
THESES OF THE MONTH

SCIENCE & TECHNOLOGY

A List of doctoral theses accepted by Indian Universities
(Notifications received in AIU during the month of December 2023- January 2024)

AGRICULTURAL & VETERINARY SCIENCES

Biotechnology

1. Patoliya, Hinal Pravinbhai. **Ameliorating effect of gibberellic acid, abscisic acid and salicylic acid on changes in physio-biochemical composition and oxidative enzymes in wheat (*Triticum aestivum* L) irrigated with saline water.** (Dr. U K Kandolya), Department of Plant Molecular Biology and Biotechnology, Junagadh Agricultural University, Junagadh.

Horticulture

1. Sharma, Shivam. **Line x tester analysis for yield and its components in broccoli (*Brassica oleracea* L var *italica* plenck).** (Dr. Viveka Katoch), Department of Vegetable Science & Floriculture, CSK Himachal Pradesh Krishi Vishvavidyalaya, Palampur.

Plant Pathology

1. Waghmare, Santosh Vishwanath. **Studies on Downy Mildew of pearl millet incited by *Scierospora graminicola* (Sacc.) schroet.** (Dr. G P Jagtap), Department of Plant Pathology, Vasantao Naik Marathwada Agricultural University, Parbhani.

Soil Science

1. Patil, Nikhil Mahadev. **Assessment of soil and ground water quality for development of Decision Support System by using remote sensing and GIS techniques for Hingoli District of Maharashtra.** (Dr. PH Vaidya), Department of Soil Science and Agri Chemistry, Vasantao Naik Marathwada Agricultural University, Parbhani.

BIOLOGICAL SCIENCES

Biochemistry

1. Archana, S S. **Identification of sperm immune regulatory proteins influencing semen quality in HF bulls.** (Dr. S Selvaraju), Department of Biochemistry, Jain University, Bangalore.

Bioinformatics

1. Motwani, Harsha Shatishkumar. **Epigenomic landscaping of selected hepatoprotective plants and their role in human health.** (Dr. Hiteshkumar

A Solanki and Dr. Saumya Patel), Department of Bioinformatics, Gujarat University, Ahmedabad.

Biotechnology

1. Bharath, P G. **Purification and characterization of microbial pigments with anticancer activity.** (Dr. Varalakshmi K N), Department of Biotechnology, Jain University, Bangalore.
2. Das, Arundhati. **Identification and characterization of functional circular RNAs in skeletal muscle.** (Dr. Amaresh C Panda and Dr. Sandeep Kumar Panda), Department of Biotechnology, Kalinga Institute of Industrial Technology, Bhubaneswar.
3. Gundi, Raghavendar. **Development and evaluation of Bidsenovirus (BmBDV) resistant silkworm hybrids through marker assisted breeding.** (Dr. A Ramesha), Department of Biotechnology, Jain University, Bangalore.
4. Rasalkar, Sandhya Yashwant. **Development of transgenic silkworm, *Bombyx mori* overexpressing immunity genes for enhanced disease resistance.** (Dr. G Ravikumar), Department of Biotechnology, Jain University, Bangalore.
5. Sharma, Ravi Kant. **Evaluation of pro-inflammatory and anti-inflammatory salivary cytokine profiles in psoriasis patients: A prospective study.** (Dr. Anil K Sharma and Dr. Aneet Mahendra), Department of Biotechnology, Maharishi Markandeshwar University, Ambala.
6. Singh, Poonam Kumari. **Endocrine disruptions and ovine ovarian functions: genomics, epigenomics and steroidogenic pathways.** (Dr. Sumanta Nandi and Dr. PSP Gupta), Department of Biotechnology, Jain University, Bangalore.

Botany

1. Patel, Hirali Dilipkumar. **Study of basidiomycetes in Dharampur and Kaprada Taluka of Valsad District.** (Dr. Hiteshkumar A Solanki), Department of Botany, Gujarat University, Ahmedabad.

Microbiology

1. Sawant, Priyanka Surendra. **To study the production of extracellular enzymes from marine microorganisms and to study their microbial fuel**

cell parameter. (Dr. Jignasha Thumar), Department of Microbiology, Gujarat University, Ahmedabad.

EARTH SYSTEM SCIENCES

Geology

1. Mehta, Abhinav Mahendrabhai. **The study on eco-geographical habitat suitability for potential wildlife corridor.** (Dr. Shital Shukla), Department of Geoinformatics, Gujarat University, Ahmedabad.

ENGINEERING SCIENCES

Chemical Engineering

1. Kanzariya, Rekha Karshanbhai. **Nanocomposite polyhydroxyalkanoate film synthesis for packaging application.** (Dr. Shina Gautam), Department of Chemical Engineering, Gujarat Technological University, Ahmedabad.
2. Mrudula, D. **Bioremediation studies using bacteria isolated from kalamkari contaminated soil.** (Dr. S V Satyanarayana), Department of Chemical Engineering, Jawaharlal Nehru Technological University Anantapur, Ananthapuramu.

Civil Engineering

1. Chauhan, Hemil Manharbhai. **Seismic damage estimation for 3D RC vertical irregular buildings.** (Dr. Kaushal Bhupendrabhai Parikh), Department of Civil Engineering, Gujarat Technological University, Ahmedabad.
2. Rajini, B. **Strength and durability studies on geopolymer and steel fiber reinforced geopolymer concretes using fly ash and GGBS.** (Dr. A V Narasimha Rao and Dr. C Sashidhar), Department of Civil Engineering, Jawaharlal Nehru Technological University Anantapur, Ananthapuramu.
3. Shah, Payal Vinitkumar. **Water quality framework for watersheds using hydrological modelling.** (Dr. Lodha Pradeepkumar Punamchand), Department of Civil Engineering, Gujarat Technological University, Ahmedabad.

Computer Science & Engineering

1. Barwal, Ravi Kumar. **Development of efficient data mining approaches using machine learning.** (Dr. Neeraj Raheja), Department of Computer Science & Engineering, Maharishi Markandeshwar University, Ambala.
2. Bhattacharya, Sudipta. **Multilingual speech data analysis using hybrid deep learning model.** (Dr. Brojo Kishore Mishra and Dr. Samarjeet Borah), Department of Computer Science & Engineering, GIET University, Gunupur.

3. Chinnaiyan, R. **Optimized machine learning based classification approaches for early diagnosis and prediction of fetal abnormalities.** (Dr. Sunanda Das), Department of Computer Science & Engineering, Jain University, Bangalore.

4. Das, Nabanita. **Smart recognition of bird vocalization.** (Dr. Neelamadhab Padhy and Dr. Nilanjan Dey), Department of Computer Science & Engineering, GIET University, Gunupur.

5. Gupta, Zatin. **IoT based efficient approach for smart farming.** (Dr. Amit Kumar Bindal), Department of Computer Science & Engineering, Maharishi Markandeshwar University, Ambala.

6. Joshi, Harshil Vijaykumar. **Security enhancement through reduction in DDOS attacks for IOT-based smart cities.** (Dr. Dushyantsinh Rathod), Department of Computer/ IT Engineering, Gujarat Technological University, Ahmedabad.

7. Manoj Kumar. **Analysis of student's performance using data mining hybrid classification techniques.** (Dr. Raghav Mehra), Department of Computer Science & Engineering, Bhagwant University, Ajmer.

8. Nirmal Singh. **Design & implementation of the smart IOT based system for improving the efficiency of warehouse.** (Dr. Vikas Somani and Dr. Sunil Kumar), Department of Computer Science & Engineering, Sangam University, Bhilwara.

9. Nirvesh Kumar. **Analysis and develop predictive model using data mining techniques for employee's performance in government sector.** (Dr. Raghav Mehra), Department of Computer Science & Engineering, Bhagwant University, Ajmer.

10. Parihar, Vinod Kumar. **To develop a software fault prediction and test data generation using artificial intelligent techniques.** (Dr. Raghav Mehra), Department of Computer Science, Bhagwant University, Ajmer.

11. Patel, Sureshkumar Bhikhabhai. **An efficient approach for high utility itemset mining.** (Prof. Sanjaykumar Manubhai Shah), Department of Computer/IT Engineering, Gujarat Technological University, Ahmedabad.

12. Pattanaik, Anshuman. **Extractive text summarization using machine learning techniques.** (Dr. Madhabananda Das), Department of Computer Science & Engineering, Kalinga Institute of Industrial Technology, Bhubaneswar.

13. Raval, Khushali Rajanikant. **Event detection based video summarization for sport video.** (Dr. Mahesh

- M Goyani), Department of Computer IT Engineering, Gujarat Technological University, Ahmedabad.
14. Resma, S R Juhi. **A novel hyperbolic growing cosine unit for prediction of crop for fertilizers.** Department of Computer Application, Hindustan Institute of Technology & Science, Chennai.
 15. Sharma, Deepti. **An efficient breast cancer prediction model using machine learning.** (Dr. Rajneesh Kumar and Dr. Anurag Jain), Department of Computer Science & Engineering, Maharishi Markandeshwar University, Ambala.
 16. Sharma, Deepti. **An efficient breast cancer prediction model using machine learning.** (Dr. Rajneesh Kumar and Dr. Anurag Jain), Department of Computer Science & Engineering, Maharishi Markandeshwar University, Ambala.
 17. Shruthishree, S H. **Abnormal tissue identification in mammographic images using computer vision techniques.** (Dr. Harshvardhan Tiwari and Dr. Devaraj Verma C), Department of Computer Science & Engineering, Jain University, Bangalore.
6. Silamboli, J. **Design and implementation of novel micro- strip fractal antenna for 5G wireless applications.** (Dr P Pradeepa), Department of Electronics Engineering, Jain University, Bangalore.
 7. Sireesha, R. **Certain aspects of reliability assessment of distribution system as a cluster of micro grids.** (Dr. C Srinivasa Rao and Dr. M. Vijaya Kumar), Department of Electrical Engineering, Jawaharlal Nehru Technological University Anantapur, Ananthapuramu.
 8. Suryakanth, B. **Multimodal neuroimaging feature learning for early diagnosis of Alzheimer's disease using deep learning.** (Dr. Hariprasad SA), Department of Electronics Engineering, Jain University, Bangalore.
 9. Venkatasivanagaraju, S. **Performance evaluation of a forecasted distribution system with different load models.** (Dr. M Venkateswara Rao), Department of Electrical Engineering, Jawaharlal Nehru Technological University Anantapur, Ananthapuramu.

Electrical & Electronics Engineering

1. Bhagiya, Rasik Dayabhai. **Power management and control for microgrid.** (Dr. Rajesh M Patel), Department of Electrical Engineering, Gujarat Technological University, Ahmedabad.
2. Jain, Chandra Prakash. **Artificial neural network based performance enhancement of grid connected PV system.** (Dr. Vinesh Agarwal), Department of Electrical Engineering, Sangam University, Bhilwara.
3. Meram, Rathaiah. **Performance enhancement of renewable energy systems with different controllers.** (Dr. P. Ramkishore Kumar Reddy and Dr. P. Sujatha), Department of Electrical Engineering, Jawaharlal Nehru Technological University Anantapur, Ananthapuramu.
4. Reddy, P Malleswara. **Power quality improvement by UPQC & DPFC for grid connected hybrid system using different optimization techniques.** (Dr. A Srinivasula Reddy and Dr. P Sujatha), Department of Electrical Engineering, Jawaharlal Nehru Technological University Anantapur, Ananthapuramu.
5. Roy, Suchismita. **Design and analysis of current control techniques for grid-connected PV system.** (Dr. Pradeep Kumar Sahu), Department of Electrical Engineering, Kalinga Institute of Industrial Technology, Bhubaneswar.

Electronics & Communication Engineering

1. Agarwal, Aanchal. **Machine learning based passive image forgery classification using hybrid-handcrafted and CNN based features.** (Prof. Vineet Khandelwal), Department of Electronics & Communication Engineering, Jaypee Institute of Information Technology, Noida.
2. Binu, R. **Implementation of thermally managed edfa and low repetition rate EDFA.** Department of Electronics & Communication Engineering, Hindustan Institute of Technology & Science, Chennai.
3. Jha, Manika. **Performance enhancement of non-invasive disease detection using machine learning and signal processing tools.** (Dr. Richa Gupta and Prof Rajiv Saxena), Department of Electronics & Communication Engineering, Jaypee Institute of Information Technology, Noida.
4. Narjala, Sri Pravallika. **Design and analysis of high gain broadband and multiband antennas with metasurfaces for remote sensing applications.** (Dr. V R Anitha and Dr. K Rama Naidu), Department of Electronics & Communication Engineering, Jawaharlal Nehru Technological University Anantapur, Ananthapuramu.
5. Palla, Sankara Rao. **Vision-based human gait recognition using nature-inspired metaheuristic optimization algorithms and machine learning**

techniques. (Dr. Priyadarsan Parida and Dr. Guptaeswar Sahu), Department of Electronics & Communication Engineering, GIET University, Gunupur.

6. Praveen, L S. **Development of simulation model of near-field beamforming based Underwater Acoustic Imaging (UAI) system for enhanced resolution and improved feature detection.** (Prof. Govind R Kadambi and Prof. Malathi S), Department of Electronics & Communication Engineering, M S Ramaiah University of Applied Sciences, Bangalore.

Instrumental & Communication Engineering

1. Patel, Hardik Rasiklal. **Control of switched dynamical system.** (Dr. Ankit K Shah), Department of Instrumentation and Control Engineering, Gujarat Technological University, Ahmedabad.

Material Science and Engineering

1. Mistry, Vidhi Atulbhai. **Study the electrochemical behaviour of aluminium sacrificial anode by adding magnesium.** (Dr. Indravadan B Dave), Department of Metallurgical Engineering, Gujarat Technological University, Ahmedabad.

Mechanical Engineering

1. Dilipkumar, Yangaladasu. **Development of hydrogen diesel dual fuelled engine using timed manifold induction technique.** (Dr. B Omprakash), Department of Mechanical Engineering, Jawaharlal Nehru Technological University Anantapur, Ananthapuramu.

MATHEMATICAL SCIENCES

Mathematics

1. Aparna, P. **A study on split and annihilator domination in arithmetic graphs, strong product graphs and fuzzy graph products.** (Dr. K V Suryanarayana Rao and Dr. E Keshava Reddy), Department of Mathematics, Jawaharlal Nehru Technological University Anantapur, Ananthapuramu.
2. Katariya, Dharmesh Kathadbhai. **Modelling optimal strategies for deteriorating inventory systems under different scenarios.** (Dr. Kunal Tarunkumar Shukla), Department of Mathematics, Gujarat Technological University, Ahmedabad.
3. Satish, Priya. **An approach to study the societal problems through mathematical modelling.** (Dr Anita Chaturvedi), Department of Mathematics, Jain University, Bangalore.

MEDICAL SCIENCES

Forensic Science

1. Aparna, R. **Role of tears and eyewear in forensic investigations.** (Dr. R Shanti Iyer), Department of Forensic Science, Jain University, Bangalore.
2. Gaur, Aaditya Vikram. **Risperidone toxicity in *Caenorhabditiselegans* and its possible amelioration by *Withania somnifera* (Ashwagandha).** (Dr. Rakhi Agarwal), Department of Forensic Science, National Forensic Sciences University, Gandhinagar.

Pharmaceutical Science

1. Asthana, Amrita. **Phytochemical and pharmacological screening of leaf extract of *Basella Alba*.** (Dr. Neeraj Sharma), Department of Pharmaceutical Science, Bhagwant University, Ajmer.
2. Avneesh Kumar. **Development of herbal nutraceuticals.** (Dr. Akash), Department of Pharmaceutical Chemistry, Bhagwant University, Ajmer.
3. Nishant Kumar. **Biological evaluation of selected herbal drugs on gastric ulceration and secretion induced by various ulcerogenic agents.** (Dr. Akash Ved), Department of Pharmacy, Bhagwant University, Ajmer.
4. Patel, Jayminkumar Manilal. **Formulation and evaluation of colon targeted oral drug delivery system using natural polymers and methacrylic acid co-polymers.** (Dr. Shreeraj Harishbhai Shah), Department of Pharmacy, Gujarat Technological University, Ahmedabad.
5. Patel, Kaushika Mahendra. **Development of oral formulations using spray dried solid dispersion technology.** (Dr. Shreeraj H Shah), Department of Pharmacy, Gujarat Technological University, Ahmedabad.
6. Pratap, Sushil. **Phytochemical and pharmacological screening of leaf extract of *Nyctanthes Arborescens*.** (Dr. Neeraj Sharma), Department of Pharmaceutical Science, Bhagwant University, Ajmer.
7. Srivastava, Sanjay. **Formulation development and characterization of fast dissolving system: An attempt to enhance bioavailability and patient compliance.** (Dr. Akash Ved), Department of Pharmacy, Bhagwant University, Ajmer.
8. Tandel, Devangkumar Bhagvandas. **Development and validation of analytical methods for newer antitubercular formulation along with pharmacokinetic study.** (Dr. Kalpana G. Patel),

Department of Pharmacy, Gujarat Technological University, Ahmedabad.

R. Geetha Balakrishna and Dr. M. Sakar), Department of Nanotechnology, Jain University, Bangalore.

PHYSICAL SCIENCES

Chemistry

1. Bhuyan, Amar Jyoti. **Development of transition metal catalyzed synthetic methodologies for pyrimidine derivatives.** (Dr. Lakhinath Saikia), Department of Chemistry, Rajiv Gandhi University, Itanagar.
2. Gupta, Sunil Kumar. **Study and characterization of fly ash and its use.** (Dr. Soni Rani), Department of Chemistry, Bhagwant University, Ajmer.
3. Pradhan, Mamata. **Exploration of the thermodynamic and thermoacoustic properties of anti-tuberculosis drugs in mixed solvents at different temperatures.** (Dr. Prativa Kar and Dr. Braja Bandhu Nanda), Department of Chemistry, GIET University, Gunupur.
4. Vinothkumar, K. **Development of metal-organic framework based photocatalytic membranes for multi-polluted water treatment.** (Prof. R Geetha Balakrishna and Dr. Sakar Mohan), Department of Chemistry, Jain University, Bangalore.

Nano Technology

1. Sanjayan, C G. **Design and development of CsAX₃ (A=Pb/Sn; X=Cl, Br, I) perovskite nanocrystals as the emerging class of materials for biosensing.** (Dr.

Physics

1. Kowshik, Krishna Kumar. **The mass function of young and embedded star clusters.** (Dr. Swati Routh and Dr. Sujatha S), Department of Physics, Jain University, Bangalore.
2. Kuanar, Bijayalaxmi. **Experimental investigation on structural, electrical and conduction mechanism in Bi_{0.5}Na_{0.5}TiO₃ modified ceramic.** (Dr. Biswajit Dalai and Dr. Dhruvananda Behera), Department of Physics, GIET University, Gunupur.
3. Pattnaik, Sudhansu Sekhar. **Studies on thermodynamic and thermo-acoustic properties of imidazolium based ionic liquids in mixed solvents at different temperatures.** (Dr. Biswajit Dalai and Dr. Braja Bandhu Nanda), Department of Physics, GIET University, Gunupur.
4. Parikh, Smrutiben Hareshkumar. **Study of electron induced ionization and other processes for molecules.** (Dr. Chetan G Limbachiya), Department of Applied Physics, M S University of Baroda, Vadodara.
5. Shah, Tuntun. **Experimental studies of structural, dielectric and magnetic properties of modified CoFe₂O₄ spinel oxide.** (Dr. Biswajit Dalai), Department of Physics, GIET University, Gunupur.

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