**Dr. Niranjan Sahoo**

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**(A) Guidance of Students:**

**(I) Research Scholars:**

1. Mr. Amit Kumar (206151001) Thermal sensors and engine diagnostics (ongoing since July 2020; Centre for Energy) Full time
2. Ms. Kabita Naik (186151102) Wind Engineering Aerodynamics – Wind Tunnel Experiments and Wind Turbine Blade simulations (ongoing since January 2019; Centre for Energy) Full time
3. Mr. Ashutosh Kumar Singh (186103109) Gas Turbine Blade Film Cooling (ongoing since January 2019; ME, NIT-Manipur Trainee Teacher Scheme, Co-supervisor: Dr. Dushyant Singh, Mechanical Engineering, NIT Manipur) Part time
4. Mr. Abhishek Kamal (186103001) Force measurements with stress wave force balance systems, (ongoing since July 2018; ME: Dr. Vinayak Kulkarni) Full time
5. Mr. Ravi Kumar (186103026) Wind Turbines and wind energy/wind tunnel experiments (ongoing since July 2018; ME: Prof. U. K. Saha) Full time
6. Mr. Sandip Chattopadhyay (186103030, Scientist ‘G’, DRDL Hyderabad) Hypersonic flows (ongoing since July 2018; DRDL Hyderabad) (ME; External supervisor: Dr. T. K. Ganesh Ananvardham, DRDL Hyderabad) Part time
7. Mr. Divakar Bommana (176103113) Sandwiched plates and composites (ongoing since December 2017; ME: Prof. S. K. Dwivedy) Part time
8. Mr. Ojing Siram (166151101) Experimental studies for turbine blades for wind mill, wind tunnel and water turbine (Ongoing since December 2016; Energy) Full time
9. Mr. Anil Kumar Rout (166151109), Fuel characterization and ignition delay measurement using shock tube and rapid compression machine (Ongoing since December 2016; Energy: Dr. Pankaj Kalita) Full time
10. Mr. Jubajyoti Chutia (166103005), Nozzle shape optimization and jet interaction studies (ongoing since July 2016) (ME: Dr. Vinayak Kulkarni) Full time
11. Mr. Santosh Kumar Hotta (14615007), Development and performance evaluation of a spark ignition biogas engine (Synopsis Seminar: 02-08-2019) (Energy: Dr. Kaustubha Mohanty; CL) Full time
12. Mr. Saibal Kanchan Barik (146103015) High strain rate deformation studies on sheets and composites (ongoing since July 2014), (ME: Dr. R. Ganesh Narayanan) Full time
13. Mr. Wittison Kamei (126103040), Experimental investigation of a dual-fuel compression ignition engine for improvement of emissions and thermal efficiency (Synopsis: 25-11-2020, Thesis Submitted on 18-01-2021) (ME; External supervisor: Dr. V. V. D. N. Prasad, Principal Scientist, IIP-Dehradun) Part time
14. Ms. Sangjukta Devi (146103006), Development and performance analysis of a crude biogas operated sideway faces porous radiant burner (Thesis Defense on 15-05-2020), (ME: Late Prof. S. C. Mishra) Full time
15. Mr. Samiayyan Pandian (156103021) Characteristics of cavities during start transient and established flow conditions at supersonic Mach numbers (Thesis Defense on 28-02-2020) (ME; External supervisor: Dr. S. L. N. Desikan, VSSC Thiruvananthapuram) Part time
16. Mr. Shuvayan Brahmachary (126103045), Finite volume/immersed boundary solvers for compressible flows: Developments and applications (Thesis Defense on 13-06-2019) (ME: Dr. Ganesh Natarajan); Present affiliation: Post-doctoral fellow, Japan) Full time
17. Mr. Menelik Walle Mekonen (146103038), Evaluation of engine characteristics for a compression ignition engine fueled with preheated and blends of biodiesel (Thesis Defense on 01-05-2019) (ME; Foreign student) Full time
18. Mr. Mrutyunjay Maharana (146151009), Development of alternative dielectric fluid for power and distribution transformer (Thesis Defense on 02-04-2019) (Energy: Dr. Sisir kumar Nayak; EEE) Full time
19. Mr. Soumya Ranjan Nanda (136103040), Force recovery technique for multicomponent balances under impulsive loading in high speed flow experiments (Thesis Defense on 10-12-2018), (ME: Dr. Vinayak Kulkarni) (Present affiliation: Post-doctoral fellow, Dept. of Aerospace Engg., IIT Kanpur)
20. Mr. Sumit Agarwal (126103005), Surface junction thermal probe for transient measurements – Conceptual design to field applications (Thesis Defense on 13-06-2018) (Present affiliation: Guest Researcher, PTB, Braunschweig, Germany)
21. Mr. Ashish Jagannath Chaudhari (126151006) Design, installation and assessment of a novel variable compression ratio mechanism for multifuel spark ignition engine (Thesis Defense on 18-12-2017) (Energy: Dr. Vinayak Kulkarni)
22. Ms. Shrutidhara Sarma (126103013), Thin film heat transfer gauges for short duration transient measurements (Thesis Defense on 28-04-2017) (ME: Prof. Aynur Unal) (Present affiliation: Assistant Professor, Dept. of Mechanical Engg., NIT Delhi)
23. Ms. Adreeja Basu (07615101), Morphometric, molecular and biochemical characterization of Jatropha germplasm of North East India (Thesis Defense on 16-05-2014) (Energy: Administrative Supervisor)
24. Dr. Ravi Kumar Peetala (09610314) Conjugate heat transfer analysis in hypersonic applications, (Thesis Defense on 05-12-2014) (ME: Dr. Vinayak Kulkarni) (Present affiliation: Assistant Professor, Dept. of Mechanical Engg., NIT Nagpur)
25. Dr. Rakesh Kumar (08610309) Design, fabrication and novel calibration techniques for heat transfer gauges during short-duration transient measurement, January 2014 (Present affiliation: Assistant Professor, Dept. of Mechanical Engg., Indian School of Mines, Dhanbad)
26. Dr. Biplab Kumar Debnath (09610305) Experimental and theoretical routes towards assessing the potential of emulsified palm biodiesel as an alternative fuel, (Thesis Defense December 2013) (Present affiliation: Assistant Professor, NIT Meghalaya) (ME: Prof. Ujjwal Kumar Saha)
27. Dr. Bibhuti Bhusan Sahoo (06615102) Clean development mechanism potential of compression ignition diesel engines using gaseous fuels in dual fuel mode, (Thesis Defense May 2011) (Present affiliation: Professor, Dept. of Mechanical Engg., SIET, Dhenkanal, Odisha) (Energy: Prof. Ujjwal Kumar Saha)

**(II) M.Tech/ MS Students:**

1. Mr. Abaad Jubin Abdul Jabbar (204103001) Stress wave force balance system for shock tube flows, 2022
2. Mr. Amit Kumar (204103003) Aerodynamic optimization of fixed wind unmanned ariel vehicle, 2022
3. Mr. Anurag Singh Sikarwar (204103004) Aerodynamic and structural analysis for optimal blade shapes for wind turbines
4. Mr. Raj Kishore (204103008) Erosion characteristics of wind turbine blades
5. Ms. Neha Kesharwani (194103102) Aerodynamic study of H-rotor Darrieus turbine blade with different airfoil shapes, 2021
6. Mr Sanjeev Kumar (194103316) Measurement diagnostics in internal combustion engines, 2021
7. Mr. Shubham Basant (194103330) Thermal management of electric battery in heat pipes, 2021
8. Mr. Jitendra Patel (194103331) Methanol as an alternative fuel for internal combustion engine, 2021
9. Mr. Rakesh Kumar Yadav (194103333) Hydrogen as fuel for internal combustion engine/Life cycle analysis of heat transfer gauges, 2021
10. Mr. Kishan Kumar Soni (194103439) High energy rate forming processes, 2021
11. Mr. Durga Prasad Sahoo (194351003) Coaxial thermocouples in transient measurements, 2021, MS-Energy
12. Mr. V. H. Sathish (194351011) Performance Characterization of Flow Control Techniques on Darrieus vertical axis wind turbine, 2021, MS-Energy
13. Mr. Bablu Das (184103003) Behavior of coaxial thermal probe towards impulsive thermal loading, 2020
14. Mr. Madhab Basumatary (184103004) Material response for step input and impulse loading, 2020
15. Mr. Safeerul Ameen EK (184103328) Experimental and numerical investigation on controlled deformation of metallic sheet using shock tube, 2020
16. Mr. Deepak Kumar Yadav (174103095) Experimental studies of material forming behavior of aluminum sheets using shock tube, 2019
17. Mr. Kalyan Mal Ranwa (174103110) Design, fabrication and implementation of a waste heat recovery device for biogas fueled SI engine, 2019
18. Mr. Gagan Chandra Das (174103127) Numerical prediction of short duration forces for aerodynamic applications, 2019
19. Mr. Abhinay Rawat (174103136) Experimental and numerical investigations towards performance characterization of horizontal axis wind turbine, 2019
20. Mr. K. C. Akash (174351010) Design of supersonic wind tunnel components, 2019, MS- Energy
21. Mr. Ashutosh Kumar Singh (164103115) Numerical investigation on the film cooling characteristic of cylindrical and laidback fan shape hole (December 2018) NIT-Trainee Teacher Scheme; Co Supervisor: Dr. Dushyant Singh, Mechanical Engineering, NIT Manipur)
22. Mr. Ravishankar (164103036) Experimental analysis of a biogas fueled four stroke spark ignition engine, 2018
23. Mr. Anurag Shrivastava (164103158) Experimental and numerical analysis of Bunsen burner, 2018
24. Mr. Abhishek Kamal (164103163) Numerical and experimental prediction of aerodynamic coefficients at hypersonic conditions, 2018
25. Mr. Nikki Rajaura (164103066) Experimental investigation on forming behavior of stainless steel and aluminum sheet using shock tube with a striker, 2018
26. Mr. Mohammad Adil (164351007) Development of shock tube facility for combustion based measurements of biofuels, 2017 (MS-Energy)
27. Mr. Prashik Tulsidas Bobade (164351003) Thermal energy storage using exhaust emission from IC engine,, 2018 (MSEnergy; Prof. P. Mahanta)
28. Ms. Moon Moon Bordeori (154351001) Performance analysis of nanofluid based transformer oil after oxidative ageing, 2017 (MS-Energy)
29. Mr. Someshwar P Kale (154103039) Mathematical modelling and simulation of combustion phenomena in a spark ignition engine, 2017
30. Mr. Rana Pratap Chaudhary (154103057) Piezofilm based strain measurement on stress bar under impulsive environment, 2017
31. Mr. Abhinesh Kumar (154103053), Design and Experiments in a hand operated miniature shock tube and expansion tube, 2017
32. Mr. Ranveer Singh (144103073), Design of a mixing chamber for a spark ignition engine running with biogas, 2016
33. Mr. Manish Sonkar (144103057) Design, fabrication and comparative study of transient heat flux measuring devices, 2016
34. Mr. Rajpal Singh (144103105), Experimental investigation and numerical simulation for stress wave force balance system, 2016 (Co Supervisor: Dr. Sangmesh Deepak)
35. Mr. K. Seetharamaraju (134103062), Calibration and characterization of thin film gauges for short duration experiments with step heat loads, 2015
36. Mr. Rishikesh Kumar Singh (134103054), Thermal product determination of coaxial surface junction thermocouples in short duration transient experiments, 2015
37. Mr. Siddharth Kar,(124103039) Calibration methodology of thin film gauges for short duration thermal measurements, 2014
38. Mr. Siddhant Parvat (124103059) Experimental investigation and numerical simulation for a coaxial surface junction thermocouple during short duration measurement, 2014
39. Mr. Rakesh Singh Kushwaha (124103020) Characterization of system dynamics for a blunt cone geometric configuration using linear system theory, 2014
40. Mr. Ankit Dave (11410316), Parametric studies of a stress wave force balance for short duration measurements, 2013
41. Mr. Debabrat Samantaray (11410348), Numerical simulation of unsteady compressible flow – A shock tube problem, 2013
42. Mr. Sawan Kumar Sethy (11410383), Experimental investigation of emulsified fuel in a variable compression ratio diesel engine, 2013
43. Ms. Saroj Yadav (10410317), Numerical simulation and design analysis of a simple shock tube, 2012.
44. Mr. Divakar Bomana (10410323), Experimental investigation of a stress wave force balance system for aerospace application, 2012
45. Mr. Jayesh P (10410318), Performance enhancement of thin film sensor blended with nanomaterials, 2012
46. Mr. Pallekonda Ramesh Babu (09410320), Design and analysis of single component accelerometer balance for high speed aerospace applications, 2011
47. Anil Kumar (09410353), Numerical flow simulation over a vertical axis wind turbine, 2011 (Co-supervisor: Prof. U. K. Saha)
48. Mr. Varun Karthik (08410314), Design and performance analysis of stress wave force balances for high speed aerospace applications, 2010
49. Mr. Yogesh Kumar Rathore (08410352), Numerical study of the shock reflection process in a shock tube for optimizing test conditions, 2010
50. Mr. Maqsood Alam (08410338) Development and analysis of unsteady aerodynamic reduced order models based on rational function approximation, 2010
51. Mr. Bharat Kawale (07410325), Development of heat transfer models for predicting transient heating rates from temperature history, 2009.
52. Mr. Ravi Kumar Peetala (07410331), Transient surface heating measurement from temperature history, 2009
53. Mr. Sandip D. Chavan (07410327) CFD simulations of honeycomb-screen for turbulence management in a wind tunnel, 2009
54. Mr. Sampath K. Chinige, Experimental study of pulsating flows in a pipe, 2007
55. Mr. Srinivas Y., Flow induced vibration in a penstock of a hydro-electric power plant, 2007
56. Mr. A.S.S.R. Karuna Kumar, Improvement of efficiency of the domestic cooking stoves using porous media, 2006

**(III) B.Tech Students:**

1. Mr. Ramavarapu Achyut (170103054) and Mr. Routhu Anil Kumar (170103058) Data driven algorithm towards inverse prediction of impulsive forces and thermal loads for aerodynamic applications, 2021
2. Mr. Francisco Javier (180103104) Heat transfer analysis inside the cylinder of an internal combustion engine, 2019 (July-December)
3. Mr. Mukesh Malvia (150103047) and Mr. Rajesh Mandal (150103055) Prediction of surface heating rates from transient temperature in short duration time scale experiments, 2019
4. Mr. Amit Kabi (140103010) and Mayank Shah (140103040) Design and fabrication of heat exchanger for IC engine applications, 2018
5. Mr. Parth Tiwari (130103051) and Mr. Sanjeev Kumar (130103063) Aerodynamic shape optimization and turbulent flow simulation, 2017
6. Mr. Ciddu Rohith (130106014) An experimental investigation on optimizing air-fuel ratio for a biogas fueled spark ignition engine (Bioscience and Bioengineering: Dr. Soumen Kumar Maity)
7. Mr. Amar Singh (120103009) and Mr. Mahesh Chandra Bharti (120103042), Design and fabrication of coaxial surface junction thermocouple for short duration transient heat flux measurement, 2016
8. Mr. Himanshu Mishra (11010325) and Mr. Sumit Bharti (11010366), Numerical simulation of chemical kinetics for combustion studies, 2015 (Co-supervisor: Dr. Ganesh Natarajan)
9. Mr. Pasula Nikhil Reddy (10010346) and Mr. Rahul Vinod Upputuri (10010352), A novel approach for varying compression ratio of spark ignition engine – design, development and testing, 2014
10. Mr. Palavai Aditya Prasad (09010338) and Mr. Kodamatti Dinesh Reddy (09010325), Development of an experimental unit for spark ignition engine and modification towards compression ratio variation, 2013
11. Mr. Upendra Kumar Garg (09010358), Simulation of spark ignition engine for predicting performance, 2013
12. Mr. Mallaboina Anil Kumar (08010327) and Mr. Raj Kuma Ram (08010335), Material characterization of nanofluids, 2012
13. Mr. Anirudh Yadav (08010409), Aerodynamic shape optimization study in a supersonic flow field, 2012 (Civil Engineering: Prof. Subashisa Dutta)
14. Mr. Kedar Bodas (05010319) and Mr. Sarat Chandra (05010348), Evaluation of wind tunnel performance characteristics and component design, 2009
15. Mr. Gaurav Jindal and Mr. Anas Viquar, Computations of turbulent convective heat transfer in a tapered pin fin heat exchanger, 2007