THESES OF THE MONTH

SCIENCE & TECHNOLOGY

A List of doctoral theses accepted by Indian Universities (Notifications received in AIU during the month of Oct-Nov., 2018)

AGRICULTURAL & VETERINARY SCIENCES

Agricultural Engineering

1. Kaushik, Prachi. Studies on coating and calendaring parameters for improvement of coated paper quality. (Dr. B P Thapliyal and Dr. Sanjay Tyagi), Department of Pulp and Paper Technology, Forest Research Institute, Dehradun.

Biotechnology

1. Patel, Ankit Harishbhai. Enhancement of nodulation efficiency of mungbean Rhizobia. (Dr. Lalit Mahaima), Department of Plant Molecular Biology and Biotechnology, Navsari Agricultural University, Navsari.

Food Science & Technology

- 1. Dangi, Priya. Isolation and functionality testing of low molecular weight glutenin subunits of Indian wheat. (Prof. Bhupender Singh Khatkar), Department of Food Technology, Guru Jambheshwar University of Science & Technology, Hisar.
- 2. Manish Kumar. **Development of ohmic heating** system and its application for processing of selected fruits and fruit products. (Dr. Aradhita Ray), Department of Food Technology, Guru Jambheshwar University of Science & Technology, Hisar.

Forestry

- 1. Ali, Sarah Binte. Study of impacts of urban tree cover on microclimate of Bhopal City. (Dr. Suprava Patnaik and Dr. M D Omprakash), Department of Forest Ecology and Environment, Forest Research Institute, Dehradun.
- 2. Baral, Pratibha. **Utilization of banana pseudostem for specialty paper and value added by-products**. (Dr. R K Jain and Dr. A K Dixit), Department of Forest Biotechnology, Forest Research Institute, Dehradun.
- 3. Ghosh, Mili. Identifying the scope of increasing the supply of timber in Central India through Trees Outside Forests (TOFS). (Dr Bhaskar Sinha), Department of Forest Management, Forest Research Institute, Dehradun.
- 4. Himshikha. Socio-economic analysis of agroforestry practices in Haridwar District of Uttarakhand. (Dr. Charan Singh and Dr. Charan Singh), Department of Forestry Esxtension, Forest Research Institute, Dehradun.
- 5. Joshi, Bhawana. Systematics and diversity of the family mymaridae (Hymenoptera: Chalcidoidea) in the Garhwal Region (Uttarakhand). (Dr. Sudhir Singh), Department of Forest Entomology, Forest Research Institute, Dehradun.
- 6. Nirwan, Bindu. Studies on host plant interaction, genetic diversity and development of strategy to manage diversity and development of strategy to manage Ganoderma lucidum (Curtis: Fr) P Karst: A wood decaying fungus of

economically important tree species of arid and semi arid regions. (Dr. Sangeeta Singh, Dr. T S Rathore and Dr. Nepolean), Department of Forest Pathology, Forest Research Institute, Dehradun.

- 7. Shailendra Kumar. **Development of thermal storage system for solar timber drying**. (Dr Kishan Kumar V S), Department of Wood Science and Technology, Forest Research Institute, Dehradun.
- 8. Vaishnav, Vivek Kumar. Studies on genetics structure linkage disequilibrium and marker-wood trait association in teak (*Tectona grandis* L f) of National germplasm bank Chandrapur, using microsatellite markers. (Dr. S A Ansari), Department of Forest Genetics, Forest Research Institute, Dehradun.

BIOLOGICAL SCIENCES

Botany

1. Guntakani, Kranthikumar. Preliminary, biochemical and molecular characterization of rhizobacterial strains isolated from root nodules of vigna trilobata (L) verde cultivars. (Dr. M Raghu Ram), Department of Botany, Acharya Nagarjuna University, Nagarjuna Nagar.

Marine Science

- 1. Saritha, S. Isolation and characterization of glycolipids from synechocystis sp and its cytotoxic potential against colon cancer. (Dr. S Muraleedharan Nair), Department of Chemical Oceanography, Cochin University of Science & Technology, Kochi.
- 2. Varghese, Aswathy Mary. **Transcriptome dynamics of** *mangrovibacter* **sp during aerobic to anoxic transition**. (Dr. Tomas C Joseph and Dr. Lalitha K V), Central Institute of Fisheries Technology, Cochin University of Science & Technology, Kochi.

EARTH SYSTEM SCIENCES

Environmental Science

- 1. Sam, Lydia. **Study of dynamics in Himalayan galciers using geospacial techniques**. (Prof. Rajesh Kumar), Department of Environmental Science, Sharda University, Greater Noida.
- 2. Shaktiman Singh. **Study of glacio hydrological processes**. (Prof. Rajesh Kumar), Department of Environmental Science, Sharda University, Greater Noida.
- 3. Chhatarpal Singh. Impact of biochar and CSR-BIO application on methanotrophs, microbial biomass and paddy yield in saline soil. (Dr. Jay Shankar Singh), Department of Environment Microbiology, Babasaheb Bhim Rao Ambedkar University, Lucknow.
- 4. Verma, Chhaya. Remediation of cadmium contaminated soil with PGPR consortia and hyperaccumulator plants. (Prof. Rajesh Kumar), Department of Environment Microbiology, Babasaheb Bhim Rao Ambedkar University, Lucknow.

5. Vineet Kumar. Study of bacterial communities in two step treatment of post methanated distillery effluent by bacteria and constructed wetland plant treatment system. (Prof. Ram Chandra), Department of Environment Microbiology, Babasaheb Bhim Rao Ambedkar University, Lucknow.

ENGINEERING SCIENCES

Architecture & Planning

1. George, Jose P. Genesis of modern building bye-laws in vastuvidya on human habitation. (Dr. P V Ouseph), Department of Vastuvidya, Sree Sankaracharya University of Sanskrit, Kalady, District Ernakulam.

Chemical Engineering

- 1. Kamble, Manisha Gunderao. Adsorptive removal of some potent herbicides: Comparative study using Rice Husk Ash (RHA) and Bagasse Fly Ash (BFA). (Dr. Sachin A), Department of Chemical Engineering, Visvesvaraya National Institute of Technology, Nagpur.
- 2. Nishant Kumar. **Study on synthesis of nano fluids and its application in heat transfer**. (Dr. S S Sonawane), Department of Chemical Engineering, Visvesvaraya National Institute of Technology, Nagpur.
- 3. Tekade, Shyam Prakashrao. Hydrogen generation by water splitting reaction using aluminum in annular and batch reactor. (Dr. Diwakar Z Shende), Department of Chemical Engineering, Visvesvaraya National Institute of Technology, Nagpur.

Civil Engineering

- 1. Bhatkar, Tejas Prakash. Study of geotechnical aspects on surface and subsurface excavation in different ground condition. (Dr. Anirban Mandal), Department of Civil Engineering, Visvesvaraya National Institute of Technology, Nagpur.
- 2. Godse, Parimal Arun. A comprehensive operational analysis on inter-urban roadways in mixed traffic conditions using simulation. (Dr. V S Landge), Department of Civil Engineering, Visvesvaraya National Institute of Technology, Nagpur.
- 3. Gupta, Tripti Balram. Adsorptive treatment of dye bearing waste water by using low cost adsorbent. (Dr. Dilip H Lataye), Department of Civil Engineering, Visvesvaraya National Institute of Technology, Nagpur.
- 4. Jadhao, Ramrao Dhansing. Study of leakage reduction in water distribution network through pressure management. (Dr. Rajesh Gupta), Department of Civil Engineering, Visvesvaraya National Institute of Technology, Nagpur.
- 5. Rishma, C. Impact assessment of global climate variability on hydrological parameters of Venna Basin in Central India using spatial approach. (Dr. Y B Katpatal), Department of Civil Engineering, Visvesvaraya National Institute of Technology, Nagpur.
- 6. Sinha, Pramod Kumar. **Impact of climate change on water availability in reservoirs of Lebata River**. (Prof. Rajesh Kumar), Department of Civil Engineering, Sharda University, Greater Noida.

Computer Science & Engineering

1. Adane, Padma Dattatraya. Review of provisioning techniques in cloud environment and performance

- **enhancement using a flexible load prediction model**. (Dr. O G Kakde), Department of Computer Science & Engineering, Visvesvaraya National Institute of Technology, Nagpur.
- 2. George, Thresiamma K. Security vulnerability in online applications: Analysis anomaly detection and prevention of attack. (Dr. K Poulose Jacob and Dr. Rekha K James), Department of Computer Science, Cochin University of Science & Technology, Kochi.
- 3. Khokher, Rohit. **Biometric identification using multiple traits**. (Prof. R C Singh), Department of Computer Science & Engineering, Sharda University, Greater Noida.
- 4. Madaan, Jyoti. **Development of optimized handoff decision algorithm for wireless networks**. (Dr. Indu Kashyap), Faculty of Engineering and Technology, Manav Rachna International University, Faridabad.
- 5. Olaleye, Solomon Babatunde. Security issues in enhancing storage spaces of smartphones with special reference to swarm prediction approach techniques. (Prof. Shri Kant), Department of Computer Science & Engineering, Sharda University, Greater Noida.
- 6. Prabhishek Singh. **To design a framework for reduction of speckle noise in synthetic aperture radar images**. (Dr. Raj Shree), Department of Information Technology, Babasaheb Bhim Rao Ambedkar University, Lucknow.
- 7. Raja Kumar, R. **Reducing the computational requirements of nearest neighbor classifier**. (Dr. P Viswanath and Dr. C Shoba Bindu), Department of Computer Science & Engineering, Jawaharlal Nehru Technological University Anantapur, Ananthapuramu.
- 8. Santosh Kumar, M B. **Development of innovative procedures for information technology articulated agriculture**. (Dr. B Kannan), Department of Computer Application, Cochin University of Science & Technology, Kochi.
- 9. Saxena, Swati. An adaptive QoS-based dynamic resource management in cloud computing systems. (Dr. Narander Kumar), Department of Computer Science, Babasaheb Bhim Rao Ambedkar University, Lucknow.
- 10. Tembhurne, Omprakash W. **Hyperspectral image unmixing using meta-heuristic approaches**. (Dr. Deepti Shrimankar), Department of Computer Science & Engineering, Visvesvaraya National Institute of Technology, Nagpur.

Electrical & Electronics Engineering

- 1. Bagde, Bhushan Y. **Transient stability constrained optimal power flow using biogeography based optimization technique**. (Dr. B S Umre), Department of Electrical Engineering, Visvesvaraya National Institute of Technology, Nagpur.
- 2. Goel, Shikha. Synthesis, characterization of natural polymer based electrolytes for electrochemical devices. (Dr. Pradeep K Varshney), Faculty of Engineering and Technology, Manav Rachna International University, Faridabad.
- 3. Huchche, Vijaya Ambadas. Modeling of induction motor: Its analysis and assessment of energy during symmetrical and unsymmetrical voltage sage. (Dr. Anjali S Junghare and Dr. Nita R Patne), Department of Electrical Engineering, Visvesvaraya National Institute of Technology, Nagpur.
- 4. Kanhav, Kaushal Arun. **Two quadrant multi-input DC-DC converter for charging energy storage sources**. (Dr. M A Chaudhari), Department of Electrical Engineering, Visvesvaraya National Institute of Technology, Nagpur.

- 5. Khubalkar, Swapnil Waman. Analysis and implementation of fractional order PID controller for linear and nonlinear systems. (Dr. Anjali S Junghare and Dr. M V Aware), Department of Electrical Engineering, Visvesvaraya National Institute of Technology, Nagpur.
- 6. Rangari, Sonali C. **Performance evaluation of five- phase induction motor drive with fault-tolerant scheme.**(Dr. H M Suryawanshi), Department of Electrical Engineering, Visvesvaraya National Institute of Technology, Nagpur.
- 7. Salodkar, Prachi Abhijit. Some studies on singlephase multilevel inverter topologies for PV application. (Dr. P S Kulkarni), Department of Electrical Engineering, Visvesvaraya National Institute of Technology, Nagpur.
- 8. Sree Latha, K. Voltage profile improvement of grid connected wind farms using facts devices. (Dr. M Vijaya Kumar), Department of Electrical Engineering, Jawaharlal Nehru Technological University Anantapur, Ananthapuramu.

Electronics & Communication Engineering

- 1. Majumder, Alak. Process variation aware serializer and data reconstruction architecture for e" 25 Gbit/s on-chip data links. (Dr. Pinaki Chakraborty and Dr. Bidyut Kumar Bhattacharyya), Department of Electronics and Communication Engineering, National Institute of Technology Arunachal Pradesh, Yupia.
- 2. Goud, B Dodda Basavanna. A new instrumentation system for separation and detection of RBC and WBC components in whole blood. (Dr. K Padma Priya), Department of Electronics & Communication Engineering, Jawaharlal Nehru Technological University Anantapur, Ananthapuramu.
- 3. Jain, Abhishek. An improvement on salt and pepper noise removal algorithms and development of functional verification methods for image signal processing designs. Department of Electronics & Communication Engineering, Jaypee Institute of Information Technology, Uttar Pradesh.
- 4. Jain, Vandana. **Design and fabrication of a low-cost open EWOD based dynamics sensing system**. (Dr. R M Patrikar), Centre for VLSI and Nanotechnology, Visvesvaraya National Institute of Technology, Nagpur.
- 5. Joshi, Pankaj U. Error correction and power reduction techniques for truncated multiplier. (Dr. R B Deshmukh), Centre for VLSI and Nanotechnology, Visvesvaraya National Institute of Technology, Nagpur.
- 6. Keshari, Jaishankar Prasad. **Design and analysis of microstrip antenna based on active integrated device**. (Prof. R M Mehra), Department of Electronics & Communication Engineering, Sharda University, Greater Noida.
- 7. Yadav, Rahis Kumar. Modeling and simulation of dual channel dual material gate AIGaN/GaN high electron mobility transistor (DCDMGHEMT). (Prof. R M Mehra), Department of Electronics and Communication Engineering, Sharda University, Greater Noida.
- 8. Zode, Pravin P. **Side channel attack resistant architecture for elliptic curve cryptography**. (Dr. R B Deshmukh), Centre for VLSI and Nanotechnology, Visvesvaraya National Institute of Technology, Nagpur.

Information & Communication Engineering

1. Bindu. Study of ionic behavior of ionosphere- F2 region using satellite data. (Dr. Anupama Rajput and Dr. Dinesh Sharma), Faculty of Engineering and Technology, Manav Rachna International University, Faridabad.

2. Sleeba, Simi Zerine. **Performance and reliability enhancement techniques for two dimensional network-on-chips using adaptive deflection routers**. (Dr. Mini M G), Model Engineering College, Cochin University of Science & Technology, Kochi.

Marine Engineering

1. Satheesh Babu. Assessment and monitoring of corrosion condition of steel ship structures. (Dr. A Mathiazhagan), Department of Ship Technology, Cochin University of Science & Technology, Kochi.

Mechanical Engineering

- 1. Agrawal, Richa Sandesh. Notch effect on low cycle fatigue life of 316 LN steel at high temperature. (Dr. Rashmi Uddanwadikar and Dr. P M Padole), Department of Mechanical Engineering, Visvesvaraya National Institute of Technology, Nagpur.
- 2. Chaudhari, Rajesh Gangadharrao. **Kinematics and design of three degree of freedom closed chain mechanism**. (Dr. H T Thorat and Dr. H P Jawale), Department of Mechanical Engineering, Visvesvaraya National Institute of Technology, Nagpur.
- 3. Dahake, Sandeep Wasudeorao. Customized surgical guide using layered manufacturing. (Dr. A M Kuthe), Department of Mechanical Engineering, Visvesvaraya National Institute of Technology, Nagpur.
- 4. Deshpande, Milind Shankar. **Development calibration** and testing of three axis force sensitive platform. (Dr. H T Thorat and Dr. H P Jawale), Department of Mechanical Engineering, Visvesvaraya National Institute of Technology, Nagpur.
- 5. Deshpande, Yogesh Vasantrao. **Optimization of machining parameters for turning of inconel 718 using cryogenically treated tools**. (Dr. A B Andhare and Dr. P M Padole), Department of Mechanical Engineering, Visvesvaraya National Institute of Technology, Nagpur.
- 6. Gupta, Vinit. **Frictional dynamics of soft and hard solid interfaces**. (Dr Arun Kumar Singh), Department of Mechanical Engineering, Visvesvaraya National Institute of Technology, Nagpur.
- 7. Jhunjhunwala, Pooja. Analysis of blood flow through arteries using computational fluid dynamics. (Dr. P M Padole and Dr. S B Thombre), Department of Mechanical Engineering, Visvesvaraya National Institute of Technology, Nagpur.
- 8. Joshi, Sandeep Shrikrushna. **Experimental investigations of solar photovoltaic thermal system using different liquid spectrum filters**. (Dr. A S Dhoble), Department of Mechanical Engineering, Visvesvaraya National Institute of Technology, Nagpur.
- 9. Kulkarni, Tushar S. **Design and fabrication of low cost adaptive gripper for prosthetic hand**. (Dr. Rashmi V Uddanwadikar), Department of Mechanical Engineering, Visvesvaraya National Institute of Technology, Nagpur.
- 10. Mawale, Mahesh Bhaurao. **Design of innovative products using TRIZ and development using layered manufacturing**. (Dr. A M Kuthe), Department of Mechanical Engineering, Visvesvaraya National Institute of Technology, Nagpur.
- 11. Pungle, Ramesh G. **Position and path control of AGV** by fixed sensor and controller. (Dr. A B Andhare), Department

- of Mechanical Engineering, Visvesvaraya National Institute of Technology, Nagpur.
- 12. Rejeesh, C R. Investigations into chemical treatment of medium density coir fibre boards for enhancing fire retardant properties. (Dr. K K Saju), School of Engineering, Cochin University of Science & Technology, Kochi.
- 13. Sane, Atul. Experimental and finite element analysis of co-cured composite T Joint. (Dr. P M Padole and Dr. Rashmi V Uddanwadikar), Department of Mechanical Engineering, Visvesvaraya National Institute of Technology, Nagpur.
- 14. Sapkal, Pranav S. Rapid phototyping assisted scaffold fabrication for bone tissue regeneration. (Dr. A M Kuthe), Department of Mechanical Engineering, Visvesvaraya National Institute of Technology, Nagpur.
- 15. Sharma, Sanjay Kumar. Numerical and experimental study on thermal-hydraulic performance of a solar air heater: Effect of size and truncation of rib. (Dr. Vilas R Kalamkar), Department of Mechanical Engineering, Visvesvaraya National Institute of Technology, Nagpur.
- 16. Shinde, Mahesh Sheshrao. **Critical analysis of mold with conformal cooling in injection molding.** (Dr. K M Ashtankar), Department of Mechanical Engineering, Visvesvaraya National Institute of Technology, Nagpur.

Metallurgical Engineering

1. Amit Kumar. Microstructure and texture developments during deformation in duplex stainless steel. (Dr. Rajesh K Khatirkar), Department of metallurgical and Materials Engineering, Visvesvaraya National Institute of Technology, Nagpur.

MATHEMATICAL SCIENCES

Mathematics

- 1. Boruah, Chayanika. Contribution to Ramanujan's continued fractions, partition theory and related topics. (Dr. Nipen Saikia), Department of Mathematics, Rajiv Gandhi University, Itanagar.
- 2. Garg, Amita. **Inverse problems related to partial differential equations**. (Prof. A. H. Siddiqi), Department of Mathematics, Sharda University, Greater Noida.
- 3. Nitendra Kumar. **Matrix techniques in data mining.** (Dr. Khursheed Alam), Department of Mathematics, Sharda University, Greater Noida.
- 4. Pramod Kumar. **Numerical computation of various fluid flow problems**. (Dr. Brajesh Kumar Singh), Department of Applied Mathematics, Babasaheb Bhim Rao Ambedkar University, Lucknow.
- 5. Puri, Manoj. Quasi-static deformation of a layered poroelastic medium due to surface loading. (Dr. Sunita Rani), Department of Mathematics, Guru Jambheshwar University of Science & Technology, Hisar.
- 6. Susheel Kumar. Study and formulation of computer oriented mathematical model for prediction of behaviour of IT systems. (Prof. Kuldeep Singh), Department of Mathematics, Guru Jambheshwar University of Science & Technology, Hisar.
- 7. Tripathi, Padmesh. **Recent developments in inverse problems with applications to signal de-noising**. (Prof. A. H. Siddiqi), Department of Mathematics, Sharda University, Greater Noida.

Statistics

- 1. Chandni Kumari. **On optimal sampling strategies for estimation of parameters**. (Dr. Surinder Kumar and Dr. Shashi bhushan), Department of Applied Statistics, Babasaheb Bhim Rao Ambedkar University, Lucknow.
- 2. Sumit Kumar. **On some aspects of ordered random variables**. (Dr. Surinder Kumar and Dr. Mohd Jahangir Sabbir Khan), Department of Applied Statistics, Babasaheb Bhim Rao Ambedkar University, Lucknow.

MEDICAL SCIENCES

Biotechnology

1. Munmum Kumari. Identification of the disease associated sialoglycoproteins in serum samples of non-small cell lung cancer patients and study on their role in the disease process. Department of Experimental Medicine & Biotechnology, Postgraduate Institute of Medical Education and Research, Chandigarh.

Gynaecology

1. Javed, Shifa. Cancer stem cells in cervical carcinogenesis. Department of Cytology and Gynecological Pathology, Postgraduate Institute of Medical Education and Research, Chandigarh.

Medicine

1. Shah, Swati Dharmesh. **Study of pre-segmental arterial pattern of human kidneys in local population**. (Dr. Bharat Trivedi), Department of Medicine, Gujarat University, Ahmedabad.

Pharmaceutical Science

1. Panda, Braja Bihari. **Development and characterization of compaction and biointerfacial behaviour of some tablet and film formulations.** (Prof. Subrata Mallick), Department of Pharmacy, Siksha O Anusandhan University, Bhubaneswar.

Radiology

1. Raizada, Milanjeet Kaur. Clinical assessment of efficacy of omega 3 in oral submucous fibrosis patients treated with intralesional steroid and hyaluronidase therapy: A randomized controlled trial. (Dr. D M Sable), Faculty of Dentistry, Dr D Y Patil Vidyapeeth, Pune.

PHYSICAL SCIENCES

Chemistry

- 1. Azad Kumar. Preparation, properties and photocatalytic activity of some doped and undoped metal oxide nanomaterials. (Prof. Gajanan Pandey), Department of Applied Chemistry, Babasaheb Bhim Rao Ambedkar University, Lucknow.
- 2. Bhattacharya, Doyel Manoj. Study of thermo dynamic transport and acoustic properties of some pharmaceutical compounds in aqueous solutions at different temperatures. (Dr. Sangesh P Zodape), Department of Chemistry, Visvesvaraya National Institute of Technology, Nagpur.
- 3. Gupta, Vandana. **Removal of dyes from aqueous solution by using non-conventional adsorbents**. (Dr. Anupama Agarwal), Department of Chemistry, Sharda University, Greater Noida.
- 4. Jisha, K A. **Development of dendritic functionalized mesoporous silica as reusable catalyst for organic synthesis.** (Dr. Prathapan S), Department of Applied Chemistry, Cochin University of Science & Technology, Kochi.

- 5. Pinki. **Epoxy clay nanocompostes: Thermal behaviour and flame retardant studies**. (Prof. J B Dahiya), Department of Chemistry, Guru Jambheshwar University of Science & Technology, Hisar.
- 6. Suna, Padmini. Studies on the spectral and hydrolytic behavior of substituted N-benzylideneanilines in microheterogeneous media. (Dr. P K Mishra), Department of Chemistry, Sambalpur University, Sambalpur.

Physics

- 1. Chaku, Anemone Koul. **Effect of corona discharge on polycrystalline chalcogenide materials**. (Prof. Bhaskar Bhattacharya), Department of Physics, Sharda University, Greater Noida
- 2. Gali, Swapna Mary. Studies in thin films-investigations on Cu₂ZnGeSe₄ thin films for solar cell absorber layer. (Dr. G Hema Chandra), Department of Physics, Visvesvaraya National Institute of Technology, Nagpur.
- 3. Jindal, Shikha. **Design and development of environmentally benign quantum dots based bulk heterojunction organic solar cells.** (Dr. Sushma M Giripunje), Department of Physics, Visvesvaraya National Institute of Technology, Nagpur.
- 4. Karade, Swapnil Sanjay. Solution processed molybdenum based chalcogenides onto carbon nanotubes

- **for supercapacitor application**. (Dr. B R Sankapal), Department of Physics, Visvesvaraya National Institute of Technology, Nagpur.
- 5. Monika Singh. Synthesis and characterization of nano-sized spinel and othoferrites and their application as liquefied petroleum gas sensor. (Dr. B C Yadav), Department of Applied Physics, Babasaheb Bhimrao Ambedkar University, Lucknow.
- 6. Nagapure, Dipak Ramdas. Investigations on Cu₂ZnSe₄ and Ge-substituted Cu₂ZnSnSe₄ thin films for solar cell absorber layer. (Dr. Hema Chandra), Department of Physics, Visvesvaraya National Institute of Technology, Nagpur.
- 7. Raut, Ashish P. Study of the effect of gamma irradiation on the physical properties of lithium borosilicate based glasses. (Dr. V K Deshpande), Department of Physics, Visvesvaraya National Institute of Technology, Nagpur.
- 8. Sekhar, B. **Investigations on transition metal ions doped CdSe nanopolymers**. (Dr. R V S S N), Department of Physics, Acharya Nagarjuna University, Nagarjuna Nagar.

Polymer Science

1. George, Neena. Chemical recycling of PET bottle waste to terephthalic dihydrazide and its application as a versatile polymer additive. (Dr. Thomas Kurian), Department of Polymer Science and Rubber Technology, Cochin University of Science & Technology, Kochi.