<center>**Faculty Development Programme (FDP)**</center>
<center>**Artificial Intelligence and Big Data Analysis using Python**</center>

AIU-AADC, Berhampur University and Dept. of Computer Sc. in collaboration with AIU, New Delhi organized a Six-Days Faculty Development Programme on Artificial Intelligence and Big Data Analysis using Python during October 16-21, October 2023. The programme was attended by 33 registered participants both from within and outside of Odisha. The focus of the FDP was to provide an in-depth knowledge of the theoretical aspects, algorithms and models being used in the big data analysis with the help of advanced AI techniques including Python. The resource persons were a good mix of academicians and industry experts who covered various aspects of AI and Big data analytics with implementation using the Python programming language.

Day 1: The program was inaugurated by Professor Dr. Sushant Kumar Baral, Chairman of the Post Graduate Council of the University. Prof. P. S. Avadhani of Andhra University graced the occasion as the Chief Speaker and elaborately discussed about usefulness of Python in big data analysis for all emerging fields. Prof. Manas Ranjan Patra, retired professor of the Department of Computer Science delivered his inaugural address and touched upon many important usefulness of artificial intelligence and big data analysis.

AIU-AADC, Nodal Officer, Brahmapur University and Convener of the programme Dr. Mrutyunjay Swain delivered the welcome address at the inaugural session and introduced the guests and spoke about the theme of the program.

Dr. S. K. Das, the Head of the Department of Computer Science and Joint Convener of the program addressed all the participating teachers and researchers. Dr. S. N. Tripathy, the programme coordinator and Assistant professor of the Department of Computer Science proposed the vote of thanks. The co-coordinator of the program, Dr. Bonomali Khuntia spoke on the programme structure of the FDP program.

After the inauguration, Prof. P.S. Avadhani of Andhra University set the stage for the FDP by providing a broad overview of the field of AI and Big Data analytics with the associated research issues and challenges. That was followed by the next talk on Working with Python Programming wherein Er. Manas Kumar Rath introduced the Python programming language right from the installation procedure to the control structures available in Python from a practical viewpoint.

Day 2: Er. Anand Rath explained the need for data cleaning in large datasets and presented different manipulation and visualization techniques using Python. Thereafter, Prof. S K Udgata of University of Hyderabad delivered an exhaustive lecture on Machine Learning and various associated algorithms.

Day 3: Prof. Sachidananda Dehuri of Fakir Mohan University, Odisha dealt with Supervised Learning including both Regression and Classification techniques and their suitability to different applications. That was followed by a session on Unsupervised Learning – Clustering by Dr. Debasis Mahapatra of PMEC, Berhampur.

Day 4: Er. Anand Rath took a session on the upcoming area of deep learning and discussed some of its application areas using the relevant Python libraries. In the second session, Dr. Debasis Mahapatra discussed two specific application areas of Big Data Analysis in Social Sciences and Management, namely social network analysis and information diffusion for marketing and brand creation.

Day 5: Prof. P. Radha Krishna, NIT, Warangal provided an insight into the principles of Big Data Analysis and its role in the contemporary data-centric world by discussing a number of application scenarios. Thereafter, Er. Manas Kumar Rath demonstrated the use of different Python libraries for implementing some of the important data analysis techniques with a special reference to Big data.

Day 6: Dr. Swarupananda Bissoyi of Maharaja Srirama Chandra Bhanja Deo University covered an important application area of AI, namely Natural language processing by highlighting the complexity involved in language processing and

the approaches being adopted to address those issues. In the last session Er. Anand Rath discussed some of the latest innovations in AI and the ethics to be observed while developing AI-based systems in real-life.

Overall, the sessions were quite engaging and the participants got a practical insight into the evolving area of AI and Big data.

The university hosted the valedictory event of the FDP on 21st October 2023 which was attended by many dignitaries, faculty members and participants. Dr. Mrutyunjay Swain, Nodal Officer, AIU-AADC, Berhampur University and the Programme Convener delivered the welcome address and introduced the guests of the function. Dr. Susanta Ku Das, Jt. Programme Convener and the Head, Dept. of Computer Science, Berhampur University Berhampur addressed the audience. The coordinator of the program Dr. Bonomali Khuntia provided a brief description of the various sessions that were held as part of the FDP.

Dr. Amarendra Pani, Joint Director and Head of the Research Division of AIU addressed the participants and said that Berhampur University is one of the leading partners of AIU that has been undertaking the collaborative activities and programmes directed towards training and capacity building of faculty members and administrative functionaries of universities with the training programmes on contemporary relevance such as artificial intelligence and big data analysis. The guest of honour Prof. P.K. Mohanty, OSD, DD University, Odisha and Former Chairman, PGC, Berhampur University, addressed the participants and explained the relevance of python in artificial intelligence and big data analysis in marine science and other fields. The valedictory address was delivered by the chief guest Prof. P. Suresh Varma, Dean Academic Affairs, Former Vice Chancellor and Rector, Professor of CSE, University College of Engineering, Adikavi Nannaya University,Rajahmundry. He highlighted the recent developments in artificial intelligence and big data analysis that have revolutionized the work environments.

Hon'ble Vice Chancellor of Berhampur University Prof. Geetanjali Dash

addressed the participants on completing their interactive and insightful training programme. The hon. Vice Chancellor expressed her pleasure that AADC of the university has successfully organised the 6-days FDP programme. She expressed the trust and confidence that AIU-AADC of Berhampur University will go a long way in knowledge sharing.

Many participants shared their experiences of their participation in FDP. Most of them expressed their gratitude for participating in such a fruitful FDP programme that has enriched their AI skills. Some of them expressed that the diversity of resource persons from reputed institutions shared their knowledge and expertise with many hands-on sessions and materials and recordings shared with the participants were very helpful in their learning. The sessions were well-planned and well organized maintaining a good flow of knowledge to the participants.