

# DOCTORAL CLASS OF 2020

## Ph.D. Degrees Awarded at the 51st Convocation

November 7, 2020



INDIAN INSTITUTE OF TECHNOLOGY DELHI

# Doctoral Class of 2020

Academic research conducted by Ph.D. students forms the core of the research for which IIT Delhi is known. Consequently, we cherish and take great pride in our Ph.D. programme. In our 51st Convocation, 298 students will be earning their doctoral degrees. It is noteworthy that many of these students could complete their doctoral degrees in spite of the disruption in academics caused by the COVID-19 pandemic this year. It is also noteworthy that about 35% of graduating Ph.D. students in this Convocation are women students.

It is interesting to note that in the first Convocation in 1966, one Ph.D. student received his degree. Thus, the Institute has come a long way in post-graduate and PhD research, and its continued focus on increased student intake in the doctoral programme, and commitment to quality research is likely to bear sustained results in the near future.

Ph.D. students conduct their research work individually and they graduate throughout the year. Convocation is arguably the only time that they come together as a class. To create a stronger sense of this class, in recent years we have been publishing this booklet containing the basic information about the Ph.D. students receiving their degrees.

We continue this practice for Convocation 2020. In addition to being such an academic record, this booklet serves as a rapid information guide to the profile of research being carried out in IIT Delhi. A browse through the titles of the theses would give an idea of the wide diversity of expertise amongst the faculty who have supervised these theses, and also a view of the social and economic relevance of the topics and the contemporary nature of the problems being investigated. In coming years, as the Institute grows further and such record-keeping at the time of Convocation continues to happen, we expect this document to serve as a record of the knowhow and knowledge that this Institute has contributed to, thereby justifying the academic pursuits enshrined in the Vision and Mission of the Institute.



**Shantanu Roy**  
Dean, Academics

**51<sup>st</sup> Convocation**  
November 7, 2020

- 1 **Purva Grover (2016SMZ8019)**  
Title: "UNDERSTANDING THE ROLE OF INFLUENCERS IN SOCIAL MEDIA: SELECT STUDIES USING BIG DATA ANALYTICS"  
Supervisor(s): Prof. Arpan K Kar, Department of Management Studies
- 2 **Gurminder Singh (2016MEZ8279)**  
Title: "EXPERIMENTAL INVESTIGATIONS INTO ULTRASONIC ASSISTED PRESSURELESS SINTERING FOR RAPID MANUFACTURING OF COPPER COMPONENTS"  
Supervisor(s): Prof. P.M. Pandey, Department of Mechanical Engineering
- 3 **Syed Ziaul Mustafa (2014SMZ8416)**  
Title: "INFORMATION RISK ASSESSMENT FOR DIGITAL SERVICES IN SMART CITIES"  
Supervisor(s): Prof. Arpan K Kar, Department of Management Studies
- 4 **Sourabh Kumar (2011MEZ8359)**  
Title: "HEAT TRANSFER ENHANCEMENT THROUGH INTRODUCTION OF CROSS-STREAM VORTICITY: PILLOW PLATE HEAT EXCHANGERS"  
Supervisor(s): Prof. P.M.V. Subbarao and Prof. B. Premchandran, Department of Mechanical Engineering
- 5 **Noor Ulain Rizvi (2014SMZ8418)**  
Title: "IMPACT OF HIGHER CAPITAL ADEQUACY REQUIREMENTS FOR BANKS: EVIDENCE FROM BRICS"  
Supervisor(s): Prof. Smita Kashiramka and Prof. Shveta Singh, Department of Management Studies
- 6 **Tewodros Tesfaye Woldemariam (2012CEZ8029)**  
Title: "IMPACT ASSESSMENT OF CLIMATE CHANGE AND ANTHROPOGENIC ACTIONS ON STREAMFLOW CHARACTERISTICS, HYDROPOWER AND ENVIRONMENTAL FLOW OF OMO-GIBE RIVER BASIN IN ETHIOPIA"  
Supervisor(s): Prof. Dhanya C.T. and Prof. A.K. Gosain, Department of Civil Engineering
- 7 **Kapil Jainwal (2012EEZ8365)**  
Title: "LOW-FREQUENCY NOISE REDUCTION TECHNIQUES FOR CMOS IMAGE SENSORS"  
Supervisor(s): Prof. Mukul Sarkar, Department of Electrical Engineering
- 8 **Rattandeep Singh (2014MEZ8014)**  
Title: "ELECTROHYDRODYNAMICS OF DROPLETS IN A MICROCHANNEL"  
Supervisor(s): Prof. Amit Gupta and Prof. Supreet Singh Bahga, Department of Mechanical Engineering

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| 9  | <b>Vishal Srivastava (2012BLZ8558)</b><br>Title: "INVESTIGATING THE BIOTECHNOLOGICAL AND MECHANISTIC ASPECTS OF REPEAT-IN TOXIN FAMILY METALLOPROTEASE-SERRATIOPEPTIDASE"<br>Supervisor(s): Prof. Tapan K. Chaudhuri, Kusuma School of Biological Science                    |
| 10 | <b>Sunil Kumar (2015MEZ8170)</b><br>Title: "NUMERICAL SIMULATION OF CONSTRAINED GROOVE PRESSING AND DIE DESIGN OPTIMIZATION"<br>Supervisor(s): Prof. D. Ravi Kumar and Prof. K. Hariharan, Department of Mechanical Engineering                                              |
| 11 | <b>Robin. E.J. (2012HUZ8471)</b><br>Title: "TRANSCENDENTAL PHILOSOPHY AS CORRELATIONISM: A CRITICAL INVESTIGATION"<br>Supervisor(s): Prof. Sanil V., Department of Humanities and Social Sciences                                                                            |
| 12 | <b>Santanu Basak (2015TTZ8273)</b><br>Title: "STUDIES ON SUSTAINABLE APPROACH FOR DEVELOPING FIRE RETARDANT CELLULOSIC TEXTILES USING PLANT BASED BIO-MACROMOLECULES"<br>Supervisor(s): Prof. Wazed Ali, Department of Textile & Fibre Engineering                           |
| 13 | <b>Sumit Madan (2012BMZ8469)</b><br>Title: "DEVELOPMENT AND EVALUATION OF TOPICAL DRUG DELIVERY SYSTEM FOR TREATMENT OF INFLAMMATORY DISORDERS (ACNE)"<br>Supervisor(s): Prof. Veena Koul, Centre for Biomedical Engineering                                                 |
| 14 | <b>Karthikeya G.S (2016CRZ8562)</b><br>Title: "MILLIMETER WAVE ANTENNAS FOR 5G MOBILE TERMINALS AND BASE STATIONS"<br>Supervisor(s): Prof. Mahesh P Abegaonkar and Prof. Shiban K Koul, Centre for Applied Research in Electronics                                           |
| 15 | <b>Heena Dhawan (2012ESZ8421)</b><br>Title: "STUDIES ON SOLVENT EXTRACTION, CHEMICAL LEACHING, PYROLYSIS AND GASIFICATION OF INDIAN COALS"<br>Supervisor(s): Prof. D.K. Sharma, Centre for Energy Studies and Prof. Sreedevi Upadhyayula, Department of Chemical Engineering |
| 16 | <b>Umesh Kumar Mishra (2012CYZ8152)</b><br>Title: "SYNTHESIS OF NOVEL AZA-NUCLEOSIDES AND A NEW STRATEGY TO (+)-BULGECININE, TRANS-4-HYDROXY-D-PROLINE"<br>Supervisor(s): Prof. N.G. Ramesh, Department of Chemistry                                                         |
| 17 | <b>Rouzbeh Maddah (2013CEZ8227)</b><br>Title: "AN ANALYSIS OF RISKS FACED BY FOREIGN CONSTRUCTION FIRMS IN INDIA AND THEIR EFFECT ON PROJECT PERFORMANCE"<br>Supervisor(s): Prof. Arvind Kumar Jain and Prof. Kumar Neeraj Jha, Department of Civil Engineering              |

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| 18 | <b>Anjaneer Kumar Mishra (2015EEZ8074)</b><br>Title: "STANDALONE AND GRID INTERFACED SRM DRIVES FOR SOLAR WATER PUMPING"<br>Supervisor(s): Prof. Bhim Singh, Department of Electrical Engineering                                                                                                                                         |
| 19 | <b>Abhilash Sahu (2014MAZ8330)</b><br>Title: "BOX DIMENSION OF HARMONIC FUNCTIONS AND p-LAPLACIAN EQUATIONS ON THE SIERPINSKI GASKET"<br>Supervisor(s): Prof. Amit Priyadarshi, Department of Mathematics                                                                                                                                 |
| 20 | <b>Chavi Asrani (2014HUZ8322)</b><br>Title: "ADOPTION AND DIFFUSION OF DIGITAL COMMUNICATIONS IN INDIA: AN EMPIRICAL STUDY"<br>Supervisor(s): Prof. Ankush Agrawal, Department of Humanities & Social Sciences                                                                                                                            |
| 21 | <b>Jitendra Kumar (2012ESZ8300)</b><br>Title: "STRATEGIES FOR OPTIMAL RESOURCE/DEMAND SCHEDULING OF LV POWER SYSTEMS"<br>Supervisor(s): Prof. Ashu Verma and Prof. T.S. Bhatti, Centre for Energy Studies                                                                                                                                 |
| 22 | <b>Devendra Kumar Pathak (2015SMZ8208)</b><br>Title: "PERFORMANCE MANAGEMENT OF SUSTAINABLE FREIGHT TRANSPORTATION: A STUDY OF SELECT ISSUES"<br>Supervisor(s): Prof. Ravi Shankar, Department of Management Studies and Prof. Devendra Chaudhary, Department of Mechanical Engineering, Government Engineering College, Ajmer, Rajasthan |
| 23 | <b>Mahamaya Mohanty (2013SMZ8501)</b><br>Title: "SELECT STUDY ON DECISION MAKING FOR INTEGRATED LOGISTICS IN SUSTAINABLE SUPPLY CHAINS"<br>Supervisor(s): Prof. Ravi Shankar, Department of Management Studies                                                                                                                            |
| 24 | <b>Natraj Mishra (2012MEZ8257)</b><br>Title: "DYNAMIC MODELLING AND CONTROL OF TWO LINK FLEXIBLE ARM ROBOTIC MANIPULATOR"<br>Supervisor(s): Prof. S.P. Singh and Late Prof. B.C. Nakra, Department of Mechanical Engineering                                                                                                              |
| 25 | <b>Ashwani Jain (2012CEZ8535)</b><br>Title: "ANALYSIS OF UNDERGROUND STRUCTURES UNDER SQUEEZING ROCK CONDITIONS"<br>Supervisor(s): Prof. K.S. Rao, Department of Civil Engineering                                                                                                                                                        |
| 26 | <b>Arunima Shukla (2014CHZ7523)</b><br>Title: "CGAs-BASED LIGHT-WEIGHT CONCRETE"<br>Supervisor(s): Prof. Ashok N. Bhaskarwar, Department of Chemical Engineering                                                                                                                                                                          |

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| 27 | <b>Anil Kumar (2014MEZ8011)</b><br>Title: "FABRICATION OF $\text{Si}_3\text{N}_4$ CERAMIC AND IMPROVEMENT IN ITS GRINDING CHARACTERISTICS BY APPLICATION OF NANOFLUIDS"<br>Supervisor(s): Prof. S. Ghosh and Prof. S. Aravindan, Department of Mechanical Engineering |
| 28 | <b>Vedantham Lakshmi Srinivas (2015EEZ2511)</b><br>Title: "INTELLIGENT CONTROL OF GRID INTERFACED AND OFF-GRID SOLAR PV SYSTEMS"<br>Supervisor(s): Prof. Bhim Singh and Prof. Sukumar Mishra, Department of Electrical Engineering                                    |
| 29 | <b>Amaren P. Das (2011MEZ8364)</b><br>Title: "DESIGN AND CONTROL OF A TELE-OPERATED MOBILE PLATFORM"<br>Supervisor(s): Prof. S.K. Saha, Prof. S. Bhasin and Prof. D.N. Badodkar, Department of Mechanical Engineering                                                 |
| 30 | <b>Anuj Kumar (2012MAZ8519)</b><br>Title: "AVERAGE SAMPLING AND RECONSTRUCTION IN REPRODUCING KERNEL SUBSPACES"<br>Supervisor(s): Prof. Sivananthan Sampath, Department of Mathematics                                                                                |
| 31 | <b>Ashish Kumar Jain (2013EEZ8285)</b><br>Title: "CONTROL OF UNCERTAIN NONLINEAR SYSTEMS WITH UNKNOWN TIME DELAY"<br>Supervisor(s): Prof. Shubhendu Bhasin, Department of Electrical Engineering                                                                      |
| 32 | <b>Nikhil Kateja (2014CHZ8170)</b><br>Title: "CONTINUOUS PROCESSING FOR PURIFICATION OF BIOTECH THERAPEUTICS"<br>Supervisor(s): Prof. Anurag S. Rathore, Department of Chemical Engineering                                                                           |
| 33 | <b>Sumit Kumar Singh (2013CHZ8099)</b><br>Title: "MAXIMIZING SAFETY AND EFFICACY OF BIOTHERAPEUTICS BY CONTROLLING CRITICAL QUALITY ATTRIBUTES"<br>Supervisor(s): Prof. Anurag S. Rathore, Department of Chemical Engineering                                         |
| 34 | <b>Archana Goyal Gulati (2012BSZ8163)</b><br>Title: "IDENTIFICATION AND ANALYSIS OF APPROPRIATE REGULATORY FRAMEWORK FOR UNIVERSAL SERVICE INTERVENTIONS IN TELECOMMUNICATIONS"<br>Supervisor(s): Prof. Sushil, Department of Management Studies                      |
| 35 | <b>Ramanjit Ahuja (2012EEZ7508)</b><br>Title: "ON ALIEN NOISE CANCELLATION FOR DOWNSTREAM DSL RECEIVERS"<br>Supervisor(s): Prof. Brejesh Lall and Prof. Surendra Prasad, Department of Electrical Engineering                                                         |

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| 36 | <b>Gaurav (2012MSZ8402)</b><br>Title: "EFFECT OF STRAIN PATH CHANGE ON STATIC RECRYSTALLIZATION BEHAVIOR OF COLD DEFORMED Mg-6Al-3Sn MAGNESIUM ALLOY"<br>Supervisor(s): Prof. Jayant Jain and Prof. Rajesh Prasad, Department of Materials Science and Engineering                                                     |
| 37 | <b>Manoj Sharma (2012EEZ8375)</b><br>Title: "NOVEL DEEP LEARNING BASED FRAMEWORK FOR IMAGE AND VIDEO ENHANCEMENT"<br>Supervisor(s): Prof. Santanu Chaudhury and Prof. Brejesh Lall, Department of Electrical Engineering                                                                                               |
| 38 | <b>Debajit Dey (2013BLZ8511)</b><br>Title: "CHARACTERIZATION OF CHIKUNGUNYA VIRUS 6K PEPTIDE"<br>Supervisor(s): Prof. Manidipa Banerjee, Kusuma School of Biological Sciences                                                                                                                                          |
| 39 | <b>Dileep Kumar (2015MAZ8142)</b><br>Title: "APPROXIMATION OF NONLINEAR TIME-FRACTIONAL PDES USING FINITE ELEMENT METHODS"<br>Supervisor(s): Prof. V.V.K. Srinivas Kumar, Department of Mathematics                                                                                                                    |
| 40 | <b>Shadab Murshid (2013EEZ2864)</b><br>Title: "DESIGN AND DEVELOPMENT OF SOLAR PV FED PMSM DRIVEN WATER PUMPING SYSTEM"<br>Supervisor(s): Prof. Bhim Singh, Department of Electrical Engineering                                                                                                                       |
| 41 | <b>Amit Kumar (2014MEZ8008)</b><br>Title: "FORMABILITY OF TAILOR WELDED BLANKS OF INTERSTITIAL FREE AND DRAW QUALITY STEELS IN HYDRAULIC BULGING"<br>Supervisor(s): Prof. D. Ravi Kumar, Department of Mechanical Engineering                                                                                          |
| 42 | <b>Lakhvinder Singh (2014AMZ8262)</b><br>Title: "FLOW CHARACTERISTICS OF AN INLINE-SLOT CONICAL EJECTOR-DIFFUSER: AN INFRARED SUPPRESSION DEVICE"<br>Supervisor(s): Prof. S.N.Singh and Prof. Sawan S. Sinha, Department of Applied Mechanics                                                                          |
| 43 | <b>Ankit Bhardwaj (2012CEZ8202)</b><br>Title: "INVESTIGATIONS INTO BEHAVIOR OF ADHESIVE BONDED STEEL-CONCRETE COMPOSITE FLEXURAL MEMBERS"<br>Supervisor(s) Prof. V.A. Matsagar, Prof. A.K. Nagpal, Department of Civil Engineering, IIT Delhi and Prof. Sandeep Chaudhary, Discipline of Civil Engineering, IIT Indore |
| 44 | <b>Ramesh Kumar (2012PHZ8491)</b><br>Title: "STUDIES IN OPTICAL WAVE PROPAGATION WITH APPLICATIONS TO FIBER GRATINGS"<br>Supervisor(s): Prof. Anurag Sharma, Department of Physics                                                                                                                                     |

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| 45 | <b>Priyanka Nair (2012BLZ8103)</b><br>Title: "COMPUTATIONAL AND BIOCHEMICAL STUDIES OF HOST MEMBRANE PENETRATION BY HEPATITIS A VIRUS (HAV)"<br>Supervisor(s): Prof. Manidipa Banerjee, Kusuma School of Biological Sciences                                                                                                                                          |
| 46 | <b>Anushruti Jaiswal (2013CRZ8456)</b><br>Title: "RECESSED GROUND TECHNIQUES FOR MILLIMETER WAVE CIRCUITS AND ANTENNAS"<br>Supervisor(s): Prof. Mahesh P. Abegaonkar and Prof. Shibani K. Koul, Centre for Applied Research in Electronics                                                                                                                            |
| 47 | <b>Parswajit Kalita (2014PHZ8112)</b><br>Title: "GRAIN SIZE AND ENVIRONMENTAL TEMPERATURE EFFECTS ON THE CONSEQUENCE OF ION ENERGY LOSS IN MATERIALS: A CASE STUDY OF CUBIC ZIRCONIA"<br>Supervisor(s): Prof. Santanu Ghosh, Department of Physics, IIT Delhi and Prof. Devesh K. Avasthi, Amity Institute of NanoTechnology, Amity University Noida                  |
| 48 | <b>Vedabouriswaran G. (2013MEZ8183)</b><br>Title: "FRICTION STIR PROCESSING OF MAGNESIUM ALLOY"<br>Supervisor(s): Prof. S. Aravindan, Department of Mechanical Engineering                                                                                                                                                                                            |
| 49 | <b>Priyanka Bhartiya (2014CEZ8366)</b><br>Title: "ANALYSIS AND DESIGN OF PILED RAFT FOUNDATIONS CONSIDERING SERVICEABILITY LIMIT STATES"<br>Supervisor(s): Prof. Tanusree Chakraborty, Department of Civil Engineering, IIT Delhi and Prof. Dipanjan Basu, Associate Professor, University of Waterloo, Waterloo Ontario, Canada                                      |
| 50 | <b>Naveen Sisodia (2014PHZ8110)</b><br>Title: "NUMERICAL STUDY OF MICROWAVE DEVICES UTILIZING DZYALOSHINSKII MORIYA INTERACTION AND VOLTAGE-CONTROLLED MAGNETIC ANISOTROPY"<br>Supervisor(s): Prof. Pranaba Kishor Muduli, Department of Physics                                                                                                                      |
| 51 | <b>Amit Kumar Singh (2013BMZ8596)</b><br>Title: "DESIGN AND DEVELOPMENT OF NON-INVASIVE MULTI-ANALYZER FOR CLINICAL APPLICATION"<br>Supervisor(s): Prof. Sandeep K. Jha, Centre for Biomedical Engineering                                                                                                                                                            |
| 52 | <b>Changela Kandarp Popatlal (2015MEZ8159)</b><br>Title: "MECHANICAL BEHAVIOR AND DEFORMATION KINETICS OF ULTRAFINE-GRAINED ALUMINUM ALLOYS DEVELOPED BY CRYOROLLING AND CONSTRAINED GROOVE PRESSING"<br>Supervisor(s): Prof. D. Ravi Kumar, Department of Mechanical Engineering, IIT Delhi and Prof. K. Hariharan, Department of Mechanical Engineering, IIT Madras |

- 53 Mriganka Sekhar Sarma (2014HUZ8326)**  
 Title: "EXPLORING POLITICS OF IDENTITY THROUGH THEATRE: "ASSAMESENESS" AND BHRAMYAMAN THEATRE OF ASSAM"  
 Supervisor(s): Prof. Arjun Ghosh, Department of Humanities and Social Sciences
- 54 Veerendra Dhyani (2014CRZ8296)**  
 Title: "HIGH EFFICIENCY PHOTODETECTORS BASED ON SEMICONDUCTOR NANOSTRUCTURES FOR VISIBLE TO INFRARED WAVELENGTHS"  
 Supervisor(s): Prof. Samaresh Das, Centre for Applied Research in Electronics
- 55 Vijayalakshmi Yerramalle (2012MEZ8244)**  
 Title: "FLUID FLOW AND HEAT TRANSFER STUDIES IN CHANNEL AND JET IMPINGEMENT FLOWS THROUGH POROUS MEDIUM"  
 Supervisor(s): Prof. B. Premchandran and Prof. Prabal Talukdar, Department of Mechanical Engineering
- 56 Farheen Fauziya (2014BSZ8360)**  
 Title: "STUDIES ON FEASIBILITY OF VECTOR SENSOR BASED UNDERWATER ACOUSTIC COMMUNICATION SYSTEMS"  
 Supervisor(s): Prof. Monika Aggarwal, Centre for Applied Research in Electronics and Prof. Brejesh Lall, Department of Electrical Engineering
- 57 Neha Singh (2013BMZ8042)**  
 Title: "DESIGN OF ROBOTIC HAND BASED INTERVENTION WITH BRAIN STIMULATION APPLICATIONS FOR POST-STROKE NEURO-REHABILITATION"  
 Supervisor(s): Prof. Amit Mehndiratta, Prof. Sneha Anand, Centre for Biomedical Engineering, IIT Delhi and Prof. M.V. Padma Srivastava, Department of Neurology, AIIMS, Delhi
- 58 Abhishek Anand (2013ASZ8013)**  
 Title: "TOWARDS AN IMPROVED UNDERSTANDING OF SOMALI JET AND INDIAN MONSOON THROUGH NUMERICAL MODELLING"  
 Supervisor(s): Prof. S.K. Mishra, Centre for Atmospheric Sciences
- 59 Leeza Malik (2015TRZ8263)**  
 Title: "EXTERNALITIES OF URBAN FREIGHT TRANSPORT: THE CASE OF DELHI"  
 Supervisor(s): Prof. Geetam Tiwari, Department of Civil Engineering, IIT Delhi and Prof. Johan Woxenius, University of Gothenburg, Sweden
- 60 Amit Kumar (2012AMZ8403)**  
 Title: "EXPERIMENTAL AND NUMERICAL STUDIES ON FLAT STRUCTURAL PANELS"  
 Supervisor(s): Prof. M.K. Singha and Prof. Vikrant Tiwari, Department of Applied Mechanics

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| 61 | <b>Divya Singhi (2015BEZ8501)</b><br>Title: "CHROMOSOME SEGREGATION IN RHODOCOCCUS ERYTHROPOLIS PR4"<br>Supervisor(s): Prof. Preeti Srivastava, Department of Biochemical Engineering and Biotechnology                                                                   |
| 62 | <b>Siddharth Tamang (2014MEZ8017)</b><br>Title: "JOINING OF DISSIMILAR MATERIALS THROUGH MICROWAVE HYBRID HEATING"<br>Supervisor(s): Prof. S. Aravindan, Department of Mechanical Engineering                                                                             |
| 63 | <b>Pratibha Kumari (2014CYZ8061)</b><br>Title: "MOLECULAR DYNAMICS STUDIES ON THE INFLUENCE OF AMPHIPHILIC MOLECULES AND BIO-COMPATIBLE IONIC LIQUID ON THE STRUCTURAL STABILITY OF LIPID BILAYERS"<br>Supervisor(s): Prof. Hemant Kumar Kashyap, Department of Chemistry |
| 64 | <b>Tanuja Nigam (2013ASZ8020)</b><br>Title: "UPWELLING PROCESSES IN THE ARABIAN SEA WITH AN EMPHASIS ON THE WEST COAST OF INDIA USING A NUMERICAL OCEAN MODEL"<br>Supervisor(s): Prof. Vimlesh Pant, Centre for Atmospheric Sciences                                      |
| 65 | <b>Shambhu Azad (2011CEZ8474)</b><br>Title: "A FRAMEWORK MODEL FOR SUSTAINABLE WATER-SHARING AMONG CO-BASIN STATES OF A RIVER BASIN"<br>Supervisor(s): Prof. N.K. Garg, Department of Civil Engineering                                                                   |
| 66 | <b>Sandeep Kumar (2013PHZ8570)</b><br>Title: "MICROWAVE ABSORPTION STUDIES OF NOVEL U-TYPE HEXAFERRITES IN 2-18 GHZ FREQUENCY RANGE"<br>Supervisor(s): Prof. Ratnamala Chatterjee, Department of Physics                                                                  |
| 67 | <b>Mainak Ghosh Roy (2013CEZ8059)</b><br>Title: "STATIC AND CYCLIC BEHAVIOUR OF HIMALAYAN ROCKS"<br>Supervisor(s): Prof. K.S. Rao, Department of Civil Engineering                                                                                                        |
| 68 | <b>Sonam Takkar (2013BEZ8030)</b><br>Title: "UNRAVELLING THE ROLE OF MIR-196A IN GLIOBLASTOMA"<br>Supervisor(s): Prof. Ritu Kulshreshtha , Department of Biochemical Engineering and Biotechnology                                                                        |
| 69 | <b>Divya Goel (2016MAZ8186)</b><br>Title: "SOME EXISTENCE AND REGULARITY RESULTS FOR NONLOCAL ELLIPTIC EQUATIONS"<br>Supervisor(s): Prof. K. Sreenadh, Department of Mathematics                                                                                          |
| 70 | <b>Susanta Hazra (2015CYZ8066)</b><br>Title: "DEVELOPMENT AND CATALYTIC STUDIES ON NOVEL MAIN GROUP, TRANSITION METAL AND ORGANOMETALLIC CATALYSTS FOR OXIDATION OF ALCOHOLS AND AMINES"<br>Supervisor(s): Prof. Anil J. Elias, Department of Chemistry                   |

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| 71 | <b>Akash Kumar (2014PHZ8344)</b><br>Title: "SPIN-ORBIT TORQUES IN FERROMAGNET/NON-MAGNET HETEROSTRUCTURES"<br>Supervisor: Prof. Sujeet Chaudhary and Prof. P.K. Muduli, Department of Physics                                                                              |
| 72 | <b>Miss Meera (2013CEZ8063)</b><br>Title: "NON-STRUCTURAL CONCRETE UTILIZING FLY ASH, MARBLE POWDER AND FOAM"<br>Supervisor(s): Prof. Supratic Gupta, Department of Civil Engineering                                                                                      |
| 73 | <b>Amit Kumar Gupta (2014CYZ8393)</b><br>Title: "RIBONUCLEASE MEDIATED REGULATION OF SMALL RNA EXPRESSION IN ESCHERICHIA COLI"<br>Supervisor(s): Prof. Tanmay Dutta, Department of Chemistry                                                                               |
| 74 | <b>Prashant Pradhan (2014BLZ8201)</b><br>Title: "IDENTIFICATION OF KEY NUCLEIC ACID DETERMINANTS INVOLVED IN THE TRANSCRIPTIONAL REGULATION OF PRION PROTEIN"<br>Supervisor(s): Prof. Bishwajit Kundu and Prof. Vivekanandan Perumal, Kusuma School of Biological Sciences |
| 75 | <b>Jitender (2012PHZ8046)</b><br>Title: "STUDIES ON NANO-SCALE PLASMONIC WAVEGUIDES AND THEIR APPLICATIONS IN COMMUNICATION AND SENSING"<br>Supervisor(s): Prof. Arun Kumar and Prof. R.K. Varshney, Department of Physics                                                 |
| 76 | <b>Vikas Kumar Singh (2013TTZ8288)</b><br>Title: "STUDIES ON MECHANICAL AND ACOUSTIC BEHAVIOUR OF COIR AND BANANA FIBRE BASED HYBRID BIOCOMPOSITES"<br>Supervisor(s): Prof. Samrat Mukhopadhyay, Department of Textile & Fibre Engineering                                 |
| 77 | <b>Rupesh Mahendra Tamgadge (2014CHZ8174)</b><br>Title: "IMPROVING ENERGY DENSITY AND RESPONSE TIME OF SUPERCAPACITORS THROUGH ELECTROCHEMICAL TREATMENT AND DEFECT ENGINEERING"<br>Supervisor(s): Prof. Anupam Shukla, Department of Chemical Engineering                 |
| 78 | <b>Rohit Bansal (2012CHZ8412)</b><br>Title: "AGGREGATION OF MONOCLONAL ANTIBODY BASED THERAPEUTIC PROTEINS"<br>Supervisor(s): Prof. Anurag S. Rathore and Prof. Sudip Pattanayek, Department of Chemical Engineering                                                       |
| 79 | <b>Prasun Mishra (2014EEZ8309)</b><br>Title: "DESIGN, DEVELOPMENT, AND CONTROL OF INDUCTION MOTOR DRIVE WITH INVERTER OUTPUT LC FILTER"<br>Supervisor(s): Prof. Ramakrishan Maheshwari and Prof. Sumit Pramanick (Caretaker), Department of Electrical Engineering         |

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| 80 | <b>Aparna Sharma (2013PHZ8477)</b><br>Title: "EVOLUTION OF ELECTROMAGNETIC SOLITONS IN PLASMAS: ROLE OF PERTURBING PULSE"<br>Supervisor(s): Prof. Hitendra K. Malik, Department of Physics and Prof. Harish Kumar, Department of Mathematics                                          |
| 81 | <b>Purnima Barjatya (2014CEZ8367)</b><br>Title: "IMPLEMENTATION ISSUES IN RENOVATION AND MODERNIZATION OF OPERATIONAL THERMAL POWER PLANTS IN INDIA"<br>Supervisor(s): Prof. K.C. Iyer, Department of Civil Engineering                                                               |
| 82 | <b>Hoor Fatima (2015ESZ8483)</b><br>Title: "ARTIFICIAL NEURAL NETWORK (ANN) MODELLING FOR PHOTOVOLTAIC THERMAL (PVT) COLLECTOR WITH DIFFERENT BASE MATERIALS"<br>Supervisor(s): Prof. T.S. Bhatti and Prof. G.N. Tiwari, Centre for Energy Studies                                    |
| 83 | <b>Aakash Kumar Jain (2014EEZ8297)</b><br>Title: "SUPPRESSING LATERAL BAND-TO-BAND TUNNELING IN JUNCTIONLESS AND ACCUMULATION MODE SOI FETs, NANOWIRE FETs AND NANOTUBE FETs"<br>Supervisor(s): Prof. M. Jagadesh Kumar, Department of Electrical Engineering                         |
| 84 | <b>Patel Ashwinkumar Virambhai (2012MEZ8310)</b><br>Title: "AN EXPERIMENTAL AND NUMERICAL STUDY OF POROUS SURFACE GENERATION ON TITANIUM-BASED CEMENTLESS FEMORAL STEMS FOR IMPROVED OSSEOINTEGRATION"<br>Supervisor(s): Prof. Naresh Bhatnagar, Department of Mechanical Engineering |
| 85 | <b>Kumar Ravi Prakash (2014ASZ8028)</b><br>Title: "OCEANIC RESPONSE TO THE PASSAGE OF TROPICAL CYCLONES IN THE BAY OF BENGAL USING ATMOSPHERE-OCEAN COUPLED MODEL"<br>Supervisor(s): Prof. Vimlesh Pant, Centre for Atmospheric Sciences                                              |
| 86 | <b>Krishna Nand Tripathi (2014CYZ8056)</b><br>Title: "PHOTOINDUCED REGIOSELECTIVE C-C BOND FORMATION AND TRANSITION METAL CATALYZED C-H ACTIVATION"<br>Supervisor(s): Prof. Ravi P. Singh, Department of Chemistry                                                                    |
| 87 | <b>Rattan Lal (2015MAZ8374)</b><br>Title: "ORLICZ FIGÁ-TALAMANCA HERZ ALGEBRAS"<br>Supervisor(s): Prof. N. Shravan Kumar, Department of Mathematics                                                                                                                                   |

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| 88 | <p><b>Mohit Gupta (2012AMZ8337)</b></p> <p>Title: "LOW VELOCITY IMPACT STUDY ON BASALT FIBER REINFORCED UNI-DIRECTIONAL AND PLAIN WOVEN COMPOSITES: MECHANICAL CHARACTERIZATION AND NUMERICAL MODELING"</p> <p>Supervisor(s): Prof. Puneet Mahajan, Department of Electrical Engineering, Prof. R.T. Durai Prabhakaran, Department of Mechanical Engineering, IIT Delhi, and Prof. Bent F. Sorenson, The Technical University of Denmark</p> |
| 89 | <p><b>lyman Abrar (2014CHZ8165)</b></p> <p>Title: "SURFACTANT-FREE ALCOHOL-DIESEL-WATER MICROEMULSION FUELS FOR COMPRESSION IGNITION ENGINES"</p> <p>Supervisor(s): Prof. A.N. Bhaskarwar, Department of Chemical Engineering</p>                                                                                                                                                                                                            |
| 90 | <p><b>Vivek Semwal (2014PHZ8354)</b></p> <p>Title: "FIBER OPTIC PLASMONIC BIOSENSORS UTILIZING HYDROGEL AND GRAPHENE OXIDE"</p> <p>Supervisor(s): Prof. B.D. Gupta, Department of Physics</p>                                                                                                                                                                                                                                                |
| 91 | <p><b>Janibul Bashir (2015CSZ8489)</b></p> <p>Title: "LEVERAGING SILICON NANOPHOTONICS FOR ON-CHIP AND OFF-CHIP COMMUNICATION"</p> <p>Supervisor(s): Prof. S.R. Sarangi, Department of Computer Science &amp; Engineering</p>                                                                                                                                                                                                                |
| 92 | <p><b>Swatilekha Majumdar (2014EEZ8084)</b></p> <p>Title: "DESIGN AND ANALYSIS OF HYBRID CMOS-OXRAM NON-VOLATILE SRAM (NVS RAM)"</p> <p>Supervisor(s): Prof. Manan Suri, Department of Electrical Engineering</p>                                                                                                                                                                                                                            |
| 93 | <p><b>Baijnath (2014CHZ8164)</b></p> <p>Title: "DEVELOPMENT OF COBALTITE AND FERRITE BASED PEROVSKITE CATHODES FOR SOLID OXIDE FUEL CELLS"</p> <p>Supervisor(s): Prof. Suddhasatwa Basu, (On Lien), Department of Chemical Engineering, IIT Delhi and Director, CSIR Institute of Minerals &amp; Materials Technology, Bhubaneswar</p>                                                                                                       |
| 94 | <p><b>Konark Bisht (2014PHZ8347)</b></p> <p>Title: "COMPLEX SYSTEMS IN CONFINED GEOMETRIES: EQUILIBRIUM AND OUT-OF-EQUILIBRIUM STUDIES"</p> <p>Supervisor(s): Prof. Rahul Marathe and Prof. Varsha Banerjee, Department of Physics</p>                                                                                                                                                                                                       |
| 95 | <p><b>Fatima Jalid (2015CHZ8490)</b></p> <p>Title: "FIRST-PRINCIPLES DESIGN OF TRANSITION METAL CATALYSTS FOR SELECTIVE TRANSFORMATION OF HYDROCARBONS"</p> <p>Supervisor(s): Prof. M. Ali Haider, Department of Chemical Engg., IIT Delhi and Prof. F. Q. Mir, Department of Chemical Engineering, NIT Srinagar</p>                                                                                                                         |

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| 96  | <b>Naraveni Rajashekar (2014MAZ8335)</b><br>Title: "NUMERICAL APPROXIMATION OF P AND P(X)-TYPE EXPONENT PROBLEMS USING WEB-SPLINE MESH-FREE METHOD"<br>Supervisor(s): Prof. V.V.K. Srinivas Kumar, Department of Mathematics                                                                      |
| 97  | <b>Agni Kumar Biswal (2014PTZ8397)</b><br>Title: "STUDIES ON POLY(LACTIC ACID) BASED BIODEGRADABLE MICROPARTICLES FOR PROLONGING SHELF-LIFE OF FOOD"<br>Supervisor(s): Prof. Sampa Saha, Department of Materials Science & Engineering                                                            |
| 98  | <b>Supreet Kaur (2014RDZ8136)</b><br>Title: "ISOLATION AND CHARACTERIZATION OF BACTERIAL STRAINS AND THEIR ENZYMES WITH LIGNOLYTIC POTENTIAL"<br>Supervisor(s): Prof. Hariprasad P. and Prof. V.K. Vijay, Centre for Rural Development and Technology                                             |
| 99  | <b>Lopa Pattanaik (2016RDZ8037)</b><br>Title: "IMPROVISATION OF TRADITIONAL DYE PRODUCTION PROCESS AND BY-PRODUCTS VALORIZATION OF INDIGOFERA TINCTORIA L."<br>Supervisor(s): Prof. S.N. Naik and Prof. Hariprasad P., Centre for Rural Development and Technology                                |
| 100 | <b>Monika (2014PHZ8108)</b><br>Title: "INVESTIGATION OF METAL-SEMICONDUCTOR CONTACTS ON MOS2 AND ITS HETEROJUNCTION WITH GaN FOR PHOTODETECTOR APPLICATIONS"<br>Supervisor(s): Prof. Rajendra Singh, Department of Physics                                                                        |
| 101 | <b>Ankur Betageri (2012HUZ8478)</b><br>Title: "THINKING BEYOND THE FINITUDE OF HUMAN CONDITION"<br>Supervisor(s): Prof. Sanil V., Department of Humanities and Social Sciences                                                                                                                    |
| 102 | <b>Aranya Ghosh (2014TTZ8400)</b><br>Title: "TUNING OF RHEOLOGICAL RESPONSE OF SHEAR THICKENING FLUIDS FOR IMPROVING THE IMPACT ENERGY ABSORPTION OF PARA-ARAMID FABRICS"<br>Supervisor(s): Prof. Bhupendra Singh Butola and Prof. Abhijit Majumdar, Department of Textile & Fibre Engineering    |
| 103 | <b>Sanjay Singh (2013BEZ7510)</b><br>Title: "ANTIBIOTIC FUNCTIONALIZED METALLIC NANOPARTICLES FOR BACTERIAL DETECTION AND ANTIMICROBIAL ACTIVITY"<br>Supervisor(s): Prof. Prashant Mishra, Department of Biochemical Engineering and Biotechnology                                                |
| 104 | <b>S P SREENIVAS PADALA (2014CEZ8373)</b><br>Title: "A MATRIX-BASED FRAMEWORK FOR MODELING CHANGES ACROSS MULTIPLE ENTITY TYPES IN CONSTRUCTION PROJECTS"<br>Supervisor(s): Prof. J. Uma Maheswari, Department of Civil Engineering and Prof. Harish Hirani, Department of Mechanical Engineering |

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| 105 | <b>Anshul Gupta (2016EEZ8349)</b><br>Title: "HOT CARRIER RELIABILITY CHARACTERIZATION OF ADVANCED CMOS DEVICES"<br>Supervisor(s): Prof. Abhishek Dixit, Department of Electrical Engineering                                                                                                                                           |
| 106 | <b>Parul Raturi (2014PHZ8113)</b><br>Title: "INVESTIGATION OF WETTING PROPERTIES OF METAL OXIDE NANOSTRUCTURES FOR WASTEWATER TREATMENT"<br>Supervisor(s): Prof. J.P. Singh, Department of Physics                                                                                                                                     |
| 107 | <b>Debdutta Ghosh (2014CEZ8036)</b><br>Title: "DAMAGE DETECTION IN CONCRETE STRUCTURES USING SCATTERED ULTRASONIC WAVES"<br>Supervisor(s): Prof. Shashank Bishnoi, Prof. Abhijit Ganguli, Department of Civil Engineering, IIT Delhi and Prof. Abhijit Mukherjee, Department of Civil Engineering, Curtin University, Perth, Australia |
| 108 | <b>Uttam Kumar Kumawat (2012EEZ8127)</b><br>Title: "PLASMONICS-ENHANCED INORGANIC SOLAR CELLS"<br>Supervisor(s): Prof. Anuj Dhawan, Department of Electrical Engineering                                                                                                                                                               |
| 109 | <b>Shah Priyank Mukeshkumar (2015EEZ2507)</b><br>Title: "ADAPTIVE CONTROL STRATEGIES FOR RESILIENT OPERATION OF GRID INTERFACED SOLAR ENERGY CONVERSION SYSTEM ENABLING POWER QUALITY IMPROVEMENT"<br>Supervisor(s): Prof. Bhim Singh, Department of Electrical Engineering                                                            |
| 110 | <b>Supriya Gupta (2014CHZ8148)</b><br>Title: "STUDIES OF DISPERSION AND SELF-ASSEMBLY OF GRAFTED NANOPARTICLES IN POLYMERIC SYSTEMS"<br>Supervisor(s): Prof. Paresh Chokshi, Department of Chemical Engineering                                                                                                                        |
| 111 | <b>Ratnesh Kumar (2014CEZ8369)</b><br>Title: "A RISK MANAGEMENT FRAMEWORK FOR CONSTRUCTION PROJECTS ALIGNED TO ACTUALITIES"<br>Supervisor(s): Prof. K.C. Iyer, Department of Civil Engineering and Prof. Surya Prakash Singh, Department of Management Studies                                                                         |
| 112 | <b>Chandan Sharma (2013PHZ8478)</b><br>Title: "STUDY OF THE EFFECT OF $\gamma$ -RAY IRRADIATION ON AlGaIn/GaN HETEROSTRUCTURES AND DEVICES"<br>Supervisor(s): Prof. Rajendra Singh, Department of Physics, IIT Delhi and Prof. Seema Vinayak, MMIC Division, Solid State Physics Laboratory, Delhi                                     |
| 113 | <b>Jatinder Singh Chandok (2012ESZ8094)</b><br>Title: "DESIGN AND ECONOMIC EVALUATION OF MW SCALE HYBRID RENEWABLE ENERGY SYSTEM WITH BATTERY STORAGE"<br>Supervisor(s): Prof. Viresh Dutta, Centre for Energy Studies and Prof. B.K. Panigrahi, Department of Electrical Engineering                                                  |

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| 114 | <b>Shubhrima Ghosh (2013CYZ8123)</b><br>Title: "BIODEGRADATION OF 7-KETOCHOLESTEROL AND STUDIES INTO CHOLESTEROL OXIDASE"<br>Supervisor(s): Prof. Sunil Kumar Khare, Department of Chemistry                                                                      |
| 115 | <b>Surojit Poddar (2014ITZ8189)</b><br>Title: "VIBRATION & ACOUSTIC EMISSION MONITORING OF CAVITATION, CONTAMINATION & STARVATION IN JOURNAL BEARINGS"<br>Supervisor(s): Prof. N. Tandon, Centre for Automotive Research & Tribology                              |
| 116 | <b>Arun Goel (2014CRZ8049)</b><br>Title: "STUDIES OF SPARSITY TECHNIQUES FOR LINEAR ARRAY SYNTHESIS AND DOA ESTIMATION"<br>Supervisor(s): Prof. Arun Kumar and Prof. Rajendar Bahl, Centre for Applied Research in Electronics                                    |
| 117 | <b>Kaisar Ahmad Hajam (2014CHZ8167)</b><br>Title: "CATALYTIC CONVERSION OF CO <sub>2</sub> TO METHANOL OVER SUPPORTED INTERMETALLIC CATALYST"<br>Supervisor(s): Prof. Sreedevi Upadhyayula, Department of Chemical Engineering                                    |
| 118 | <b>Manish Bansal (2012SMZ8443)</b><br>Title: "FACTORS AFFECTING CREATIVITY OF SCIENTISTS: A STUDY OF R&D ORGANISATION"<br>Supervisor(s): Prof. Kanika T. Bhal and Prof. Shuchi Sinha, Department of Management Studies                                            |
| 119 | <b>Arun C Emmanuel (2014CEZ8362)</b><br>Title: "INFLUENCE OF CURING TEMPERATURE ON HYDRATION KINETICS, PHASE ASSEMBLAGE AND STRENGTH DEVELOPMENT OF BLENDED CEMENTS"<br>Supervisor(s): Prof. Shashank Bishnoi, Department of Civil Engineering                    |
| 120 | <b>Awadhesh Pratap Singh (2012CEZ8069)</b><br>Title: "BEHAVIOR OF ROCK-SOCKETED PILES UNDER COMBINED VERTICAL AND LATERAL LOADING"<br>Supervisor(s): Prof. K.S. Rao and Prof. R. Ayothiraman, Department of Civil Engineering                                     |
| 121 | <b>Nabarun Saha (2014PHZ8109)</b><br>Title: "STUDIES ON SENSING CHARACTERISTICS OF GRATING INSCRIBED METAL-CLAD AND HIGH-INDEX COATED RIDGE WAVEGUIDES"<br>Supervisor(s): Prof. Arun Kumar, Department of Physics                                                 |
| 122 | <b>Madhu Bochalya (2015PHZ8253)</b><br>Title: "THERMAL STABILITY, MAGNETIC AND OPTICAL RESPONSE OF TWO-DIMENSIONAL (R-NH <sub>3</sub> ) <sub>2</sub> (Cu,Mn) <sub>X</sub> <sub>4</sub> HYBRID SYSTEMS"<br>Supervisor(s): Prof. Sunil Kumar, Department of Physics |

- 123 Shaily Verma (2014MAZ8099)**  
 Title: "GRAPH COLORING AND ITS VARIATIONS: STRUCTURAL AND ALGORITHMIC STUDY"  
 Supervisor(s): Prof. B.S. Panda, Department of Mathematics
- 124 Ruhi Sonal (2015HUZ8132)**  
 Title: "ESSAYS IN DECISION MAKING AND ECONOMIC NETWORKS"  
 Supervisor(s): Prof. Saptarshi Mukherjee, Department of Humanities and Social Sciences
- 125 Anoop Kant Godiyal (2013BMZ8038)**  
 Title: "INVESTIGATING FORCE MYOGRAPHY FOR HUMAN LOCOMOTION APPLICATIONS"  
 Supervisor(s): Prof. Sneha Anand and Prof. Deepak Joshi, Centre for Biomedical Engineering
- 126 Radha Kushwaha (2015EEZ8091)**  
 Title: "POWER QUALITY IMPROVEMENT IN BATTERY CHARGERS OF LIGHT ELECTRIC VEHICLES"  
 Supervisor(s): Prof. Bhim Singh, Department of Electrical Engineering
- 127 Dinesh Khandelwal (2013CSZ8294)**  
 Title: "IMPROVING PREDICTION OF MACHINE LEARNING MODELS USING AUXILIARY INFORMATION FOR COMPUTER VISION PROBLEMS"  
 Supervisor(s): Prof. Parag Singla and Prof. Chetan Arora, Department of Computer Science and Engineering
- 128 Himanshu Jain (2013CSZ8519)**  
 Title: "EXTREME CLASSIFICATION: LOSS FUNCTIONS, ALGORITHMS AND APPLICATIONS"  
 Supervisor(s): Prof. Rahul Garg and Prof. Manik Verma, Department of Computer Science and Engineering
- 129 Saurabh Singh (2013BLZ8037)**  
 Title: "DEVELOPMENT OF AFFORDABLE DIAGNOSTIC TECHNOLOGIES FOR RAPID IDENTIFICATION OF BACTERIAL PATHOGENS"  
 Supervisor(s): Prof. Vivekanandan Perumal, Kusuma School of Biological Sciences, Prof. Ravikrishnan Elangovan, Department of Biochemical Engineering & Biotechnology, and Prof. Shalini Gupta, Department of Chemical Engineering
- 130 Supreet Kaur (2015CYZ8065)**  
 Title: "MOLECULAR DYNAMICS INVESTIGATION OF MICROSCOPIC STRUCTURAL MORPHOLOGY OF DEEP EUTECTIC SOLVENTS"  
 Supervisor(s): Prof. Hemant Kumar Kashyap, Department of Chemistry

**131 Vidhi Malik (2014BEZ8267)**

Title: "MOLECULAR TARGETS FOR CANCER THERAPEUTICS: INSIGHTS FROM GENOMIC ABERRATIONS AND PROTEIN INTERACTIONS"

Supervisor(s): Prof. D. Sundar, Department of Biochemical Engineering & Biotechnology, and Dr. Renu Wadhwa, National Institute of Advanced Industrial Science and Technology, Tsukuba, Japan

**132 Nishant Parashar (2016AMZ8166)**

Title: "INVESTIGATING SMALL SCALE TURBULENCE PROCESSES IN COMPRESSIBLE FLOWS USING GAS KINETIC METHOD AND MACHINE LEARNING"

Supervisor(s): Prof. Sawan S. Sinha, Department of Applied Mechanics, IIT Delhi and Prof. Balaji Srinivasan, IIT Madras

**133 Rajeshkumar Devendrakumar Madarkar (2014MEZ8342)**

Title: "ULTRASONIC VIBRATION ASSISTED GRINDING OF Ti-6Al-4V ALLOY AND MODELING OF SURFACE ROUGHNESS"

Supervisor(s): Prof. S. Ghosh and Prof. P.V. Rao, Department of Mechanical Engineering

**134 Thaker Abhijit Harikumar (2013CHZ8439)**

Title: "LIQUID-LIQUID PHASE SEPARATION IN GRAVITY SETTLERS: MEASUREMENTS, POPULATION BALANCE MODELING AND CFD SIMULATIONS"

Supervisor(s): Prof. Vivek. V. Buwa, Department of Chemical Engineering

**135 Omkar Suhas Vinchure (2014BEZ8003)**

Title: "REGULATORY AND FUNCTIONAL CHARACTERIZATION OF MIR-490 IN GLIOBLASTOMA"

Supervisor(s): Prof. Ritu Kulshreshtha, Department of Biochemical Engineering and Biotechnology

**136 Abdul Saleem Mir (2015EEZ8067)**

Title: "DECENTRALIZED CONTROL PARADIGMS FOR ENHANCEMENT OF POWER SYSTEM STABILITY"

Supervisor(s): Prof. Nilanjan Senroy, Department of Electrical Engineering

**137 Rajiv Jha (2015EEZ8094)**

Title: "ELECTROMECHANICAL OSCILLATIONS IN POWER SYSTEM: DETECTION, CHARACTERIZATION AND UTILIZATION"

Supervisor(s): Prof. Nilanjan Senroy, Department of Electrical Engineering

**138 Aali Pant (2014CEZ8361)**

Title: "FEASIBILITY OF USING COAL BOTTOM ASH, POND ASH OR FLY ASH AS STRUCTURAL FILL MATERIAL IN MECHANICALLY STABILIZED EARTH WALLS"

Supervisor(s): Prof. Manoj Datta and Prof. G.V. Ramana, Department of Civil Engineering

**139 Gopal Babu (2013NRZ8184)**

Title: "STUDIES ON THE INHERENT INTERCONNECTEDNESS AND CO-EXISTENCE IN NATURE FOR EVOLVING AND EVALUATING SUSTAINABLE SOCIO-TECHNOLOGICAL SYSTEMS"

Supervisor(s): Prof. Santosh Satya, Centre for Rural Development and Technology, IIT Delhi and Prof. G.P. Bagaria, Manviya Siksha Sanskar Sansthan

**140 Shrish Shukla (2015AMZ8347)**

Title: "STUDY OF THE SHIP AIRWAKE AND HELICOPTER DOWNWASH CHARACTERISTICS FOR SAFE HELO OPERATIONS"

Supervisor(s): Prof. S.N. Singh, Prof. Sawan S. Sinha, Department of Applied Mechanics, IIT Delhi and Prof. R. Vijay Kumar, IIT Madras

**141 Priyanka Lochab (2013PHZ8195)**

Title: "PROPAGATION OF ORBITAL ANGULAR MOMENTUM STATES THROUGH FREE SPACE AND TURBULENCE: NEW RESULTS AND APPLICATION TO ROBUST BEAM ENGINEERING"

Supervisor(s): Prof. Kedar Khare and Prof. P. Senthilkumaran, Department of Physics

**142 Kritika Goyal (2013BMZ8041)**

Title: "SYNTHESIS AND EVALUATION OF POLYMERSOMES FOR BRAIN TARGETING TO REVERSE AMNESIA"

Supervisor(s): Prof. Veena Koul, Centre for Biomedical Engineering

**143 Mamata Mohanty (2013CEZ8060)**

Title: "MODEL TESTS AND NUMERICAL STUDIES ON SINGLE AND GROUP OF SOIL-CEMENT COLUMN FOUNDATIONS IN SOFT CLAY"

Supervisor(s): Prof. J.T. Shahu, Department of Civil Engineering

**144 Mohammad Adil Dar (2015CEZ8360)**

Title: "BEHAVIOR AND DESIGN OF COLD-FORMED STEEL BUILT-UP COLUMNS UNDER MONOTONIC AXIAL COMPRESSION LOADING"

Supervisor(s): Prof. Dipti Ranjan Sahoo and Prof. A.K. Jain, Department of Civil Engineering

**145 Nilay Pandey (2015BSZ8315)**

Title: "MODELING AND PERFORMANCE ANALYSIS OF MOLECULAR COMMUNICATION SYSTEMS"

Supervisor(s): Prof. Ranjan K. Mallik and Prof. Brejesh Lall, Department of Electrical Engineering

**146 Jaya Lohani (2013CYZ8582)**

Title: "III-V COMPOUND SEMICONDUCTOR NANOSTRUCTURES BASED NANOHETEROSTRUCTURES"

Supervisor(s): Prof. Sameer Sapra, Department of Chemistry, IIT Delhi and Prof. Renu Tyagi, Solid State Physics Laboratory, DRDO, Delhi

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| 147 | <b>Dias Usham Viviano (2015EEZ8113)</b><br>Title: "SUB-NYQUIST CO-PRIME SENSING: TOO LITTLE CANNOT BELITTLE YOU"<br>Supervisor(s): Prof. Seshan Srirangarajan, Department of Electrical Engineering                                                                             |
| 148 | <b>Debashish Panda (2014CHZ8277)</b><br>Title: "DYNAMIC SCHEDULING OF CRUDE OIL UNLOADING AND BLENDING USING GENETIC ALGORITHM"<br>Supervisor(s): Prof. Manoj Kumar Ramtke, Department of Chemical Engineering                                                                  |
| 149 | <b>Sumit Balguvhar (2014CEZ8374)</b><br>Title: "PIEZOELECTRIC ENERGY HARVESTING THROUGH LOW-FREQUENCY NON-SINUSOIDAL VIBRATIONS OF CIVIL STRUCTURES"<br>Supervisor(s): Prof. Suresh Bhalla, Department of Civil Engineering                                                     |
| 150 | <b>Satish (2012BMZ8118)</b><br>Title: "FEASIBILITY STUDY OF NON-INVASIVE BLOOD-GLUCOSE MEASUREMENT USING MICROWAVE SENSORS"<br>Supervisor(s): Prof. Sneh Anand, Centre for Biomedical Engineering and Prof. Kushal Sen, Department of Textile & Fibre Engineering               |
| 151 | <b>Sabeeha (2014BLZ8196)</b><br>Title: "FUNCTIONAL CHARACTERISATION OF MYCOBACTERIUM TUBERCULOSIS METHYLTRANSFERASES: ROLE IN HOST-PATHOGEN INTERACTION AND VIRULENCE"<br>Supervisor(s): Prof. Seyed E. Hasnain and Prof. Bishwajit Kundu, Kusuma School of Biological Sciences |
| 152 | <b>Anil Dighram Yadav (2012MEZ8259)</b><br>Title: "STUDIES ON DESIGN AND DEVELOPMENT OF LIGHT WEIGHT COMPOSITES FOR BALLISTIC PROTECTION"<br>Supervisor(s): Prof. Naresh Bhatnagar, Department of Mechanical Engineering                                                        |
| 153 | <b>Akshay (2015CRZ8428)</b><br>Title: "HIGH PERFORMANCE ULTRAVIOLET PHOTODETECTORS AND BIOSENSORS BASED ON NANOSTRUCTURED METAL OXIDE SEMICONDUCTOR AND ITS HETEROSTRUCTURE"<br>Supervisor(s): Prof. Samaresh Das, Centre for Applied Research in Electronics                   |
| 154 | <b>Soumik Adhikary (2014PHZ8122)</b><br>Title: "STUDIES ON NON-CLASSICALITY OF QUANTUM STATES AND QUANTUM MACHINE LEARNING"<br>Supervisor(s): Prof. V. Ravishankar, Department of Physics                                                                                       |
| 155 | <b>Feleke Bayu Bati (2016CHZ8195)</b><br>Title: "SCHEDULING OF UPSTREAM AND DOWNSTREAM OPERATIONS IN CRUDE OIL REFINERY"<br>Supervisor(s): Prof. Munawar A. Shaikh and Prof. Manojkumar Ramteke, Department of Chemical Engineering                                             |

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| 156 | <b>Neha Bhadauria (2013MEZ8470)</b><br>Title: "IN-SITU SURFACE MODIFICATION FOR EROSION WEAR OF AIRCRAFT WINGS THROUGH ALUMINA REINFORCEMENT"<br>Supervisor(s): Prof. P.M. Pandey and Prof. Sunil Pandey, Department of Mechanical Engineering                                              |
| 157 | <b>Ved Prakash (2014MEZ8343)</b><br>Title: "NUMERICAL AND EXPERIMENTAL INVESTIGATIONS ON DEEP DRAWING OF AN Al-Mg ALLOY AT AMBIENT AND ELEVATED TEMPERATURES"<br>Supervisor(s): Prof. D. Ravi Kumar, Department of Mechanical Engineering                                                   |
| 158 | <b>Zamir Ahmad Wani (2015CRZ8437)</b><br>Title: "DESIGN OF ANTENNAS FOR MILLIMETER WAVE 5G APPLICATIONS"<br>Supervisor(s): Prof. Mahesh P. Abegaonkar and Prof. Shibani K. Koul, Centre for Applied Research in Electronics                                                                 |
| 159 | <b>Dayanidhi Krishana Pathak (2015MEZ8153)</b><br>Title: "DEVELOPMENT OF ZINC BASED BIODEGRADABLE MATERIAL WITH IMPROVED MECHANICAL AND DEGRADATION PROPERTIES"<br>Supervisor(s): Prof. P.M Pandey, Department of Mechanical Engineering                                                    |
| 160 | <b>Pankaj Kumar Sharma (2012AMZ8272)</b><br>Title: "DESIGN AND ANALYSIS OF BLAST VALVE"<br>Supervisor(s): Prof. B.P. Patel, Department of Applied Mechanics                                                                                                                                 |
| 161 | <b>Lakshmi Devi Vanumu (2013CEZ8432)</b><br>Title: "PEDESTRIAN FLOW MODELLING IN PUBLIC TRANSPORT TERMINALS: A CASE STUDY OF DELHI METRO"<br>Supervisor(s): Prof. K. Ramachandra Rao and Prof. Geetam Tiwari, Department of Civil Engineering                                               |
| 162 | <b>Sakshi Aggarwal (2013BEZ8027)</b><br>Title: "TO ENHANCE THE SECRETORY EFFICIENCY OF GRANULOCYTE COLONY STIMULATING FACTOR IN PICHIA PASTORIS VIA MANIPULATION OF SECRETORY SIGNAL SEQUENCES"<br>Supervisor(s): Prof. Saroj Mishra, Department of Biochemical Engineering & Biotechnology |
| 163 | <b>Aswathy R (2015CEZ8012)</b><br>Title: "ADDRESSING UNCERTAINTY ISSUES IN BITUMINOUS MATERIALS AT COMPONENT LEVEL WITHIN LINEAR VISCOELASTIC FRAMEWORK"<br>Supervisor(s): Prof. Aravind Krishna Swamy, Department of Civil Engg.                                                           |
| 164 | <b>Jayesh M.P. (2012HUZ8473)</b><br>Title: "INTER-STATE MIGRATION FOR EMPLOYMENT IN INDIA: A STUDY ON CONSTRUCTION WORKERS IN KERALA"<br>Supervisor(s): Prof. Jayan Jose Thomas, Department of Humanities and Social Sciences                                                               |

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| 165 | <b>Priyanka Bhardwaj (2012EEZ8315)</b><br>Title: "NOVEL NANOPHOTONIC DEVICES FOR OPTICAL SWITCHING AND MODULATION"<br>Supervisor(s): Prof. Anuj Dhawan, Department of Electrical Engineering                                                                                                                         |
| 166 | <b>Kamal Kumar (2012EEZ8129)</b><br>Title: "PLASMONIC ENHANCED ORGANIC SOLAR CELLS"<br>Supervisor(s): Prof. Anuj Dhawan, Department of Electrical Engineering                                                                                                                                                        |
| 167 | <b>Ankita Shukla (2014MAZ8096)</b><br>Title: "COMPACT FILTER REGULARIZATION AND ADAPTIVE SPECTRAL GRAPH WAVELET METHOD WITH REGULARIZATION FOR PDEs ON GRAPH"<br>Supervisor(s): Prof. Mani Mehra, Department of Mathematics                                                                                          |
| 168 | <b>Shilpa Gahlot (2014ASZ8032)</b><br>Title: "TERRESTRIAL CARBON FLUXES IN INDIA WITH A FOCUS ON SPRING WHEAT AGRO-ECOSYSTEMS"<br>Supervisor(s): Prof. Somnath Baidya Roy, Centre for Atmospheric Sciences                                                                                                           |
| 169 | <b>Budhaditya Chatterjee (2014BLZ8200)</b><br>Title: "MATHEMATICAL MODELLING STUDIES ON CROSSTALK BETWEEN CANONICAL AND NONCANONICAL NF-kB SIGNALLING PATHWAYS"<br>Supervisor(s): Prof. James Gomes, Kusuma School of Biological Sciences, IIT Delhi and Prof. Soumen Basak, National Institute of Immunology, Delhi |
| 170 | <b>Anuj (2013CEZ8422)</b><br>Title: "CHARACTERISATION OF HYDRATION OF SUPPLEMENTARY CEMENTITIOUS MATERIALS WITH CALCIUM HYDROXIDE FOR USE IN BINARY AND TERNARY CEMENTS"<br>Supervisor(s): Prof. Shashank Bishnoi, Department of Civil Engineering                                                                   |
| 171 | <b>Ananya Das (2015CEZ8010)</b><br>Title: "EFFECT OF FINE AEROSOL AND ITS TOXIC COMPONENTS ON HUMAN LUNG-AN INTEGRATIVE APPROACH"<br>Supervisor(s): Prof. Gazala Habib and Prof. Arun Kumar, Department of Civil Engineering and Prof. Vivekanandan Perumal, Kusuma School of Biological Sciences                    |
| 172 | <b>Nitin Kumar (2014AMZ8199)</b><br>Title: "ON THE PREDICTION OF PROPULSION OF A PLUNGING RECTANGULAR PLATE"<br>Supervisor(s): Prof. Sanjeev Sanghi, Department of Applied Mechanics and Prof. Amit Gupta, Department of Mechanical Engineering                                                                      |
| 173 | <b>Swati Agarwal (2013SMZ8506)</b><br>Title: "CONCEPTUALIZING RESPONSIBLE LEADERSHIP: DEVELOPING AND TESTING A NOMOLOGICAL FRAMEWORK"<br>Supervisor(s): Prof. Kanika T. Bhal, Department of Management Studies                                                                                                       |

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| 174 | <b>Jishnu R B (2013CEZ8058)</b><br>Title: "NUMERICAL ANALYSIS OF INTERACTION BETWEEN TWIN TUNNELS AND TUNNEL FOUNDATION SYSTEMS UNDER STATIC AND SEISMIC CONDITIONS"<br>Supervisor(s): Prof. R. Ayothiraman, Department of Civil Engineering     |
| 175 | <b>Deepika Vatsa (2013EEZ8262)</b><br>Title: "IDENTIFICATION OF TRANSITION BASED MODELS FOR THE INFERENCE OF SUB-CELLULAR NETWORKS"<br>Supervisor(s): Prof. Sumeet Agarwal, Department of Electrical Engineering                                 |
| 176 | <b>Piyush Kant (2015EEZ8089)</b><br>Title: "POWER QUALITY IMPROVEMENT IN MULTI-PULSE CONVERTER FED MULTILEVEL INVERTER BASED INDUCTION MOTOR DRIVES"<br>Supervisor(s): Prof. Bhim Singh, Department of Electrical Engineering                    |
| 177 | <b>Chandrika Bhardwaj (2012CSZ8276)</b><br>Title: "AUTONOMY IN INFORMATION FLOW CONTROL"<br>Supervisor(s): Prof. Sanjiva Prasad, Department of Computer Science and Engineering                                                                  |
| 178 | <b>Madhulika Mohanty (2012CSZ8279)</b><br>Title: "TECHNIQUES FOR EFFECTIVE SEARCH AND EXPLORATION OVER KNOWLEDGE GRAPHS"<br>Supervisor(s): Prof. Maya Ramanath, Department of Computer Science and Engineering                                   |
| 179 | <b>Tripurari Nath Gupta (2015EEZ8112)</b><br>Title: "ANALYSIS, DESIGN AND CONTROL OF SINGLE PHASE MICROGRID"<br>Supervisor(s): Prof. Bhim Singh, Department of Electrical Engineering                                                            |
| 180 | <b>Ravinder Pal Singh (2016MEZ8543)</b><br>Title: "DEVELOPMENT OF ROTARY ULTRASONIC BONE DRILLING MACHINE AND EXPERIMENTAL INVESTIGATIONS ON HUMAN CADAVER BONE"<br>Supervisor(s): Prof. P.M. Pandey, Department of Mechanical Engineering       |
| 181 | <b>Kimi Azad (2013BLZ8512)</b><br>Title: "INVESTIGATION OF THE STRUCTURAL DYNAMICS OF NON-ENVELOPED VIRUS DISASSEMBLY USING FLOCK HOUSE VIRUS AS A MODEL SYSTEM"<br>Supervisor(s): Prof. Manidipa Banerjee, Kusuma School of Biological Sciences |
| 182 | <b>Anisha Pathak (2015PHZ8173)</b><br>Title: "STUDIES ON CARBON NANOTUBES BASED FIBER OPTIC PLASMONIC SENSORS FOR BIOLOGICAL AND ENVIRONMENTAL MONITORING"<br>Supervisor(s): Prof. B.D. Gupta and Prof. Anurag Sharma, Department of Physics     |

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| 183 | <b>Rajkumar K (2013CEZ8071)</b><br>Title: "SEISMIC ISOLATION OF TORSIONALLY COUPLED MACHINE FOUNDATION CONSIDERING SOIL-STRUCTURE INTERACTION"<br>Supervisor(s): Prof. Vasant A. Matsagar and Prof. R. Ayothiraman, Department of Civil Engineering                                                                                            |
| 184 | <b>Sagar Saroha (2014AMZ8025)</b><br>Title: "AUGMENTATION OF PARTIALLY-AVERAGED NAVIER STOKES METHOD USING NON-LINEAR EDDY VISCOSITY CLOSURE"<br>Supervisor(s): Prof. Sawan S. Sinha, Department of Applied Mechanics, IIT Delhi and Prof. Sunil Laxmipathy, Gexcon AS, Bergen, Norway                                                         |
| 185 | <b>T. Senthil Siva Subramanian (2012EEZ8137)</b><br>Title: "NOVEL PLASMONIC GAS SENSORS"<br>Supervisor(s): Prof. Anuj Dhawan, Department of Electrical Engineering                                                                                                                                                                             |
| 186 | <b>Shashank Kumar Gahlaut (2014PHZ8349)</b><br>Title: "STUDY OF BIOSENSING PROPERTIES OF SILVER NANORODS FABRICATED BY GLANCING ANGLE DEPOSITION"<br>Supervisor(s): Prof. J.P. Singh, Department of Physics                                                                                                                                    |
| 187 | <b>Arun Kumar V (2013ESZ8129)</b><br>Title: "OPTIMAL SIZING AND DISPATCH OF MULTI-ENERGY SYSTEM IN MICRO-GRIDS"<br>Supervisor(s): Prof. Ashu Verma, Centre for Energy Studies                                                                                                                                                                  |
| 188 | <b>Esha Baidya Kayal (2014BMZ8273)</b><br>Title: "INTRAVOXEL INCOHERENT MOTION (IVIM) AND MULTI-PARAMETRIC MRI ANALYSIS FOR CHEMOTHERAPY RESPONSE EVALUATION IN BONE TUMOR"<br>Supervisor(s): Prof. Amit Mehndiratta, Centre for Biomedical Engineering, IIT Delhi and Prof. Devasenathipathy Kandasamy, Department of Radiology, AIIMS, Delhi |
| 189 | <b>Sunil Kumar (2012PHZ8493)</b><br>Title: "PLASMA BASED PASSIVATION STUDY FOR AlGaIn/GaN HEMT USING PLASMA ENHANCED CHEMICAL VAPOR DEPOSITION (PECVD) AND INDUCTIVELY COUPLED PLASMA CHEMICAL VAPOR DEPOSITION (ICPCVD) TECHNIQUES"<br>Supervisor(s): Prof. Hitendra K. Malik, Department of Physics                                          |
| 190 | <b>Mahendra D. Shahare (2013HUZ8593)</b><br>Title: "EMERGENCE OF SYNTHETIC BIOLOGY: EXPECTATIONS, RESISTANCE, AND LEGITIMATION"<br>Supervisor(s): Prof. Naveen Thayyil, Department of Humanities and Social Sciences                                                                                                                           |

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| 191 | <p><b>Rajesh Kedia (2014CSZ8383)</b><br/> Title: "A FRAMEWORK FOR DESIGNING CONTEXT-AWARE ADAPTIVE EMBEDDED SYSTEMS"<br/> Supervisor(s): Prof. M. Balakrishnan and Prof. Kolin Paul, Department of Computer Science and Engineering</p>                                                                      |
| 192 | <p><b>Piyush Chanana (2012ANZ8203)</b><br/> Title: "STUDY OF INDEPENDENT TRAVEL NEEDS OF PERSONS WITH BLINDNESS AND ASSISTIVE TECHNOLOGY SOLUTIONS"<br/> Supervisor(s): Prof. M. Balakrishnan, Department of Computer Science and Engineering and Prof. P.V.M. Rao, Department of Mechanical Engineering</p> |
| 193 | <p><b>Ravi Pathak (2013PHZ8482)</b><br/> Title: "INVESTIGATION OF HYDROGEN IMPLANTATION-INDUCED LAYER SPLITTING OF Ge, GaSb AND Si"<br/> Supervisor(s): Prof. Rajendra Singh, Department of Physics</p>                                                                                                      |
| 194 | <p><b>Srividya Rajaram (2015HUZ8265)</b><br/> Title: "ANGER NARRATIVES: A QUALITATIVE APPROACH TO THE PSYCHOSOCIAL AND LINGUISTIC ASPECTS OF THE EMOTION OF ANGER"<br/> Supervisor(s): Prof. Rukmini Bhaya Nair, Department of Humanities and Social Sciences</p>                                            |
| 195 | <p><b>Komal Kumar (2014CHZ8284)</b><br/> Title: "TASK-SPECIFIC IONIC LIQUIDS FOR CELLULOSE CONVERSION TO 5-HYDROXYMETHYL FURFURAL AND FUEL ADDITIVES"<br/> Supervisor(s): Prof. Sreedevi Upadhyayula, Department of Chemical Engineering</p>                                                                 |
| 196 | <p><b>Praveen Kumar Tripathi (2014BLZ8270)</b><br/> Title: "EVALUATION OF POTENTIAL INTERCEPTORS TARGETING NON-STRUCTURAL PROTEIN-2 OF CHIKUNGUNYA VIRUS"<br/> Supervisor(s): Prof. Ashok Kumar Patel, Kusuma School of Biological Sciences</p>                                                              |
| 197 | <p><b>Tarina Sharma (2015BLZ8236)</b><br/> Title: "UNDERSTANDING THE FUNCTIONS OF PGRS DOMAIN OF Rv0297 IN THE PATHOGENESIS AND VIRULENCE OF MYCOBACTERIUM TUBERCULOSIS"<br/> Supervisor(s): Prof. Seyed E. Hasnain and Prof. Bishwajit Kundu, Kusuma School of Biological Sciences</p>                      |
| 198 | <p><b>Saurabh Verma (2016MAZ8351)</b><br/> Title: "SOME RESULTS ON FRACTAL FUNCTIONS, FRACTAL DIMENSIONS, AND FRACTIONAL CALCULUS"<br/> Supervisor(s): Prof. Viswanathan Puthan Veedu, Department of Mathematics</p>                                                                                         |

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| 199 | <b>Nidhi Mishra (2013EEZ8528)</b><br>Title: "DESIGN, CONTROL AND DEVELOPMENT OF SINGLE PHASE MULTILEVEL CONVERTERS FOR PV BASED GRID-TIED APPLICATIONS"<br>Supervisor(s): Prof. Bhim Singh, Department of Electrical Engineering                                              |
| 200 | <b>Bhimavarapu Amarendra Reddy (2012EEZ8307)</b><br>Title: "ROBUST CONTROLLER DESIGN AND STABILITY ANALYSIS OF TWO-INPUT DC-DC CONVERTERS"<br>Supervisor(s): Prof. M. Veerachary, Department of Electrical Engineering                                                        |
| 201 | <b>Ankur Prabhat Sati (2012ASZ8236)</b><br>Title: "IMPACT OF URBANIZATION ON METEOROLOGY AND AIR QUALITY BASED ON MESOSCALE NUMERICAL MODELS"<br>Supervisor(s): Prof. Manju Mohan, Centre for Atmospheric Sciences                                                            |
| 202 | <b>Jagtar Singh (2013MEZ8170)</b><br>Title: "DEVELOPMENT AND EXPERIMENTAL INVESTIGATIONS INTO ELECTRIC DISCHARGE MACHINING USING RAPIDLY MANUFACTURED COMPLEX SHAPE ELECTRODE WITH COOLING CHANNEL"<br>Supervisor(s): Prof. P.M. Pandey, Department of Mechanical Engineering |
| 203 | <b>Nikhil Kumar Singh (2016MEZ8272)</b><br>Title: "COMPUTATIONS OF FILM BOILING ON ARBITRARY GEOMETRIES WITH A COUPLED LEVEL SET AND VOLUME OF FLUID METHOD"<br>Supervisor(s): Prof. B. Premachandran, Department of Mechanical Engineering                                   |
| 204 | <b>Ruchika Sehgal (2015MAZ8149)</b><br>Title: "MITIGATING RISK WITH PORTFOLIO OPTIMIZATION: ENHANCED INDEXING AND ROBUST PERSPECTIVE"<br>Supervisor(s): Prof. Aparna Mehra, Department of Mathematics                                                                         |
| 205 | <b>Ravi Kant (2014PHZ8118)</b><br>Title: "ARCHITECTURE AND IMPLEMENTATION OF FIBER OPTIC CHEMICAL AND BIOSENSORS FOUNDED ON SURFACE PLASMON RESONANCE UTILIZING ENZYMES AND TANTALUM (V) OXIDE NANOSTRUCTURES"<br>Supervisor(s): Prof. B.D. Gupta, Department of Physics      |
| 206 | <b>Sumbul Hafeez (2015PTZ8205)</b><br>Title: "TEMPO INITIATED THIOL-ENE REACTION AS AN EFFICIENT CONJUGATION METHOD FOR THE PREPARATION OF FUNCTIONALIZED POLYMERS AND SURFACES"<br>Supervisor(s): Prof. Leena Nebhani, Department of Materials Science and Engineering       |
| 207 | <b>Sanjib Kumar Sinha (2013TTZ8554)</b><br>Title: "ANALYSIS OF BARRIERS AND RISKS IN GREEN TEXTILE AND CLOTHING SUPPLY CHAIN"<br>Supervisor(s): Prof. Abhijit Majumdar, Department of Textile and Fibre Engineering                                                           |

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| 208 | <b>Bhawna (2015CYZ8053)</b><br>Title: "CO <sub>2</sub> CAPTURE AND PROTOTROPISM WITHIN ALTERNATE SOLVENT MEDIA"<br>Supervisor(s): Prof. Siddharth Pandey, Department of Chemistry                                                                                                                                                          |
| 209 | <b>S.A. Kishore Kumar (2013CHZ8444)</b><br>Title: "HYDROALKYLATION OF BENZENE: A STEP TOWARDS REFINERY PETROCHEMICAL INTEGRATION"<br>Supervisor(s): Prof. K.K. Pant, Department of Chemical Engineering, IIT Delhi and Dr. Bharat L. Nawelkar, General Manager, BPCL, Noida                                                                |
| 210 | <b>Preeti Garg (2013PHZ8481)</b><br>Title: "TWO-DIMENSIONAL PLASMONIC HYBRID MATERIALS FOR SURFACE ENHANCED RAMAN SCATTERING"<br>Supervisor(s): Prof. R.K. Soni, Department of Physics, IIT Delhi and Prof. R. Raman, SSPL, DRDO, Noida                                                                                                    |
| 211 | <b>Rupali Genu Bansode (2015HUZ8133)</b><br>Title: "RE-CASTING THE SOCIAL IN THE AFTERMATH OF CASTE-BASED SEXUAL VIOLENCE: A STUDY OF GENDER AND CASTE RELATIONS IN RURAL MAHARASHTRA"<br>Supervisor(s): Prof. Farhana Ibrahim, Department of Humanities and Social Sciences                                                               |
| 212 | <b>Veena Singh (2014PHZ8126)</b><br>Title: "DEVELOPMENT OF HIGHLY STABLE, WIDE-FIELD AND HIGH-RESOLUTION QUANTITATIVE PHASE MICROSCOPIC SYSTEM FOR BIOLOGICAL APPLICATIONS"<br>Supervisor(s): Prof. D.S. Mehta, Department of Physics                                                                                                      |
| 213 | <b>Ashu Jain (2014RDZ8398)</b><br>Title: "CONTROLLED GREEN SYNTHESIS OF SILVER NANOPARTICLES USING LOCALLY AVAILABLE PLANTS FOR IN-SITU PREPARATION OF DURABLE MULTI-FUNCTIONAL COTTON FABRICS"<br>Supervisor(s): Prof. Anushree Malik, Centre for Rural Development and Technology and Prof. Hitendra K. Malik, Department of Physics     |
| 214 | <b>Sonal Singhal (2014PHZ8350)</b><br>Title: "NANOCOMPOSITES OF CARBON STRUCTURES WITH METAL AND METAL OXIDE FOR ENERGY AND ENVIRONMENTAL REMEDIATION APPLICATIONS: A STRATEGY FOR CLEAN WATER AND ENERGY STORAGE"<br>Supervisor(s): Prof. A.K. Shukla, Department of Physics                                                              |
| 215 | <b>Ravi Tejasvi (2014CHZ8172)</b><br>Title: "FABRICATION OF TITANIA AND CARBON NITRIDE BASED THIN FILM ELECTRODES FOR PHOTOELECTROCHEMICAL WATER SPLITTING"<br>Supervisor(s): Prof. Suddhasatwa Basu (On lien), Department of Chemical Engineering, IIT Delhi and Director, CSIR Institute of Minerals & Materials Technology, Bhubaneswar |

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| 216 | <b>Somnath Mitra (2012SMZ8446)</b><br>Title: "INSIGHT FROM INDIA SMART CITY MISSION: A SELECT STUDY"<br>Supervisor(s): Prof. M.P. Gupta, Department of Management Studies, IIT Delhi and Prof. Jaijit Bhattacharya, CEO, Zerone Microsystems Pvt. Ltd., Delhi                     |
| 217 | <b>Huidrom Hemojit Singh (2015PHZ8179)</b><br>Title: "FLEXIBLE NANOCOMPOSITE FILMS: FABRICATION AND APPLICATION IN PIEZOELECTRIC AND TRIBOELECTRIC NANOGENERATORS"<br>Supervisor(s): Prof. Neeraj Khare, Department of Physics                                                    |
| 218 | <b>Mool Chand (2012BEZ8550)</b><br>Title: "ENHANCING SECRETORY EXPRESSION OF GRANULOCYTE COLONY STIMULATING FACTOR IN PICHIA PASTORIS USING GENETIC APPROACHES"<br>Supervisor(s): Prof. Saroj Mishra and Prof. D. Sundar, Department of Biochemical Engineering and Biotechnology |
| 219 | <b>Amit Kumar (2013AMZ8001)</b><br>Title: "WAVE PACKET ENRICHED FINITE ELEMENTS FOR MULTIPHYSICS WAVE PROPAGATION PROBLEMS IN SOLIDS"<br>Supervisor(s): Prof. Santosh Kapuria and Prof. M.K. Singha, Department of Applied Mechanics                                              |
| 220 | <b>Shikha Saini (2015PHZ8192)</b><br>Title: "DESIGNING CLUSTERS FOR EFFICIENT CATALYTIC ACTIVITY AT A REALISTIC CONDITION FROM FIRST-PRINCIPLES SIMULATION"<br>Supervisor(s): Prof. Saswata Bhattacharya, Department of Physics                                                   |
| 221 | <b>Rahul Pandey (2013EEZ8594)</b><br>Title: "EV CHARGERS FOR TWO, THREE, FOUR WHEELERS AND E-BUSES WITH POWER FACTOR CORRECTION"<br>Supervisor(s): Prof. Bhim Singh, Department of Electrical Engineering                                                                         |
| 222 | <b>Ravi Parkash Gandhi (2012BSZ8458)</b><br>Title: "EXPLORING DECOUPLING OF NETWORKS & SERVICES IN THE TELECOM SECTOR"<br>Supervisor(s): Prof. Mahim Sagar, Department of Management Studies                                                                                      |
| 223 | <b>Sonam Jain (2015EEZ8105)</b><br>Title: "RATELESS-CODING-BASED SECURE TRANSMISSION SCHEMES IN A DELAY-CONSTRAINED ENVIRONMENT"<br>Supervisor(s): Prof. Ranjan Bose, Department of Electrical Engineering                                                                        |
| 224 | <b>Amit Sharma (2012TRZ8068)</b><br>Title: "INFLUENCE OF INFORMAL SETTLEMENTS ON LAND USE MIX AND TRAVEL BEHAVIOUR: CASE STUDY OF DELHI"<br>Supervisor(s): Prof. Geetam Tiwari and Prof. K. Ramachandra Rao, Department of Civil Engineering                                      |

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| 225 | <b>Mujeeb Ahmad (2014PHZ8348)</b><br>Title: "SYNTHESIS, STRUCTURAL AND THERMOELECTRIC PROPERTIES OF MoS <sub>2</sub> :Sb <sub>2</sub> Te <sub>3</sub> AND OTHER 2D-3D NANOCOMPOSITE AND MULTILAYER STRUCTURES"<br>Supervisor(s): Prof. B.R. Mehta, Department of Physics |
| 226 | <b>Abinash Mahanta (2016CEZ8327)</b><br>Title: "STABILITY OF LANDFILLS IN HILLY REGIONS"<br>Supervisor(s): Prof. Manoj Datta and Prof. G.V. Ramana, Department of Civil Engineering                                                                                      |
| 227 | <b>Meera Thapar Khanna (2011EEZ8311)</b><br>Title: "PERCEPTUAL VISUAL INFORMATION PROCESSING USING ROI BASED ENCODING SCHEMES"<br>Supervisor(s): Prof. Santanu Chaudhury and Prof. Brejesh Lall, Department of Electrical Engineering                                    |
| 228 | <b>Sheetal Punia (2016PHZ8388)</b><br>Title: "TERAHERTZ RADIATION AND POSITRON GENERATION BY DARK HOLLOW LASERS"<br>Supervisor(s): Prof. Hitendra K. Malik, Department of Physics                                                                                        |
| 229 | <b>Smita Pandey (Nee Mishra) (2015ASZ8226)</b><br>Title: "NUMERICAL MODELING OF COASTAL INUNDATION IN RESPONSE TO A TROPICAL CYCLONE ALONG THE EAST COAST OF INDIA"<br>Supervisor(s): Prof. A.D. Rao, Centre for Atmospheric Sciences                                    |
| 230 | <b>Chandrabhas Subray Shet (2014AMZ8254)</b><br>Title: "INTERACTION OF FREE-STREAM TURBULENCE WITH A TURBULENT BOUNDARY LAYER"<br>Supervisor(s): Prof. S.V. Veeravalli and Prof. M.R. Cholemar, Department of Applied Mechanics                                          |
| 231 | <b>Jagtap Pravin Shivaji (2011CEZ8019)</b><br>Title: "EARTHQUAKE BASE ISOLATION OF SECONDARY SYSTEMS USING ELASTOMERIC AND SLIDING SYSTEMS"<br>Supervisor(s): Prof. Vasant A. Matsagar, Department of Civil Engineering                                                  |
| 232 | <b>Arti Kataria (2015BLZ8230)</b><br>Title: "STRUCTURAL, BIOCHEMICAL AND exvivo CHARACTERIZATION OF Mycobacterium tuberculosis L-ASPARAGINASE AND ITS INHIBITORS"<br>Supervisor(s): Prof. Bishwajit Kundu, Kusuma School of Biological Sciences                          |
| 233 | <b>Nivida Chandra (2013HUZ8145)</b><br>Title: "THE PHENOMENON OF PARENTIFICATION: NARRATIVES FROM URBAN INDIA"<br>Supervisor(s): Prof. Rukmini Bhaya Nair, Department of Humanities and Social Sciences                                                                  |

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| 234 | <b>S Jitendra Pal (2012CEZ8287)</b><br>Title: "DISPERSION OF VEHICULAR EXHAUST EMISSIONS IN NEAR-FIELD REGION AROUND FLYOVER IN AN ENVIRONMENTAL WIND TUNNEL"<br>Supervisor(s): Prof. Mukesh Khare, Department of Civil Engineering, IIT Delhi and Prof. Prashant Kumar, Department of Civil and Environmental Engineering, The University of Surrey, U.K. |
| 235 | <b>Kamal Kishor Pant (2013IDZ8152)</b><br>Title: "INVESTIGATIONS ON THE SUBAPERTURE STITCHING BASED TECHNIQUES FOR MEASUREMENT OF ASPHERIC AND FREEFORM OPTICS"<br>Supervisor(s): Prof. Gufran Sayeed Khan and Prof. Chandra Shakher, Centre for Sensors, Instrumentation and Cyber-Physical Systems Engineering (SeNSE)                                   |
| 236 | <b>Neeti Keswani (2014PHZ8111)</b><br>Title: "INVESTIGATION OF EMERGENT MAGNETIC BEHAVIOR OF ARTIFICIAL SPIN ICE SYSTEMS WITH DEFECTS"<br>Supervisor(s): Prof. Pintu Das, Department of Physics                                                                                                                                                            |
| 237 | <b>N. Anvesh Reddy (2012MEZ8388)</b><br>Title: "HEALTH MONITORING OF COMPOSITE STRUCTURES USING LAMB WAVES"<br>Supervisor(s): Prof. A.K. Darpe and Prof. S.P. Singh, Department of Mechanical Engineering                                                                                                                                                  |
| 238 | <b>Megha Singh (2012PHZ8490)</b><br>Title: "SYNTHESIS AND CHARACTERIZATION OF $V_xO_y$ AND $V_2O_5$ - $MoO_3$ NANOSTRUCTURED THIN FILMS DEPOSITED BY PLASMA ASSISTED SUBLIMATION PROCESS"<br>Supervisor(s): Prof. G.B. Reddy, Department of Physics                                                                                                        |
| 239 | <b>Priyanka (2015PHZ8188)</b><br>Title: "STRUCTURAL AND MAGNETIC PROPERTIES OF COBALT BASED HEUSLER ALLOYS"<br>Supervisor(s): Prof. Rajendra Singh Dhaka, Department of Physics                                                                                                                                                                            |
| 240 | <b>Sumeet Mahajan (2012CEZ8071)</b><br>Title: "EXPERIMENTAL AND NUMERICAL STUDIES ON THE EFFECTS OF RAFT FOUNDATION ON UNDERGROUND TUNNELS IN COHESIONLESS MATERIAL"<br>Supervisor(s): Prof. R. Ayothiraman and Prof. K.G. Sharma, Department of Civil Engineering                                                                                         |
| 241 | <b>Pranab Kumar Rakshit (2012CHZ8414)</b><br>Title: "CATALYTIC HYDROGENATION OF ACETIC ACID TO ETHANOL IN HOMOGENEOUS AND HETEROGENEOUS PHASES"<br>Supervisor(s): Prof. Sreedevi Upadhyayula, Department of Chemical Engineering, IIT Delhi and Prof. Ravi Kumar V., BPCL, R&D, U.P.                                                                       |

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| 242 | <b>Srashti Dwivedi (2013MAZ8162)</b><br>Title: "SOME FINDINGS IN RADO NUMBERS"<br>Supervisor(s): Prof. A. Tripathy, Department of Mathematics                                                                                                                                                                                    |
| 243 | <b>Kamalika Banerjee (2012BLZ8555)</b><br>Title: "ROLE OF HEPATITIS A VIRUS (HAV) NON-STRUCTURAL PROTEINS 2B AND 3C IN VIRUS INFECTIVITY AND DEVELOPMENT OF PUTATIVE ANTIVIRALS AGAINST HAV"<br>Supervisor(s): Prof. Manidipa Banerjee and Prof. James Gomes, Kusuma School of Biological Sciences                               |
| 244 | <b>Md. Samim Hassan (2014CYZ8057)</b><br>Title: "NANO HETERO STRUCTURES BASED ON THE LAYERED TRANSITION METAL DICHALOGENIDE MOLYBDENUM DISELENIDE FOR CATALYTIC AND OPTOELECTRONIC APPLICATIONS"<br>Supervisor(s): Prof. Sameer Sapra, Department of Chemistry                                                                   |
| 245 | <b>Pratisha Gangwar (2014PHZ8116)</b><br>Title: "OPTICAL AND ELECTRICAL PROPERTIES OF POLYCRYSTALLINE MOS <sub>2</sub> AND ITS APPLICATION IN ENERGY HARVESTING"<br>Supervisor(s): Prof. Neeraj Khare, Department of Physics                                                                                                     |
| 246 | <b>Raj Suresh Amonkar (2012NRZ8303)</b><br>Title: "DEVELOPMENT OF A FRAMEWORK FOR ASSESSING VALUE EDUCATION AT TERTIARY LEVEL"<br>Supervisor(s): Prof. M.R. Ravi, Department of Mechanical Engineering, IIT Delhi and Prof. Suneet Varma, Department of Psychology, University of Delhi                                          |
| 247 | <b>Sethuraj K R (2015PHZ8191)</b><br>Title: "INVESTIGATIONS ON COHERENCE AND POLARIZATION PROPERTIES OF OPTICAL ELECTROMAGNETIC FIELDS"<br>Supervisor(s): Prof. Bhaskar Kanseri, Department of Physics                                                                                                                           |
| 248 | <b>Deepu Vijay M (2015EEZ8403)</b><br>Title: "DESIGN, CONTROL AND IMPLEMENTATION OF AN AC MICROGRID"<br>Supervisor(s): Prof. G. Bhuvaneswari and Prof. Bhim Singh, Department of Electrical Engineering                                                                                                                          |
| 249 | <b>Pradeep Kundu (2015MEZ8447)</b><br>Title: "AN INTEGRATED DIAGNOSIS AND PROGNOSIS FRAMEWORK FOR MONITORING THE NATURAL PITTING PROGRESSION IN GEARS"<br>Supervisor(s): Prof. Ashish K. Darpe, Department of Mechanical Engineering, IIT Delhi and Prof. Makarand S. Kulkarni, Department of Mechanical Engineering, IIT Bombay |
| 250 | <b>Farooq Ahmad Bhat (2016AMZ8463)</b><br>Title: "LINEAR STABILITY OF CONTAMINATED FLOWS"<br>Supervisor(s): Prof. Arghya Samanta, Department of Applied Mechanics                                                                                                                                                                |

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|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 251 | <b>Harikesh (2014CRZ8293)</b><br>Title: "HUMAN VITAL SIGN SENSING USING RADAR"<br>Supervisor(s): Prof. Ananjan Basu and Prof. Mahesh P. Abegaonkar,<br>Centre for Applied Research in Electronics                                                                            |
| 252 | <b>Nisha Dhawan (2013HUZ8567)</b><br>Title: "THE CASE FOR WOMEN IN NON-TRADITIONAL LIVELIHOODS: A<br>SOCIOLOGICAL INQUIRY"<br>Supervisor(s): Prof. Ravinder Kaur, Department of Humanities and<br>Social Sciences                                                            |
| 253 | <b>Shifali Kalra (2015EEZ8101)</b><br>Title: "IMPROVED MODEL ORDER REDUCTION STRATEGIES FOR A CLASS<br>OF NONLINEAR CIRCUITS"<br>Supervisor(s): Prof. M. Nabi, Department of Electrical Engineering                                                                          |
| 254 | <b>Pooja Sahni (2014NRZ8222)</b><br>Title: "NEURO-COGNITIVE EFFECTS OF NATURE EXPERIENCE ON<br>DIRECTED ATTENTION"<br>Supervisor(s): Prof. Jyoti Kumar, Department of Design                                                                                                 |
| 255 | <b>Devjani Ray (2011HUZ8390)</b><br>Title: "CHILDREN'S PERIODICALS IN BENGALI 1885-1920: A STUDY OF<br>SAKHA AND SANDESH"<br>Supervisor(s): Prof. Arjun Ghosh, Department of Humanities and<br>Social Sciences                                                               |
| 256 | <b>Punit Singh (2014MEZ8426)</b><br>Title: "CHARACTERIZATION AND PROPERTY DETERMINATION OF FOOD<br>MATERIALS SUBJECTED TO CONVECTIVE DRYING: EXPERIMENTAL<br>STUDIES AND MODEL DEVELOPMENT"<br>Supervisor(s): Prof. Prabal Talukdar, Department of Mechanical<br>Engineering |
| 257 | <b>Mainendra Kumar Dewangan (2014MEZ8341)</b><br>Title: "MICROSCALE FLOW OVER PATTERNED TOPOGRAPHIES"<br>Supervisor(s): Prof. Subhra Datta, Department of Mechanical Engineering                                                                                             |
| 258 | <b>Gul Afreen (2014CHZ8279)</b><br>Title: "EXPERIMENTAL AND THEORETICAL INVESTIGATIONS INTO<br>VALORIZATION OF BIOMASS-DERIVED PHENOLS BY C-C COUPLING WITH<br>LIGHT OXYGENATE"<br>Supervisor(s): Prof. Sreedevi Upadhyayula, Department of Chemical<br>Engineering          |
| 259 | <b>Smriti (2013AMZ2039)</b><br>Title: "THERMOELASTOPLASTIC MODELING OF ONE DIMENSIONAL<br>STRUCTURES"<br>Supervisor(s): Prof. Ajeet Kumar, Department of Applied Mechanics                                                                                                   |

- 260 Ahmad Mohd Khalid (2015SMZ8335)**  
Title: "SUSTAINABLE DEVELOPMENT ANALYSIS-STUDY OF INDIAN STATES"  
Supervisor(s): Prof. Seema Sharma and Prof. Amlendu Kumar Dubey, Department of Management Studies
- 261 Akhilesh Dadaniya (2014MEZ8338)**  
Title: "ADHESION DURABILITY OF ENCAPSULANT-GLASS INTERFACE IN PHOTOVOLTAIC MODULE"  
Supervisor(s): Prof. Naresh Varma Datla, Department of Mechanical Engineering
- 262 Krishna Kumar (2013CYZ8115)**  
Title: "STEREOSELECTIVE VINYLOGOUS ALDOL REACTIONS OF 3-ALKYLIDENE-2-OXINDOLES"  
Supervisor(s): Prof. Ravi P. Singh, Department of Chemistry
- 263 Zeba Naaz (2012MEZ8393)**  
Title: "MATHEMATICAL MODELING AND PARAMETRIC STUDY OF DOWNDRAFT BIOMASS GASIFIERS"  
Supervisor(s): Prof. Sangeeta Kohli and Prof. M.R. Ravi, Department of Mechanical Engineering
- 264 Sachin Kansal (2012MEZ8385)**  
Title: "DESIGN AND DEVELOPMENT OF VISION BASED CATCHING SYSTEM"  
Supervisor(s): Prof. Sudipto Mukherjee, Department of Mechanical Engineering
- 265 Sayari Das (2015EEZ8098)**  
Title: "WIDE AREA MONITORING AND PROTECTION FOR STRESSED POWER SYSTEMS"  
Supervisor(s): Prof. B.K. Panigrahi, Department of Electrical Engineering
- 266 Manish Kumar Jaiswal (2015CYZ8058)**  
Title: "ORGANOCATALYTIC ASYMMETRIC VINYLOGOUS C-C BOND FORMATION AND STEREOSELECTIVE [3+3] CYCLOADDITION REACTION WITH 3-ALKYLIDENE-2-OXINDOLES"  
Supervisor(s): Prof. Ravi P. Singh, Department of Chemistry
- 267 Deepti Goel (2012EEZ8369)**  
Title: "INTELLIGENT SENSING: ONTOLOGY BASED APPLICATION"  
Supervisor(s): Prof. Santanu Chaudhury, Department of Electrical Engineering, IIT Delhi and Prof. Hiranmay Ghosh, Research Advisor, Tata Consultancy Service, Mysore

**268 Rajbala (2014CHZ8171)**  
Title: "CRYSTALLITE-SCALE MODEL TO PREDICT THE REACTOR-SCALE PERFORMANCE OF SPILLOVER EXHIBITING AUTOMOTIVE CATALYSTS"  
Supervisor(s): Prof. Divesh Bhatia, Department of Chemical Engineering

**269 Vishakha Kaushik (2015PHZ8196)**  
Title: "SYNTHESIS, STRUCTURAL, OPTOELECTRONIC AND CHARGE CARRIER TRANSPORT PROPERTIES OF 2D TRANSITION METAL DICHALOGENIDE BASED SEMICONDUCTORS AND THEIR HETROSTRUCTURES"  
Supervisor(s): Prof. B.R. Mehta and Prof. Pintu Das, Department of Physics

**270 Nitu Sharma (2015MAZ8146)**  
Title: "STOCHASTIC MODELLING AND PRICING OF EQUITY-LINKED ANNUITIES IN LIFE INSURANCE"  
Supervisor(s): Prof. S. Dharamraja, Department of Mathematics

**271 Bhera Ram Tak (2014PHZ8345)**  
Title: "GALLIUM OXIDE SOLAR-BLIND PHOTODETECTORS FOR HARSH ENVIRONMENT APPLICATIONS: FROM THIN FILM GROWTH TO DEVICE PACKAGING"  
Supervisor(s): Prof. Rajendra Singh, Department of Physics

**272 Shyam Krishna Joshi (2012EEZ8367)**  
Title: "SYNCHRONIZATION OF COUPLED BENCHMARK OSCILLATORS: THEORY AND EXPERIMENTS"  
Supervisor(s): Prof. Shaunak Sen and Prof. I.N. Kar, Department of Electrical Engineering

**273 Vikas Pandey (2013CHZ8454)**  
Title: "DEVELOPMENT OF AN OPTICAL MODULE FOR NANO-ANALYSIS AND RAPID DIAGNOSIS OF INFECTIOUS DISEASES"  
Supervisor(s): Prof. Shalini Gupta, Department of Chemical Engineering and Prof. R. Elangovan, Department of Biochemical Engineering & Biotechnology

**274 Rajeshwar Verma (2014ITZ8405)**  
Title: "EROSION REDUCTION FOR ENHANCED LIFE OF PIPE BENDS IN DILUTE PHASE PNEUMATIC CONVEYING"  
Supervisor(s): Prof. B.K. Panigrahi, Department of Electrical Engineering

**275 Nisha (2015PHZ8183)**

Title: "MATERIALS AND INTERFACE PROPERTIES OF METAL OXIDE BASED HETEROJUNCTIONS FOR IMPROVED PHOTOELECTROCHEMICAL RESPONSE"

Supervisor(s): Prof. B.R. Mehta, Department of Physics

**276 Sangram Roy (2015CHZ8248)**

Title: "HYDRODYNAMICS OF FLUIDIZED BED GASIFIERS"

Supervisor(s): Prof. Shantanu Roy, Department of Chemical Engineering

**277 Sonia Gupta (2014BEZ8391)**

Title: "FINDING THE LINK BETWEEN METAL POLLUTION AND ANTIBIOTIC RESISTANCE"

Supervisor(s): Prof. Z.A. Shaikh and Prof. T.R. Sreekrishnan, Department of Biochemical Engineering and Biotechnology

**278 Sarvesh Kumar Mishra (2015MEZ8167)**

Title: "INVESTIGATIONS INTO THE MACHINING OF Ti6Al4V ALLOY USING STRUCTURED TOOLS"

Supervisor(s): Prof. S. Ghosh and Prof. S. Aravindan, Department of Mechanical Engineering

**279 Ankit (2016EEZ8488)**

Title: "MODELING AND ANALYSIS OF MOLECULAR COMMUNICATION SYSTEMS"

Supervisor(s): Prof. Manav Bhatnagar, Department of Electrical Engineering

**280 Gaurav Singh (2012TTZ8341)**

Title: "INVESTIGATION ON FAILURE BEHAVIOUR OF POLYMER COATED AND LAMINATED FABRICS FOR INFLATABLE APPLICATIONS"

Supervisor(s): Prof. Mangala Joshi, Prof. R. Chattopadhyay, Department of Textile and Fibre Engineering and Prof. D.K. Setua, Defence Materials and Stores Research & Development Establishment, Kanpur

**281 Neha Kaushik (2010MAZ8788)**

Title: "AUTOMATIC DEVELOPMENT OF ONTOLOGY IN AGRICULTURE DOMAIN"

Supervisor(s): Prof. Niladri Chatterjee, Department of Mathematics

**282 Govind Narayan Sharma (2011PHZ8347)**

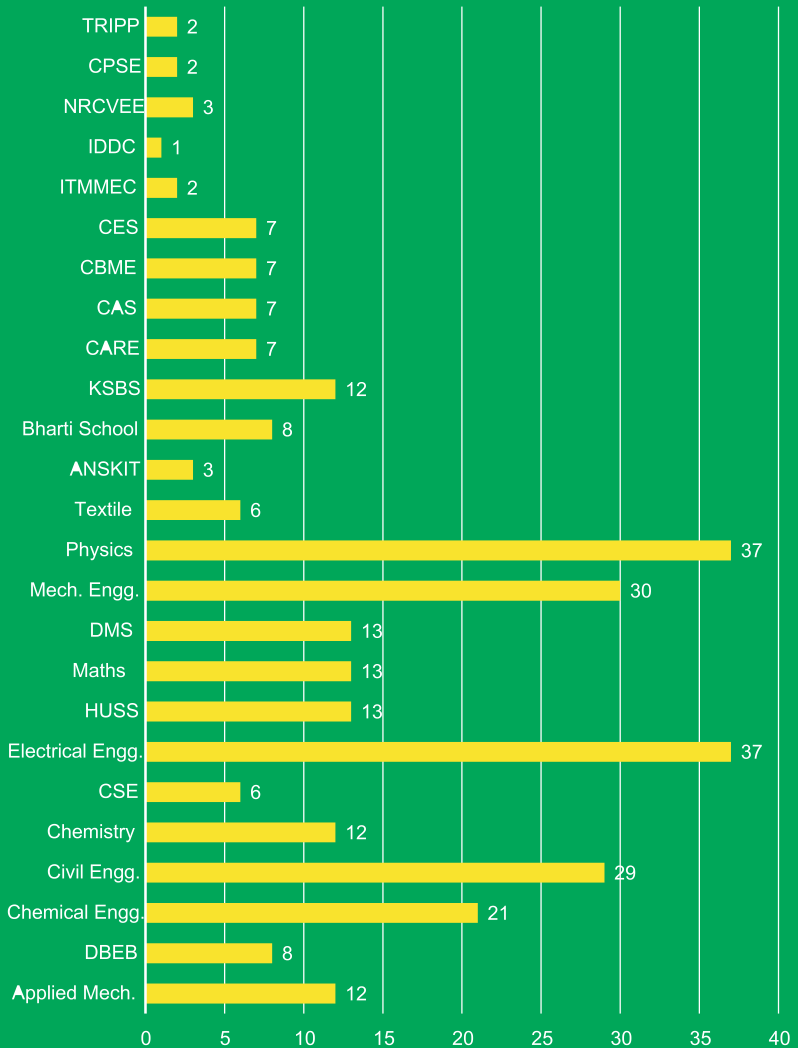
Title: "PREPARATION AND CHARACTERIZATION OF MULTIFUNCTIONAL OXIDE STRUCTURES"

Supervisor(s): Prof. Ratnamala Chatterjee, Department of Physics and Prof. Sushil K. Singh, DRDO

- 283 Tabish Nazir Mir (2015EEZ8486)**  
 Title: "IMPROVED MODULATION TECHNIQUES FOR MATRIX CONVERTERS AND THEIR APPLICATIONS IN INDUCTION MOTOR DRIVES"  
 Supervisor(s): Prof. Bhim Singh, Department of Electrical Engineering, IIT Delhi and Prof. A.H. Bhat, Department of Electrical Engineering, NIT Srinagar
- 284 Suraj Suman (2015EEZ8397)**  
 Title: "UAV-AIDED RF ENERGY TRANSFER TOWARDS SUSTAINABLE IOT NETWORKS"  
 Supervisor(s): Prof. Swades De, Department of Electrical Engineering
- 285 Shikha Sota (2016SMZ8018)**  
 Title: "A FRAMEWORK OF CUSTOMER EXPERIENCE: STUDY OF THE HOSPITALITY INDUSTRY"  
 Supervisor(s): Prof. Harish Chaudhry, Department of Management Studies
- 286 Angela Susan Mathew (2013SMZ8270)**  
 Title: "TRANSITION FROM E-PARTICIPATION TO ENGAGEMENT ON GOVERNMENT-INITIATED DIGITAL PLATFORMS: A QUALITATIVE STUDY OF MYGOV.IN"  
 Supervisor(s): Prof. M.P. Gupta and Prof. P. Vigneswara Ilavarasan, Department of Management Studies
- 287 Pechetti Sasi Vinay (2015EEZ8097)**  
 Title: "ANTI-EAVESDROPPING TECHNIQUES FOR ENHANCING PHYSICAL LAYER SECURITY IN RESOURCE-LIMITED COMMUNICATIONS"  
 Supervisor(s): Prof. Ranjan Bose, Department of Electrical Engineering
- 288 Rupayan Roy (2015TTZ8272)**  
 Title: "INFLUENCE OF FIBER ORIENTATION ON NEEDLE PUNCHED NONWOVEN PROPERTIES"  
 Supervisor(s): Prof. S.M. Ishtiaque, Department of Textile and Fibre Engineering
- 289 Gautam Pant (2013SMZ8275)**  
 Title: "THE STUDY OF INFLUENCE BEHAVIOURS OF ADMINISTRATIVE LEADERSHIP IN THE INDIAN PUBLIC SECTOR"  
 Supervisor(s): Prof. Shuchi Sinha, Department of Management Studies
- 290 Digpal Kumar (2015MEZ8155)**  
 Title: "EXPERIMENTAL AND NUMERICAL INVESTIGATIONS OF HEAT TRANSFER IN SOLAR AIR HEATERS"  
 Supervisor(s): Prof. B. Premachandran, Department of Mechanical Engineering

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| 291 | <b>Latheesh Mohan V (2015HUZ8286)</b><br>Title: "RHYTHMICITY: ONTOLOGY, DIALECTIC AND ETHICS"<br>Supervisor(s): Prof. Milind Wakankar, Department of Humanities and Social Sciences                                                                                                                                          |
| 292 | <b>Raju Pathak (2015ASZ8225)</b><br>Title: "IMPROVED CONVECTION AND CLOUD PARAMETERIZATION: TOWARDS AN INDIA CENTRIC CLIMATE MODEL (ICCM)"<br>Supervisor(s): Prof. Saroj K. Mishra and Prof. Sandeep Sahany, Centre for Atmospheric Sciences                                                                                 |
| 293 | <b>Shreemohan Kumar Sinha (2015ESZ8122)</b><br>Title: "EXPERIMENTAL INVESTIGATIONS ON AN AUTOMOTIVE COMPRESSION IGNITION ENGINE UNDER DUAL FUEL MODE (DME-DIESEL)"<br>Supervisor(s): Prof. K.A. Subramanian, Centre for Energy Studies                                                                                       |
| 294 | <b>Sakthivel P (2016ESZ8103)</b><br>Title: "EXPERIMENTAL INVESTIGATIONS ON UTILIZATION OF ETHANOL-GASOLINE BLENDS IN A SPARK-IGNITION VEHICLE USING CHASSIS DYNAMOMETER"<br>Supervisor(s): Prof. K.A. Subramanian, Centre for Energy Studies and Prof. Reji Mathai, IOCL                                                     |
| 295 | <b>Sushil Punia (2016SMZ8026)</b><br>Title: "DATA-DRIVEN SUPPLY CHAIN FORECASTING AND INVENTORY OPTIMIZATION: MACHINE LEARNING BASED MODELS AND METHODOLOGIES"<br>Supervisor(s): Prof. Surya Prakash Singh and Prof. Jitendra Madaan, Department of Management Studies                                                       |
| 296 | <b>Richa Gupta (2014ANZ8356)</b><br>Title: "UNDERSTANDING TACTILE PERCEPTION FOR DESIGN OF EFFECTIVE TACTILE GRAPHICS"<br>Supervisor(s): Prof. M. Balakrishnan, Department of Computer Science and Engineering, Prof. P.V.M. Rao, Department of Design and Prof. Steve Mannheimer, School of Informatics and Computing IUPUI |
| 297 | <b>Sumit Negi (2012ANZ8417)</b><br>Title: "APPLICATION OF SOCIAL SIGNALS IN MULTIMEDIA SOCIAL NETWORKS"<br>Supervisor(s): Prof. Santanu Chaudhury, Department of Electrical Engineering and Prof. Prem Kumar Kalra, Department of Computer Science and Engineering                                                           |
| 298 | <b>Alemayehu Abate Shawul (2014CEZ8253)</b><br>Title: "LAND COVER CHANGE IMPACTS ON THE HYDROLOGIC VARIABILITY, PEAK FLOOD DISCHARGE AND SEDIMENTATION"<br>Supervisor(s): Prof. Sumedha Chakma, Department of Civil Engineering                                                                                              |

## Distribution of Ph.D. Graduates in various Academic Units



**TOTAL : 298**



**IIT DELHI**

## VISION

To contribute to India and the World through excellence in scientific and technical education and research; to serve as a valuable resource for industry and society; and remain a source of pride for all Indians.

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To generate new knowledge by engaging in cutting-edge research and to promote academic growth by offering state-of-the-art undergraduate, postgraduate and doctoral programmes.

To identify, based on an informed perception of Indian, regional and global needs, areas of specialization upon which the Institute can concentrate.

To undertake collaborative projects which offer opportunities for long-term interaction with academia and industry.

To develop human potential to its fullest extent so that intellectually capable and imaginatively gifted leaders can emerge in a range of professions.

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- ❑ Respect and tolerance for the views of every individual.
- ❑ Attention to issues of national relevance as well as of global concern.
- ❑ Breadth of understanding, including knowledge of the human sciences.
- ❑ Appreciation of intellectual excellence and creativity.
- ❑ An unfettered spirit of exploration, rationality and enterprise.