THESES OF THE MONTH

SCIENCE & TECHNOLOGY
A List of doctoral theses accepted by Indian Universities
(Notifications received in AIU during the month of Feb-March, 2024)

BIOLOGICAL SCIENCES

Biochemistry

1. Sharanya, J. **Effect of dietary calcium and magnesium on sex ratio and placental genes expression in New Zealand White Rabbit**. (Dr. A Arangasamy), Department of Biochemistry, Jain University, Bangalore.

Biotechnology

1. Behera, Susanta Kumar. **Synthesis, characterization, and biomedical applications of zinc oxide impregnated clay minerals**. (Dr. Amrita Mishra and Dr. Srinivas Patnaik), Department of Biotechnology, Kalinga Institute of Industrial Technology, Bhubaneswar.

2. Sinha, Saptarshi. **Study the anticancer potentiality of a natural bioactive compound resveratrol in combination with PARP inhibitor olaparib through deregulation of homologous recombination repair pathway in pre-clinical model systems of breast cancer**. (Dr. Chanakya Nath Kundu), Department of Biotechnology, Kalinga Institute of Industrial Technology, Bhubaneswar.

Botany

1. Mewada, Mitu Vinodbhai. **Municipal solid waste characterization and its assessment for fungal bioremediation**. (Prof. Susy Albert), Department of Botany, M S University of Baroda, Vadodara.

2. Sharma, Poonam. **Study of drought tolerance in Grewia tenax (Forsk.) Flori and *Grewia asiatica* L**. (Dr. Kalpana Agarwal and Dr. Shilpi Rijhwani), Department of Botany, IIS University, Jaipur.

Microbiology

1. Sharma, Aakanksha Sunil. **A critical study applying current technique evaluation of microbiota in human body**. (Prof. Purnima Shrivastava), Department of Microbiology, Bhagwant University, Ajmer.

Zoology

1. Nesari, Vishakha Akshay. **Analyzing the effects of temporal activation of JAGGED-1-Notch in dystrophic muscle myogenesis using Zebrafish (SAPJE) DMD model**. (Prof B Suresh), Department of Zoology, M S University of Baroda, Vadodara.

ENGINEERING SCIENCES

Civil Engineering

1. Janhavi, Sanjay Ingle. **Removal of aqueous nitrate using catalytic electrochemical process**. (Prof. Upendra D. Patel), Department of Civil Engineering, M S University of Baroda, Vadodara.

Computer Science & Engineering

1. Beesetti, Kiran Kumar. **The application of machine learning and deep learning algorithms for estimation of Software Development Effort (SDE)**. (Dr. Saurabh Bilgaiyan), Department of Computer Science & Engineering, Kalinga Institute of Industrial Technology, Bhubaneswar.

2. Berhanu, Alemayehu Rojer. **Natural language processing and sentiment analysis for Amharic under-resource language**. (Dr. Suresh Chandra Satapathy and Dr. Minakhi Rout), Department of Computer Science & Engineering, Kalinga Institute of Industrial Technology, Bhubaneswar.

3. Chiwariro, Ronald. **Cross-layer based QoS aware load-balancing multipath routing protocol over wireless multimedia sensor networks**. (Dr. Lokaiah Pullagura), Department of Computer Science & Engineering, Jain University, Bangalore.

4. Dansana, Jayanti. **Machine learning based perturbation techniques for analysis of medical dataset**. (Dr. Manas Ranjan Kabat and Dr. Prasant Kumar Pattnaik), Department of Computer Science & Engineering, Kalinga Institute of Industrial Technology, Bhubaneswar.

5. Nayak, Sasmita Manjari. **Enhancing financial predictive models through machine learning techniques for bankruptcy assessment**. (Dr. Minakhi Rout), Department of Computer Science & Engineering, Kalinga Institute of Industrial Technology, Bhubaneswar.

6. Pradeep Kumar, Ladi. **Development of feature learning techniques for hyperspectral image**

classification. (Dr. K Murali Gopal and Dr. Ratnakar Dash), Department of Computer Science & Engineering, GIET University, Gunupur.

7. Reddy, K Ramakrishna. **Divergent necessity of image mining techniques**. (Prof. V K Sharna and Dr. B Dhanasekaran), Department of Computer Science & Engineering, Bhagwant University, Ajmer.

8. Singhal, Manish. **To optimize join queries in distributed database using Ant colony algorithm with evolutionary approach**. (Dr. Dr. Pushpneel Verma), Department of Computer Science & Engineering, Bhagwant University, Ajmer.

9. Swathi, T. **Improving stock market price prediction using hybrid deep learning models**. (Dr. N Kasiviswanath and Dr. A. Ananda Rao), Department of Computer Science & Engineering, Jawaharlal Nehru Technological University Anantapur, Ananthapuramu.

Electrical & Electronics Engineering

1. Himabindu, D. **Analysis of QZSI fed induction motor drive system with various controllers**. (Dr. G Sreenivasan and Dr. R Kiranmayi), Department of Electrical Engineering, Jawaharlal Nehru Technological University Anantapur, Ananthapuramu.

2. Mallikarjuna, B. **Mathematical modeling and simulation to determine the effect of electrical field and voltage distribution on composite insulators subjected to EHVAC and DC transmission voltages**. (Dr G Ezhilarasan), Department of Electrical Engineering, Jain University, Bangalore.

3. Misra, Srikant. **Intelligent demand side management for clean and economic operation of distributed system**. (Dr. Saradindu Ghosh), Department of Electrical & Electronics Engineering, GIET University, Gunupur.

4. Rajiv Kumar. **Automatic generation control issues in power system operation after deregulation**. (Prof.V K Sharma), Department of Electrical Engineering, Bhagwant University, Ajmer.

Electronics & Communication Engineering

1. Garikipati, Srinivasu. **Investigations on planar reconfigurable grounds MIMO antenna for RF energy harvesting in the band 1.71-12GhZ**. (Prof. V K Sharma and Prof.D M K Chaitanya), Department of Electronics & Communication Engineering, Bhagwant University, Ajmer.

2. Gayatri, T. **Insights on compact reconfigurable grounds MIMO antenna for cognitive radio applications in the band 3.1-10.6 GHz**. (Prof. V Sharma and Prof. D M K Chaitanya), Department of Electronics & Communication Engineering, Bhagwant University, Ajmer.

3. Md Asif. **Power on procedure in 5G/6G wireless communication**. (Prof. V K Sharma and Dr. R K Yadav), Department of Electronics & Communication Engineering, Bhagwant University, Ajmer.

4. Rai, Saloni. **Performance analysis of machine learning algorithms for WDM high speed optical networks**. (Dr. Amit Kumar Garg), Department of Electronics & Communication Engineering, Deenbandhu Chhotu Ram University of Science and Technology, Murthal.

5. Saida, Angotu. **MIMO-Based LTE-advanced an antenna design for 5G communication**. (Prof.V K Sharma and Dr. R K Yadav), Department of Electronics & Communication Engineering, Bhagwant University, Ajmer.

6. Sharief, Aijaz Ahamed. **Fault detection and route discovery for heterogeneous wireless sensor networks**. (Prof. V K Sharma), Department of Electronics & Communication Engineering, Bhagwant University, Ajmer.

Mechanical Engineering

1. Deepak, J. **Synthesis and Evaluation of HDPE Based 3D printed polymer anocomposites**. (Dr. Adarsha H), Department of Mechanical Engineering, Jain University, Bangalore.

2. Patel, Piyushbhai Thakorbhai. **Investigations on Prosthetics/Orthotics elements developed from polymers and its composites**. (Dr. Piyush Gohil), Department of Mechanical Engineering, M S University of Baroda, Vadodara.

3. Vishant Kumar. **Development of an artificial intelligent model for demand forecasting: A case study**. (Dr. R K Garg), Department of Mechanical Engineering, Deenbandhu Chhotu Ram University of Science and Technology, Murthal.

MATHEMATICAL SCIENCES

Mathematics

1. Manjeet. **An empirical study on reliability optimization problems using genetic algorithm**. (Dr. Manoj Kumar), Department of Mathematics, Bhagwant University, Ajmer.

2. Reddy, P Yogeswara. **A study on MHD heat and mass transfer flow of nanofluid over a plate/cone**. (Dr. G Sankara Sekhar Raju), Department of Mathematics, Jawaharlal Nehru Technological University Anantapur, Ananthapuramu.

3. Santha Raju, M. **A study on MHD heat and mass transfer flow of Newtonian/ Non-Newtonian fluid past a vertical porous plate**. (Dr. G Sankara Sekhar Raju), Department of Mathematics, Jawaharlal Nehru Technological University Anantapur, Ananthapuramu.

4. Singh, Dhiraj Kumar. **Generalization on some results on multi-valued of fixed point results in fuzzy metric space**. (Dr. Manoj Kumar), Department of Mathematics, Bhagwant University, Ajmer.

MEDICAL SCIENCES

Pharmaceutical Science

1. Krishna, Jerri P Venkata. **Method development and validation for the determination of heavy metals in API and pharmaceutical dosage form**. (Dr. Rajasekaran S), Department of Pharmacy, Bhagwant University, Ajmer.

2. Lalitha, K V. **Development of stability indicating RP- HPLC method for selected active pharmaceutical ingredients**. (Dr. Raveendra Reddy J and Dr. N Devanna), Department of Pharmaceutical Science, Jawaharlal Nehru Technological University Anantapur, Ananthapuramu.

3. Mittal, Indu. **Formulation and evaluation of anti osteoarthritic and anti-inflammatory activity of nyctanthes arbor-tristic linn as emulgel**. (Dr. K Saravanan), Department of Pharmacy, Bhagwant University, Ajmer.

4. Nayak, Debasis. **Exploitation of natural gums as a cardinal excipient in controlled drug delivery system**. (Dr. K Saravanan), Department of Pharmacy, Bhagwant University, Ajmer.

5. Patil, Pravin Yadav. **Formulation, optimization and evaluation of anti-osteoporotic drugs loaded nanocarriers for treatment of osteoporosis**. (Dr. Krutika K Sawant), Department of Pharmacy, M S University of Baroda, Vadodara.

6. Singh, Pravin Kumar. **Synthesis, characterization and biological evaluation of side chain derivatives on statins (Antilipidemic Drug)**. (Dr. K Saravanan), Department of Pharmacy, Bhagwant University, Ajmer.

7. Singh, Suraj. **Formulation and evaluation of herbal tablets for hepatoprotection**. (Dr. K Saravanan), Department of Pharmacy, Bhagwant University, Ajmer.

8. Sreekanth, Madathala. **Evaluation of antiurolithiatic activity of Carissa carandas and *Garcinia gummi-gutta* in male wistar albino rats**. (Dr. V Haribaskar and Dr. N B.L Prasad), Department of Pharmaceutical Science, Jawaharlal Nehru Technological University Anantapur, Ananthapuramu.

9. Teja, K V R K. **Adverse drug reaction monitoring: Support for pharmacovigilance at a tertiary care hospital in India**. (Dr. Y. Padmanabha Reddy and Dr. N. Devanna), Department of Pharmaceutical Sciences, Jawaharlal Nehru Technological University Anantapur, Ananthapuramu.

PHYSICAL SCIENCES

Chemistry

1. Bhalodi, Esha Hasmukhbhai. **Synthesis and study of heterohelicenes**. (Prof. A V Bedekar), Department of Chemistry, M S University of Baroda, Vadodara.

2. Bhatt, Gaurang Jitendrakumar. **Studies in the synthesis and chemistry of aesthetically pleasing carbocyclic compounds**. (Dr. P T Deota), Department of Applied Chemistry, M S University of Baroda, Vadodara.

3. Patel, Hemilkumar Shaileshbhai. **Design, characterization and biological significance of amphiphilic block copolymer self-assemblies**. (Dr. Rakesh K Sharma), Department of Applied Chemistry, M S University of Baroda, Vadodara.

4. Patel, Ajaykumar Manibhai. **Synthesis, characterization and applications of novel self-assembled fibrillar networks**. (Dr. Amar Ballabh), Department of Chemistry, M S University of Baroda, Vadodara.

5. Patra, Tanaswini. **Facile synthesis and characterization of manganese oxides, Ni-doped manganese oxide nanoparticles for adsorption, energy storage and dielectric applications**. (Dr. Tapas Ranjan Sahoo and Dr. Pankaj Kumar Parhi), Department of Chemistry, Kalinga Institute of Industrial Technology, Bhubaneswar.

6. Samage, Anita. **Compatible biomass derived and nanocomposite electrodes for energy applications**. (Prof. S K. Nataraj), Department of Chemistry, Jain University, Bangalore.

7. Swain, Swarnalata. **Design and fabrication of palladium based nanomaterials for catalysis and environmental applications**. (Dr. Akshaya K. Samal), Department of Chemistry, Jain University, Bangalore.

Nanotechnology

1. George, Sharon. **Design and developments of theranostic nanoprobes**. (Prof. Shajesh Palantavida), Department of Nanotechnology, Jain University, Bangalore.

Physics

1. Ananda, Pujari. **1/f noise studies on thin films of ITO/ZnO and ITO/TiO$_2$ for solar cell applications**. (Dr. S Victor Vedanayakam and Dr. K Thyagarajan), Department of Physics, Jawaharlal Nehru Technological University Anantapur, Ananthapuramu.

2. Chethan, M. **Study of bioactive properties of phosphate glasses doped with heavy metals**. (Dr. Asha Rajiv), Department of Physics, Jain University, Bangalore.

3. Rajesh. **Study of structural, optical & thermal properties of alkaline phospho-borate bioactive materials**. (Dr. Satish Khasa), Department of Physics, Deenbandhu Chhotu Ram University of Science and Technology, Murthal.

4. Thakkar, Niravkumar Hareshbhai. **Theoretical study of electron induced molecular processes**. (Dr. Chetan Limbachiya), Department of Applied Physics, M S University of Baroda, Vadodara.

5. Vikas. **Optical, electrical, thermal and spectroscopic properties of transparent glass ceramics**. (Dr. Satish Khasa), Department of Physics, Deenbandhu Chhotu Ram University of Science and Technology, Murthal. ❑