
THESES OF THE MONTH

SCIENCE & TECHNOLOGY

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

AGRICULTURAL & VETERINARY SCIENCES

Genetics & Plant Breeding

1. Patel, Hardikkumar Rajeshbhai. **Genetics analysis for yield and its component traits over different environmental condition in brinjal (*Solanum melongena* L).** (Dr. A I Patel), Department of Genetics and Plant Breeding, Navsari Agricultural University, Navsari.

BIOLOGICAL SCIENCES

Biochemistry

1. Parmar, Nishant Rajesh. **Assessment of combination therapy of Melatonin & GABA in diabetic mouse models and evaluation of correlation between Leptin & T2D susceptibility.** (Prof. Begum Rasheedunnisa), Department of Biochemistry, M S University of Baroda, Vadodara.
2. Vaishnav, Jayvadan Jayantilal. **Role of negative costimulatory molecule V-set domain containing T-cell activation inhibitor-1 (VTCN1) in vitiligo pathogenesis.** (Prof. Begum Rasheedunnisa), Department of Biochemistry, M S University of Baroda, Vadodara.

Biotechnology

1. Jaiswal, Kumar Sagar. **Carbon dots: A shift in paradigm of nanotherapeutics.** (Dr. Bhawna Gupta), Department of Biotechnology, Kalinga Institute of Industrial Technology, Bhubaneswar.

Botany

1. Amit. **Effect of heavy metal stress and its alleviation on seed storage proteins of soybean.** (Dr. Yogesh Kumar), Department of Botany, Kurukshetra University, Kurukshetra.
2. Charola, Sanket Dhirubhai. **Ethnobotanical practices in antenatal and postpartum Indian women and its evaluation.** (Prof. Susy Albert, Prof. Sirimavo Nair and Prof. B Suresh), Department of Botany, M S University of Baroda, Vadodara.
3. Dwivedi, Mannu. **Phytochemical characterization of *Taverniera cuneifolia* (Roth) Arn.** (Dr. P S Nagar), Department of Botany, M S University of Baroda, Vadodara.

4. Gondaliya, Amitkumar Dhanjibhai. **Evolutionary patterns in secondary growth of tropical lianas.** (Dr. K S Rajput), Department of Botany, M S University of Baroda, Vadodara.
5. Jadhav, Arunkumar Harishchandra. **Studies on macrofungal diversity in Nanded District of Maharashtra.** (Dr. R M Mulani), Department of Botany, Swami Ramanand Teerth Marathwada University, Nanded.
6. Patlavath, Ravinayak Bhikshalu. **Unraveling touch induced stress responses in crop plants: Implicating role of TCH genes.** (Prof. Susy Albert), Department of Botany, M S University of Baroda, Vadodara.
7. Wudali, Narasimha Sudheer. **Production of boeravinone B and related bioactive molecules from cell cultures of Punarnava, *Boerhavia diffusa* Linn.** (Dr. Praveen N), Department of Botany, Christ University, Bangalore.

Life Science

1. Chakarwari, Jyotsna. **Isolation and characterization of endolichenic fungi from genus *parmotrema*.** (Dr. Sanjeeva Nayaka), Faculty of Biological Sciences, Academy of Scientific and Innovative Research, Ghaziabad.
2. Goswami, Sangam Giri. **Generation of naturally occurring beneficial HPFH mutation using targeted genome editing to reactivate fetal hemoglobin: A strategy for treating β -hemoglobin disorders.** (Dr. Sivaprakash Ramalingam), Faculty of Biological Sciences, Academy of Scientific and Innovative Research, Ghaziabad.
3. Pal, Poonam. **Genomic studies for the molecular dissection of multiple abiotic stress response in *Stevia rebaudiana* Bert.** (Dr. Ram Kumar Sharma), Faculty of Biological Sciences, Academy of Scientific and Innovative Research, Ghaziabad.
4. Siddiqui, Shafia. **Characterization of GM-cotton expressing a novel anti-whitefly protein for its application as a trap crop.** (Dr. P K Singh), Faculty of Biological Sciences, Academy of Scientific and Innovative Research, Ghaziabad.

5. Sinha, Kushboo. **Decoding the molecular signatures for Triple Negative Breast Cancer (TNBC)**. (Dr. Dibyendu Banerjee), Faculty of Biological Sciences, Academy of Scientific and Innovative Research, Ghaziabad.
6. Thapa, Sonia. **Inhibiting glutamate mediated excitotoxicity in neuron-like cells via Cannabinoid Receptor 1 (CB1R) for possible neuropathic pain management**. (Dr. Shashank Kumar Singh), Faculty of Biological Sciences, Academy of Scientific and Innovative Research, Ghaziabad.

Microbiology

1. Kavyashree, B M. **Production of pigments by pseudomonas spp. and its application based study**. (Dr. Usha M S), Department of Microbiology, Jain University, Bangalore.

Zoology

1. Katak, Bidisha. **Seasonal and photoperiodic expression of tsh- β dio 2 and dio3 genes in the regulation of reproduction in tree sparrow, *Passer montanus* L.** (Prof. A S Dixit), Department of Zoology, North Eastern Hill University, Shillong.
2. Parmar, Bhavalben Kiranbhai. **Elucidating the role of cyclooxygenase-2 in the morphogenesis of craniofacial structures in domestic chick**. (Prof. B Suresh), Department of Zoology, M S University of Baroda, Vadodara.

ENGINEERING SCIENCES

Computer Science & Engineering

1. Antony, Febin. **Classification of Alzheimer's disease stages using machine learning techniques**. (Dr. Anita H B), Department of Computer Science, Christ University, Bangalore.
2. Kim, Yong Woon. **A study on high performance portrait segmentation using the ensemble of deep learning models and hybrid model: Accuracy and speed perspective**. (Dr. Addapalli V N Krishna), Department of Computer Science & Engineering, Christ University, Bangalore.
3. Rao, A Raghavendra. **Design and development of artificial intelligence based knowledge management system for managing software security vulnerabilities**. (Dr. Debabrata Samanta), Department of Data Science, Christ University, Bangalore.
4. Shah, Bhoomi Sanket. **Modeling and optimization Gujarati food classification through deep learning**. (Dr. Hetal Bhavsar), Department of Computer

Science & Engineering, M S University of Baroda, Vadodara.

Electrical & Electronics Engineering

1. Hareesh Sita. **Hybrid algorithms for combined economic and emission dispatch problem with UPFC**. (Dr. P Umamathi Reddy and Dr. R Kiranmayi), Department of Electrical Engineering, Jawaharlal Nehru Technological University Anantapur, Ananthapuramu.
2. Mishra, Debayani. **Comparative study and performance evaluation of frequency control strategies for microgrid operation**. (Dr. Manoj Kumar Maharana), Department of Electrical Engineering, Kalinga Institute of Industrial Technology, Bhubaneswar.
3. Shreenidhi, H S. **An efficient energy management system for micro grids using machine learning techniques**. (Dr. Narayana Swamy Ramaiah), Department of Electronics Engineering, Jain University, Bangalore.

Textile & Apparel Design

1. Gundev, Gurvinder Kaur Mahinder Singh. **Documentation of Phulkari Motifs for its revival and sustenance**. (Prof. Anjali Karolia), Department of Clothing and Textiles, M S University of Baroda, Vadodara.

MATHEMATICAL SCIENCES

Mathematics

1. Aniyana, Achu. **Topologies emanating from graphs**. (Dr. Sudev N K), Department of Mathematics, Christ University, Bangalore.
2. John, Joy. **A study on restrained geodetic domination in graphs**. (Dr. Sangeetha Shathish), Department of Mathematics, Christ University, Bangalore.
3. Joseph, Anu. **On the maximization of some graph coloring problems**. (Dr. Charles Dominic), Department of Mathematics, Christ University, Bangalore.
4. Kamble, Suvarna Devidas. **Mixed convection flows in vertical double passage channel**. (Dr. Sharadkumar V Jagtap), Department of Mathematics, Swami Ramanand Teerth Marathwada University, Nanded.
5. Mathias, Anisha Jean. **A study on domination in signed graphs**. (Dr. Sangeetha Shathish), Department of Mathematics, Christ University, Bangalore.

- Pandey, Priyanka. **A study on graph colouring with distance constraints.** (Dr. Mayamma Joseph), Department of Mathematics, Christ University, Bangalore.
- Sheth, Dhvani Umesh. **A study of circular and elliptical restricted three body problems with perturbations.** (Prof. V O Thomas), Department of Mathematics, M S University of Baroda, Vadodara.
- Venkatesh, K P Babu. **Numerical analysis of durability in high temperature polymer electrolyte membrane fuel cell based on acid-based polybenzimidazole membrane.** (Dr. T V Joseph and Dr. Purushothama Chippar), Department of Mathematics, Christ University, Bangalore.
- Binish, C J. **Synthesis, adsorptive properties and applications of modified aluminumoxyhydroxide-PVA films.** (Dr. Vijayasankar A V), Department of Chemistry, Christ University, Bangalore.
- Changmai, Sumi. **Studies on metal-catalyzed C-H functionalization reactions for the synthesis of spiro-cyclopentadiene pyrazolones, α carbonyl amides, indolo [2,1- α] isoquinolines and naphthalenediones.** (Dr. S Gogoi), Faculty of Chemical Sciences, Academy of Scientific and Innovative Research, Ghaziabad.
- Diwakar, Jitendra. **Functionalized nanomaterials: Novel synthesis routes and catalytic applications.** (Dr. N Viswanandham), Faculty of Chemical Sciences, Academy of Scientific and Innovative Research, Ghaziabad.

MEDICAL SCIENCES

Anatomy

- Bhardwaj, Rashmi. **Acadaveric study of morphology of internal ILIAC artery and variation in its branching pattern with its clinical significance.** (Prof. Vasant Hemchandbhai Vaniya), Department of Anatomy, M S University of Baroda, Vadodara.

Pathology

- Shah, Hiralben Samirbhai. **Comparative study of tissue processing and staining by microwave and routine method.** (Dr. Meena Rajiv Daveshwar), Faculty of Medicine, M S University of Baroda, Vadodara.

Pharmaceutical Science

- Rathod, Chandrakant Prabhu. **Evaluation of an ethnomedicinal plant extracts and bioactivity guided isolation of phytoconstituent for anti asthmatic potential.** (Dr. Mahavir H Ghante), Department of Pharmacy, Swami Ramanand Teerth Marathwada University, Nanded.
- Ramakrishna, C. **Synthesis, characterization and evaluation of anti tubercular activity of ofloxacin derivatives.** (Dr. G V Subba Reddy), Department of Pharmaceutical Science, Jawaharlal Nehru Technological University Anantapur, Ananthapuramu.

PHYSICAL SCIENCES

Chemistry

- Anjanikar, Shivraj Shankarrao. **Synthesis and study of metal complexes with heterocyclic ligands.** (Dr. Santosh S Chandole), Department of Chemistry, Swami Ramanand Teerth Marathwada University, Nanded.

- Galachar, Kapilkumar Lakhabhai. **Studies on new heterocyclic compounds and their biological activities.** (Dr. Y T Naliapara), Department of Chemistry, Saurashtra University, Rajkot.
- George, Ashlay. **Fabrication of molecularly imprinted electrochemical sensors for food additives.** (Dr. Anitha Varghese), Department of Chemistry, Christ University, Bangalore.
- Hasna, M A. **Biomass-derived cellulose nanoforms and their functional hybrids.** (Dr. Saju Pillai), Faculty of Chemical Sciences, Academy of Scientific and Innovative Research, Ghaziabad.
- Keerthana, P. **Development of optical and electrochemical sensor for environmental pollutants.** (Dr. Anitha Varghese), Department of Chemistry, Christ University, Bangalore.
- Madhukar, Kasabe Mirabai. **Palladium based catalysts for hydrogenation of various functional groups.** (Dr. S B Umbarkar), Faculty of Chemical Sciences, Academy of Scientific and Innovative Research, Ghaziabad.
- Patel, Jaykumar Raghubhai. **Catalytic materials based on transition metals & phosphomolybdate: Designing & applications in some organic transformations.** (Prof. Anjali Patel), Department of Chemistry, M S University of Baroda, Vadodara.
- Pinate, Priyanka Sunil. **Novel synthesis of biologically active sulphur containing heterocycles using ionic liquids.** (Dr. S S Makone), Department of Chemistry, Swami Ramanand Teerth Marathwada University, Nanded.
- Raj, Soorya S. **Fabrication of robust wettability gradient on soft surfaces through physicochemical**

- modulations.** (Dr. Vinod T P), Department of Chemistry, Christ University, Bangalore.
13. Rajagopal, V. **Studies on porous organic polymers and their nanocomposites for electrocatalytic and biological applications.** (Dr. V Suryanarayanan), Faculty of Chemical Sciences, Academy of Scientific and Innovative Research, Ghaziabad.
 14. Seal, Nilanjan. **Rational construction of crystalline porous materials for functionality actuated sensing, adsorption and catalytic applications.** (Dr. Subhadip Neogi), Faculty of Chemical Sciences, Academy of Scientific and Innovative Research, Ghaziabad.
 15. Shukla, Falguni. **Synthesis of some metallopolymers and nanoreactors for catalyzing solitary and cascade organic transformations.** (Dr. Sonal Thakore), Faculty of Chemistry, M S University of Baroda, Vadodara.
 16. Siwach, Kiran. **Synthesis of various triazoles and their heterocyclyl decorated derivatives of potential medicinal interest.** (Dr. Pawan Kumar Sharma), Department of Chemistry, Kurukshetra University, Kurukshetra.
 17. Swain, Jaykishon. **Design, synthesis and characterization of Metal Organic Frameworks (MOFs) and their composites for environmental and energy applications.** (Dr. Rojalin Sahu), Department of Chemistry, Kalinga Institute of Industrial Technology, Bhubaneswar.
 18. Swapna, B. **Biosynthesis of silver and gold nanoparticles of different extracts of herbal plant materials and characterization BY UV, FTIR and HPLC.** (Dr. G Sumathi and Dr. K B Chandra Sekhar), Department of Chemistry, Jawaharlal Nehru Technological University Anantapur, Ananthapuram.
 19. Virat, Gandu. **Structural and photophysical properties of chromophores- embedded poly (Lactide)s.** (Dr. E Bhoje Gowd), Faculty of Chemical Sciences, Academy of Scientific and Innovative Research, Ghaziabad.
 2. Chandrashekhar, R. **Growth and characterization of undoped and doped RuO₂ thin films for electrochemical supercapacitor applications.** (Dr. A A Yadav), Department of Physics, Swami Ramanand Teerth Marathwada University, Nanded.
 3. Keshavsingh, Ratankumar. **Investigation of neutron induced reaction cross sections for nuclear data applications.** (Prof. Nand Lal Singh), Department of Physics, M S University of Baroda, Vadodara.
 4. Mahana, Debashrita. **Synthesis and characterization of CuO thin films for gas and photo sensing applications.** (Dr. M Senthil Kumar), Faculty of Physical Sciences, Academy of Scientific and Innovative Research, Ghaziabad.
 5. Pandey, Animesh. **Topological insulator based flexible functional devices & nonlinear optical studies.** (Dr. Sudhir Husale), Faculty of Physical Sciences, Academy of Scientific and Innovative Research, Ghaziabad.
 6. Pattanayak, Mousumi Das. **Investigation of structural, dielectric and electrical properties of some metal oxide doped barium strontium titanate and their composites.** (Dr. Lalatendu Biswal), Department of Physics, Kalinga Institute of Industrial Technology, Bhubaneswar.
 7. Prabhu, Srilakshmi. **Synthesis and characterization of light-weight, lead-free polymer composites for X-ray and Y-ray shielding.** (Dr. Bubbly S G), Department of Physics, Christ University, Bangalore.
 8. Shah, Nirali Sureshbhai. **Study of dielectric and physical properties of some aldehydes in polar solvents.** (Dr. V A Rana), Department of Physics, Gujarat University, Ahmedabad.
 9. Shridharan, B. **Study of early-type emission-line stars in the galaxy using Lamost and gaja.** (Dr. Blesson Mathew), Department of Physics, Christ University, Bangalore.
 10. Yadav, Sachin. **Exploration of quantum phenomena in disordered TiN thin films by low temperature transport measurements.** (Dr. Sangeeta Sahu), Faculty of Physical Sciences, Academy of Scientific and Innovative Research, Ghaziabad.

Physics

1. Banerjee, Gaurav. **Optical spectroscopy of classical be stars in the galaxy.** (Dr. Blesson Mathew), Department of Physics, Christ University, Bangalore.

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