. The details of the category of membership `of the INIHE Consortium are as follows:

1. **Institutional Membership**: for institutions that have experience and a track record in internationalisation. This may cover two to four individual memberships which are transferable within the institution. Institutional membership request should be officially endorsed by the Vice-Chancellor/Principal/Head of the requesting institution, and it should include the nomination of an individual to serve as the contact person on behalf of the institution.

2. **Associate Membership**: for Industry/Not for Profits/ Stand Alone institutions. This may cover two to four individual memberships which are transferable within the organisation. Applicants should have a demonstrated scope of work/interest related to international higher education.

3. **International Affiliate Membership**: to be offered to non-Indian institutions and individuals working in international education from abroad. Institutional requests should be officially endorsed by the Head of the institution or the Head of International Programs. In the case of individuals, they should demonstrate their work related to internationalisation of higher education.

4. **Exchange Membership:** to be offered to organizations for internationalisation of higher education from other countries with a similar interest/mission. Applicants should offer a reciprocal membership arrangement on their respective organisations/associations/network for the Secretariat of INIHE.

5. **Individual Membership**: for heads/faculty/ administrators in institutions of higher education or in organizations engaged actively with international education to be nominated by the Vice Chancellor/Director.

6. **Student Membership**: for full-time doctoral students studying education, globalization and/or internationalisation of higher education. Applicants should demonstrate that they are regular students at doctoral level studying education, globalization and/or internationalisation of higher education.

International Advisory Board

An International Advisory Board consisting of 10 members shall be constituted under the Consortium. Senior level Academic Leaders/Mentors who are acknowledged experts in internationalisation shall be nominated as members of the International Advisory Board. The Board shall be constituted by the President, AIU

Authorization

INIHE shall be authorized and empowered to collect funds, membership fees, donations, subscriptions, etc.

Constitution of the INIHE Secretariat

The consortium shall be guided by an Empowered Committee which shall be serviced by INIHE Secretariat (housed at AIU) to take care of all administrative duties. This Secretariat is envisioned to be a robust and progressive body with officers drawn from professional backgrounds and with experience in the internationalisation of education. The Secretariat shall comprise permanent staff to be appointed on a contract basis comprising of persons who have experience in the field of internationalization. It shall be an officer-oriented secretariat with one Director, one Deputy Director and one Assistant Director with small support staff. The entire work of INIHE shall be technology based with an aim to create a paperless office.

Membership Eligibility and Conditions

The terms/conditions for registering as members of the INIHE are as follows:

a) Membership of INIHE shall be offered both to Institutions and Individual Practitioners

b) Membership will be given to Universities with a good track record in internationalization of higher education or universities with A Grade from NAAC or universities with at least 50 percent of their programmes accredited by NBA or Top 100 Universities of NIRF Ranking and Autonomous Colleges with A Grade from NAAC.

c) Members shall be faculty members, administrative officers, and research scholars of Indian Universities/ Institutions of Higher Education with strong experience and exposure of internationalisation

d) Individual Members should be bonafide faculty members/ administrators of the Universities / institutions recognised by Govt of India and accredited by NAAC/NBA with a proven interest in internationalisation of higher education.

e) Members must have demonstrable evidence of dealing with international education, published work of high quality, conversant and experienced with innovative/global pedagogy, curriculum planning, revision and other matters relevant to internationalisation of higher education.

f) The membership shall be fee-based, to be paid annually by the members. Membership fees, and other such formalities including life membership, will be decided by the Governing Council of AIU.

g) An online portal/proforma shall be developed to apply for membership online in a prescribed

format. It is the absolute discretion of the AIU Governing Council to approve or reject any application. The membership can be withdrawn by the AIU if the member indulges in an act that is unbecoming of a member.

h) All members will be given a unique membership number on crediting the subscription fee, which may be renewable annually or may be paid for life.

i) The financial year of the Network shall be from 1st April to 31st March of the following year.

Membership Fees

1. Institutional Members:
   (i) Universities - Rs. 25,000 p.a.
   (ii) Colleges - Rs. 15,000 p.a.

2. **Associate membership (**Industry / Not for Profits/ Stand Alone institutions) – Rs **35,000 p.a.**

3. International Affiliate Membership – $ 500 p.a.

4. Individual:
   (i) Faculty Members, Administrators – Rs 5000 p.a.
   (ii) Students/ Research Scholars – Rs 2000 p.a.

5. **Exchange membership:** On reciprocal membership arrangement on their respective organisations/associations/network for the Secretariat of INIHE.

Glossary of Other Significant Networks

Shastri-Indo Canadian Institute (SICI) and ERASMUS network can be added to this glossary

1. **OBREAL**: **The Global Observatory** was established with the aim of contributing to the creation of a network of institutions and organizations from both regions (European Union and Latin America) which hitherto had no coordination mechanisms and/or limited visibility. So, OBREAL was set up by 23 academic institutions, research centers in Europe and Latin America, and their own networks. Between 2004 and 2016, OBREAL's research was organized in five thematic areas of a) Trade and financial relations and regional integration, b) Democracy, human rights and the rule of law, c) Social and development cooperation, d) Global governance and multi-regionalism, and e) Civil society and institution building. Since 2017, the Global Observatory has re-defined its thematic areas and has extended its outreach from Europe to Latin America, Asia, the Middle East and Africa, connecting important actors in diverse sectors in collaborative projects for development. Now, the Global Observatory concentrates its actions in project managing, incorporating new members and supporting institutions in the network.

2. **NAFSA: Association of International Educators**: With more than 10,000 members worldwide, NAFSA: Association of International Educators is the leading organization committed to international education and exchange, working to advance policies and practices that build global citizens with the knowledge and skills they need to succeed in today's interconnected world.

3. **African Network for Internationalisation of Education (ANIE):** ANIE is an independent, non-profit making, non-governmental African network committed to the advancement of high-quality research, capacity building and advocacy on internationalisation of higher education with prime focus on Africa. Its goals are to inform policy decisions related to the international dimension of higher education in Africa with high-quality research evidence and to build/strengthen and sustain Africa's research capacity on internationalization of higher education

4. **European Association for International Education (EAIE):** The EAIE is a non-profit, member-led organisation serving individuals actively involved in the internationalisation of their institutions through a combination of training, conferences and knowledge acquisition and sharing. It equips academic and non-academic professionals with best practices and workable solutions to internationalisation challenges and provides a platform for strategic exchange. It partners with key stakeholder organisations and institutions to promote membership interests and advance international higher education in Europe and the rest of the world.

5. **Global University Network for Innovation (GUNI)**: The Global University Network for Innovation (GUNI) was created in 1999 by UNESCO, the United Nations University (UNU) and the Universitat Politècnica de Catalunya

(UPC). The Network comprises UNESCO chairs, higher education institutions, research centres and networks involved in innovation and the social commitment of higher education. It has 170 members from over 60 countries and is represented across the world by five regional offices (Sub-Saharan Africa, the Arab States, Asia, and the Pacific, Latin America and the Caribbean, and Europe and North America). GUNI's mission is to contribute to strengthening the role of higher education in society by reforming and innovating higher education policies across the world according to the principles of public service, relevance and social responsibility.

6. **International Network of Universities (INU)**, Kingston University, London, UK, 1998, The International Network of Universities (INU) is a global consortium of higher education institutions that actively seek international partnerships and experiences, create innovative programming and delivery methods, and embrace the internationalisation movement. Members must have a strong commitment to internationalisation, innovative teaching and learning methods and research. Member universities are based in Australia, Germany, Indonesia, Italy, Japan, South Africa, Spain, Sweden, United Kingdom and the US

7. **International Network of Educational Institutes (INEI):** The INEI draws together leading HE institutions concerned with educational research and teacher preparation around the world.It offers something unique by speaking with a single collective voice and with some degree of authority on educational matters, especially teacher education – thus significantly raising the profile of education in the arena of public consciousness and government policy, bringing synergy to the group in order to collaborate on issues of major concern in education, be a think tank to debate and generate ideas, anticipate trends and future scenarios, and communicate through statements and declarations on critical issues in education that will have an impact on policy decisions in their respective countries as well as in the rest of the world and also develop statements and declarations of interest to international funding institutions and organizations and policymakers.

8. **International Network of Education for Work (INEW):** The International Network of Education for Work is a free and open entity of Vocational Training and Post-Secondary Education schools aiming to generate a space for the exchange of educational experiences, for the planning of an agenda of policies and joint lines of work in strategic areas on the regional and global level regarding the education-work axis.The INEW was created as a response to the need of sharing new spaces of dialogue and joint work. It is constituted of education centres as key agents together with the productive system, for the governance of the education-work dyad.

9. **Alliance for International Education (AIE):** The fundamental aim of the AIE is to bring together people, organisations and institutions in order to exchange knowledge and experience in the practice of promoting international education and intercultural understanding. **In response to the rapid growth of interest in the practice of international education, many individuals, schools, universities, systems, agencies and associations around the world have increased their activities in curriculum innovation, professional development, teacher recruitment and research. The Alliance provides a dynamic forum that brings all these together, enabling them to promote their ideas and services both to each other and to a wider audience so obtaining mutual benefit from sharing experience and exploring how collaboration can further enhance the achievement of common goals through specific activities.**

10. **Association of International Education Administrators (AIEA):** AIEA is the only association dedicated exclusively to senior leaders in the field of international education. AIEA members are senior international officers who serve as leaders of higher education institutions and of organizations that support international higher education. AIEA brings together international education leaders into dialogue with each other, their counterparts around the world, organizations that promote international education, and organizations concerned with the shaping and management of international higher education. AIEA gives members opportunities to join forces, share

institutional strategies, and provide an effective voice on matters of public policy.

11. **The Asia-Pacific Association for International Education (APAIE)** was established in Seoul, South Korea in 2004 by a Founding Committee consisting of thirteen university representatives from across the Asia Pacific region, and has since expanded to become a thriving association. APAIE aims to encourage greater cooperation between institutions, to enrich and support international programmes, activities and exchanges, and to promote the value of international education across the region and beyond. In doing so, APAIE devotes itself to the principles of mutual respect, diversity and collective progress.

12. **International Education Association of Australia (IEAA).** IEAA strives to empower professionals, engage institutions and enhance Australia's reputation as a provider of world-class education. An interesting feature of IEAA is that it is composed by organizations rather than individuals.

13. **Consortium for North American Higher Education Collaboration (CONAHEC)**. CONAHEC is a non-profit organization registered in the USA) membership-based network of approximately 160 institutions of higher education in Canada, the United States, and Mexico, as well as a select group of institutions from other parts of the world. The organization was established to facilitate human capital formation in the context of increasing economic integration and inter-cultural interaction. CONAHEC helps institutions of higher education collaborate to develop programs and educational opportunities to prepare globally knowledgeable professionals able to contribute to the region's continued success and a better world. CONAHEC actively facilitates efficient and cost-effective international collaboration among a large and growing network of the world's pre-eminent higher education institutions and organizations enabling more and better international linkages among them. CONAHEC seeks to advance the consolidation of the North American higher education community and its relationship with international partners by promoting collaboration and cooperation among its members and affiliates, providing a variety of fora in which member representatives can meet, interact and develop their collaborative and cooperative projects.

14. **Network of International Education Associations (NIEA).** There is no website because it is an informal network of the heads of associations of international education which meets twice a year during the NAFSA meeting and the EAIE meeting. It brings together the heads of key international education associations to discuss informally.

15. **International Education Association of South Africa (IEASA).** The International Education Association of South Africa (IEASA), a non-profit organisation, was established as a result of the need for universities and universities of technology in South Africa to respond to international educational trends. If South Africa is to remain competitive within the global economic environment it is important that our higher education provides opportunities for students to obtain a global perspective on their studies. An interesting angle is that the main funding stream of IEASA comes from a share of the health insurance fee paid by international students studying in South Africa.

For further details, contact Nodal Officer, Dr. Amarendra Pani, Joint Director and Head, Research Division, Association of Indian Universities, New Delhi-110002 on E-mail: *researchaiu@gmail.com.* ❑

Live Your Life to the Fullest Potential

Droupadi Murmu, Hon'ble President of India delivered the Convocation Address at the 17th Convocation Ceremony of the Mizoram University, Aizawl on November 03, 2022. She said, "Today, unlimited opportunities stretch out before you. There is no limit to your capabilities, so just realize your potential. You are the best judge of your own talent and potential. Explore the world and do new experiments." Excerpts

It gives me immense pleasure to attend the 17th Convocation of Mizoram University today at Aizawl. Aizawl is the largest city and the capital of Mizoram. This beautiful City is situated on a ridge with the Tlawng river valley to its west and the Tuirial river valley to its east. Different Mizo communities live here in peaceful coexistence. This lively and bustling city is attractive beyond description.

First I would like to congratulate all the graduating students and winners of gold medals and prizes. I also congratulate the Fraternity of Mizoram University for organising this convocation and to have strived hard for emerging as one of the best institutions in the North- Eastern Region.

I am happy to note that Mizoram University, which started functioning in 2001, is today a prominent University in the North-Eastern Region providing quality education. The University has 39 academic departments spread under 10 schools and 41 affiliated UG colleges, Nursing, Medical and Para-medical colleges and District Institutes of Education and Training.

I am happy to learn that Mizoram University has two sprawling campuses at Tanhril and Pachhunga. The University has a diverse student community comprising of students from all over the country and abroad. The University has made serious efforts in promoting academics that resulted in remarkable progress in the fields of Science, Arts, Commerce, Engineering and Medical Sciences. The University has gained the status of Institution of Eminence and taken some path breaking initiatives. The infrastructural development of Mizoram University within a very short span of time is indeed commendable.

Mizoram University has been ranked as one of the top 100 Universities, by the National Institutional Ranking Framework (NIRF) Ranking from 2016 to 2022. It was ranked 78th in 2022 under the 'Universities' category among 900 Universities. The University, at the PG and UG level, has fully adopted the Choice Based Credit System that allows students freedom of choices in their discipline. It is one of the few universities in the entire country which has implemented the National Education Policy-2020 from the academic year 2022-2023.

I am happy to know that the university campus is eco-friendly and solar power supply supports major energy needs in the Campus. The Campus also hosts diverse flora and fauna. I urge other educational institutions also to adopt eco-friendly measures and sensitise students towards the environment.

The Mizoram University has three Incubators for providing innovative and practical training to the students. Faculty members of Mizoram University have been awarded a large number of research projects and have various scientific accomplishments to their credit through research publications, books and patents.

The University has signed MoUs with various universities and organisations at national and international level such as, University of Minnesota, USA; National Chung Hsing University, Taiwan; University of Malaysia; Indian Institute of Technology, Guwahati; Mizoram Youth Commission; Engineering Projects (India) Limited, and other important organisations for various academic and technological collaborations. This has set a new template for other higher education institutions to explore avenues for collaborating with national and international organisations and create new benchmarks of excellence in academic and technological spheres.

Dear students and scholars, Convocation is a historic occasion and marks the realization of dreams, innovation, commitment and hard work of the students and faculty members. For you, this is a moment of great satisfaction, joy and pride.

It is important, on this occasion, to remember and recognize the efforts of those who have supported you throughout your journeys. Here I mean your family members who make sacrifices to enable you to reach your destination.

Today, unlimited opportunities stretch out before you. There is no limit to your capabilities, so just realize your potential. You are the best judge of your own talent and potential. Explore the world and do new experiments.

Here, I would quote Robert Frost "Two roads diverged in a wood, and — I took the one less travelled by, And that has made all the difference." (Unquote) I further urge you all to take up the responsibility of educating the uneducated and spreading the light of knowledge. I am certain that you will continue to make your Alma Mater proud, as you have done today, on this 17th Convocation of Mizoram University.

I am very happy to know that out of 6826 students graduated in this academic session of 2021-22, more than 50 percent are girls. Also out of 64 gold medals, 40 have been won by girl students. Among book prize winners also, 15 out of 25 are girls. I appreciate that number of females in higher education is rising but it should rise at a higher rate. We should also ensure that participation of women in education should translate into increased participation in workforce also. When the women progress, the entire country progresses.

I am happy to inaugurate and lay foundation stones of various projects of state government and central government today. The inauguration of two scheduled tribe girls' hostels at Mizoram University and at Sairang today is a step towards empowerment of girl students by providing access to quality education and other facilities.

I am happy to inaugurate the permanent campus of Indian Institute of Mass Communication (IIMC) Aizawl which will be a boost to the media and mass communication studies in the entire North-East. IIMC is an esteemed institution which provides a dynamic learning and working environment which nurtures new ideas, creativity, research and develops leaders and innovators in the domain of media and mass communication.

The inauguration of new campus of Government Aizawl College in Mualpui, Aizawl will enhance quality of education and will provide better facilities for the students.

I am sure that the new Post Graduate academic block at Pachhunga University College will play a significant role in enhancing educational infrastructure.

I once again congratulate the graduating students and winners of gold medals and prizes and extend best wishes to the entire fraternity of Mizoram University.

Thank you, Jai Hind! ❑

CAMPUS NEWS

Shoolini University Bags First Position among Indian Private Universities in THE World University Rankings—2023

The world's largest and most reputed rankings, Times Higher Education (THE) World University Rankings for 2023 ranked the Shoolini University of Biotechnology and Management Sciences, Solan, Himachal Pradesh as the number one among private universities in India for setting exemplary global standards in research, academic excellence, and knowledge transfer. The university is ranked 351-400 band globally with only the Indian Institute of Science (IISc), Bangalore ahead of it, and 39th in the world in THE Rankings on Citations, an indicator of the quality of research. The university is placed in the band along with JSS Academy of Higher Education and Research, Bengaluru, (Deemed University). As a decisive step in this direction, Shoolini University has entered into more than 250 collaborations with reputed international universities in South Korea, the UK, Canada, Australia, Taiwan, and the USA. These tie-ups with top-class global universities enable its students and faculty to remain at the forefront of cutting-edge technology through global exposure. Notably, over 70% of the university's research is in collaboration with international universities and 38.9% of its publications are in the world's top 10% of journals.

While Shoolini University has come a long way in 13 years of its inception as a pioneering research-focused institute of international repute, it is now making a mark, cutting across diverse disciplines like management, pharmaceutical sciences, agriculture, basic and applied sciences, computer sciences, mass communication, engineering, and law. Known for its unique research and teaching models, Shoolini University has emerged as a leader in research in focus areas ranging from sustainability and renewable energy to bio-molecules and applications of Artificial Intelligence. THE Impact rankings, which measure the impact made by institutions in meeting UN sustainability goals, have ranked Shoolini University second in the world for SDG 7 (clean energy) and sixth for SDG (clean water).

Undeniably, the hard work of its Chancellor Prof. P K Khosla and Vice-Chancellor Dr Atul Khosla and the University team is showings its reflections. Most importantly, this is the result of the dream of Prof P K Khosla and his untiring efforts to fulfil it which has brought laurels to the University.

Earlier, Prof Khosla gave a new dimension to forestry education in the country by starting BSc, MSc, and PhD courses in forestry at the Faculty of Forestry, Himachal Pradesh University. He was responsible for setting up the College of Forestry in the newly established Dr YS Parmar University of Horticulture and Forestry (UHF) at Solan. He held several prestigious positions at UHF before being appointed to the top position of the Vice Chancellor of Himachal Pradesh Krishi Vishva Vidyalaya, Palampur and subsequently as Senior Advisor to HP Government. He was instrumental in formulating the biotech policy of HP Government and attracting biotech industry in the state. He was also responsible for establishing the 'Indian Society of Tree Scientists'

Essay and Short Film Competition at Auroville Foundation to Commemorate 150th Birth Anniversary of Shri Aurobindo

On the occasion of celebrating 75 years of India's Independence (*Azadi Ka Amrut Mahotsav*) and the 150th Birth Anniversary of Sri Aurobindo, the Auroville Foundation is organising an Essay and Short Film Competition for School Students (6th to 12th Standard/Grade) and for College level Students nationally and internationally in Tamil and English languages. It is a call to the Youth of India and the World for creating greater awareness of Sri Aurobindo's contribution to India's reawakening of Her greatness and the role India has to play in the New Age.

The topic of the Essay or Short Film for School students in English and Tamil languages is *'Sri Aurobindo and Auroville: Reigniting India's Greatness'*.

The topic of the Essay or Short Film for College/ University Students in English and Tamil languages is '*Sri Aurobindo and Auroville: India's Gift for Humanity'*.

The length of essays should not exceed 10 pages (A4 size only) with 20 lines per page (about 3000 words in total) and should be submitted in

pdf. format. The duration of the short film should be between 5-7 minutes and in the format of mp4, avior mpeg files. The materials of essays/short films should be submitted on or before 30th November 2022 at 6.00 p.m. (IST) and only in digital form. The essays should be sent to the following email addresses with pdf. document only.

For the materials in Tamil language

- Essay submissions for school students: *essay.schools.tamil@auroville.org.in*
- Essay submissions for college students: essay.college.tamil@auroville.org.in
- For the materials in English language
- Essay submissions for school students: *essay.schools.english@auroville.org.in*
- Essay submissions for college students: *essay.college.english@auroville.org.in*

The submission emails of every participant must contain the details: Name, Residential Address, Name and Address of the Educational Institution, Class/Grade/Discipline of Studies, and Contact mobile number and email ID.

The short films should be uploaded into the following platform:

https://www.aurobindo150shortfilm.com/

The two Committees of eminent persons will evaluate the short films and the essays. Prof. R Chandrasekaran, Director, Central Institute of Classical Tamil and Dr. Sudha Seshayyan, Vice Chancellor, The Tamil Nadu Dr. MGR Medical University will chair the Committees for the evaluation of the essays in Tamil and English, respectively. Film director and screenwriter Thiru Vasanth. S Sai will chair the Committee for the evaluation of the short films for both languages. The Committee will recommend three winners in each category (Separately for Tamil and English).

For the College level competition, the first, second, and third place winners will be felicitated with Rs.1.00 Lakh (Rupees one Lakh), Rs.75,000 (Rupees seventy-five thousand), and Rs.50,000 (Rupees fifty thousand), respectively.

For the School level Competition, the first, second, and third place winners will be felicitated with Rs.75,000 (Rupees seventy-five thousand), Rs.50,000/- (Rupees fifty thousand) and Rs.25,000 (Rupees twenty-five thousand), respectively. For further details about the competitions contact Mr Prasad, Auroville Foundation, Puducherry.

12th InSPA International Conference on Meeting the Challenges in Schools: Towards *Atmanirbhar Bharat*

The 12th Indian School Psychology Association (InSPA) International Conference was organised from 2-4, October 2022. The theme of the Conference is Meeting the Challenges in Schools: Towards *Atmanirbhar Bharat.* As many as 76 delegates from thirteen countries (USA, Canada, United Kingdom, France, Switzerland, Germany, Japan, Malaysia, Thailand, Nepal, Bangladesh, South East Africa, and Sri Lanka), along with 1300 delegates from all over India, participated in the conference. The liveliest event to cap up was Pre-Conference Children Assembly for School Students on 1st and 2nd of October in which 520 school children received counseling from 400 school teachers; they also gave cultural performances for the guests.

The Chief Guest, Hon'ble Union Minister for Education and Skill Development and Entrepreneurship, Shri Dharmendra Pradhan inaugurated the International Conference. The foremost thought in the Union Minster's address was that we have to understand the child in a holistic manner so that his full potential blossoms. He gave a call to psychologists to join other stakeholders involved in the National Education Policy 2020. Psychology, the Minister said, was basic for giving learning experiences to children. One of the most important areas where psychology has the potential to help children was in the formation of character, by the inculcation of basic virtues needed for a good citizen, and above all to imbibe the spirit of sacrifice for the sake of others. Shri Pradhan invited psychologists in this transformation of the education system as envisaged in the National Education Policy. The Minister released the book on *School Psychology in the Indian Context* authored by Prof. Panch. Ramalingam, along with its translations in 15 Indian languages. The Presentation of InSPA Awards 2022, and the Release of *InSPA Book of Abstracts 2022* followed.

Dr. Randeep Guleria, former Director of the All India Institute of Medical Sciences, New Delhi, in his Keynote Address on "Meeting the Challenges of COVID-19 in Schools for Future Well-being, said, "the COVID-19 pandemic has been the biggest

pandemic of our lifetime." The pandemic brought new challenges to the educational sector. He emphasized, "*The education system needs to be strengthened and the right to education using new means of learning should be available to all sections.*"

Pondicherry University has already embraced the National Education Policy 2020 in letter and spirit under the dynamic leadership of Professor Gurmeet Singh, the Vice-Chancellor of Pondicherry University. Professor Gurmeet Singh and his team attended the 'Completion of One Year of Transformative Reform under National Education Policy 2020.' A matter of overwhelming importance is the blossoming of the InSPA under the patronship of Professor Gurmeet Singh. While addressing the delegates of the 12th InSPA, Prof. Singh said that being ignorant about the subject of psychology, over the years he has become thoroughly convinced that the teaching of psychology should not be confined to higher levels, at graduation and post-graduation, but must start from class 9th onward.

A special session on Prof. G.P. Thakur First Memorial Lecture was organised in the Conference. Dr. Jayanthi Ravi, IAS, Secretary, Auroville Foundation has unveiled the Photo of Prof. G.P. Thakur and delivered the special address in the presence of Dr. Archana Thakur, Joint Secretary, UGC, New Delhi. Prof. B. Mukhopadhyay presided over the session. Prof. B.H. Joshi, Provost, GLS University, Ahmedabad, and Prof. S. Renuka Devi remembered Prof. G.P. Thakur's contribution to the nation. Prof. N.K. Saksena, Senior Psychologist, Kanpur has delivered the first memorial lecture. Prof. Panch Ramalingam briefed the scope of the event and invited the scholars to contribute articles for the memorial volume.

In his Presidential Address to the Pre-Conference Children Assembly for School Students, Professor S. Mohan, the Vice Chancellor of Puducherry Technological University, gave a call for teachers to earnestly arouse question-asking ability among the children. This he thinks is possible by taking the attitude of a mother, towards whom a child always turns when he fails to find an answer. Professor Mohan while sharing his personal experiences of teaching experience said; one should always be: passionate, curious, and open.

In the Valedictory Address, Dr. Armoogam Parsuramen, Former Director, UNESCO, Mauritius, highlighted the grand success of the 12th InSPA International Conference with the efforts of the team members. An important part of his speech was the expression of the feeling of ancestral affinity with the Tamil motherland, and he extended his helping hand towards InSPA. Dr. Parsuramen reminded us that InSPA should not miss the call of the Hon'ble Education Minister for dialogue in the context of the National Education Policy and sharing the recommendations of the Conference. Some of the important recommendations of the Conference are:

- First important ingredient that may be added to National Education Policy is action research. Action research assumes that research is a natural part of teaching. Giving learners new experiences, evaluating the outcome of innovations, enhancing or removing certain elements, when the need is felt involving psychologists and other stakeholders in the school ecosystem, the aim being improvising experiences with local know-how. InSPA is also enriching its experience in the improvisation of classrooms in collaboration with Japanese psychologists. It involves audio-visual aids, a virtual atmosphere, and other structural changes. To implement action research, we may need teacher professional development programmes. InSPA has been gaining expertise in action research and has published a book in association with European collaborators.

- The second important ingredient that may be added to National Education Policy is the growth mindset concept of learner experiences. The psychology of growth mindset derives strength from self-determined motivation, in place of external incentives and reinforcers. Some of the indicators of a growth mindset are: developing student's skills; information harnessing strategies; neuroplasticity; and the need for significant others. InSPA has been in touch with the European scholars working in this area.

- The InSPA has also been collaborating with experts from the premier institute of mental health from the NIMHANS, Bangalore. These experts have proficiency in theoretical and applied aspects of the mental problems of school children. They are from clinical neuropsychology, cognitive neuroscience, and clinical psychology. They have developed mobile apps for common problems

like depression. Psychology haslso a sufficient expertise in the theory and application of helping children with special needs, such as those with disabilities and impairments.

- Now InSPA has impeccable expertise in effective parenting programmes which are imperative in the changing family scenario. We have been organizing workshops for teachers in this area. For working mothers, separate counseling sessions may be convened to address common and specific problems at home which are affecting the child's performance at school. Each and every school, at the primary, block, taluk, district- at every rural and urban levels - must have a dedicated and qualified School Counselor to help students. Regular workshops for parents and teachers are imperative by School Psychologists at every school to dealt with challenges of social media addiction, addiction to video games and watching of uncensored content by children. The training and sensitisation of School Counselors and School Psychologists are to be done appropriately.

- InSPA can share its platform for dissemination of psychological knowledge which facilitates the exchange of ideas on National Education Policy among researchers. These researchers come from colleges and universities all over India. The Editorial Boards can think of bringing out special issues of journals on theoretical and applied aspects conducive to character building. More importantly, the ways to inculcate virtues such as empathy, caring, sacrifice help and cooperation.

- Positive psychology is a growing area within psychology. Many of its ideas have undergone intensive research over the last two or three decades. They are in consonance with the core issues in the National Education Policy: social and psychological well-being; joy and happiness; the experience of flow; perseverance in work; facing hardships; and, creativity. Many of the InSPA members are doing research in the area of positive psychology.

- Cultural psychology is another important area that is vital to the theme of indigenous knowledge acquisition and its propagation. For example, the three ethical dimensions of autonomy, community, and divinity, which were later found universal to human nature, were first explored in the temple city of Bhubaneswar. From this base, now the researchers have developed five factors under the Moral Foundation Theory. The initial stimulation came from the cultural and religious milieu in India, but further research was carried out in other parts of the world. Much more information is available on these issues which InSPA can impart when needed.

On sharing the wisdom gained from the deliberations in the mega event, the 12th InSPA International Conference on "Meeting the Challenges in Schools: Towards *Atmanirbhar Bharat*," to sow the seeds of knowledge in the minds of children; to further stress the goal, the President of InSPA invoked the couplet of Thirukkural, which means: *"The wealth that never declines is learning. All others are not riches."*

M K Nambyar Memorial Lecture at SASTRA (Deemed-to-be-University)

The second constitutional lawyer M K Nambyar Memorial Lecture was organized by the SASTRA (Deemed-to-be University), Thanjavur, Tamil Nadu under the aegis of C S Vaidyanathan Chair on Law and Development, recently. Chief Justice of India, U U Lalit showered rich encomiums on the country's much-celebrated constitutional lawyer M K Nambyar for having propounded theories that were not accepted immediately in the 1950s but ended up gaining acceptance over the years and were also found to be fundamental. Delivering the second constitutional lawyer M K Nambyar Memorial Lecture, he said that the seeds sown by Nambyar, through his extensive work, had now grown into a huge banyan tree under which every citizen could find solace. The Chief Justice of India recalled how Nambyar had propounded theories such as the necessity to read Articles 19 (right to freedom of speech and expression) and 21(right to life and personal liberty) of the Constitution together, since a common thread runs through them while arguing the famous A.K. Gopalan's case before a six judge Bench of the Supreme Court. It was in the same case, he had also propounded the theory that a person could not be deprived of his personal liberty except by procedure established by law and that such procedure must also be a proper procedure. All six judges were in awe of his submission and it was evident by the way they had extensively recorded his submissions. However, five of the judges on the

Bench, including Justice M Patanjali Sastri did not agree with his views. Justice Saiyid Fazal Ali alone wrote a dissenting verdict agreeing completely with the submissions made by Nambyar. This minority view ended up being one of the 'classic dissents' in the constitutional history of India, Chief Justice of India said. He pointed out that the submissions made by Nambyar and the decision taken by Justice Fazal Ali were found to be the correct law by the Supreme Court in the subsequent Maneka Gandhi and Puttaswamy cases. The Chief Justice of India also hailed Nambyar for having been instrumental in applying the 'basic structure' doctrine to the Indian Constitution.

In his address, senior counsel C S Vaidyanathan said that it would be better to review the NJAC judgment by a larger Bench and ensure a formal process of consultation between the judiciary and the legislature in the appointment of judges if it was true that the Supreme Court collegium now sends recommendations only if they were to be accepted by the government. "What was sacred to Nambyar and to all of us too is the independence of the judiciary. It is much better to review the NJAC judgment by a larger Bench and then have a formal process of consultation," he said. Former Supreme Court judges B N Srikrishna, N. Santosh Hegde and Vice Chancellor, SASTRA Deemed-to-be-University), Dr. S Vaidhyasubramaniam also spoke.

Delivering the second M K Nambyar Memorial Lecture, Chief Justice traced the origins of modern constitutional jurisprudence on fundamental rights and due process to A K Gopalan vs State of Madras in 1950. His deep textual analysis of R C Cooper, Maneka Gandhi, Golaknath and other landmark cases provided a constitutional master class for legal professionals.

Justice B N Srikrishna, in his presidential address and Justice N Santosh Hegde recalled their personal experiences with M K Nambyar. Senior advocate and former Attorney General, K K Venugopal in his opening remarks traced the remarkably progressive journey of his legendary jurist father from Mofussil to the Metro to the capital court of justice.

The Vice Chancellor, Dr S Vaidhyasubramaniam, in his welcome address recalled Nambyar as the constitutional forerunner responsible for the doctrine of the basic structure of the Constitution. The event was attended by professionals of the bench, bar, faculty and students of law, and other professionals across the country.

National Seminar on Concern for Quality of Legal Education

A One-day National Seminar on 'Concern for Quality of Legal Education: Special Reference to Affiliated Law Colleges' was organized to commemorate the Birth Anniversary of Dr. Bhimrao Ambedkar by the Dr. Bhimrao Ambedkar University, Jaipur, recently. Over 500 participants including distinguished academicians, advocates, promoters, principals, selected students, and faculty members of various law colleges of the state attended the Seminar.

The Seminar was inaugurated in the presence of Hon'ble Justice Bhushan R. Gavai. Judge, Supreme Court of India, New Delhi and Prof Faizan Mustafa, Vice Chancellor, NALSAR, University of Law, Hyderabad. Dr. Dev Swarup, Vice Chancellor, Dr. Bhimrao Ambedkar Law University, Jaipur accorded floral welcome to the dignitaries present on the occasion. Lighting of the lamp by the dignitaries and floral tribute to Baba Saheb Dr. Bhimrao Ambedkar was given by the dignitaries.

In his welcome speech, Dr. Dev Swarup presented an overview about the university. A documentary displaying the journey of the university and its future plans was presented to the audience. He also highlighted the major milestones the University has achieved in its short span of functioning.

Keynote Speaker, Prof. Faizan Mustafa, Vice Chancellor, NALSAR, Hyderabad shared his views on the role of law mentors in imparting judging and advocacy skills on the quality of legal proceedings. He also elaborated pivotal function of the university in promoting budding law colleges in remote locations of the state to flourish. Through this seminar, the University indeed created an essential platform for such law colleges to elevate themselves at the national level. He also focused on the crucial aspects of revamping the legal teaching methodology and research. He emphasized that law is a social science that must incorporate a multidisciplinary approach in teaching. Subjects like Liberal Arts, Science, Applied Science, Technology, etc. must be a part of the syllabus to provide a holistic approach to legal education. Prof Mustafa, while sharing his experiences, also suggested

that the progress of legal education requires complete dedication and sincerity of the teachers and to ensure this the institute must comprehensively focus on the development and evolution of the teachers. It is to be borne in mind that faculty is the spine of imparting knowledge. One important method to ensure this would be to aid the teachers in their research work and enthusiastically promote them. He appreciated the efforts made by Dr. Dev Swarup in this direction and welcomed his visionary decision of inviting state government functionaries, promoters and principals of affiliated law colleges to one platform for addressing the issues related to the affiliation of Law Colleges.

During his address, Hon'ble Justice Bhushan R Gavai stated that Legal Education nourishes the roots of the justice delivery system. The quality of judges and lawyers shapes the core of ensuring justice for every individual and society at large. He also mentioned that along with imparting quality legal education, it is absolutely important to provide clinical legal training to law students. This also forms a part of the institutions' responsibility to spread justice through legal aid in society. He also shared some of the ideologies of Dr. B.R Ambedkar which are the fundamental principles of the constitution of India. India is a country which manifests multicultural and multi-religious dimensions of Indian social structure. Hence the Indian constitution has been drafted to be flexible, accommodated and inclusive. He also highlighted the correlation between equality, liberty and fraternity and their compatibility with one another.

The Vote of Thanks for the inaugural session was extended to the esteemed dignitaries and participants by Prof. Mridul Srivastava, Consultant Law Courses, ALU.

The Panel discussion was on 'Affiliation and Quality of Legal Education of Law Colleges'. Hon'ble Shri Rajendra Singh Yadav, Minister of Higher Education was the Chief Guest during the session and other eminent guests for the session were Prof T S N. Sastri, Vice Chancellor NLU, Sikkim who joined the gathering through online mode as keynote speaker, Prof. Rajeev Jain, Vice Chancellor, University of Rajasthan, Jaipur presided over the event.Other Panelists were Ms Shuchi Tyagi (lAS), Commissioner College Education of Rajasthan, Dr. G S Rajpurohit, Former Dean Faculty of Law, Dr. Bhitmao Ambedkar Law University, Jaipur, Dr. Bhagwana Ram Bishnoi, Principal Govt. Law College, Bikaner, (Member-BoM), and Dr. Kshipra Gupta, Principal Modi Law College, Kota.

Mr. Rajpurohit Yadav, Minister of Higher Education, Rajasthan emphasized on quality teaching in private colleges. He also assured that infrastructure in the Govt. Colleges will be improved within a reasonable time. He also welcomed the online evaluation system- A step taken by Ambedkar Law University. He further lauded the joint efforts of the affiliating law university and Department of Higher Education, Govt. of Rajasthan to improve the quality of education by effective monitoring the institutions offering the course. In response to this, the Vice Chancellor, Dr. Dev Swarup assured him and also briefed the audience about the measures taken by the university in this respect.

During his talk, Prof TSN Sastry highlighted the functionalities of the affiliating universities and appreciated the efforts of the Govt. of Rajasthan in establishing Dr. Bhimrao Ambedkar Law University to promote and ensure quality legal education in the state. He also highlighted the deep-rooted problems of the affiliated colleges illustrating the non-availability of eligible teachers for serving in private colleges.

Prof. Rajeev Jain, Vice Chancellor, University of Rajasthan, Jaipur expressed his view that law is the instrument that regulates and controls the behaviour of society so that the equality of legal education can be maintained. For this, law colleges must be well equipped in the matter of infrastructure and faculty.

Dr. Bhagwana Ram Bishnoi, Principal Govt. Law College, Bikaner raised the problem of NOC, affiliation and BCI approval which are issued by different departments. Further, he also apprised the Commissioner, College Education that there are no permanent Principals in 15 Govt. Law Colleges of the State. He showed his concern about the lacking infrastructure in all these 15 Government law colleges and requested to complete these requirements.

Dr. Kshipra Gupta, Principal, Modi Law College, Kota expressed appreciation for the representation of private law colleges on this platform. She explained her grievance to Commissioner College Education that there is always an inordinate delay in getting permanent NOC by the colleges. Further, she expressed the requirement for academic calendar regarding the

date of examination, schedule for practical training for the students, etc. and showed her concern for refresher courses for faculty involving eminent resource persons and academicians on the University platform which will help in imparting quality legal education.

Dr. G S Rajpurohit, Former Dean, Faculty of Law, Dr. Bhimrao Ambedkar Law University, Jaipur spoke about the University as the primary affiliating body for all law colleges in Rajasthan, for which the University has to play a leading role in the pursuit of excellence in legal education and research in the region. The overall vision is to make the University a centre for academic activity that will also contribute to the development of the state and the nation. The university is committed to imparting state-of-the-art legal education with a strong foregrounding of human values, capable of coping effectively with the numerous paradigm shifts in the globalized world. In today's globalized network of interactions that permeate every aspect of civilization, educational institutions are under an obligation to develop such patterns and perspectives that can meet the needs and expectations of the present and also of the coming generations.

Ms Shuchi Tyagi (lAS), Commissioner College Education of Rajasthan while appreciating the efforts of the Vice Chancellor, thanked him for this seminar which was important to improve the legal ecosystem and respond to the queries raised by panel members. She shared her experience in the short span of her position as Commissioner College Education. Further, she briefed about the complete procedure of granting affiliation. She talked about the measures taken by the regulatory bodies after granting the Permanent NOC to monitor the correct implementation of the norms while charging inspection fees from the affiliated colleges. She also added that the desirability of having better accountability from law colleges on account of their growth and the absence of requisite faculties, more monitoring processes by BCI would be required to ensure that the law colleges which obtain recognition once do not rest on that. This stands true for NOC also where the requirement is to maintain the parameters as set forth by BCI. She mentioned that the main parameters need to be fulfilled.

During Valedictory Session, a floral tribute to Baba Saheb Dr. Bhimrao Ambedkar was given by the dignitaries. The welcome speech was delivered by Dr. Dev Swarup. In his address, Dr. Swarup presented brief overview of the University. A documentary displaying achievements of the university and its future plans was presented for the benefit of the participants of the Seminar. He optimistically concluded that the Ambedkar Law University would be instrumental in producing 'Social Engineers' in society rather than mere law graduates.

Prof. Faizan Mustafa, Vice Chancellor, NALSAR, Hyderabad began his valedictory address by hailing Vice Chancellor, Dr. Dev Swarup as the torch-bearer of legal education in the State of Rajasthan. He attributed CM Rajasthan as the brain behind the genesis of establishing this state-affiliating law university. Acknowledging the role of state-affiliated universities as the trendsetters, he pointed out that these steps have invariably prompted other law colleges, including the ones in the rural areas to emulate their professional ethos. Additionally, Professor Mustafa specifically indicated the immense contribution of the NLUs in shaping legal education in the country. But, he also added that the law graduates produced by NLU's are often considered soft lawyers since their orientation is more inclined toward corporate job profiles. While reiterating the significance of smaller and affiliated law colleges, he mentioned that students from rural and weaker backgrounds get valuable opportunities to realize their dreams of becoming lawyers and jurists by entering the legal educational setup. Quoting Shakespeare, he said, "First thing you do, kill all the lawyers." Expressing disagreement with the quote, he expressed that lawyers are indispensable components in a civilized society and they act as eminent instruments to institute rule of law in the society.

Sh. Rajendra Singh Yadav, Minister of Higher Education, Rajasthan presented an overview of the state of affairs in Higher Education in the state and the efforts being made to regulate the sector in a proper manner. He specifically mentioned the establishment of several academic institutions by the Chief Minister which reflects his concern for Higher Education in the state. He expressed his appreciation for the commendable efforts of the Vice Chancellor, Dr. Dev Swarup in establishing the University with zeal and enthusiasm in a very short span of time.

Shri. Ashok Gehlot, Hon'ble Chief Minister of Rajasthan stated that the true and real meaning of imparting quality legal education invariably rests upon the regular and practical classes run by the well-equipped faculty. Since it was the 131st Birth Anniversary of Dr. Bhimrao Ambedkar, expressing his views, Chief Minister in the simplest way but in-depth expressed that our Constitution warrants the rule of law and any act of the Government taken in the country to the procedure established by law cannot be called under the ambit of constitution. He vociferously advocated the dream of Dr. Bhimrao Ambedkar to establish the Rule of Law with the Co-existence of liberty and equality. Further, showing his concern he insisted upon the responsibility and accountability of the Judiciary were at present democracy is shaking and there is no coherence of multiregional, multi-religious and multi-lingual aspects in the social structure. Lastly in a fine manner, he pointed out certain challenges to legal education in the State of Rajasthan and advanced some concrete and feasible suggestions for law Universities and colleges. He greatly appreciated the efforts of the Vice Chancellor for accepting his invitation to Head the University as its founding Vice Chancellor and for building the University from its roots.

The Vote of Thanks for the valedictory ceremony was proposed by Shri Ayub Khan, Registrar where he thanked all the dignitaries and audience for their esteemed presence which made the event a grand success. He also extended a hearty thanks to the team for organizing the event.

International Conference on Advanced Network Technologies and Intelligent Computing

A three-day International Conference on 'Advanced Network Technologies and Intelligent Computing' is being organized by the Department of Computer Science, Institute of Science, Banaras Hindu University, Varanasi, Uttar Pradesh during December 22-24, 2022 in hybrid mode. The event aims to bring together leading academicians, scientists, researcher scholars, and UG/PG graduates across the globe to exchange and share their research outcomes. It targets to provide a state-of-the-art platform to discuss all aspects (current and future) of Advanced Network Technologies and Intelligent Computing. This will enable the participating researchers to exchange their ideas about applying existing methods in these areas to solve real-world problems. The Topics of the event are:

Advanced Network Technologies

- Blockchain Technology.
- Cloud, Edge and Fog Computing.
- Distributed Computing.
- High Performance Computing.
- Internet of Things.
- Mobile Ad-hoc Networks.
- Networks Security.
- Social Networking.
- Software Defined Networks.
- Wireless Sensor Networks.

Intelligent Computing

- Artificial Intelligence.
- Deep Learning.
- Evolutionary Algorithms Fuzzy Systems.
- Genetic Algorithms Machine Learning Neural Networks.
- Recommendation System.
- Soft Computing.
- Video, Speech and Text Processing using AI.

For further details, contact, Chair, and Convener, Dr. Anshul Verma, Department of Computer Science, Institute of Science, Banaras Hindu University, Varanasi-*221005 (*Uttar Pradesh), Mobile No: *+9198260746181 +917903496917, E-mail: antic2022.bhu@gmail.com/ anshulverma87@gmail.com/anshul.verma@bhu.ac.in.* ❑

THESES OF THE MONTH

SCIENCE & TECHNOLOGY
A List of doctoral theses accepted by Indian Universities
(Notifications received in AIU during the month of September-October, 2022)

BIOLOGICAL SCIENCES

Life Science

1. Anshu Rani. **Role of methyltransferase RV1515C during host-pathogen interaction in mycobacterial pathogenesis**. (Prof. S E Hasnain, Dr. Nasreen Z Ehtesham and Prof. Ashok Kumar Patel), Kusuma School of Biological Sciences, Indian Institute of Technology Delhi, New Delhi.

EARTH SYSTEM SCIENCES

Atmospheric Science

1. Dixit, Ankur. **Hydroclimate modeling over the Himalayan Beas Basin**. (Prof. Sandeep Sahany and Prof. Saroj Kanta Mishra), Centre for Atmospheric Science, Indian Institute of Technology Delhi, New Delhi.

Environmental Science

1. Chatterjee, Rajeshwari. **Spectroscopic analysis, performance and emissions studies of extracted biodiesels for clean environment**. (Prof. Biswajit Paul and Prof. Somnath Chattopadhyaya), Department of Environmental Science & Engineering, Indian Institute of Technology, Dhanbad.

2. Mahato, Jaydev Kumar. **Development of novel adsorbent for the removal of Natural Organic Matter (NOM) from drinking water**. (Prof. S K Gupta), Department of Environmental Science & Engineering, Indian Institute of Technology, Dhanbad.

Geophysics

1. Banerjee, Abir. **Coalbed methane reservoir characterization in Bokaro and Raniganj Coalfields of India**. (Prof.Rima Chatterjee), Department of Applied Geophysics, Indian Institute of Technology, Dhanbad.

2. Yadav, Ashok. **Reservoir characterization using integrated petrophysics-rockphysics and seismic in India**. (Prof. Rima Chatterjee), Department of Applied Geophysics, Indian Institute of Technology, Dhanbad.

ENGINEERING SCIENCES

Atmospheric Science

1. Gupta, Tanvi. **A numerical study of recovery processes in offshore wind farms**. (Prof. Somnath Baidya Roy), Centre for Atmospheric Science, Indian Institute of Technology Delhi, New Delhi.

Biochemical Engineering

1. Bano, Farhat. **Assessment of selected emerging contaminants in wastewaters from rural peri-urban and city areas of Delhi NCR and their microalgal remediation**. (Prof. Anushree Malik and Prof. Z.A. Shaikh), Centre for Rural Development & Technology, Indian Institute of Technology Delhi, New Delhi.

Chemical Engineering

1. Gandhi, Dolly Rajnikant. **Synthesis of zeolite Y using novel material and method for catalytic application**. (Dr. Bhavna Soni and Dr. Rajib Bandopadhyay), Department of Chemical Engineering, Gujarat Technological University, Ahmedabad.

2. Safaya, Malvika Anilkumar. **Formulation of neem oil derived nanoemulsion by low energy method and its characterization**. (Dr. Yogesh Chandrakant Rotliwala), Department of Chemical Engineering, Gujarat Technological University, Ahmedabad.

Civil Engineering

1. Gupta, Sandhya. **A study on soil pollution and associated food contamination due to pesticide use in agriculture**. (Prof. N K Garg and Prof. Manika Gupta), Department of Civil Engineering, Indian Institute of Technology Delhi, New Delhi.

2. Karanjeet Kaur. **Rheological and viscoelastic properties of asphalt binder modified with nano-silica and sasobit**. (Prof. Arvind Krishna Swamy), Department of Civil Engineering, Indian Institute of Technology Delhi, New Delhi.

3. Mandal, Tarapada. **Evacuation simulation and emergency exit choice behaviour analysis: A case study of the metro station**. (Prof. K Ramachandra

Rao and Dr. Geetam Tiwari), Department of Civil Engineering, Indian Institute of Technology Delhi, New Delhi.

4. Rahul Singh. **Implications of reactivity of Permeable Reactive Barrier (PRB) for remediation of multiple contaminants and its long-term performance evaluation**. (Prof. Sumedha Chakma and Prof. Volker Birke), Department of Civil Engineering, Indian Institute of Technology Delhi, New Delhi.

Computer Science & Engineering

1. Pal, Pankaj. **Design and deployment of sensor nodes in IoWSN monitoring infrastructure for precision agriculture**. (Prof. Sachin Tripathi and Prof. Chiranjeev Kumar), Department of Computer Science & Engineering, Indian Institute of Technology, Dhanbad.

2. Agarwal, Gaurav. **Vocal emotion recognition based on deep learning and swarm intelligence optimization techniques**. (Prof. Hari Om), Department of Computer Science & Engineering, Indian Institute of Technology, Dhanbad.

3. Dixit, Anuja. **Devising improved passive forensic techniques to detect copy-move forgery in digital images**. (Prof. Soumen Bag), Department of Computer Science & Engineering, Indian Institute of Technology, Dhanbad.

4. Jha, Ashwini Kumar. **Performance optimization and evaluation of computation offloading in fog architecture**. (Dr. Tanmay D Pawar and Dr. Minal Patel), Department of Computer Science & Engineering, Gujarat Technological University, Ahmedabad.

5. Ramesh Kumar. **Algorithms for connectivity restoration in wireless sensor networks**. (Prof. Tarachand Amgoth), Department of Computer Science & Engineering, Indian Institute of Technology, Dhanbad.

Electrical & Electronics Engineering

1. Varshney, Anshul. **Control of synchronous reluctance motor drive for solar PV array fed water pumping**. (Prof. Bhim Singh), Department of Electrical & Engineering, Indian Institute of Technology Delhi, New Delhi.

2. Arun Kumar. **Enhancement of gain of microstrip antenna**. (Prof. Santanu Dwari), Department of Electronics Engineering Sciences, Indian Institute of Technology, Dhanbad.

3. Bhaumik, Adrish. **Predictive control strategies for speed sensorless induction motor drives**. (Prof. Sukanta Das), Department of Electrical Engineering, Indian Institute of Technology, Dhanbad.

4. Das, Madhu Sudan. **Intelligent control and navigation of wheeled mobile Robot**. (Prof. Sanjoy Mandal), Department of Electrical Engineering, Indian Institute of Technology, Dhanbad.

5. Pal, Diptak. **Stability assessment of inverter-based resources integrated power grids**. (Prof. B K Panigrahi), Department of Electrical Engineering, Indian Institute of Technology Delhi, New Delhi.

6. Panchal, Tejas H. **Design, analysis & performance improvement of radial flux Permanent Magnet Brush Less DC (PMBLDC) motor**. (Dr. Patel Rajeshkumar Meghajibhai), Department of Electrical & Engineering, Gujarat Technological University, Ahmedabad.

7. Rohit Kumar. **Investigation into interpolating polynomials in segmentation of anatomical regions in chest X-rays**. (Prof. Subrata Bhattacharya), Department of Electronic Engineering, Indian Institute of Technology, Dhanbad.

8. Shukl, Pavitra. **Design and development of renewable energy based microgrids with grid synchronization and their applications to EV charging infrastructure**. (Prof. Bhim Singh), Department of Electrical & Engineering, Indian Institute of Technology Delhi, New Delhi.

9. Singh, Shweta. **New analytical characterizations and optimized resource allocation for cooperative Swipt network**. (Prof. Debjani Mitra), Department of Electronic Engineering, Indian Institute of Technology, Dhanbad.

10. Soans, Rijul Saurabh. **Effective and intuitive tools for ophthalmic disorders**. (Prof. Tapan Kumar Gandhi, Prof. Rohit Saxena and Prof. Frans Wcornelissen), Department of Electrical & Engineering, Indian Institute of Technology Delhi, New Delhi.

11. Ugrasen Singh. **Design and performance evaluation of space modulation techniques**. (Prof. Manav Bhatnagar), Department of Electrical & Engineering, Indian Institute of Technology Delhi, New Delhi.

Electronics & Communication Engineering

1. Sharma, Ambika. **Glaucoma diagnosis in a digital retinal image using multi clinical features extracted and fused by deep convolutional neural networks**. (Prof. Monika Aggarwal, Prof. Sumantra

Dutta Roy and Prof. Vivek Gupta), Bharti School of Telecommunication Technology and Management, Indian Institute of Technology Delhi, New Delhi.

Energy Studies

1. Waheed, Sobia. **Studies on the morphological and optoelectronic properties for ultrasonic spray deposited scalable organic solar cells**. (Prof. Supravat Karak), Department of Energy Science & Engineering, Indian Institute of Technology Delhi, New Delhi.

Fuel & Mineral Engineering

1. Maharana, Bhabani Supriya. **Effect of design parameters on separation characteristics of simple cone and dual-cone water-only cyclones treating coal**. (Prof. Nikkam Suresh), Department of Fuel and Mineral Engineering, Indian Institute of Technology, Dhanbad.

Material Science and Engineering

1. Goel, Shubhra. **D-galactose and piperazine derived biodegradable and biocompatible polymers and their applications**. (Prof. Josemon Jacob), Department of Materials Science and Engineering, Indian Institute of Technology Delhi, New Delhi.

Mechanical Engineering

1. Ahmad, Gulshad Nawaz. **Experimental investigation on similar and dissimilar joining of inconel 625 and DSS 2205 by fibre laser welding**. (Prof. N. K. Singh), Department of Mechanical Engineering, Indian Institute of Technology, Dhanbad.

2. Bhardwaj, Rakesh Kumar. **Micro and nano fabrication of Terahertz waveguide components**. (Prof. Naresh Bhatnagar and Prof. V P Dutt), Department of Mechanical Engineering, Indian Institute of Technology Delhi, New Delhi.

3. Bora, Bhabani. **Experimental investigation and parametric optimization of friction stir welding process on different alloys**. (Prof. Somnath Chattopadhyaya), Department of Mechanical Engineering, Indian Institute of Technology, Dhanbad.

4. Diogo, Barreto Darius. **Coupled magneto-elastic and electro-elastic effects in rods**. (Prof. Ajeet Kumar), Department of Applied Mechanics, Indian Institute of Technology Delhi, New Delhi.

5. Md Hasan. **Computationally efficient finite element formulation for blood flow analysis in deformable blood vessels**. (Prof. B.P. Patel and Prof. S. Pradyumna), Department of Applied Mechanics, Indian Institute of Technology Delhi, New Delhi.

6. Ritesh Kumar. **Thermofluidic investigation of branched wavy heat sink**. (Prof. Pawan Kumar Singh), Department of Mechanical Engineering, Indian Institute of Technology, Dhanbad.

7. Singh, Anurag Kumar. **Microstructure based elastoplastic behaviour of porous materials with snow as an example**. (Prof. Puneet Mahajan and Prof. Navin Kumar), Department of Applied Mechanics, Indian Institute of Technology Delhi, New Delhi.

8. Srinivasarao, Gopisetti. **Model based robust control of the twin rotor system: A simulation and experimental study**. (Prof. Sanjoy K Ghoshal), Department of Mechanical Engineering, Indian Institute of Technology, Dhanbad.

9. Tewari, Kamal. **Influence of large-scale antarctic orography and ice sheets on atmospheric circulation and energy transport**. (Prof. Anupam Dewan and Prof. Saroj Kanta Mishra), Department of Applied Mechanics, Indian Institute of Technology Delhi, New Delhi.

10. Tripathi, Varun. **Productivity enhancement in shop floor for earthmoving equipment manufacturing in industry 4.0**. (Prof. Alok Kumar Mukhopadhyay and Prof. Somnath Chattopadhyaya), Department of Mechanical Engineering, Indian Institute of Technology, Dhanbad.

Mining Engineering

1. Beg, Imran Athar. **Investigation on the effect of ventilation on radiation dose received by the miners in low-ore grade underground uranium mines**. (Prof. Patitapaban Sahu), Department of Mining Engineering, Indian Institute of Technology, Dhanbad.

2. Ishwar, S G. **Analyses on surface subsidence due to underground mining operations in the Singhbhum Shear Zone using an integrated approach of PSInSAR and data science techniques**. (Prof. Dheeraj Kumar), Department of Mining Engineering, Indian Institute of Technology, Dhanbad.

3. Singh, Chitranjan Prasad. **Investigations on influence of blast design parameters on blast induced ground vibration and blast performance in large opencast coal mines**. (Prof. A K Mishra), Department of Mining Engineering, Indian Institute of Technology, Dhanbad.

Textile & Apparel Design

1. Ahirwar, Meenakshi. **Development of hand evaluation systems for specialty textiles**. (Prof. B.K.

Behera), Department of Textile and Fiber Engineering, Indian Institute of Technology Delhi, New Delhi.

MATHEMATICAL SCIENCES

Mathematics

1. Bhoriya, Deepak. **Entropy stable schemes for relativistic flows**. (Prof. Harish Kumar), Department of Mathematics, Indian Institute of Technology Delhi, New Delhi.

2. Das, Pitambar. **Some efficient estimation strategies in sample surveys**. (Prof. G N Singh), Department of Mathematics and Computing, Indian Institute of Technology, Dhanbad.

3. Pradeep Singh. **Billiards on hyperbolic tables**. (Prof. Anima Nagar), Department of Mathematics, Indian Institute of Technology Delhi, New Delhi.

4. Thakur, Madhu Kant. **Distance distributions of some classes of repeated-root constacyclic codes for multi-symbol read channels and applications in MDS codes**. (Prof. Abhay Kr Singh), Department of Mathematics and Computing, Indian Institute of Technology, Dhanbad.

PHYSICAL SCIENCES

Chemistry

1. Awasthi, Niraj Kumar. **Studies on Kasturi Methi (Trigonella Foenum-Graecum) for development of nutraceuticals product**. (Prof. S N Naik), Centre for Rural Development & Technology, Indian Institute of Technology Delhi, New Delhi.

2. Bhardwaj, Deepa. **Responsive nature and functional activities of UO_2 (VI) ion on interaction with (O,N) and (O,N,S/Se) based acyclic and cyclic donor bases**. (Prof. Jai Deo Singh), Department of Chemistry, Indian Institute of Technology Delhi, New Delhi.

3. Dolui, Pritam. **New synthetic and catalytic methods for the oxidation of benzyl amines benzyl alcohols and styrenes and reduction of levulinic acid**. (Prof. Anil J Elias), Department of Chemistry, Indian Institute of Technology Delhi, New Delhi.

4. Garia, Alankrita. **Oxidative functionalization and heterocyclization mediated by DIB, PhIO and selectfluor™**. (Prof. Nidhi Jain), Department of Chemistry, Indian Institute of Technology Delhi, New Delhi.

5. Jyoti. **Studies on reactivity and molecular structures of uranyl (Vl) ion in response to O,N,S-based acyclic and cyclic organic species in non-aqueous medium**. (Prof. Jai Deo Singh), Department of Chemistry, Indian Institute of Technology Delhi, New Delhi.

6. Keshri, Kumer Saurav. **Oxide based nanocatalysts for organic and environmentally benign transformations**. (Prof. Biswajit Chowdhury), Department of Chemistry and Chemical Biology, Indian Institute of Technology, Dhanbad.

7. Majhi, Kartick Chandra. **Design and development of efficient electrocatalysts for hydrogen evolution reaction**. (Prof. Mahendra Yadav), Department of Chemistry and Chemical Biology, Indian Institute of Technology, Dhanbad.

8. Maurya, Govind Prasad. **Functional self-assembling systems: Synthesis and biophysical characterization**. (Prof. V Haridas), Department of Chemistry, Indian Institute of Technology Delhi, New Delhi.

Physics

1. Govind. **Broadband plasmonic nanostructures for ultrasensitive surface enhanced Raman spectroscopy detection**. (Prof. R K Soni), Department of Physics, Indian Institute of Technology Delhi, New Delhi.

2. Vikas Kumar. **Microstructured fibers and nonlinear crystals based terahertz sources and devices**. (Prof. R.K. Varshney and Prof. Sunil Kumar), Department of Physics, Indian Institute of Technology Delhi, New Delhi. ❑

NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL(NAAC)

(An Autonomous Institution of the University Grants Commission)
P.O.Box No. 1075, Nagarbhavi,
Bengaluru- 560072. Website : www.naac.gov.in

No. 02/NAAC/Admin/Rect/2022 Date: 28.10.2022

VACANCY CIRCULAR

The National Assessment and Accreditation Council (NAAC) invites applications for Recruitment of one post of **Deputy Adviser (Deputation).** The details can be obtained from NAAC website **www.naac.gov.in** The candidates should submit their applications **online only** through NAAC website on or before **27.11.2022**.

Sd/- Administrative Officer, NAAC

Marthoma College For Women, Perumbavoor

(Affiliated to Mahatma Gandhi University, Kottayam, Re-Accredited By NAAC with B+grade),
Kerala 683 542
Phone : 0484 2522723 ● Fax 0484 2520823
Mob : 9446438500
Email. mtcwpbrrecruitment@gmail.com
mtcwpbr@yahoo.in

WANTED

Applications are invited from eligible candidates for the following posts. Age and Qualifications as per UGC/ University/Govt. rules. Apply **within 30 days** in the prescribed form which can be had from the college office on payment of Rs.1500/- (Rs.1600/- by post).

Assistant Professor

PWD -"*Visually impaired*" - Mathematics – 1

The appointment shall be based on G.O (Ms) No. 242/2022/HEDN dated 18/05/2022 and G.O. (P) No. 119/2005/SWD dated 06/08/2005.

Manager

Maharshi Vivekanand Samajkalyan Sanstha's
Matoshri Gurubasavva Kalyanshetti Art's & Commerce
Mahila Mahavidyalaya
Hannur Road, Akkalkot, Dist. Solapur 413 216
Phone No- 02181220789
Email: gurumahila@rediffmail.com
Minority College
(Affiliated to Solapur University)

WANTED

Applications are invited from eligible candidates for the following **permanent Non-Grant** posts.

Sr. No.	Subject Designation	Total Vacant Posts	Open Post
1	**Principal**	01 Full Time	01
2	**Director of Physical Education**	01 Full Time	01
3	**Librarian**	01 Full Time	01
4	**Assistant Professor (English)**	01 Full Time	01
5	**Assistant Professor (History)**	01 Full Time	01
6	**Assistant Professor (Economics)**	01 Full Time	01

Note : 1) Apply giving full particulars **within 30 days** from the date of publication of this advertisement to the undersigned.
2) For detailed information about posts, qualifications and other terms and conditions please visit (University) **website: su.digitaluniversity.ac.**

Place : Akkalkot

Sachin Kalyanshetti
PRESIDENT
Maharshi Vivekanand Samajkalyan Sanstha,
Akkalkot, Dist. Solapur, Phone No. 02181-220789

Dr. Babasaheb Ambedkar Marathwada University Aurangabad – 431 004 (Maharashtra State)

Ph. Nos. 0240-2403399 – 400, (Off.) 2403104.
E-mail : registrar@bamu.ac.in, Website : www.bamu.ac.in

Advertisement for the Posts of
Finance & Accounts Officer

Dr. Babasaheb Ambedkar Marathwada University, Aurangabad is "A" Grade University re-accredited by NAAC in 2019. The jurisdiction of the university is spread over Aurangabad, Jalna, Beed & Osmanabad Districts of Maharashtra.

Online applications for the following Statutory Posts invited from eligible Indian national in the prescribed application form**.**

Sr. No	Advt. No.	Name of the Post	No. of Post	Category
1.	**Estt/03/2022**	**Finance & Accounts Officer**	01	Isolated

Detailed information about Qualifications, Experiences & submission of application etc. is made available on University **Website. www.bamu.ac.in.**

i) Last date for online submission of forms: **28-11-2022.**
ii) Last date for receipt of application forms (Hard Copy) in the University Office : **06-12-2022.**

Date : 03-11-2022 **Registrar**

SWARRNIM
STARTUP & INNOVATION UNIVERSITY
WHERE IDEAS COME ALIVE.
INDIA'S FIRST UNIVERSITY FOR STARTUP

RANKED IN TOP 50 NATIONAL Institutions on Innovation Achievement & Top 4 Private Universities Selected from Gujarat 2020 Announced by Shri. M. Venkaiah Naidu Hon'ble Vice President of India 2020

RANKED AS one of the top universities in India in the BAND-PROMISING category in the Atal Ranking of Institutions on Innovation Achievements 2021, an initiative of the Ministry of Education, Government of India. 2021

RATED 3.5/4 STARS in Institutions' Innovation Council 3.0 (2020-21) annual performance in University Category awarded by Ministry of Education, Govt. Of India. 2021

RECRUITMENT ADVERTISEMENT

Applications are Invited from perspective & Eligible candidates for Teaching & Non-Teaching Positions in a Following faculties of the Swarrnim startup and Innovation University.

University Invited Applications for its Constituent Institutes/Colleges/Faculty and PhD. Guide Purpose. Faculty of Engineering (Diploma & Degree), Faculty of Design, Faculty of Science, Faculty of Business (Commerce) & Management, Faculty of liberal Arts, Faculty of Faculty of Computer Science and Application.

TEACHING STAFF:

Director General	Professor	Lecturer (Diploma Engineering)
Duputy Provost (Pro-Vice Chancellor)	Associate Professor	Research Assistants
Director/Principal	Assistant Professor	Teaching Assistants.

NON- TEACHING STAFF:

Registrar, Director of Physical Education & Student Welfare, Director (Research), librarian, Controller Of Examinations, Deputy Registrar, Assistant Registrar(Establishment), Assistant Registrar(Exam) Public Relation Officer, Jr Engineer(Civil), Lab Assistant, Purchase & Store Officer, Sr Manager- International Admission, Training & Placement Officer, Marketing Executive (Admission), PS to Provost, PA to Registrar, Head Clerk, Senior Clerk, Junior Clerk, Computer Operator, Receptionist.

- Interested Candidates has to apply for Different Positions in Separate application.
- Qualifications & Salary as Per UGC, Respective council, Govt. of Gujarat & University norms.
- Please see our Website for More Details and Application Forms.
- Applications will Have to be submitted through Online- **www.swarrnim.edu.in** and Submit Hard Copy with Mark sheets, Degree Certificate, Experience Certificate and Other Testimonials Upto 30/11/2022.

Place: Gandhinagar, Gujarat | **Date:** 01/11/2022

Registrar

Campus Address: At: Bhoyan Rathod, Opp. IFFCO, Nr ONGC WSS, Adalaj Kalol Highway, Gandhinagar-382420.

WANTED

Applications are invited for the post of Perspectives in Education, Pedagogy Subjects, Health & Physical Education and Performing Arts to be filled in **BHAGWANBABA B.ED COLLEGE, KAREGAON, TQ. & DIST. PARBHANI** (Permanent Non-Granted). Eligible Candidates should submit their application along with all necessary documents **within 15 Days** from date of publication of this Advertisement by registered post only.

Sr. No.	Position	No. of Posts	Nature	Reservation
	B.Ed.	14	Regular	Open 05 SC 02 ST 01 VJA 01 NTC 01 OBC 03 EWS 01
1	Perspective in Education			
2	Pedagogy Subject (Math., Science, Social Science, Language)			
3	Health & Physical Education			
4	Performing Arts (Music/Dance/Theatre) Fine Art			

Qualifications:- As per UGC & NCTE (2014 Rule).

The faculty shall possess the following qualification :-

A) Prespectives in Education or Foundation Courses:-
i) Post Graduate degree in Social Science with minimum 55% marks. ii) M.Ed. degree from a recognized university with minimum 55% marks.
OR
i) Postgraduate (M.A.) degree in Education with minimum 55% marks. ii) B.Ed./B.El.Ed. degree with minimum 55% marks. iii) SET/NET/ Ph.D. in Education.

B) Curriculum and Pedagogic Courses:-
i) Postgraduate degree in Sciences/Mathematics/Social Sciences/Languages with minimum 55% marks. ii) M.Ed. degree with minimum 55% marks.
iii) SET/NET/ Ph.D. in Education.

C) Health & Physical Education:-
i) Master of Physical Education (M.P.Ed.) with minimum 55% marks. ii) SET/NET/Ph.D. in Physical Education.

D) Performing Arts (Music/Dance/Theatre) Fine Art:-
i) Post graduate degree in Fine Arts (MFA) with minimum 55% marks.
OR
i) Post graduate degree in Music/Dance/Theatre Arts with minimum 55% marks. ii) SET/NET/Ph.D. in Fine Arts.

Salary and Allowance Pay : Scale as per UGC, State Government & Swami Ramanand Teerth Marathwada University, Nanded rules from time to time.

NOTE :

1. Prescribe application form is available on the University **Website : (srtmun.ac.in).**
2. No T.A./D.A. will be paid to attend the interview.
3. Eligible candidates those who are already in services should submit their application though proper channel.
4. 3% Reservation for handicapped and 30% for woman candidates.
5. All attested Xerox Copies of certificates and other relevant documents should be attached to the application form.

Address of Correspondence
Secretary,
SHIVPRATAP GRAMVIKAS MANDAL, MARAGALWADI,
Tq. GANGAKHED, Dist. PARBHANI, Pin-431514

WANTED

Application are invited for the post of Principal to be filled in **BHAGWANBABA B.ED COLLEGE, KAREGAON, TQ. & DIST. PARBHANI (Permanent Non-Granted)** run by **SHIVPRATAP GRAMVIKAS MANDAL, MARAGALWADI (Maharashtra).** Eligible Candidates should submit their application along with all necessary documents **within Fifteen Days** from the date of the advertisement by Registered post only.

Sr. No.	Name of Post	Number of Post	Reservation
1	**Principal**	01	Unreserved

Educational Qualification:-

1. Postgraduate Degree in Arts /Sciences / Social Sciences / Humanities /Commerce with minimum 55% Marks.
2. M.Ed. with minimum 55% Marks.
3. Ph.D. in Education or in any Pedagogic subject offered in the Institution.
4. Ten Years of Teaching experience in a Secondary Teacher Education institution.

Desirable :- Diploma/Degree in Educational Administration or Educational Leadership.

Salary and Allowances:-
Pay Scales as per the U.G.C., State Government & Swami Ramanand Teerth Marathwada University's rules from time to time.

Note:-

1. Prescribe Application form is available on University **Website (www.srtmun.ac).**
2. No T.A./D.A. Will be paid to attend the interview.
3. Eligible Candidates those who are already in services should submit their application though proper channel.
4. All attested Xerox copies of certificates and other relevant documents should be attached with the application form.

Address of Correspondence:-

Secretary,
SHIVPRATAP GRAMVIKAS MANDAL, MARAGALWADI,
Tq. GANGAKHED, Dist. PARBHANI, Pin-431514

Secretary

WANTED

Applications are invited for the post of Perspectives in Education, Pedagogy Subjects, Health & Physical Education and Performing Arts to be filled in in **NEW MAULANA AZAD EDUCATION SOCIETY COLLEGE OF EDUCATION, PINGLI ROAD, PARBHANI, Tq. & Dist. PARBHANI** (Permanent Non-Granted). Eligible Candidates should submit their application along with all necessary documents **within 15 Days** from date of publication of this advertisement by registered post only.

Sr. No.	Position	No. of Posts	Nature	Reservation
B.Ed.		14	Regular	Open 05 SC 02 ST 01 VJA 01 NTC 01 OBC 03 EWS 01
1	Perspective in Education			
2	Pedagogy Subject (Math., Science, Social Science, Language)			
3	Health & Physical Education			
4	Performing Arts (Music/Dance/Theatre) Fine Art			

Qualifications:- As per UGC & NCTE (2014 Rule).

The faculty shall possess the following qualification.

A) Perspectives in Education or Foundation Courses:-
i) Post-graduate degree in Social Science with minimum 55% marks. ii) M.Ed. degree from a recognized university with minimum 55% marks.
OR
i) Post-graduate (M.A.) degree in Education with minimum 55% marks. ii) B.Ed./B.El.Ed. degree with minimum 55% marks. iii) SET/NET/ Ph.D. in Education.

B) Curriculum and Pedagogic Courses:-
i) Post-graduate degree in Sciences/Mathematics/Social Sciences/Languages with minimum 55% marks. ii) M.Ed. degree with minimum 55% marks.
iii) SET/NET/ Ph.D. in Education.

C) Health & Physical Education:-
i) Master of Physical Education (M.P.Ed.) with minimum 55% marks. ii) SET/NET/Ph.D. in Physical Education.

D) Performing Arts (Music/Dance/Theatre) Fine Art:-
i) Post-graduate degree in Fine Arts (MFA) with minimum 55% marks.
OR
i) Post-graduate degree in Music/Dance/Theatre Arts with minimum 55% marks. ii) SET/NET/Ph.D. in Fine Arts.

Salary and Allowance Pay : Scale as per UGC, State Government & Swami Ramanand Teerth Marathwada University, Nanded rules from time to time.

NOTE :

1. Prescribe application form is available on the University **Website : (srtmun.ac.in).**
2. No T.A./D.A. will be paid to attend the interview.
3. Eligible candidates those who are already in services should submit their application though proper channel.
4. 3% Reservation for handicapped and 30% for woman candidates.
5. All attested Xerox Copies of certificates and other relevant documents should be attached to the application form.

Address of Correspondence:-
Secretary,
NEW MAULANA AZAD EDUCATION SOCIETY COLLEGE OF EDUCATION, PINGLI ROAD, PARBHANI,
Tq. & Dist. PARBHANI, Pin-431401

WANTED

Application are invited for the post of Principal to be filled in **NEW MAULANA AZAD EDUCATION SOCIETY COLLEGE OF EDUCATION, PINGLI ROAD, PARBHANI, Tq. & Dist. PARBHANI, (Permanent Non-Granted)** run by **NEW MAULANA AZAD EDUCATION SOCIETY, PARBHANI, Tq. & Dist. PARBHANI (Maharashtra).** Eligible Candidates should submit their application along with all necessary documents **within Fifteen** Days from the date of the advertisement by Registered post only.

Sr. No.	Name of Post	Number of Post	Reservation
1	Principal	01	Unreserved

Educational Qualification:-

1. Post-graduate Degree in Arts /Sciences/Social Sciences/Humanities/Commerce with minimum 55% marks.
2. M.Ed. with minimum 55% marks.
3. Ph.D. in Education or in any Pedagogic subject offered in the Institution, and
4. Ten Years of Teaching experience in a Secondary Teacher Education Institution.

Desirable :- Diploma/Degree in Educational Administration or Educational Leadership.

Salary and Allowances:-
Pay Scales as per the U.G.C., State Government & Swami Ramanand Teerth Marathwada University's rules from time to time.

Note:-

1. Prescribe Application form is available on University Website **(www.srtmun.ac).**
2. No T.A./D.A. Will be paid to attend the interview.
3. Eligible Candidates those who are already in services should submit their application though proper channel.
4. All attested Xerox copies of certificates and other relevant documents should be attached with the application form.

Address of Correspondence:-
Secretary,
NEW MAULANA AZAD EDUCATION SOCIETY COLLEGE OF EDUCATION, PINGLI, ROAD, PARBHANI,
Tq. & Dist. PARBHANI, Pin-431401

Secretary

WANTED

Application are invited for that post of principal to the filled in **Shahuraje Adhyapak Mahavidyalay, Ahmedpur, Tq. Ahmedpur, Dist. Latur** run by **Shivchatrapati Sevabhavi Sanstha, Shindgi (B.K.), Tq. Ahmedpur, Dist. Latur** (Permanent Non-Granted). Eligible candidates should submit their application along with all necessary documents **within Fifteen days** from the date of publication of the advertisement by Registered Post only.

Sr. No	Name of the post	Post	Reservation
1	**Principal**	01	Unreserved

Educational Qualification:

The Faculty shall process the following qualification.

1. Post-graduate Degree in Arts/Science/Social Sciences/Humanities/Commerce with minimum 55% marks.
2. M.Ed with minimum 55% marks.
3. Ph.D in Education or in any a Pedagogic subject offered in the institution, and
4. Ten years of Teaching experience in a Secondary Teacher Education Institution.

Desirable: Diploma/Degree in Education Administration or Education Leadership.

Salary &Allowance Pay:- Scales as par the UGC state Government & Swami Ramanand Teerth Marathwada University rules from time to time.

Note :-

1 Prescribed application form is available on the University **Website (www.srtmun.ac.in).**
2 No T.A/ D A will be paid to attend interview.
3 Eligible candidates those who are already in service should submit their application through Proper channel.
4 All attested Xerox Copies of certificates other relevant documents should be attached to the application from.

Address for correspondence:-
Shahuraje Adhyapak Mahavidyalay, Ahmedpur, Tq. Ahmedpur, Dist. Latur, Thodga Road, Near Chame Gardan, Ahmedpur, Tq. Ahmedpur, Dist. Latur, Pin Code - 413 515, **Email ID: shahu2004@rediffmail.com.**

WANTED

Applications are invited from the eligible Candidates for the following post in **Pu. Ahilyadevi Adhyapak Mahavidyalaya Sangvi (Su.), Tq. Ahmadpur, Dist. Latur (B. Ed) (Permanent Non-Granted)** run by Shree Ganesh Shikshan Prsarak Mandal Mandurki, Tq. Cahkur, Dist. Latur. The application duly completed in all respects should reach on the following address **within fifteen days** from date of publication of the advertisement by registered post only. The candidates of reserve category should submit one copy of application to The Assistant Registrar, Special Cell, Swami Ramanand Teerh Marathwada University Nanded.

Sr. No	Subject	Name of the Post (Designation)	No. of Post	Nature	Reservation
1	Perspectives in Education	Assistant Professor	02	Regular	Open-02 SC-01 ST-1 VJNT (A)-01 VJNT(C)-01 OBC-03 EWS- 01
2	Pedagogy subject (Math's, Science, Geography, English, Marathi, Education)	Assistant Professor	06		
3	Health and Physical Education	Assistant Professor	01		
4	Performing Arts (Music /Dance/Theatre /Fine Arts	Assistant Professor	01		

Constitutional and Social reservation, Educational Qualification and Pay Scale as per NCTE / UGC/ Maharashtra State Government / SRTMU Nanded.
Educational Qualification:- The faculty shall possess the following qualification:-

A) Perspectives in Education or Foundation Courses
Post-graduate degree in Social Science with minimum 55% marks, M.Ed. degree from a recognized university with minimum 55% marks, OR Postgraduate (M. A) degree in Education with minimum 55% marks, B.Ed./B.El.Ed . degree with minimum 55% marks, SET / NET Ph.D. in Education.

B) Curriculum and Pedagogic Courses
Post-graduate degree in Sciences / Mathematics / Social Sciences/Languages with minimums 55% marks, M.Ed. degree with minimum 55% marks, SET/NET Ph.D. in Education.

C) Health & Physical Education
Master of Physical Education (M.P.Ed.) with minimum 55% marks, SET/NET/Ph.D. in Physical Education.

D) Performing Arts (Music/Dance/Theatre) Fine Art
Post-graduate degree in Fine Arts (MFA) with minimum 55 % marks OR Post graduate degree in Music/Dance /Theatre Arts with minimum 55% marks, SET / NET / Ph.D. in Fine Arts.

Salary and Allowance Pay : Scale as per UGC, NCTE, Maharashtra State Government & Swami Ramanand Teerth Marathwada University, Nanded rules from time to time .

Note: Prescribe application form is available on the University **Website (srtmun.ac.in)**, No T.A./D.A will be paid to attend the interview, Eligible candidates those who are already in services should submit their application though proper channel, 3% Reservation for handicapped and 30% for woman candidates, All attested Xerox Copies of certificates and other relevant documents should be attached to the application Form.

Address of Correspondence: To, The Principal, Pu. Ahilyadevi Adhyapak Mahavidyalaya, Sangvi (Su.), Tq. Ahmadpur, Dist. Latur, Pin Code- 413515 (Maharashtra), Mob No: 9763830323, 7020711699

Secretary, Shree Ganesh Shikshan Prsarak Mandal, Mandurki, Tq. Cahkur, Dist. Latur, Pin-416 515

WANTED

Application are invited for the post of Principal to be filled in **SHRI DHANESHWARI MANAV VIKAS MANDAL'S R.B.M. COLLEGE OF EDUCATION (B.ED & M.ED), HATTA, TQ. BASMATH, DIST. HINGOLI (Permanent Non-Granted)** run by **SHRI DHANESHWARI MANAV VIKAS MANDAL (Maharashtra).** Eligible Candidates should submit their application along with all necessary documents **within Fifteen Days** from the date of the advertisement by Registered post only.

Sr. No.	Name of Post	Number of Post	Reservation
1	Principal	01	Unreserved

Educational Qualification:-

1. Postgraduate Degree in Arts /Sciences/Social Sciences/Humanities /Commerce with Minimum 55% Marks.
2. M.Ed. with minimum 55% Marks.
3. Ph.D. in Education or in any Pedagogic subject offered in the Institution and Ten Years of Teaching experience in a Secondary Teacher Education Institution.
4. Principal is on Lien period upto 02/06/2023.

Desirable :- Diploma/Degree in Educational Administration or Educational Leadership.

Salary and Allowances:-

Pay Scales as per the U.G.C., State Government & Swami Ramanand Teerth Marathwada University's rules from time to time.

Note:-

1. Prescribe Application form is available on University **Website (www.srtmun.ac).**
2. No T.A./D.A. will be paid to attend the interview.
3. Eligible Candidates those who are already in services should submit their application though proper channel.
4. All attested Xerox copies of certificates and other relevant documents should be attached with the application form.

Address of Correspondence:-

Secretary

SHRI DHANESHWARI MANAV VIKAS MANDAL'S

R.B.M. COLLEGE OF EDUCATION (B.ED & M.ED), HATTA,

TQ. BASMATH, DIST. HINGOLI, PIN – 431 705

Secretary

WANTED

Applications are invited for the post of Professor, Associate Professor and Assistant Professor (M.Ed), & Perspectives in Education, Pedagogy Subjects, Health & Physical Education and Performing Arts (B.Ed) to be filled in **SHRI DHANESHWARI MANAV VIKAS MANDAL'S R.B.M.COLLEGE OF EDUCATION (B.ED & M.ED), HATTA, TQ. BASMATH, DIST. HINGOLI (MAHARASHTRA) (**Permanent Non-Granted). Eligible Candidates should submit their application along with all necessary documents **within 15 days** from date of publication of this advertisement by registered post only.

Sr. No.	Position	No. of Posts	Nature	Reservation
M.Ed		01	Regular	Unreserved
1	Professor			
2	Associate Professor	01	Regular	Unreserved
B.Ed. Assistant Professor		18	Regular	OPEN-07 SC-02 ST-01 VJ(A)-01 NTB-01 NTC-01 OBC-03 EWS-02
1	Perspective in Education			
2	Pedagogy Subject (Math., Science, Social Science, Language)			
3	Health & Physical Education			
4	Performing Arts (Music/Dance/Theatre) Fine Art			

Qualifications :- As per UGC & NCTE (2014 Rule).

A) Professor and Associate Professor shall possess the following Qualification:-

i) Post-graduate degree with minimum 55% Marks in the discipline relevant to the area of specialization. ii) Post-graduate degree in Education (M.Ed./M.A. Education) with minimum 55% marks. iii) Ph.D. degree in Education or in the discipline relevant to the area of specialization. iv) Any other qualifications prescribed by UGC like NET qualification or length professional teaching experience as per UGC or state government norms for the positions of Professor and Associate Professor.

B) Assistant Professor shall possess the following Qualification:-

A) Perspectives in Education or Foundation Courses

i) Post-graduate degree in Social with minimum 55% marks. ii) M.ED degree from a recognized university with minimum 55% marks.

OR

i) Post-graduate (M.A.) degree in Education with minimum 55% marks. ii) B.Ed./B.E.L.Ed. Degree with minimum 55% Marks. iii) SET/NET/Ph.D in Education.

B) Curriculum and Pedagogic Courses:-

i) Post-graduate degree in Sciences/Mathematics/ Social Sciences/Languages with minimum 55 % marks. ii) M.Ed degree with minimum 55 % marks. iii) SET/NET/Ph.D in Education.

C) Health & Physical Education:-

i) Master of Physical Education (M.P.Ed.) with minimum 55% marks. ii) SET/NET/Ph.D. in Physical Education.

D) Performing Arts (Music/Dance/Theatre) Fine Art:-

i) Post-graduate degree in fine Arts (MFA) with minimum 55 % marks.

OR

i) Post-graduate degree in Music/Dance /Theatre Arts with minimum 55 % marks. ii) SET/NET/Ph.D. in Fine Arts.

Salary and Allowance Pay: Scale as per UGC, State Government & Swami Ramanad Teerth Marathwada University, Nanded rules from time to time.

NOTE :

1) Prescribe application from is available on the University **Website : (srtmun.ac.in).** (2) No. T.A./D.A. will be paid to attend the interview. (3) Eligible candidates those who are already in services should submit their application though proper channel. (4) 3 % Reservation for handicapped and 30 % for woman candidates. (5) All attested Xerox Copies of certificates and other relevant documents should be attached to the application form.

Address of Correspondence
Secretary
SHRI DHANESHWARI MANAV VIKAS MANDAL'S
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Announcement

Themes for Forthcoming Special Issues of the University News

Special Numbers of the University News being brought out on the occasion of AIU Zonal Vice Chancellors' Meets during November, 2022—March, 2023 are on the following themes:

1. ***Pedagogies and Use of Technologies for Transformative Higher Education*** to be published on December 12, 2022 on the occasion of East Zone Vice Chancellors' Meet to be held at The ICFAI University, Sikkim. Last date for receipt of Article is **November 30, 2022**.
2. ***Transformative Curriculum for a Holistic and Multidisciplinary Higher Education*** to be published on January 09, 2023 on the occasion of Central Zone Vice Chancellors' Meet to be held at Symbiosis University of Applied Sciences, Indore. Last date for receipt of Article is **December 30, 2022**.
3. ***Research & Excellence for Transformative Higher Education*** to be published on January 30, 2023 on the occasion of South Zone Vice Chancellors' Meet to be held at Andhra University, Visakhapatnam, Andhra Pradesh. Last date for receipt of Article is **January 15, 2023**.
4. ***Evaluation Reforms for Transformative Higher Education*** to be published on February 20, 2023 on the occasion of West Zone Vice Chancellors' Meet to be held at Dr. Babasaheb Ambedkar Marathwada University, Aurangabad, Maharashtra. Last date for receipt of Article is **February 10, 2023.**
5. Special Issue on the theme '**Transformative Higher Education for *Atma Nirbhar Bharat'*** will be brought out in the month of March, 2023. Last date for receipt of Article is **February 20, 2023**.

Guidelines for Contributors and Editorial Policies

To submit the manuscripts for publication, the contributor need to follow the guidelines given below:

- Articles submitted for the Journal should be original contributions and should not be under consideration for any other publication at the same time. A declaration is to be made by the author in the covering letter that the paper is original and has not been published or submitted for publication elsewhere.
- Manuscripts including tables, figures and references should be around 3000-4000 words for articles, 2000 – 5000 words for Convocation Addresses, 1000 words for Book Reviews and 600 words for Communications.
- All the manuscripts should typed in double-space with 12 point font and ample margin on all sides on A 4 size paper.
- The cover page should contain the title of the paper, author's name, designation, official address, address for correspondence, contact phone/mobile numbers and e-mail address.
- The main text should not contain footnotes. References should be given at the end of the

(cont'd. to next page)

(cont'd. from prev. page)

manuscript and should contain only those cited in the text of the manuscript. The full reference should be listed at the end in alphabetical order running the following style:

Book

Miles, M., and Huberman, M.,(1994). *Qualitative Data Analysis*. London : Sage.

Articles

Over, R.(1982). Does research productivity decline with age?

Higher Education, 11, 511-20.

Chapter in a Book

Rendel, M. (1986). How many women academics 1912-1977? In R. Deem (ed.), *Schooling for Women's Work*. London: Routledge.

Article Retrieved from Website

Mazumdar, T (Year, Month, Date Published). *Article Title.* Retrieved from URL.

- Authors are responsible for any copyright clearance, factual inaccuracies and opinions expressed in their paper.
- No fees is payable to submit or publish in this Journal.

Editorial Policies

- The final decision on the acceptance or otherwise of the article rests with the Editorial Committee and it depends entirely on its standard and relevance. The title and content of the article accepted may be modified to meet the journal's standards of contents, presentation, style and other specific requirement. Authors may also be requested to revise their manuscripts before they can be accepted for publication. Correspondence in this regard will be done with the first named author unless otherwise indicated.
- Maximum time taken for processing the article is six months. Contributors are free to send the material to any other publication after a period of six months from the date of their submitting the article to the University News, if they do not receive any intimation from AIU. Author will receive two complementary copies of the Journal immediately after its publication
- AIU may re-use the articles published in the University News for its various publications.
- AIU may extend courtesy to other journals or websites to use the articles published in the University News if due credit is given to the author(s) of the article(s) and the University News. Only those manuscripts will be published which are sent through E-mail: *ramapani.universitynews@gmail.com* and *universitynews@aiu.ac.in* to:

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Association of Indian Universities
&
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Welcome

The Delegates

of

AIU North Zone

Vice Chancellors' Meet – 2022-23

(November 10-11, 2022)

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