

राष्ट्रीय प्रौद्योगिकी संस्थान सिलचर
NATIONAL INSTITUTE OF TECHNOLOGY SILCHAR
अध्यक्ष का कार्यालय (शोध एवं परामर्श)
OFFICE OF THE DEAN (RESEARCH & CONSULTANCY)

No. Dean (RC)/242/

Date: 15-09-2020

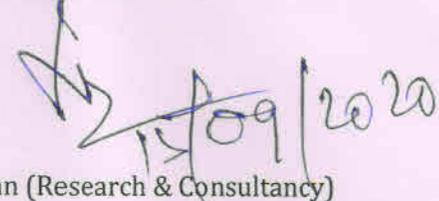
सूचना / NOTICE

All the PhD students admitted during the session July to Dec 2020 are hereby instructed to submit a maximum of FIVE options for broad areas of research as per the enclosed format (Annexure-II) through **email to their respective HoDs** and also a copy to director@nits.ac.in and deanrc@nits.ac.in within **17th Sep, 2020**. It should be noted that the students have to fill all the five options of Broad Area of Research and the name of the faculty should not be repeated.

The area of research must be as per the Annexure-I as enclosed.

The e_mail ids of the respective Heads are as follows:

Sl No.	Department	Email id of HoDs
1.	Civil Engineering	hod@civil.nits.ac.in
2.	Mechanical Engineering	hod@mech.nits.ac.in
3.	Electrical Engineering	hod@ee.nits.ac.in
4.	Electronics and Communication Engineering	hod@ece.nits.ac.in
5.	Computer Science and Engineering	hod@cse.nits.ac.in
6.	Electronics and Instrumentation Engineering	hod@ei.nits.ac.in
7.	Humanities and Social Sciences	hod@hum.nits.ac.in
8.	Mathematics	hod@math.nits.ac.in
9.	Chemistry	hod@che.nits.ac.in
10.	Physics	hod@phy.nits.ac.in
11.	Management Studies	hod@mba.nits.ac.in


अध्यक्ष (शोध एवं परामर्श) / Dean (Research & Consultancy)

Copy forwarded for information and action where necessary, to:

1. Director, NIT Silchar, for his kind information.
2. All Heads for information.
3. Dr. Ripon Patgiri, Assistant Professor, Department of Computer Science & Engineering with a request to upload the same in the Institute website.

Broad Area of Research**Name of the Department: Civil Engineering**

Sl No.	Name of the Faculty	Designation	Area of Research
1.	Prof. S. Choudhury	Professor	Performance based seismic design
2.	Prof. Ashim Kanti Dey	Professor	Geotechnical Engineering
3.	Prof. P.S. Choudhury	Professor	River flow modeling
4.	Prof. D. Chakraborty	Professor	Hydrology, Water Resources Engineering , Optimization methods
5.	Prof. A.I. Laskar	Professor	Concrete Technology & Structural Engineering
6.	Prof. M. Ali Ahmed	Professor	Urban / Regional Transportation planning, Traffic Engineering, Infrastructure Planning
7.	Prof. A.K. Barbhuiya	Professor	Sediment transport / River Mechanics
8.	Prof. Upendra Kumar	Professor	Environmental Engineering , Water & Wastewater Engineering
9.	Dr. Tauhidur Rahman	Associate Professor	Structural Engineering/Earthquake engineering
10.	Dr. Parthajit Roy	Associate Professor	River flow modeling
11.	Dr. Nirmali Borthakur	Assistant Professor	Shallow foundation, deep foundation, machine foundation, soil dynamics, soil stabilization
12.	Dr. Parbin Sultana	Assistant Professor	Application of probability and reliability theory in geotechnical engineering
13.	Dr. Briti Sundar Sil	Assistant Professor	Surface Water Hydrology, Sediment Transport, Climate change, River Modeling
14.	Dr. Arjun Sil	Assistant Professor	Earthquake Engineering
15.	Dr. N. Debnath	Assistant Professor	Structural Health Monitoring and Vibration Control
16.	Dr. Manowar Hussain	Assistant Professor	Ground improvement and Geosynthetics
17.	Dr. MLV Prasad	Assistant Professor	Construction Materials& Structural Engineering
18.	Dr. Debjit Bhowmik	Assistant Professor	Dynamics of Soils and Foundations, Pile foundation and Ground Improvement Techniques
19.	Dr. Kh. L. Singh	Assistant Professor	"Transportation Engineering (Pavement Materials, Characterization and Rheological Properties of Bituminous Binder)"
20.	Dr. Dillip Kumar Ghose	Assistant Professor	Soft computing techniques and applications to hydrology & hydraulics. Climate Change impact on water resources.
21.	Dr. Susmita Ghosh	Assistant Professor	Water Resource Engineering , hydrological modeling, groundwater Engineering , Climate change impact in DRF
22.	Dr. Bijan Kumar Roy	Assistant Professor	Passive vibration control of structures, reliability analysis of structures, robust design

			optimization of structures under uncertainty
23.	Dr. Prashanth J	Assistant Professor	Coastal Engineering and Concrete Technology
24.	Dr. Subhrajit. Dutta	Assistant Professor	Structural Engineering., Structural reliability and risk
25.	Dr. Amit Kumar Das	Assistant Professor	Geotechnical Engineering (Ground Improvement, soil-Structure Interaction, Pavement Geotechniques)
26.	Dr. Suprava Jena	Assistant Professor	Transportation Engineering. (Traffic Engineering)
27.	Dr. Ambika Kuity	Assistant Professor	Pavement Engineering
28.	Dr. Olympa Baro	Assistant Professor	Geotechnical Engineering / Earthquake Engineering
29.	Dr. Atanu Sahu	Assistant Professor	Vibroacoustics, Structural Dynamics and vibration control, Active Structural Acoustic Control (ASAC)
30.	Dr. Kulkarni Vihangraj	Assistant Professor	Environmental Engineering, Waste Management, Water and Wastewater Engineering

Name of the Department: Mechanical Engineering

Sl. No.	Name of the Faculty	Designation	Area of Research
1.	Prof. K.M. Pandey	Professor	Renewable Energy, Aerodynamics, Combustion
2.	Prof. R.D. Misra	Professor	Boiling heat transfer, Refrigeration & Air Conditioning
3.	Prof. P. K. Patowari	Professor	Advanced Manufacturing Processes, Micro-Machining
4.	Dr. L. Roy	Assistant Professor	Tribology of Bearings
5.	Dr. A. Biswas	Assistant Professor	Vertical Axis Wind Turbine, Solar tri-generation, hybrid renewable energy system
6.	Dr. S. Debbarma	Assistant professor	IC Engine, Alternative fuel
7.	Dr. D. Bhanja	Assistant Professor	Analytical Heat Transfer (Extended surface), Heat and Mass transfer, Bio Heat transfer, Micro-scale fluid flow and heat transfer, Electronic cooling, Porous Media, Boiling, PCM, Renewable energy, CFD, Thermodynamic cycles, Optimization
8.	Dr. S. Bhowmik	Assistant Professor	Composite Materials, Optimization techniques in Renewable Energy
9.	Dr. S. Nath	Assistant Professor	Instability analysis, Droplet dynamics and atomization, CFD, Analytical Heat Transfer, Microfluidics and Micro-scale heat transfer, Bio Heat transfer, Wettability, Electronic cooling, Porous Media, PCM, Solar collector, Optimization
10.	Dr. S. Pati	Assistant Professor	Microfluidics, Natural and mixed convection, Droplet dynamics
11.	Dr. P. D. Roy	Assistant Professor	CFD Simulation, Validated by Experimental and Analytical work, Design of Underwater Hydraulic Machine (Turbine, Pump), Ocean Renewable Energy, Design & Development of Wave Energy Converter, Ocean Thermal Energy Conversion (OTEC), Solar Energy
12.	Dr. A. B Deoghare	Assistant Professor	Nanotechnology, Bioscience, Additive Manufacturing (3D Printing), Composite Materials, Medical Devices, Agriculture Devices, Bionic -Robot

Sl. No.	Name of the Faculty	Designation	Area of Research
13.	Dr. P. R. Randive	Assistant Professor	Mesoscopic Modelling of Transport Phenomena in Multi phase flows, multiphase flow, combustion, Energy storage and conversion (Batteries, fuel cells), Scram jet Engine, Natural and Mixed Convection Flows, Porous media flows
14.	Dr. Biplab Das	Assistant Professor	Vortex generator, heat transfer, Solar Thermal system, Nano fuel, Nano coating, Energy storage, Phase change material
15.	Dr. S. Dey	Assistant Professor	Tribology of Bearing - A Robust Optimization and Reliability based approach; Artificial intelligence based Mechanical Design and Manufacturing; Machining Learning based Additive manufacturing /3-D Printing / Micro-machining; Molecular Dynamics with multi-scale analysis; Computational Mechanics and Modelling - An Uncertainty Quantification / Stochastic / Finite element approach; Composites, Functionally Graded and Metamaterial Structures - An Artificial intelligence based Structural Dynamics (Vibration and impact) approach
16.	Dr. C. K. Sahoo	Assistant Professor	Hard Surface coating, TIG cladding, Arc based surface modification processes, Arc based additive manufacturing, Laser Material Processing
17.	Dr. A. Paul	Assistant Professor	IC Engine Combustion, Fuel Synthesis., Pollutant formation mechanism, Emission after treatment
18.	Dr. A. Bisoi	Assistant Professor	Dynamics and Control of Machinery
19.	Dr. S. Sharma	Assistant Professor	Fabrication and Characterization of Advanced Materials for welding and corrosion applications, Materials and their structures for N/MEMS applications, Nano composite materials and their applications
20.	Dr. R. N. Gupta	Assistant Professor	Tribology, Nanolubricant, Bio-inspired materials and Biolubrication, Composite materials, Surface Engineering, Coating Technology.
21.	Dr. S. Kar	Assistant Professor	Surface coatings, corrosion study, wear study, surface texturing, surface finishing, material characterization, surface cladding

Name of the Department: Electrical Engineering

Sl No	Name of the faculty	Designation	Area of research
1.	Prof. Nidul Sinha	Professor	Brainwaves analysis, intelligent instrumentation
2.	Prof. Binoy Krishna Roy	Professor	Linear and nonlinear control systems, Industrial automation (IA), Application of image processing in IA, Control in micro-grids and energy management, Model predictive control, Network controlled systems, Nonlinear dynamics and chaos, Fault detection, diagnosis and accommodation in dynamical systems. Control and applications of underwater vehicles, Data science and deep learning for energy storage systems.
3.	Prof. Saurabh Chaudhury	Professor	Low Power VLSI Design, Semiconductor Devices and Modelling, Embedded Systems, Nanoelectronics and Nanomaterials, Image Processing and Applications
4.	Prof. Nalin Behari Dev Choudhury	Professor	Power system reliability, Smart grid, Deregulated Power system.
5.	Dr. Jyoti Prakash Mishra	Associate Professor	Microgrid Control (Grid Interactive/ Autonomous); Power Electronics Converter Applications to Renewable Energy System (Wind, SPV, Hybrid) Control (Grid Interactive/

Sl No	Name of the faculty	Designation	Area of research
			Islanded); Power Quality Issues and Control; Power Converters for Electric Vehicles Applications; AC Drives Control
6.	Dr. Arup Kumar Goswami	Associate Professor	Power Quality and Renewable Energy, Power System Planning and Reliability, Energy Management and Smart Grid, Electric Vehicle and Electricity Markets. Machine Learning Applications to Power Systems.
7.	Dr. Lalit Chandra Saikia	Associate Professor	Power system operation and control: , Automatic generation control, Microgrid control, Power quality, Soft computing application in power system,
8.	Dr. Tanmoy Malakar	Assistant Professor	Power system Deregulation, Micro-Grid operation, Renewable Energy, Smart Grid and Energy Pricing
9.	Dr. Dulal Chandra Das	Assistant Professor	Demand side management, renewable energy technologies (wind, solar PV, fuel cell, solar thermal system), application of soft computing techniques in Microgrid and hybrid power system for their operation and control.
10.	Dr. Chayan Bhattacharjee	Assistant Professor	Power quality and power management in Microgrid
11.	Dr. Prasanta Roy	Assistant Professor	Control Systems: Quantitative feedback theory, Fractional order control systems, Multivariable control systems, Sliding mode control, Control of Drone, control of waste water treatment process, Industrial automation etc.
12.	Dr. Nirmala Soren	Assistant Professor	Power System Planning. Renewable energy such as Bio energy, Solar Energy, Demand side Management, Solid Waste Management.
13.	Dr. Rajeeb Dey	Assistant Professor	Biomedical Engg., Power System Control, Robust Control, Time-Delay Control, AI and Machine learning application in Control, Estimation theory and Data Analytics.
14.	Dr. Raj Kumar Biswas	Assistant Professor	Control system, Application of fractional derivatives, Variable order dynamics, Optimal control
15.	Dr. Saheli Ray	Assistant Professor	Power system, Reliability of Power System, Microgrid Operation and Economics, Power System Optimization, Distributed Generation.
16.	Dr. Amritesh Kumar	Assistant Professor	Power converters/inverters and its application in renewable energy sources, Grid connected photovoltaic system, Multilevel systems, Power quality issues, AC-DC microgrids, Microgrid control, Solid state transformer, Multi port converter and Electric vehicle.
17.	Dr. D. Koteswara Raju	Assistant Professor	Power system operation, protection and control, Microgrids, Smart Grids and Integration of Renewable Energy sources.
18.	Dr. Partha Kayal	Assistant Professor	Optimization of Distributed Energy Resources, Impacts of Energy Storage and Electric Vehicles on Distribution Network, Reliability and Power Quality Issues, Statistical Modeling and Forecasting of Energy, Reconfiguration and Resiliency in Power Grids
19.	Dr. Nabanita Adhikary	Assistant Professor	Control system
20.	Dr. Tapan Pradhan	Assistant Professor	Machine Learning , Signal Processing, Image Processing, Embedded System, Numerical Linear Algebra
21.	Dr. Avadh Pati	Assistant Professor	Control engineering, Maglev systems and its applications, Network Control System, Model order reduction, Internal model control, Conventional and higher-order sliding mode control, Optimization techniques
22.	Dr. Jiwanjot Singh	Assistant Professor	Power electronics converters and their control, Power Quality, Flexible AC Transmission Systems, Renewable

Sl No	Name of the faculty	Designation	Area of research
			Energy Systems, Electric Vehicle converters
23.	Dr. Asha Rani M. A	Assistant Professor	Grid Interfacing and Control of Renewable Energy Systems, Control of Wind Generators, Power Quality, Micro Grid, Power electronics
24.	Dr. Sreejith. S	Assistant Professor	Power Electronics application to Power Systems, Electric Vehicles, Smart Grid, FACTS devices, Optimization techniques, Multilevel Inverters, Renewable Energy sources.
25.	Dr. Risha Mal	Assistant Professor	Thermoelectrics, Renewable Energy Systems, Battery heat management system, Rural Energy Systems, Waste to energy conversion Systems. Feature extraction based Machine learning and AI algorithm for IOT system, IR thermography.
26.	Dr. Swapna Mansani	Assistant Professor	Distribution system

Name of the Department: Electronics and Communication Engineering

SL. No.	Name of Faculty	Designation	Area of Specialization
1	Prof. F. A. Talukdar	Professor (HAG)	Signal processing, power electronics and Analog VLSI
2	Prof. S. Baishya	Professor (HAG)	MOS physics and modeling, Analog circuits, and MEMS
3	Prof. P. K. Paul	Associate Professor	Analog and Mixed Style VLSI Design, Algorithms to VLSI Architectures
4	Dr. Madhuchanda Choudhury	Associate Professor	Synthesis of nano particle and Application of Nanotechnology, Machine learning, Soft Computing Technique
5	Dr. K. L. Baishnab	Associate Professor	Analog and Mixed VLSI, Algorithms to VLSI Architectures, Materials for Solar cells
6	Dr. R. H. Laskar	Associate Professor	Speech Processing, Image and Video Processing, Bio-medical Signal and Image Processing, Machine Learning, Soft Computing Techniques, Communication Engineering and the other areas related to Signal Processing.
7	Dr. (Ms.) B. B. Shome	Associate Professor	Semiconductor device and Modelling, Biosensor
8	Dr. Wasim Arif	Assistant Professor	Wireless Communication, Cognitive Radio, UAV based Communication and networking in C-RAN, Resource Allocation in 5G and B5G , Energy Harvesting protocols, Network Slicing, Caching and Splitting of network function in 5G, machine learning in 5G, IoT internetworking and antenna design in 5G
9	Dr. Koushik Guha	Assistant Professor	MEMS/NEMS, RF MEMS, Bio-MEMS, Optical MEMS, MEMS Sensors, MEMS Energy Harvesting, Analog VLSI, Optimizations.
10	Dr. T. R. Lenka	Assistant Professor	Nanoelectronics: Compact Modeling of HEMT; Nanotechnology: III-V Nanowire LED; Energy Harvesting: Perovskite Solar Photovoltaics and RF MEMS; VLSI Design
11	Dr. A. Hossain	Assistant Professor	Wireless Communications, Satellite Communications, Wireless Sensor Networks,

SL. No.	Name of Faculty	Designation	Area of Specialization
			Communication Systems, Millimetre Wave Communications, 5G Wireless Communications, Wireless Communications beyond 100 GHz towards 6G.
12	Dr. Ramkumar Karsh	Assistant Professor	Image Processing, Biomedical Image processing, Multimedia authentication, Machine learning and pattern recognition.
13	Dr. Ganesh Prasad	Assistant Professor	Digital Communication, Information Theory and Coding, Signal and System, Satellite Communication, Mobile Communication and Wireless Networks, Cooperative Wireless Communications, Underwater Networks, Free Space Optical Communications and Green Communications, Massive MIMO, Cooperative MIMO, NOMA, Wireless Sensor Networks, Power Line Communications, Smart Grid, Cognitive Radios, IoT, Signal Processing for Communication, Machine Learning, Deep Machine Learning, Artificial Intelligence, Convex Optimization, 5G Networks, Next Generation Wireless Networks, UAV-assisted Networks
14	Dr. Taimoor Khan	Assistant Professor	RF Energy Harvesting Systems, Dielectric Resonators and Applications, EBG and FSS Structures, Antennas for 5G Wireless Communications, Computational Intelligence Applications in Microwave and Millimeter Wave Engineering
15	Dr. Banani Basu	Assistant Professor	Machine Learning, Antenna Design, Metamaterial, WBAN, Flexible Antennas, Antenna Array Optimization
16	Dr. S. K. Tripathy	Assistant Professor	VLSI Testing and verification, Nano-electronics, Perovskite Solar Cell, Renewable Energy, Li-Ion Battery
17	Dr. Arnab Nandi	Assistant Professor	Resonators for RF Applications, Metamaterial-Inspired Structures for Antenna Application, Cross-Layer Issues in Wireless Sensor Networks, Soft Computing Techniques in WSNs, Deep Learning
18	Dr Ujjal Chakraborty	Assistant Professor	Wearable antenna, MIMO antenna, Metamaterial antenna, Semiconductor Device RF analysis and Modelling.
19	Dr. Chandrajit Choudhury	Assistant Professor	Computer Vision, Image Processing, Machine Learning / Deep Learning applications in image processing and computer vision.
20	Dr. Robin Khosla	Assistant Professor	Nanoelectronics: High-K based CMOS Logic and Non-Volatile Memory Devices (Charge Trap Flash Memories, Ferroelectric RAM and Resistive RAM), Negative Capacitance Transistors, 2D Materials, High mobility Group-IV Ge/GeSn based epitaxial devices, Organic Electronic Devices and Photodetectors; Physical/Chemical Vapor Depositions (CVD/PVD), Thin Films, Characterizations (Material and Electrical).
21	Dr. P. Pattanayak	Assistant Professor	5G Communication Techniques, Wireless Communications, Wireless Communication Systems/Networks (Cognitive Radio Networks, Wireless Sensor Networks, Cooperative

SL. No.	Name of Faculty	Designation	Area of Specialization
			Communications), Soft Computing Techniques, Smart Grid Communications, Energy efficient \ Green Communications, Massive MIMO Communications, Millimetre Wave Communications, Cooperative MIMO Communications, NOMA, MIMO Communications, MIMO-OFDM Communications, IoT, Signal Processing for Communications, Machine Learning/Deep Learning for Wireless Communications, Antenna Communications, Efficient scheduling of wireless resources, and various aspects of all other recent forms of communications.
22	Dr. R. Murugan	Assistant Professor	Digital Image Processing, Medical Imaging, Digital Signal Processing, Embedded Systems, Machine Learning and Deep Learning.
23	Dr.Kavicharan Mummaneni	Assistant Professor	Semiconductor device and Modelling, VLSI Interconnects, Digital VLSI design, Sensors, Stretchable electronics, Machine learning for physical design.
24	Dr. Pukhrambam Puspa Devi	Assistant Professor	Optical Fibre Communication, Opto-Electronic Devices, III-V Semiconductors, Photonic Integrated Circuits, Biosensors.
25	Dr. Gaurav Singh Bhagel	Assistant Professor	RF MEMS, Machine Learning for Microwave & mm-Wave Devices, Microwave Imaging, RADAR Signal Processing, Sensors, MIMO Antenna System, Metamaterials for mm-wave Structures, Semiconductor Devices for RF & mm-wave applications.
26	Dr. M. V. Swati	Assistant Professor	Active and Passive Microwave Devices, Microwave Imaging, Smart Antenna Systems, Cyber Security, RF MEMS.
27	Dr. Tripti Goel	Assistant Professor	Medical Image Processing, Digital Image Processing, Machine Learning and Deep Learning, Pattern Recognition, Optimization Techniques.
28	Dr. D. S. Gurjar	Assistant Professor	Wireless Communications, Wireless Sensor Networks, MIMO, Physical Layer Security, RF Energy Harvesting, Cooperative Communications, Cognitive Radio Networks, Signal Processing for Communications, 5G Techniques
29	Dr. Bijit Choudhury	Assistant Professor	Microelectronics, Semiconductor Device

Name of the Department: Computer Science and Engineering

Sl. No	Name of the Faculty	Designation	Area of Research
1	Dr. Ujwala Baruah	Assistant Professor	Signal Processing with applications in Speech Processing, Image/Video Processing and Text Processing.
2	Dr. Naresh Babu Muppalaneni	Assistant Professor	Machine Learning, Cryptography
3	Dr. Partha Pakray	Assistant Professor	Natural Language Processing

4	Dr. L. Dolendro Singh	Assistant Professor	Cryptography, Watermarking, Steganography, Image compression
5	Dr. Badal Soni	Assistant Professor	Image Processing, Machine Learning
6	Dr. Biswajit Purkayastha	Associate Professor	Image Processing, Machine Learning
7	Dr. Suganya Devi K	Assistant Professor	Image Processing, Machine Learning, Medical imaging, Video processing
8	Dr. Shymapada Mukherjee	Assistant Professor	Machine learning Application on VLSI Physical Design Automation/ Hardware Security/ Theoretical Computer Science/FPGA Applications/Internet of Things/ NLP (Text to Image)
9	Dr. Ripon Patgiri	Assistant Professor	Computer Network and Big Data
10	Dr. Anupam Biswas	Assistant Professor	Social Network Analysis, Machine learning and Deep learning, Evolutionary computation, Multimodal Data processing
11	Dr. Malaya D. Borah	Assistant Professor	Blockchain Technology, Data mining, Machine Learning
12	Dr. Anish Kr. Saha	Assistant Professor	Quantum computing
13	Dr. Saroj Kr. Biswas	Assistant Professor	Machine Learning (tools/techniques) and its application in different domains (drug discovery, medical diagnosis, image processing, financial application etc.)
14	Dr. Pinki Roy	Assistant Professor	Speech processing including language Identification, Audio visual data processing, Health informatics including disease prediction like cancer, Diabetes and Machine Learning

Name of the Department: Electronics and Instrumentation Engineering

Sl. No.	Name of Faculty	Designation	Area of Research
1.	Dr. S. H. Laskar	Associate Professor	1. Sensors, transducers & advanced sensor signal processing. Smart sensors and IoT applications. 2. Biomedical instrumentation & Signal processing specially based on EEG, EMG & ECG and their applications in AI. Brain Computer Interfacing (BCI) applications and challenges. 3. Biosensors & Biometrics. 4. Instrumentation: Virtual, Industrial and Intelligent Instrumentation. 5. Vibration & seismic motion sensing and measurements.

Sl. No.	Name of Faculty	Designation	Area of Research
2.	Dr. R. Dasgupta	Assistant Professor	1. Electrically assisted transdermal drug delivery, simulation & experimental. 2. Artificial intelligence for medical diagnostic applications. 3. Electrode development for energy storage applications.
3.	Dr. J. Hazarika	Assistant Professor	1. Biomedical signal processing 2. Neuroscience 3. Machine learning algorithms 4. Digital Image processing
4.	Dr. Sudarshan Sahoo	Assistant Professor	1. Condition monitoring and fault diagnosis using advanced signal processing techniques. 2. Signal processing. 3. Biomedical signal processing. 4. Intelligent & Industrial instrumentation. 5. Application of machine learning and artificial intelligence
5.	Dr. Munmun Khanra	Assistant Professor	Modelling, Estimation, and Control of Energy Storage, Renewable Energy, and Fractional Order Systems
6.	Dr. A. K. Sunaniya	Assistant Professor	Semiconductor Devices, VLSI Design, Solar Cells, Image Processing
7.	Dr. R. Hazra	Assistant Professor	1. 5G communication:D2D communication, mmWave communication, energy Harvesting issues in 5G communication, 2. Image Processing. 3. Signal Processing and its application in BCI.
8.	Dr. Koina Mukerjee	Assistant Professor	Robotics, Control Theory, Control of Autonomous Under Water vehicles.
9.	Dr. S. K. Pandey	Assistant Professor	1. Emerging memories with artificial intelligence (AI) and neuromorphic computing applications 2. Non-volatile memory technologies (PCM, RRAM): Materials, Device Fabrication & Characterization 3. Nanoelectronics, semiconductor devices and VLSI Technology 4. Fabrication and characterization of thin films for Sensors applications
10.	Dr. Shankar K.	Assistant Professor	1. Biomedical Instrumentation. 2. Objective Pain Measurement. 3. Virtual Reality in Pain Management, Pain Inducer. 4. Human Factors Engineering /Automation. 1. Environmental Instrumentation. 2. Technology for Societal issues.

Sl. No.	Name of Faculty	Designation	Area of Research
11.	Dr. Sudipta Chakraborty	Assistant Professor	1. Linear, Non-linear and Robust control. 2. Control of Renewable Energy systems. 3. Modelling and control of fractional order processes. 4. Decentralized control.
12.	Dr. A. K. Sharma	Assistant Professor	1. Smart nanosensors for biomedical instrumentation. 2. Renewable energy devices & Energy harvesting systems. 3. Air and water quality monitoring systems based on nanosensors. 4. Thin film supercapacitors for electrical vehicles. 5. IOT based health care monitoring systems. 6. Biosensors and biomedical image processing. 7. Simulation of MEMS and NEMS devices
13.	Dr. Vipin C. Paul	Assistant Professor	1. Linear and Nonlinear Control. 2. Robust & Adaptive Control. 3. Lyapunov Stability. 4. Modeling of Dynamical Systems. 5. Linear and Nonlinear Multi-Dimensional Systems, 6. Biological Control Systems.

Name of the Department: Humanities and Social Sciences

Sl No.	Name of the Faculty	Designation	Area of Research
1.	Prof. Gurudas Das	Professor	Development Economics, Industrial trade, Political Economy
2.	Dr. N.B. Singh	Associate Professor	Agricultural Economics, and Rural Development.
3.	Dr. Reena Sanasam	Associate Professor	Women's Writing in India, Post colonial Literature.
4.	Dr. Avishek Ray	Assistant Professor	Literary and cultural studies; media studies

Name of the Department: Mathematics

Sl No.	Name of the Faculty	Designation	Area of Research
1.	Dr. P. Biswas	Assistant Professor	Numerical Analysis, Spectral Element Methods for Partial Differential Equations, C.F.D (Computational Fluid Dynamics), Mathematical Modelling.
2.	Dr. P. K. Gupta	Assistant Professor	Differential equation, Mathematical Modelling.
3.	Dr. B. H. S. Raju	Assistant Professor	Numerical Methods, application to incompressible flow and heat transfer.

4.	Dr. J. Mahanta	Assistant Professor	Fuzzy topology, Fuzzy Set theory and its application.
5.	Dr. G. Ramesh	Assistant Professor	Complex Variables, Approximation of Entire Functions.
6.	Dr. S. Bera	Assistant Professor	Computational Fluid Dynamics: Micro-nano Fluidics Modelling.
7.	Dr. K.N. Das	Assistant Professor	Classical Optimization, Nature-inspired Algorithms, Evolutionary Optimization, Networking Optimization, Multi-objective Optimization.
8.	Dr. P. K. De	Associate Professor	Operations Research, Supply Chain Management, Elastodynamics, Fuzzy optimization, Mathematical Modelling.
9.	Dr. S. Roy	Associate Professor	Fuzzy set theory
10.	Dr. M. Sen	Associate Professor	Inverse eigenvalue problem, Functional integral equation, Integro-differential equation, Fuzzy optimization.

Name of the Department: Chemistry

Sl No	Name of the Faculty	Designation	Area of Research
1	Dr. S S Dhar	Associate professor	Synthesis of nanostructured catalysts based of surface modification of graphene oxide, graphitic carbon nitride and hydroxyapatite and investigation of their potential applications in photochemical and chemical transformation
2	Dr. M A Zaman	Associate professor	Physical Chemistry, Nanoscience and Nanotechnology, Nanocatalysts, Synthesis and characterization of inorganic nanostructured materials (microporouszeolitic and mesoporous materials, clays, layered doubled hydroxides-LDHs, nanosized metals and metal oxides), as catalysts, sorbents or polymer reinforcing nano-additives. Nanomaterials, Greener methodologies for the production of noble metal and metal oxide nano-materials, nano-composites, Application of nanomaterials in various organic transformations, photodegradation of industrially emerging pollutants and water treatment, waste-derived catalysts for various organic transformations and photodegradation of organic compounds, Adsorption/Interfacial Phenomenon, Development of low-cost and synthetic nano-adsorbents for wastewater treatment, Waste plastics recycling, Co-processing of petroleum vacuum residue with plastics and biomass, Cracking or pyrolysis of biomass Polymer composites and nano-composites, Polymers, Desulfurization, Solid waste Management.
3	Dr. P Barman	Associate professor	Green Chemistry, Microwave Synthesis, Bivalent Organosulfur compounds and their Applications, Synthesis of Chiral and Achiral Metal Complexes and their Catalytic and Biological Activity.
4	Dr. Ruma Rano	Assistant Professor	Synthesis and Characterization of Nanomaterials for various applications (such as, Photo-catalysis, Nanoelectronics, Sensors etc.). Recycling and Potential Utilization of Hazardous Industrial Waste Materials
5	Dr. B H Shambharkar	Assistant Professor	Photocatalysis, Dye sensitized solar cells
6	Dr. L Rokhum	Assistant	Organic synthesis, Heterogeneous catalysis,

Sl No	Name of the Faculty	Designation	Area of Research
		Professor	Renewable energy
7	Dr. N S Moyon	Assistant Professor	Studying the photophysical and photochemical processes of organic fluorophores in homogeneous and heterogeneous environments using fluorescence spectroscopy; protein-ligand interaction
8	Dr. B N Ghosh	Assistant Professor	Synthesis, characterization and application of transition metal complexes of nitrogen based heterocyclic ligands; development of chemosensor for anion sensing

Name of the Department: Physics

Sl.No.	Name of the Faculty	Designation	Area of Research
1.	Prof. Asim Roy	Professor	Semiconductor nanostructures, resistive memory devices
2.	Dr. S. K. Barik	Assistant Professor	Ferroelectric materials, multiferroics, structural phase transition in oxide perovskites
3.	Dr. Avijit Chowdhury	Assistant Professor	Resistive memory devices; Semiconductor heterostructures and devices; Polymer nanocomposites;
4.	Dr. P. Srinivasan	Assistant Professor	Crystal growth, nonlinear optics, nonlinear optical fibers, medical imaging
5.	Dr. Rupak Dutta	Assistant Professor	Theoretical high energy physics
6.	Dr. Ranjith G. Nair	Assistant Professor	Solar energy materials, solar photocatalysis, solar photovoltaics
7.	Dr. Subhasis Panda	Assistant Professor	Condensed matter physics theory, DFT study of perovskite solar cell, topological insulators
8.	Dr. S. R. Mohapatra	Assistant Professor	Experimental condensed matter physics, Energy storage materials and devices, Nanoionics based resistive switching memory

Name of the Department: Management Studies

Sl.No.	Name of the Faculty	Designation	Area of Research
1	Dr. Ashim Kumar Das	Assistant Professor	Financial Accounting, Entrepreneurship and Small Business
2	Dr. Soma Panja	Assistant Professor	Security Analysis and Portfolio Management, Behavioral Finance and Financial Accounting
3	Dr. Binoti Patro	Assistant Professor	Corporate Governance, Financial Accounting, Sustainable Finance and Financial Analytics
4	Dr. Saurabh Verma	Assistant Professor	Consumer psychology, Organizational Behavior, Intellectual Property Right and Marketing
5	Dr. Rama Koteswara Rao Kondasani	Assistant Professor	Marketing
6	Dr. Tanaya Nayak	Assistant Professor	Human Resource and Organizational Behavior

Option for Broad Area of research

Name of the candidate:

Selected in the Department:

I am interested in the following Broad Area of Research as per my preference based on notification dated 15th Sep, 2020.

Option	Name of the Faculty (No repetition)	Area of Research (as per Annexure-I)	E_mail consent of the faculty
1			
2			
3			
4			
5			

I am interested to work in any of the above mentioned area of research.

Signature of the candidate

Date: _____

Note:

1. All five options, as above, must be filled up.
2. Same Faculty name should not be repeated.
3. The final allocation of the Supervisor to a selected candidate will depend on the Institution.