

# *Department of Architecture*

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## About the department

Year of Establishment: 1980

Number of Faculty : 16

### Courses offered

UG: B.Arch

PG :

M.Arch

Ph.D (by research)





**Dr. T. SRINIVAS**

**Professor**

Department of Architecture

Email: srivas@nitt.edu

**Research Interests:**

Evaluation of urban open spaces, Safety in the built environment, Human thermal comfort, Energy efficient and Sustainable built environment

**Facilities/Resources available for Industry & Educational consultancy:**

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**Dr. G. SUBBAIYAN**

**Professor**

Department of Architecture

Email: subbaiah@nitt.edu

**Research Interests:**

Fear of crime and built environment, Architectural lightening, Indoor environmental quality, Energy efficient buildings, City planning

**Facilities/Resources available for Industry & Educational consultancy:**

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**Ar. BELLATRIX VALDARIS**

**Associate Professor**

Department of Architecture

Email: bella@nitt.edu

**Research Interests:**

History of Architecture, Graphic design, Architectural design

**Facilities/Resources available for Industry & Educational consultancy:**



**Dr. A. MEENATCHI SUNDARAM**

Associate Professor

Department of Architecture

Email: meenatchi@nitt.edu

**Research Interests:**

Landscape planning & design, Environmental planning & design, GIS spatial analysis, Digital image processing

**Facilities/Resources available for Industry & Educational consultancy:**

Landscape design of open spaces inside and outside of the buildings/campus, Outdoor recreational planning and design, Urban landscape developments and design, Landscape Ecological planning for managing/restoring the natural resources, Landscape planning for restoration of damaged / derelict lands, Ecological planning of all large-scale developments to sustain and protect the environment, Ecological afforestation



**Ar. K. PREMKUMAR**

Associate Professor  
Department of Architecture  
Email: kprem@nitt.edu

**Research Interests:**

Architectural Psychology, Architectural Criticism,  
Impact of physical setting on pro social behaviour

**Facilities/Resources available for Industry & Educational consultancy:**



**Ar. S. RAJENDRABABU**

Associate Professor  
Department of Architecture  
Email: rajbabu@nitt.edu

**Research Interests:**

Landscape Architecture

**Facilities/Resources available for Industry & Educational consultancy:**

Landscape of Compute center Octagon and SJB buliding



**Dr. L. SAIKALA**

Associate Professor  
Department of Architecture  
Email: saikala@nitt.edu

**Research Interests:**

Structural analysis, Concrete Technology



**Dr. K. THIRUMARAN**

Associate Professor  
Department of Architecture  
Email: ktm@nitt.edu

**Research Interests:**

Energy, Sustainable Architecture, Urban design, Conservation, Cost effective construction techniques, Building services

**Facilities/Resources available for Industry & Educational consultancy:**



**Ar. Wilson Frederick**

**Associate Professor**  
Department of Architecture  
Email: wilson@nitt.edu

**Research Interests:**

Structural Dynamics, Probabilistic modelling, Uncertainty quantification, Global Sensitivity Analysis



**Dr. P. GOPALAKRISHNAN**

Assistant Professor  
Department of Architecture  
Email: gopal@nitt.edu

**Research Interests:**

Architectural Design, Architectural Graphics, Urban Design, Computer Application in Architecture

**Facilities/Resources available for Industry & Educational consultancy:**

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**Dr. D. KANNAMMA**

Assistant Professor  
Department of Architecture  
Email: kanama@nitt.edu

**Research Interests:**

Urban microclimate, Outdoor thermal comfort, Cultural landscape, Landscape Conservation, Urban landscape architecture, Environmental planning, History of Architecture, Energy efficient landscape design, Remote sensing & GIS

**Facilities/Resources available for Industry & Educational consultancy:**

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**Ar. G. SANGEETHA**

Assistant Professor  
Department of Architecture  
Email: gsangs@nitt.edu

**Research Interests:**

Building of Technology and Construction Management



**Ar. AMALAN SIGMUND KAUSHIK**

Assistant Professor  
Department of Architecture  
Email: kaushik@nitt.edu

**Research Interests:**

LEEP AD (Specialization in building, design and construction), Sustainable architecture, Landscape Architecture

**Facilities/Resources available for Industry & Educational consultancy:**





**Ar. K. PUDHUMA BHARATHI**

Assistant Professor  
Department of Architecture  
Email: pudhuma@nitt.edu

**Research Interests:**

Environment & Sustainability, Earth Architecture, Heritage & Conservation, Health Care, Sustainable sanitation.

**Facilities/Resources available for Industry & Educational consultancy:**

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**Ar. K. BHAGYASRI**

**Assistant Professor**  
Department of Architecture  
Email: bhagyasri@nitt.edu

**Research Interests:**

Interior design and Site management, Urban design & planning, Material studies & Contemporary Architecture



**Ar. SAURABH KUMAR**

Assistant Professor  
Department of Architecture  
Email: saurabhk@nitt.edu

**Research Interests:**

Sustainable Architecture  
Transportation Planning



# *Department of Chemical Engineering*

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## About the department

Year of Establishment: 1967  
Number of Faculty : 19

### Courses offered

**UG:** B.Tech(Chemical Engineering)

**PG :**

**M.Tech** (Chemical Engg)

**M.Tech** (ProcessControl and instrumentation) in collaboration with ICE dept

**Ph.D& M.S** (by research)





**Dr. T.K. RADHAKRISHNAN**

**Professor (HAG)**

Department of Chemical Engineering

Email: radha@nitt.edu

Mobile: +91-9488451677

**Research Interests:**

Process Modeling and Control

Crystallization

Fuel Cells

**Facilities/Resources available for Industry & Educational consultancy:**

Neutralization Control System

Heat Exchanger Control System

Three Tank Hybrid System

Four Tank System

**Consultancy Expertise:**

In the areas of Modeling and Control



**Dr. P. SIVASHANMUGAM**

**Professor (HAG)**

Department of Chemical Engineering

Email: psiva@nitt.edu

Mobile: +91-9442115384

**Research Interests:**

Process Engineering Modelling and control,

Thermal Engineering

Biotechnology and Environmental Engineering

**Facilities/Resources available for Industry & Educational consultancy:**

Aspen plus software, biochemical engineering basic research equipments

**Consultancy Expertise:**Process Engineering, Modeling and simulation, Thermal Engineering, Biotechnology and Environmental Engineering, Wastewater treatment and Bioenergy.



**Dr. J. SARAT CHANDRA BABU**

**Professor (HAG)**

Department of Chemical Engineering

Email: sarat@nitt.edu

Mobile: +91-9486771039

**Research Interests:**

Bulk Powder Processing

Multi-Phase Flow and Reactions

CFD – ANSYS/ LBM

Advanced Nano-Materials for Catalysis

**Facilities/Resources available for Industry & Educational consultancy:**

**Test Rig – SCADA Interface**

Dense-Phase Pneumatic Conveying Characteristics for Design and Analysis

Downer Reactor – Solids Hydrodynamics and High Temperature Processing (up to 900° C)

**Analytical Instruments**

Particle Size Analyzer, Powder Shear Tester, Hyphenated TGA-GC-MS

**Consultancy Expertise:**

Process Design & Analysis – Energy Optimization

Powder Processing – Design of Silo/ Cyclone Separator

Environmental Applications

Modular Micro Process Equipment

Process Systems Analysis – Data Analytics and AI



**Dr. P. KALAIHELVI**

**Professor**

Department of Chemical Engineering

Email: kalai@nitt.edu

Mobile: +91-9486066990

**Research Interests:**

Heat transfer

Environmental Engineering

Separation processes

Process safety

**Facilities/Resources available for Industry & Educational consultancy:**

CVD, Specific heat estimation, Thermal conductivity estimation, Density, Viscosity, Sonicator, Microwave oven, Corrugated plate heat exchanger, Dimpled plate heat exchanger.

**Consultancy Expertise:**

Water quality analysis and thermophysical properties for various types fluid



**Dr. K. M. MEERA SHERIFFA BEGUM**

**Professor**

Department of Chemical Engineering

Email: meera@nitt.edu

Mobile: +91-9600330944

**Research Interests:**

Functional Materials for

Environmental, Biofuels and

medical applications (Drug Delivery)

**Facilities/Resources available for Industry & Educational consultancy:**

Equipment for synthesis of Functional materials

**Consultancy Expertise:** Development of Novel drug carriers, cost effective functional carbon materials for water treatment, functional catalysts for biofuels.

Product characterization testing through analytical facilities



**Dr. G. ARTHANAREESWARAN**

**Professor**

**Group Leader**

Membrane Research Laboratory (MemLab)

Department of Chemical Engineering

Email: arthanareeg@nitt.edu

Mobile: +91-9940361673

**Research Interests:**

Membrane separation

Nanotechnology

Membrane materials development

Wastewater treatment

Fuel cell, CO<sub>2</sub> separation

**Facilities/Resources available for Industry & Educational consultancy:**

Hollow fibre membrane fabrication unit, Flat sheet membrane fabrication unit, Nanofiltration test cell, Dead end ultrafiltration stirred cell, Cross flow ultrafiltration, Gas separation unit, Fuel cell test cell, Merck Spectroquant Pro 600 quote, water test facilities

**Expertise:**

We established Membrane Research Laboratory (MemLab) in 2007 in the Department of Chemical Engineering, NIT-Trichy. This laboratory is known as a regional and international recommendation laboratory for advanced membrane technology and applications. The research laboratory is created to generate new and exciting research projects, to provide a centre for research activities related to membrane-based technology, to build research networks with research universities and industries in India and worldwide.

MemLab represents vehicles for researchers and postgraduate students to undertake multidisciplinary research that are internationally recognized and meeting global standard in the area of membrane technology for water reclamation. All members in MemLab have initiated and lead several joint research projects with local and international universities and industries. The knowledge

and findings from these collaboration research projects have contributed to the research findings that benefit to humankind and environment.

In addition, MemLab members have actively involved in translational research that has a positive impact to the community. This is to ensure that the outcome of the research can be a solution to the national and global issues.

### **Consultancy Expertise:**

Company: Galaxy Research Technologies, Tamil Nadu, India, Jain Irrigation Systems Ltd, Maharashtra, India.

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#### **Dr. M. ARIVAZHAGAN**

##### **Professor**

Department of Chemical Engineering

Email: ariva@nitt.edu

Mobile: +91-9487412478

##### **Research Interests:**

Water and wastewater treatment

Nanotechnology

Multi-phase flow

### **Facilities/Resources available for Industry & Educational consultancy:**

Characterization of water and wastewater including multi-parameter analysis COD, BOD, turbidity, TSS and TDS

Analysis of Surface area (BET)

Heating and drying equipments: Muffle furnaces, Hot air oven, Hot plate, Microwave oven.

Centrifuge, Ozone generator, shaking incubator, Optical microscope, Potentiometric titrator, Bath Sonicator, Rotary evaporator

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**Dr. K. MUTHUKUMAR**

**Professor**

Department of Chemical Engineering

Email: kmkumar@nitt.edu

Mobile: +91-9444951977

**Research Interests:**

Development of methods for the pretreatment of lignocellulosic biomass, energy efficient separation of small molecules, electrochemical/biochemical production of hydrogen, and electrochemical treatment of pollutants.

**Consultancy Expertise:**

- Bioenergy Production
- Waste to wealth
- Intensified and low cost wastewater treatment
- Development of nanoporous materials for complex mixture separation



**Dr. A. ARUNAGIRI**

**Associate Professor**

Department of Chemical Engineering

Email: aagiri@nitt.edu

Mobile: +91-9443808533

**Research Interests:**

Transfer Operations, Biofuel, Low grade thermal energy conversion

**Facilities/Resources available for Industry & Educational consultancy:**

Basic facilities, such as Temperature controlled water bath, Sonicator, Incubator etc are available in the transfer operations lab to carry out the preliminary experiments.

**Consultancy Expertise:** Biofuel and low grade thermal energy conversion.





**Dr. M. MATHESWARAN**

**Associate Professor**

Department of Chemical Engineering

Email: matheswaran@nitt.edu

Mobile: +91-9894524804

**Research Interests:**

Wastewater treatment Electrochemical Engineering

Advance Oxidation Processes

Electrochemical Oxidation

Membrane processes

Desalination

**Facilities/Resources available for Industry & Educational consultancy:**

Gas Chromatography

Electrochemical Workstation

**Consultancy Expertise:**

1. Development of nanomaterials for application of energy and environment.
  2. Process design for wastewater treatment.
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**Dr. M. PERUMALSAMY**

**Associate Professor**

Department of Chemical Engineering

Email: mpsamy@nitt.edu

Mobile: +91-7010441790

**Research Interests:**

Bioseparation Process

Waste water Treatment and

Biofuel

**Facilities/Resources available for Industry & Educational consultancy:**

High Performance Liquid Chromatography



**Dr. K. N. SHEEBA**

**Associate Professor**

Department of Chemical Engineering

Email: sheeba@nitt.edu

Mobile: +91-9952842613

**Research Interests:**

CO<sub>2</sub> reduction, Photocatalysis  
solar energy, biomass pyrolysis

Industrial safety

Wastewater treatment

**Facilities/Resources available for Industry & Educational consultancy:**

Thermogravimetric Analyser, FTIR, Gas Chromatography, Tubular furnace

**Consultancy Expertise:**

Drinking water characterization, Gas testing,

Thermal degradation characteristics of solid samples



**Dr. S. SARAVANAN**

**Associate Professor**

Department of Chemical Engineering

Email: saravanans@nitt.edu

Mobile: +91-9894140206

**Research Interests:**

Biochemical Engineering

Process Optimization

Energy & Environmental Engg.

**Facilities/Resources available for Industry & Educational consultancy:**

Equipments for wastewater treatment, bioprocess engg.



**Dr. T. SIVASANKAR**

**Associate Professor**

Department of Chemical Engineering

Email: ssankar@nitt.edu

Mobile: +91-9994203954

**Research Interests:**

Sonochemical processes.  
Advanced oxidation technologies.  
Environmental pollution control.  
Nanoparticle synthesis.  
Biofuel synthesis

**Facilities/Resources available for Industry & Educational consultancy:**

Sonochemical Intensification laboratory:

Ultrasonic Processor

Hydrodynamic Cavitation Setup

High Performance Liquid Chromatography



**Dr. N. SAMSUDEEN**

**Assistant Professor**

Department of Chemical Engineering

Email: samsudeen@nitt.edu

Mobile: +91-9894182441

**Research Interests:**

Bioelectrochemical system  
Microbial fuel cell technology  
Membrane processes  
Wastewater Desalination

**Facilities/Resources available for Industry & Educational consultancy:**

Fuel Cell Test Station

Multiparameter analyzer

COD Analyzer



**Dr. VIRIVINTI NAGAJYOTHI**

**Assistant Professor**

Department of Chemical Engineering

Email: jyothi@nitt.edu

Mobile: +91-9985329988

**Research Interests:**

Optimization,  
Stochastic optimization,  
Fuzzy logic,  
Process control

**Facilities/Resources available for Industry & Educational consultancy:**

Process optimization and Process control

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**Dr. JYOTI SAHU**

**Assistant Professor**

Department of Chemical Engineering

Email: jyoti@nitt.edu

Mobile: +91-8879439922

**Research Interests:**

Mathematical Modelling, Electrochemistry,  
Thermodynamics of concentrated electrolytes,  
Thermodynamics of phase separation, Adsorption  
phenomenon at liquid-liquid and solid-liquid interface  
in the presence/absence of electrolytes

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**Dr. K. SANKAR**

**Assistant Professor**

Department of Chemical Engineering

Email: shankark@nitt.edu

Mobile: +91- 9932077085

**Research Interests:**

Nonlinear Process Control, PEM fuel cell systems,  
Modeling and simulation of processes,  
Nonconventional energy systems



**Dr. Kartikeya Shukla**

**Assistant Professor**

Department of Chemical Engineering

Email: shukla@nitt.edu

Mobile:

**Research Interests:**

Green chemistry, Catalysis & Reaction  
Engineering, Polyester synthesis

## About the department

Year of Establishment :1971  
Number of Faculty : 11

### Courses offered

PG : M. Sc (Chemistry)

PhD

MS (by research)

# *Department of Chemistry*

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**Dr. L. CINDRELLA**

**Professor HAG**

Department of Chemistry

Email: cind@nitt.edu

Mobile: +91-9443765332

**Research Interests:**

Solar selective coatings, Fuel cell components  
Conducting polymers, Zeolite based materials



**Dr. S. ANANDAN**

**Professor**

Nanomaterials & Solar Energy Conversion Lab

Department of Chemistry

Email: sanand@nitt.edu

Phone: +91-431 -2503639

Mobile: +91-9444052074

**Research Interests:**

Nanomaterials, Sonochemistry, Photocatalysis, Dye-sensitized solar cells, Organic solar cells, Electrochemical & Fluorescence Sensors, Supercapacitors, Fuel Cell catalysts, Biomolecule interaction studies.

**Facilities/Resources available for Industry & Educational consultancy:**

HPLC (Waters, USA)

QE Measurements (IPCE)

Quava Mini Reactor (Kaijo, Japan)

High Frequency Impedance / Electrochemical Analyser with bipotentiostat, ADC 10M, SCAN 250 and Rotating Disc Electrode (Autolab 302 N / FRA2, Netherlands)

Diode Array Spectrophotometer (Analytikjena, Germany)



UV-Visible Spectrophotometer with diffused reflectance attachment (PG-Instruments T90+, UK), FTIR Spectrophotometer (Thermo), Spectrofluorophotometer (Shimadzu, RF5301PC, Singapore)

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**Dr. R. KARVEMBU**

**Professor**

Department of Chemistry

Email: kar@nitt.edu

Mobile: 9442268653

**Research Interests:**

Coordination Chemistry, Organometallics, Catalysis and Bioinorganic Chemistry

**Facilities/Resources available for Industry & Educational consultancy:**

Gas Chromatograph-Mass Spectrometer (GC-MS)

Gas Chromatograph (GC)

High Performance Liquid Chromatograph (HPLC)

FT-IR Spectrophotometer

UV-Visible Spectrophotometer

**Consultancy Expertise:**

Synthesis of coordination and organometallic compounds

Catalysis by organometallic compounds and nanomaterials

Development of anticancer organometallic compounds

Identification of compounds by GC-MS

Measurement of enantiomeric excess by chiral HPLC

Identification of functional groups by FT-IR

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**Dr. S. VELMATHI**

**Professor**

Department of Chemistry

Email: velmathis@nitt.edu

Mobile: +91-9486067404

**Research Interests:**

Organic Synthesis, Sensors, Heterogeneous catalysis, and Microwave mediated synthesis, Polymer synthesis.



**Dr. V.M. BIJU**

**Associate Professor**

Bio and Electroanalytical Chemistry Laboratory

Department of Chemistry

Email: vmbiju@nitt.edu

Mobile: +91-9443843076

**Research Interests:**

Electrochemical Sensors, Ionic Liquids, Solid Phase Extraction and Luminescence technology

**Facilities/Resources available for Industry & Educational consultancy:**

Luminescence Spectrometer

Atomic Absorption Spectrometer

UV-visible Spectrophotometer



**Dr. A. SREEKANTH**

**Associate Professor**

Department of Chemistry

Email: sreekanth@nitt.edu

Mobile: +91-9443843076

**Research Interests:**

Coordination Chemistry, Bio-Inorganic Chemistry, Corrosion Engineering, EPR spectroscopy, Crystallography



**Dr. Ganesh Chandra Nandi**

**Assistant Professor**

Department of Chemistry

Email: ganeshnandi@gmail.com;nandi@nitt.edu

Mobile: +917034458790

**Research Interests:**

Metal catalyzed C-C, C-N, C-S coupling reaction

Heterocyclic chemistry

Synthesis of drug (-like) molecules

**Facilities/Resources available for Industry & Educational consultancy:**

Designing the new routes for bio-active pharmaceuticals and APIs



**Dr. SUNANDAN SARKAR**

**Assistant Professor**

Department of Chemistry

Email: ssarkar@nitt.edu

Mobile: +91-9153484492

**Research Interests:**

Physical Chemistry, Theoretical and Computational Chemistry,  
Electronic Structure of Materials

**Facilities/Resources available for Industry & Educational consultancy:**

Opportunity to learn theoretical and computational chemistry methods and techniques (short term)



**Dr. SARTHAK MANDAL**

**Assistant Professor**

Department of Chemistry

Email: smandal@nitt.edu

Mobile: +91-8158805377

**Research Interests:**

Spectroscopy and Chemical Dynamics

**Facilities/Resources available for Industry & Educational consultancy:**

UV-vis Absorption Spectroscopy;

Steady-state and Time-resolved Fluorescence Spectroscopy



**Dr. JOTHI LAKSHMI NALLASIVAM**

**Assistant Professor**

Department of Chemistry

Email: [jothi@nitt.edu](mailto:jothi@nitt.edu)

Mobile: +91-

**Research Area:**



**Dr. BABY VISWAMBHARAN**

**Assistant Professor**

Department of Chemistry

Email: [babyv@nitt.edu](mailto:babyv@nitt.edu)

Mobile: +91-8547193736

**Research Area:**

# *Department of Civil Engineering*

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## About the department

Year of Establishment :1964

Number of Faculty : 26

### **Courses offered**

**UG** :B.Tech(Civil Engineering )

**PG** :M.Tech

- Transportation Engineering and Management (1974)
- Structural Engineering (1986)
- Environmental Engineering (2006)
- Construction Technology and Management (2014)
- Geotechnical Engineering (2020)







**Dr. G. SWAMINATHAN**

**Professor (HAG)**

Department of Civil Engineering

Email: gs@nitt.edu

**Research Interests:**

Wastewater treatment

Bio-process

Co-processing in SWM

Energy storage

Water distribution networks

**Facilities/Resources available for Industry & Educational consultancy:**

Water and Waste water quality parameter analysis

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**Dr. P. JAYABALAN**

**Professor**

Department of Civil Engineering

Email: pjeya@nitt.edu

Mobile: +91-9443173517

**Research Interests:**

Steel Structures

Stability Analysis of Structures

**Facilities/Resources available for Industry & Educational consultancy:**

Structural Engineering

**Consultancy Expertise:**





**Dr. S. MOSES SANTHAKUMAR**

**Professor (HAG)**

Department of Civil Engineering

Email: moses@nitt.edu

Mobile: +91-9842450011

**Research Interests:**

CAD in Transportation Engineering

Transportation Planning

Computer Simulation

GIS & GPS

Intelligent Transport Systems

**Facilities/Resources available for Industry & Educational consultancy:**

Transportation Engineering

Intelligent Transport Systems

**Consultancy Expertise:**

- Proof-checking of NH234, NH49 Extn, NH226, NH49, NH67 and NH210
- Road Safety Audit of NH47, NH67, NH210 and Madurai Ring Road
- PMGSY Road Projects
- Smart City Projects
- Intelligent Transport Systems
- Coir Geotextiles
- Bituminous Mix Design for the Automotive Test Track works of NATRiP and other

Highway and Airport Pavements

- Benkelman Beam Deflection studies
- Axle Load Spectrum
- Design of Cement Concrete Pavements for Corporations and Municipalities
- Testing of bitumen, aggregate and soil



**Dr. SAMSON MATHEW**

**Professor**

Department of Civil Engineering

Email: sams@nitt.edu

Mobile: +91-9443176759

**Research Interests:**

Remote sensing and GIS

Pavement management system

Landuse planning

**Facilities/Resources available for Industry & Educational consultancy:**

Transport Planning

Pavement Design



**Dr. K. BASKAR**

**Professor**

Department of Civil Engineering

Email: kbaskar@nitt.edu

Mobile: +91-9790180736

**Research Interests:**

Steel and RCC Elements

Steel-concrete composite

Finite element Modelling and Analysis

**Facilities/Resources available for Industry & Educational consultancy:**

Structural Analysis and Design

Design of Industrial structures

Design of RCC structures

FE Modelling and analysis, Dynamic Measurement System



**Dr. S. T. RAMESH**

**Professor**

Department of Civil Engineering

Email: stramesh@nitt.edu

Mobile: +91-9444211585

**Research Interests:**

Water and wastewater treatment, Water and Air Quality Modeling, Waste Management, Environmental Systems Analysis, Risk Assessment, City Water Planning and Analysis, Environmental Impact Assessment.

**Facilities/Resources available for Industry & Educational consultancy:**

ICP-MS, TOC Analyzer , UV Visible Spectrophotometer, Atomic Absorption Spectrophotometer (graphite furnace), Ion chromatography , Gas Chromatography, Stack monitoring kit, High Volume air sampler, PM10, PM2.5 Analyzer

**Consultancy Expertise:**

Characterization of Drinking water, Characterization of Wastewater, Characterization of Industrial Effluent, Soil Characterization, Sludge Analysis, Waste Characterization, Ultimate and Proximate Analysis, Ambient Air quality survey, Indoor Air quality Monitoring, Stack Monitoring, Noise Monitoring, Environmental Impact Assessment / Environmental Management Plan Study, Risk Analysis and Assessment, Feasibility study, Exploration of Treatment options, Preparation of DPR for municipal solid waste management, water and wastewater treatment plant, Water and Wastewater audit for Industries, Environmental awareness training for industries



**Dr. K. MUTHUKKUMARAN**

**Professor**

Department of Civil Engineering

Email: kmk@nitt.edu

Mobile: +91-9443651836

**Research Interests:**

Soil-Structure Interaction, Pile foundation, Ground Improvement, Marine/Offshore Geotechnical Engg., Soil Dynamics and Earthquake Geotech., Transportation Geotechniques, Environmental Geotechniques, Slope Stability, Field instrumentation and monitoring

**Facilities/Resources available for Industry & Educational consultancy:**

Excellent testing facility for Soils and Rocks (including cyclic triaxial, bender element, consolidation, field resistivity, field seismic survey, GPR, inclinometer, dynamic actuator, SPT, CPT, field vane, CBR, Density, swell pressure and etc.)

**Consultancy Expertise:**

Geotechnical Investigations, Analysis and design of shallow & deep foundations, machine foundations, retaining wall, embankments, slopes, reinforced wall.

Ground improvement, soil stabilization, offshore foundation etc..



**Dr. S. JAYALEKSHMI**

**Associate Professor**

Department of Civil Engineering

Email: jaya@nitt.edu

Mobile: +91-9487575715

**Research Interests:**

Terramechanics, Geosynthetics Geotechnical Engineering  
Slope stability, Laboratory Instrumentation Development, Environmental Geotechnique, Concrete Technology

**Facilities/Resources available for Industry & Educational consultancy:**

All basic tests

**Consultancy Expertise:**

Only research projects shall be taken up.



**Dr. R. GANDHIMATHI**

**Associate Professor**

Department of Civil Engineering

Email: rgmathii@nitt.edu

Mobile: +91-9443448511

**Research Interests:**

Water and Wastewater Treatment  
(Coagulation, Adsorption using low cost adsorbents, Coagulation coupled with adsorption, Electro Chemical Treatment , Electro Chemical Based Advanced Oxidation Process, Bio Treatment)  
Contaminant Transport Modeling(Groundwater modeling, Leachate Transport in groundwater)

**Facilities/Resources available for Industry & Educational consultancy:**

TOC Analyser , UV Visible Spectrophotometer, Atomic Absorption Spectrophotometer, Ion chromatography , Gas Chromatography, Stack monitoring kit, High Volume Sampler, Particulate matter 10, 2.5 and Inorganic air sampler

**Consultancy Expertise:**

Water quality assessment, Wastewater analysis and design of wastewater treatment units for specific industries, Ambient air quality monitoring, Municipal solid waste characterization, Stack monitoring and modeling, Assessment of contamination in soil and solid waste samples.



**Dr. NISHA RADHAKRISHNAN**

**Associate Professor**

Department of Civil Engineering

Email: nisha@nitt.edu

Mobile: +91-9843260869

**Research Interests:**

Global Positioning System, Remote Sensing, Geographic Information System, Surveying, Advanced Surveying Techniques, Urban Planning Assessment

**Facilities/Resources available for Industry & Educational consultancy:**

Advanced Surveying Equipments – Total Station, Digital Level, GPS

Remote Sensing/GIS

Surveying – Theodolite, Levelling etc



**Dr. J. KARTHIKEYAN**

**Associate Professor**

Department of Civil Engineering

Email: jk@nitt.edu

Mobile: +91-9487359908

**Research Interests:**

Concrete Structures

Structural Analysis and Design

High Performance Pre-stressed Concrete Bridges

**Facilities/Resources available for Industry & Educational consultancy:**

Advanced Material Testing

Structural Design and Analysis



**Dr. V. SUNITHA**

**Assistant Professor**

Department of Civil Engineering

Email: sunitha@nitt.edu

Mobile: +91-9443302930

**Research Interests:**

Pavement Materials, Pavement Analysis and Design,  
Pavement Management Systems

**Facilities/Resources available for Industry & Educational consultancy:**

Testing of pavement materials (Soil, Aggregate and Bitumen)

Mix Design of Granular sub-base and Bituminous Mixes

Design of bituminous and cement concrete pavements

Proof checking for Geometric Design of Highways

Pavement Condition Evaluation - Benkelman Beam Deflection studies,  
Roughometer, MERLIN, Skid resistance, etc.

Road Safety Audit





**Dr. R. MANJULA**

**Assistant Professor**

Department of Civil Engineering

Email: [manju@nitt.edu](mailto:manju@nitt.edu)

Mobile: +91-9942305458

**Research Interests:**

Water quality modelling,  
Water balance modelling,  
Wave structure interaction

**Facilities/Resources available for Industry & Educational consultancy:**

Resistivity meter 2D –resistivity imaging and survey

Optimisation of water supply distribution network using WATER GEMS and SEWER GEMS software

Dam break studies using software

Design of hydraulic structures

Wave flume-for wave structure interaction studies



**Dr. DEENDAYAL RATHOD**

**Assistant Professor**

Department of Civil Engineering

Email:

[deendayal@nitt.edu](mailto:deendayal@nitt.edu), [deendayalrathod123@gmail.com](mailto:deendayalrathod123@gmail.com)

Mobile: +91-959-777-1912

**Research Interests:**

Soil Structure Interaction  
Pile Foundations  
Geotechnical Earthquake Engineering  
Offshore Geotechnical Engineering  
Ground Improvement Techniques

**Facilities/Resources available for Industry & Educational consultancy:**

Pile Testing, SPT tests, Plate Load tests etc.

**Consultancy Expertise:**

Site Investigations, Soil Testing, Foundation Design, Building Planning

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**Dr. S. SARAVANAN**

**Assistant Professor**

Department of Civil Engineering

Email: [ssaravanan@nitt.edu](mailto:ssaravanan@nitt.edu)

Mobile: +91-9489104248

**Research Interests:**

Remote sensing & GIS applications, Groundwater assessment and management, Water resource management, Environmental Engineering

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**Mrs. R. ARACHELVI**

**Assistant Professor**

Department of Civil Engineering

Email: [arachelvi@nitt.edu](mailto:arachelvi@nitt.edu)

Mobile: +91-9150005044

**Research Interests:**

Advanced Construction Technology  
Study of Rheological properties and strength studies on coir fibre reinforced cement mortar.

**Facilities/Resources available for Industry & Educational consultancy:**

Basic Material Testing

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**Dr. R. SENTHILKUMAR**

**Assistant Professor**

Department of Civil Engineering

Email: [senthilr@nitt.edu](mailto:senthilr@nitt.edu)

Mobile: +91-9566111484

**Research Interests:**

Steel and Steel-Concrete Composite Structures

Earthquake Resistant Design

Fire Resistance

Material Characterisation (Concrete)

**Facilities/Resources available for Industry & Educational consultancy:**

Testing of beams and columns (Steel, Concrete and Composite

Proof Check – Analysis & Design of Steel, Steel-Concrete Composite and RC Structures

**Facilities:**

Universal testing machine, 5 TON capacity actuator, Loading frame and Ansys, ABAQUS softwares



**Dr. S. MARISAMYNATHAN**

**Assistant Professor**

Department of Civil Engineering

Email: [marisamy@nitt.edu](mailto:marisamy@nitt.edu)

Mobile: +91-9820481495

**Research Interests:**

Road Safety and Accident Analysis

Traffic Operation and Simulation

Transportation Systems and Logistics (Freight)

Driver, Pedestrian and Bicyclist Behaviour Study

**Facilities/Resources available for Industry & Educational consultancy:**

Road safety audit team

Tools to evaluate accident and safety

Traffic Software's - VISSIM, VISWALK

Transportation Planning Software's - CUBE, CUBE CARGO, NLOGIT

Design Software's/Tools – MXROAD, AutoCAD, ARCGIS, QGIS, GPSS, Total Station, Digital Levels



**Dr. JEEVAN JOSEPH**

**Assistant Professor**

Department of Civil Engineering

Email: Jeevan@nitt.edu

Mobile: +91-9619474630

**Research Interests:**

Environmental Geotechnics

Unsaturated Soil Mechanics

Geothermal Energy

Frozen Soil Behaviour

Geotechnical Instrumentation

**Facilities/Resources available for Industry & Educational consultancy:**

Geo material Characterization:

Physical, chemical, mineralogical and morphological

Site Investigation:

SPT, CPT and DCPT

Foundation Design:

Shallow and deep

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**Dr. R. RAGHAVAN**

**Assistant Professor**

Department of Civil Engineering

Email: raghavanr@nitt.edu

Mobile: +91-9940449658

**Research Interests:**

Steel domes

Cold-formed steel

General steel structures

**Facilities/Resources available for Industry & Educational consultancy:**

Steel structural products testing

Steel and general buildings design

Transmission line towers



**Dr. M. PRABHA**

**Assistant Professor**

Department of Civil Engineering

Email: prabham@nitt.edu

**Research Interests:**

Structural performance of pressed concrete systems,  
Mechanical characteristics of construction materials,  
Effect of corrosion on structural performance of  
reinforced concrete structures.



**Dr. U. Mashudha Sulthana**

**Assistant Professor**

Department of Civil Engineering

Email: smas@nitt.edu

**Research Interests:**

Computational Modelling, Structural health monitoring, Steel Structural systems, Steel-concrete composite structures



**Dr. O. Darshana**

**Assistant Professor**

Department of Civil Engineering

Email: darshana@nitt.edu

**Research Interests:**

Modelling user perception, traffic operations, traffic engineering & management and road safety



**Dr. Greegar George**

**Assistant Professor**

Department of Civil Engineering

Email: greegar@nitt.edu

**Research Interests:**

Structural Dynamics, Probabilistic modelling, Uncertainty quantification, Global Sensitivity Analysis



**Dr. Aneesh Mathew**

**Assistant Professor**

Department of Civil Engineering

Email: aneesh@nitt.edu

**Research Interests:**

Water resources engineering, Image processing, Digital elevation models, Remote sensing & GIS in water resources and climate change, Modelling for urban planning applications



**Dr. Kamal Krishna Bera**

**Assistant Professor**

Department of Civil Engineering

Email: kamal@nitt.edu

**Research Interests:**

Structural dynamics, Wind and Earthquake engineering, Structural vibration control, Aerodynamics of cable supported bridges



# *Department of Computer Science and Engineering*

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## About the department

Year of Establishment :1983

Number of Faculty : 21

### Courses offered

UG : B.Tech (CSE)

PG :M.Tech (CSE)

Ph.D& M.S (by research)





**Dr. S. SELVAKUMAR**

**Professor HAG**

Department of Computer Science and Engineering

Email: ssk@nitt.edu

Mobile: +91-9443835520

**Research Interests:**

Group Communication, Networking, Network Security, High Speed Networks, Distributed Computing, Wireless Sensor Networks, Social Networks Security

**Facilities/Resources available for Industry & Educational consultancy:**

Collaborative Directed Basic Research in Smart and Secure Environment (CDBR-SSE) Lab

**HP workstation**

- Intel i7-Processor
- 16 GB RAM
- 1 TB SATA HDD
- GPU with 2 GB

**Consultancy Expertise:**

- Wide Area Campus Network Design
- Local Area Network Design
- Network Security



**Dr. K. ViswanathanIyer**

**Professor**

Department of Computer Science and Engineering

Email: kvi@nitt.edu

**Research Area:**

Algorithms

Data Structures

Data bases

Graph Theory



**Dr. N. RAMASUBRAMANIAN**

**Professor**

Department of Computer Science & Engineering

Email: nrs@nitt.edu

**Research Interests:**

Multicore Computer Architecture, IoT Architectures, Advanced Digital Designs, Processor Design, GPU Computing, Hardware for security systems



**Dr. C. MALA**

**Professor**

Department of Computer Science & Engineering

Email: mala@nitt.edu

**Research Interests:**

Internet of Things, Wireless Sensor Networks, Machine learning, Deep learning, Network Security, Web Services, Image Processing, High Performance computing



**Dr. S. MARY SAIRA BHANU**

**Professor**

Department of Computer Science and Engineering

Email: msb@nitt.edu

Mobile: +91-9442970006

**Research Interests:**

Operating Systems, Distributed Systems, Grid Computing, Cloud and Fog Computing, Network Security

**Facilities/Resources available for Industry & Educational consultancy:**

Cloud Resource Management

Principles of Internetworking

**Consultancy Expertise:**

Curriculum Design, Data management and Cloud security

Data Management

Cloud Security



**Dr. R. LEELAVELUSAMY**

**Professor**

Department of Computer Science and Engineering

Email: leela@nitt.edu

Mobile: +91-

**Research Interests:**

Automata and Formal Languages

Fault Tolerant Computing

Cryptography and Network security

Internet of Things, Digital Forensics

**Facilities/Resources available for Industry & Educational consultancy:**

Wireless networks, Network Security, IoT, Digital Forensics



**Dr. RAJESWARI SRIDHAR**

**Associate Professor**

Department of Computer Science and Engineering

Email: [srajeswari@nitt.edu](mailto:srajeswari@nitt.edu)

Mobile: +91-

**Research Interests:**

NLP, Machine Learning

Cloud Computing

Big Data

Recommender Systems



**Dr. R. MOHAN**

**Assistant Professor**

Department of Computer Science and Engineering

Email: [rmohan@nitt.edu](mailto:rmohan@nitt.edu)

Mobile: +91-

**Research Interests:**

Software Engineering

Operating Systems, Distributed Systems

Data Structures & Algorithms



**Dr. S. JAYA NIRMALA**

**Assistant Professor**

Department of Computer Science and Engineering

Email: [sjaya@nitt.edu](mailto:sjaya@nitt.edu)

**Research Interests:**

Computer Architecture

Microprocessor Systems

Operating System and Cloud Computing



**Dr. KUNWAR SINGH**

**Assistant Professor**

Department of Computer Science and Engineering

Email: kunwar@nitt.edu

Mobile: +91-

**Research Interests:**

Cryptology, Algorithms

Data Structures

Graph Theory



**Dr. E. SIVASANKAR**

**Assistant Professor**

Department of Computer Science and Engineering

Email: sivasankar@nitt.edu

**Research Interests:**

Data Warehousing & Data Mining

Web Technology

Database Management Systems

Big Data Analytics



**Dr. B. NITHYA**

**Assistant Professor**

Department of Computer Science and Engineering

Email: nithya@nitt.edu

Mobile: +91-

**Research Interests:**

Digital System Design

Data Structures

Wireless Networks



**Dr. SHAMEEDHA BEGUM**

**Assistant Professor**

Department of Computer Science and Engineering

Email: shameedha@nitt.edu

Mobile: +91-

**Research Interests:**

Computer System & Architecture, Embedded Systems, Micro processor real time systems



**Dr. A. SANTHANA VIJAYAN**

**Assistant Professor**

Department of Computer Science and Engineering

Email: vijayan@nitt.edu

Mobile: +91-

**Research Interests:**

Semantic web, Web mining, Machine Learning, Ontology Engineering, Web Intelligence, Natural Language processing, Deep Learning, Artificial Intelligene





**Dr. M. SRIDEVI**

**Assistant Professor**

Department of Computer Science and Engineering

Email: msridevi@nitt.edu

Mobile: +91- 98940123610

**Research Interests:**

Image Processing

Computer Graphics

Parallel Processing

Machine and Deep learning

**Consultancy Expertise:**

- In the field of Computer vision applications
- Design and development of parallel algorithms
- Social media analysis
- Traditional and modern Artificial Intelligence (AI) techniques



**Dr. M. BRINDHA**

**Assistant Professor**

Department of Computer Science and Engineering

Email: brindham@nitt.edu

Mobile: +91-

**Research Interests:**

Database Management Systems

Digital Computer Fundamentals

Image Security

**Facilities/Resources available for Industry & Educational consultancy:**

Databases, image security, data processing

Image Encryption Lab



**Dr. K. SITARA**

**Assistant Professor**

Department of Computer Science and Engineering

Email: sitara@nitt.edu

**Research Interests:**

Cyber Forensics, Video Surveillance, Multimedia Forensics



**Dr. R. BALAKRISHNAN**

**Assistant Professor**

Department of Computer Science and Engineering

Email: balakrishnan@nitt.edu

**Research Interests:**

Text steganography, Information security, Network protocols, Android applications, Machine Learning



**Dr. SAI KRISHNA MOTHKU**

**Assistant Professor**

Department of Computer Science and Engineering

Email: saikrishna@nitt.edu

**Research Interests:**

Wireless ad-hoc networks, Wireless sensor networks, Internet of Things



**Dr. KAMALIKA BHATTACHARJEE**

**Assistant Professor**

Department of Computer Science and Engineering

Email: kamalika@nitt.edu

**Research Interests:**

Cellular Automata and Randomness, algorithmic complexity theory



**Dr. CHANDRAMANI CHAUDHARY**

**Assistant Professor**

Department of Computer Science and Engineering

Email: chandramani@nitt.edu

Mobile: +91-9462101856

**Research Interests:**

Multimedia Retrieval, Data Mining, Machine Learning, Information Retrieval, Big Data Analytics, Image retrieval and understanding

# ***Department of Computer Applications***

## About the department

Year of Establishment :1983

Number of Faculty : 14

## **Courses offered**

**PG** :MCA, M.Sc(Comp.Sci), M.Tech (Data Analytics)





**Dr. S. R. BALASUNDARAM**

**Professor**

Department of Computer Applications

Email: [blsundar@nitt.edu](mailto:blsundar@nitt.edu)

Mobile: +91-9994291420

**Research Interests:**

Data Management

Big Data – Placement Strategies

Mobile – Services/Security

Summarization

**Facilities/Resources available for Industry & Educational consultancy:**

e-Learning and HCI Lab.

Data Management (Big Data, Mobile)

Document Summarization

**Consultancy Expertise:**

Data Management

Big Data Analytics

Language Processing

E-Learning/Content Development and Management



**Dr. P.J.A. ALPHONSE**

**Professor**

Department of Computer Applications

Email: [alphonse@nitt.edu](mailto:alphonse@nitt.edu)

Mobile: +91-9942402999

**Research & Consultancy Interests:**

Graph Theory and its Algorithms

Wireless and Ad hoc Networks

Cryptography and Network Security



**Dr. S. NICKOLAS**

**Professor**

Department of Computer Applications

Email: nickolas@nitt.edu; nickolasnitt@gmail.com

Mobile: +91-9443561989

**Research Interests:**

Data Mining,  
Big Data Analytics,  
Machine Learning Techniques

**Facilities/Resources available for Industry & Educational consultancy:**

High Performance Computing Lab  
Machine Learning Techniques  
Knowledge Discovery From Data Bases  
Preprocessing the Data Sets

**Consultancy Expertise:**

Curriculum Design  
Data Base Design and System Development  
Data Mining , Data Analytics



**Dr. MICHAEL AROCK**

**Professor**

Department of Computer Applications

Email: michael.arock@gmail.com

Mobile: +91-9842378952

**Research Interests:**

Parallel Algorithmics  
Bio-informatics  
Nature-inspired Computing+-----60

**Facilities/Resources available for Industry & Educational consultancy:**

Parallel and Bioinformatics lab is there in the Dept.

**Consultancy Expertise:** Machine and Deep Learning Algorithms can be developed for the problems in question and implemented.



**Dr. S. DOMNIC**

**Associate Professor**

Department of Computer Applications

Email: domnic@nitt.edu

Mobile: +91-9994904763

**Research Interests:**

Image & Video Analysis, Data Compression, Deep Learning, Cloud Optimization

**Facilities/Resources available for Industry & Educational consultancy:**

Industrial Radiography Image and Video Analysis, IoT based data analytics and IoT based Image&Video analytics, Face Recognition based Indoor and Outdoor Applications,

**Computing facilities:**

Image &Video Analysis Lab

AI Lab

High End workstations with GPU, High End Servers, High End Desktops

Supercomputer for AI (DGX-1 Server)

**Consultancy Expertise:**

Face Recognition based Indoor and Outdoor Applications, Surveillance Camera solutions, Data Analytics, OCR from Office documents.





**Dr. G. R. GANGADHARAN**

**Associate Professor**

Department of Computer Applications

Email: [ganga@nitt.edu](mailto:ganga@nitt.edu)

Mobile: +91-7799833300

**Research Interests:**

Cloud Computing

Data Center Management

Big Data Analytics

**Facilities/Resources available for Industry & Educational consultancy:**

Data Center Management

Big Data Analytics

Cloud Computing

Management Information Systems



**Dr. B. JANET**

**Assistant Professor**

Department of Computer Applications

Email: [janet@nitt.edu](mailto:janet@nitt.edu)

Mobile: +91-9442648096

**Research Interest:**

Information Processing and Security

**Facilities/Resources available for Industry & Educational consultancy:**

Data Clustering and Analytics models

Indexing, Search and Retrieval algorithms

Security and Threat Analysis

Intelligent Application Development

IOT Application Development

Usage of Open source software

### **Consultancy Expertise:**

Deep Learning model development

Intelligence generation

Security assessment and audit

Data Management and Security

Edge Analytics

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#### **Dr. S. SANGEETHA**

##### **Assistant Professor**

Department of Computer Applications

Email: sangeetha@nitt.edu

Mobile: +91-9442601978

##### **Research Interests:**

Information Extraction

Natural Language Processing

### **Facilities/Resources available for Industry & Educational consultancy:**

Information Extraction from Text Documents

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#### **Dr. R. ESWARI**

##### **Assistant Professor**

Department of Computer Applications

Email: eswari@nitt.edu

Mobile: +91-9486319693

##### **Research Interests:**

Optimization Techniques, multi-objective optimization, soft computing techniques, cloud computing, wireless sensor networks

### **Facilities/Resources available for Industry & Educational consultancy:**

Software development in the field of computational intelligence

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**Dr. U. SRINIVASULU REDDY**

**Assistant Professor**

Department of Computer Applications

Email: usreddy@nitt.edu

Mobile: +91-8438207784

**Research Interests:**

Artificial intelligence

Machine Learning and Deep Learning Techniques

Big Data Analytics; Bio-informatics



**Dr. JITENDRA KUMAR**

**Assistant Professor**

Department of Computer Applications

Email: jitendra@nitt.edu

**Research Interests:**

Cloud computing, Predictive analysis,  
Computational Intelligence, Multi-Objective  
Optimization



**Dr. GHANSHYAM S. BOPCHE**

**Assistant Professor**

Department of Computer Applications

Email: bopche@nitt.edu

**Research Interests:**

Cyber defence, Vulnerability Assessment &  
Penetration Testing, Insider Threats and Digital  
Forensics



**Dr. B. BALAJI**

**Assistant Professor**

Department of Computer Applications

Email: balaji@nitt.edu

**Research Interests:**

Image Processing, Mathematical Imaging, Soft Computing and Deep Learning



**Dr. K. SELVAKUMAR**

**Assistant Professor**

Department of Computer Applications

Email: kselvakumar@nitt.edu

**Research Interests:**

Artificial intelligence  
Machine Learning and Deep Learning  
Techniques, Wireless sensor networks, IoT,  
Web mining, NLP and user personalization



# Department of Electronics and Communication Engineering

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## About the department

Year of Establishment: 1968

Number of Faculty : 23

### Courses offered

UG: B.Tech (ECE)

PG :

M.Tech (Communication System & VLSI system)

Ph.D& M.S (by research)





**Dr. B. VENKATARAMANI**

**Professor (HAG)**

Department of Electronics and Communication  
Engineering

Email: raghavan@nitt.edu

Mobile: +91-9443130663

**Research Interests:**

Computer networks, signal processing



**Dr. G. LAKSHMINARAYANAN**

**Professor**

Department of Electronics and Communication  
Engineering

Email: laksh@nitt.edu

Mobile: +91-9442940144

**Research Interests:**

Digital VLSI Design

**Facilities/Resources available for Industry & Educational consultancy:**

- Spectrum Analyzer-9KHz to 7.5GHz
- WARP V3 Kit, Logic Analyzer
- Virtex 7 FPGA, Virtex II Pro Kit
- Basys 3 Board, Zybo Board
- Xilinx Kintex-7 FPGA Kit, Xilinx Virtex-5 Board, Xilinx Zync FPGA Board
- USRP N210, FPGA DSP Kit, NET FPGA





**Dr. P. MUTHUCHIDAMBARANATHAN**

**Professor**

Department of Electronics and Communication Engineering

Email: muthuc@nitt.edu

Mobile: +91-9442572510

**Research Interests:**

Wireless Communication

Optical Communication.

**Facilities/Resources available for Industry & Educational consultancy:**

Wireless System Design Lab - Research Lab on Wireless System Design aims at wide range of theoretical research, algorithm development, system architectures and testing facilities to meet the industry standards of present and future wireless technologies. The laboratory includes facilities for the real time testing of experimental prototypes as well as computing resources for system design and analysis.



**Dr. M. BHASKAR**

**Professor**

Department of Electronics and Communication Engineering

Email: bhaskar@nitt.edu

Mobile: +91-9443314616

**Research Interests:**

RF VLSI circuit design

On-chip/off-chip antenna design

Biomedical signal processing applications

Embedded VLSI design

**Facilities/Resources available for Industry & Educational consultancy:**

Design, fabrication and testing of low power RF VLSI circuits for short range applications.

Design and fabrication of on-chip/off-chip miniaturized antennas for RF applications.

Development and implementation of Bio-medical signal processing algorithms.

Design and implementation of biomedical processing blocks in FPGA

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**Dr. D. SRIRAM KUMAR**

**Professor**

Department of Electronics and Communication Engineering

Email: [srk@nitt.edu](mailto:srk@nitt.edu)

Mobile: +91-9443494495

**Research Interests:**

Microwave integrated circuits

Optical networks

Smart antennas

Carbon nanotube antennas

Free space optics

Optical & Reconfigurable antennas

Flexible electronics

Photonics

**Facilities/Resources available for Industry & Educational consultancy:**

- Microwave and MIC Laboratory
  - Internet of Things' (IoT) Innovation Centre
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**Dr. P. PALANISAMY**

**Professor**

Department of Electronics and Communication  
Engineering

Email: palan@nitt.edu

Mobile: +91-9486001111

**Research Interests:**

Signal Processing  
Biomedical Image Processing  
Communication Systems

**Facilities/Resources available for Industry & Educational consultancy:**

Design and implementation of biomedical processing blocks in FPGA

Technology Development for Computer Aided Diagnosis

Real-time audio signal processing

Microphone array signal processing



**Dr. B. MALARKODI**

**Associate Professor**

Department of Electronics and Communication  
Engineering

Email: malark@nitt.edu

Mobile: +91-9894768765

**Research Interests:**

Wireless Communication Networks

**Facilities/Resources available for Industry & Educational consultancy:**

Network Simulator is an open-source event-driven simulator designed specifically research in computer network such as routing, transport , application etc.

Classroom training can be offered on simulation projects in the network simulator on wireless sensor network(WSN), VANET, and Mobile adhoc networks.



**Dr. E.S. GOPI**  
**Associate Professor**

Department of Electronics and Communication  
Engineering

Email: [esgopi@nitt.edu](mailto:esgopi@nitt.edu)

Mobile: +91-9500423313

**Research Interests:**

Pattern recognition  
Statistical digital signal processing  
Data analytics  
Computational Intelligence

**Facilities/Resources available for Industry & Educational consultancy:**

Workstations with the relevant softwares

**Consultancy Expertise:**

Formulation of the computational intelligence based techniques (Algorithms) to solve Multi-disciplinary Engineering problems.

**Dr. R.PANDEESWARI**  
**Associate Professor**

Department of Electronics and Communication  
Engineering

Email: [rpands@nitt.edu](mailto:rpands@nitt.edu)



Mobile: +91-9952892216

**Research Interests:**

Microwave  
Antennas  
Metamaterial

**Facilities/Resources available for Industry & Educational consultancy:**

- Antenna Simulation software
- Antenna Prototyping Machine
- Network Analyzer
- Anechoic box



**Dr. R. K. JEYACHITRA**

**Associate Professor**

Department of Electronics and Communication  
Engineering

Email: jeyachitra@nitt.edu

Mobile: +91-9443145540

**Research Interests:**

Microwave/ Millimeter-wave photonics  
Optical Wireless Communication  
Optical Communication  
Information and Communication System

**Facilities/Resources available for Industry & Educational consultancy:**

**Fiber Optic Communication lab** has Newport and Benchmark Fiber Optic Kits, Fiber Optic Light Runner, OPTSIM and Photonics CAD Simulation software, Digital Communication Trainer Kits.

**Consultancy Expertise:**

- Develop the coherent optical communication system for validating the research solutions

- Design the experimental prototype of the optical wireless communication system
- Design and analyze the photonics components and photonics integrated circuits through CAD-based design software



**Dr. G. THAVASI RAJA**

**Assistant Professor**

Department of Electronics and Communication  
Engineering

Email: thavasi@nitt.edu

Mobile: +91-9443485798

**Research Interests:**

Fiber optics (Speciality fibers)

Photonics Communication

**Facilities/Resources available for Industry & Educational consultancy:**

**CAD tools:**

- Comsol -Modelling of Speciality Fiber based devices & Photonic crystal-based devices
- Lumerical FDTD – Numerical design and analysis of high-speed optical waveguide devices
- RsoftOptsim, FullWAVE & Beam PROB–Optical system design, Numerical modelling of Fiber optic sensors and high-speed optical waveguides



**Dr. B. REBEKKA**

**Assistant Professor**

Department of Electronics and Communication  
Engineering

Email: rebekka@nitt.edu

Mobile: +91-9894478823

**Research Interests:**

Wireless communication

Wireless networks

**Facilities/Resources available for Industry & Educational consultancy:**

Working on QoS enhancements in 5G networks



**Mrs. R. THILAGAVATHY**

**Assistant Professor**

Department of Electronics and Communication  
Engineering

Email: thilagavathy@nitt.edu

Mobile: +91-9442614616

**Research Interests:**

Embedded Systems

VLSI System design

Bio-Medical Applications

IOT

**Facilities/Resources available for Industry & Educational consultancy:**

Microprocessor and Microcontroller Lab.

- Intel 8051, Motorola Microcontrollers, MSP430 mixed signal Microcontrollers, ARM Processors like trainer Kits, Keil, Proteus Virtual Modelling software VSM like s/ws.
- Data acquisition cards, DSO, Arbitrary FG, Power Supply, Soldering and De soldering stations, Multi meters, GSM module, Wi Fi kit, Bluetooth module, GPS kit and all types of sensors are available for mini project.





**Dr. V. SUDHA**

**Assistant Professor**

Department of Electronics and Communication Engineering

Email: vsudha@nitt.edu

Mobile: +91-9443608785

**Research Interests:**

Wireless Sensor Networks

Wireless Communication

**Facilities/Resources available for Industry & Educational consultancy:**

Design and Development of protocols and algorithms for wireless sensor based systems using the following simulators

- Network Simulators (NS2 & NS3)
- Matlab.

**Consultancy Expertise:**

Designing of next generation wireless communication systems using the following simulators: (if supported by sponsors)

- Qualnet
- Rivernet Modeler ( Formerly called OPNET Modeler)
- Remcom- Wireless Insite.



**Dr. N. GUNAVATHI**

**Assistant Professor**

Department of Electronics and Communication Engineering

Email: gunavathi@nitt.edu

Mobile: +91-9489536873

**Research Interests:**

Design and analysis of planar antennas

**Facilities/Resources available for Industry & Educational consultancy:**

Design of planar antennas based on the requirements

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**Mrs. R.K. KAVITHA**

**Assistant Professor**

Department of Electronics and Communication  
Engineering

Email: rkkavitha@nitt.edu

Mobile: +91-9944260866

**Research Interests:**

Low power VLSI system Design

Asynchronous Pipelining Techniques

**Facilities/Resources available for Industry & Educational consultancy:**

Design of systems/components/processes

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**Dr. S. DEIVALAKSHMI**

**Assistant Professor**

Department of Electronics and Communication  
Engineering

Email: deiva@nitt.edu

**Research Interests:**

Signal and Image processing

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**Dr. S. S. KARTHIKEYAN**

**Assistant Professor**

Department of Electronics and Communication  
Engineering

Email: sskarthikeyan@nitt.edu

Mobile: +91-8903859762

**Research Interests:**

RF Circuit Design (Active & Passive)

Antenna Design

Application of Microwave for non-destructive testing

**Facilities/Resources available for Industry & Educational consultancy:**

- Design and development of RF Circuit and RF front end design
- Design and development of antennas for various applications such as automotive, IoT, Wireless Sensor networks and wearable devices

Product design with EMC compliance



**Dr. VARUN GOPI**

**Assistant Professor**

Department of ECE

Email: varun@nitt.edu

**Research Interests:**

IoT in healthcare, Signal processing, Medical image processing, Artificial Intelligence, Compressed sensing, Circuits & Systems



**Dr. P. SUDHARSAN**

**Assistant Professor**

Department of ECE

Email: [sudharsan@nitt.edu](mailto:sudharsan@nitt.edu)

Mobile: +91- 9486199640

**Research Interests:**

Machine Learning for wireless communication, Analysis of heterogeneous wireless networks using Stochastic geometry, Image processing, MIMO systems



**Dr. HEMANT KUMAR**

**Assistant Professor**

Department of ECE

Email: [hemant@nitt.edu](mailto:hemant@nitt.edu)

**Research Interests:**

Antennas, Microwave passive circuits, Radar, Microwave/Millimetre-wave imaging



**Dr. P. MAHESWARAN**

**Assistant Professor**

Department of ECE

Email: mahes@nitt.edu

Mobile: +91- 9884111807

**Research Interests:**

Wireless Communication

Signal Processing

Cooperative Communication

MIMO Communication System

Index Modulation

Spatial Modulation

# Department of Electrical and Electronics Engineering

## About the department

Year of Establishment: 1964

Number of Faculty : 27

### Courses offered

UG: B.Tech(EEE)

PG :

M.Tech (Power Systems & Power Electronics)

Ph.D& M.S (by research)





**Dr. K. SUNDARESWARAN**

**Professor HAG**

Department of Electrical and Electronics Engineering

Email: kse@nitt.edu

Mobile: +91-9443766518

**Research Interests:**

Power electronics

Optimization techniques

Fuzzy logic

**Facilities/Resources available for Industry & Educational consultancy:**

Application of Optimization to electrical power



**Dr. C. NAGAMANI**

**Professor HAG**

Department of Electrical and Electronics Engineering

Email: cnmani@nitt.edu

Mobile: +91-9487280657

**Research Interests:**

Power controllers for industrial drives

power systems and renewable energy applications

**Facilities/Resources available for Industry & Educational consultancy:**

Unified Power Flow Controller (UPFC) for enhanced utilization and control of the existing power transmission system”

Development of DC – DC converter and Bi-directional converter for SPV applications by NIT, Trichy.

Development of Renewable Energy laboratory-Investigation & study of different PV configurations suitable for Indian Environmental Conditions.

Dynamic loading of motors for open cast mines





**Dr. S. ARUL DANIEL**

**Professor(HAG)**

Department of Electrical and Electronics Engineering

Email: [daniel@nitt.edu](mailto:daniel@nitt.edu), [saruldaniel@gmail.com](mailto:saruldaniel@gmail.com)

Mobile: +91-9003302400

**Research Interests:**

Renewable Energy

Autonomous power plants

Nano-grids

**Facilities/Resources available for Industry & Educational consultancy:**

DC nano-grid is available.

Development of renewable energy systems using PV array and wind generators

**Consultancy Expertise:**

Installed a PV plant on the runway of Tiruchirappalli Airport



**Dr. N. KUMARESAN**

**Professor**

Department of Electrical and Electronics Engineering

Email: [nkumar@nitt.edu](mailto:nkumar@nitt.edu)

Mobile: +91-9489089101

**Research Interests:**

Design, analysis and application of Electrical machines and Power Electronic Controllers for Renewable energy systems

**Facilities/Resources available for Industry & Educational consultancy:**

- Solar PV system, Motor-generator sets
- Power quality analyser, High resolution DSOs, multi-meters
- IGBT based inverters and other related power circuits
- Digital controllers – FPGA & Microcontrollers
- MATLAB / Proteus VSM / PSIM software packages

### **Consultancy Expertise:**

Consultancy Service can be provided in the area of Energy conservation / auditing, motor / generator characteristic studies and integration of renewable energy systems

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#### **Dr. S. SUDHA**

##### **Professor**

Department of Electrical and Electronics

Engineering

Email: sudha@nitt.edu

Mobile: +91-9486001122

##### **Research Interests:**

Web services

Information extraction

Computer Networks

Wireless Sensor networks

Internet of things

### **Facilities/Resources available for Industry & Educational consultancy:**

Sensor nodes, RF modules, Arduino, Micro-controllers, GSM and GPS modules,  
High end workstations, SensNUTs modules

IoT based applications, Sensor network based applications and Information  
extraction

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**Dr. M. JAYA BHARATA REDDY**

**Professor**

Department of Electrical and Electronics Engineering

Email: jbreddy@nitt.edu

Mobile: +91-9443171746

**Research Interests:**

Smart grid, substation Automation, wide-area protection, digital relaying, soft computing applications in power system, power quality analysis and power system protection

**Facilities/Resources available for Industry & Educational consultancy:**

110V,3 phase EHV Transmission Line Model,

LPro-4000 ERL Numerical Distance Protection Relay ,

20V, 3 phase EHV Transmission Line Model ,

NI Compact RIO Data Acquisition system ADC (V & I) DAC & GPS receiver,

Current Probe,

Testing of new protection algorithms (in both time and Frequency domain ) using NI Compact RIO and DAQ



**Dr. V. SANKARANARAYANA**

**Professor**

Department of Electrical and Electronics Engineering

Email: vsankar@nitt.edu

**Research Interests:**

Nonlinear control, Control of underactuated systems, Sliding motor control, Constrained Stabilization



**Dr. M. P. SELVAN**

**Associate Professor**

Department of Electrical and Electronics Engineering

Email: selvanmp@nitt.edu

Mobile: +91-9444170638

**Research Interests:**

Residential Demand Response,  
Smart Metering,  
Micro-grid,  
Transactive Energy Market  
Distribution System Analysis

**Facilities/Resources available for Industry & Educational consultancy:**

Power System Tools – Power Factory, ETAP & PSCAD

**Consultancy Expertise:**

Design of LT and HT systems.

Power Flow Studies.

Energy Auditing.

Smart metering applications.

IoT based solutions to smart cities.



**Dr. SISHAJ P. SIMON**

**Associate Professor**

Department of Electrical and Electronics Engineering

Email: sishajpsimon@nitt.edu

Mobile: +91-9944073421

**Research Interests:**

Power System Planning  
AI & Soft Computing Techniques  
Smart Grid Applications  
Solar Power Generation etc..

**Facilities/Resources available for Industry & Educational consultancy:**

Optimization of Power System Planning Applications, PV Installation and Cost Benefit Analysis, Transformer Protection, Forecasting Applications with AI Tools, Demand Side Management, Smart House Automation etc..



**Dr. S. MOORTHI**

**Associate Professor**

Department of Electrical and Electronics Engineering

Email: srimoorthi@nitt.edu

Mobile: +91-9443210281

**Research Interests:**

VLSI for signal processing,  
Embedded Systems,  
Digital Controllers for Power Applications

**Facilities/Resources available for Industry & Educational consultancy:**

Hybrid electrical Systems Lab.

Consultancy work related to Electronic circuit design.



**Dr. G. SARAVANA ILANGO**

**Associate Professor**

Department of Electrical and Electronics Engineering

Email: gsilango@nitt.edu

Mobile: +91-9442366994

**Research Interests:**

FACTS controllers  
Digital controllers, Power Electronics  
Renewable energy systems

**Facilities/Resources available for Industry & Educational consultancy:**

Energy Auditing

Consultancy work in the area of Photovoltaic System



**Dr. M. VENKATA KIRTHIGA**

**Associate Professor**

Department of Electrical and Electronics Engineering

Email: mvkirthiga@nitt.edu

Mobile: +91-9942419772

**Research Interests:**

Distributed Generation & Micro-grids

Electrical Machines

HVDC Transmission

**Facilities/Resources available for Industry & Educational consultancy:**

Micro and Nano grid Laboratory – EEE Annex - II floor

Testing and performance analysis on DC and AC Micro-grids with DERs Member in Siemens Centre of Excellence – yet to explore the facilities



**Dr. S. SENTHIL KUMAR**

**Associate Professor**

Department of Electrical and Electronics Engineering

Email: skumar@nitt.edu

Mobile: +91-9443165211

**Research Interests:**

Electric Machine drives

Hybrid electric energy conversion systems

Micro-grids

Power Quality

Power Electronic Interfaces for renewable energy systems

**Facilities/Resources available for Industry & Educational consultancy:**

- Photovoltaic System, Electric Drive System
- Power quality analyser, High resolution DSOs, Power Electronic Converters/ Inverters, Digital controllers – FPGA & dSPACE real time controllers

**Consultancy Expertise:**

Consultancy Service can be provided in the area of Energy saving aspects in Electric Drives and Hybrid energy systems  
Consultancy Service can be provided in the area of Energy conservation / auditing, motor / generator characteristic studies and integration of renewable energy systems



**Dr. P. RAJA**  
**Associate Professor**

Department of Electrical and Electronics Engineering

Email: praja@nitt.edu

Mobile: +91-9942680653

**Research Interests:**

Renewable Power Generation  
Transmission Line Protection  
Wide Area Measurement  
AC, DC and Special Machines

**Facilities/Resources available for Industry & Educational consultancy:**

Power System Tools – Power Factory, ETAP & PSCAD

Solar Simulator

**Consultancy Expertise:**

Design of Numerical Relaying Schemes

Basic Energy Audit

Soft test bench for Renewable Energy System

Design of Energy Efficient Electrical Machines





**Dr. P. SRINIVASA RAO NAYAK**

**Assistant Professor Grade-I**

Department of Electrical and Electronics Engineering

Email: psnayak@nitt.edu

Mobile: +91-7708243070

**Research Interests:**

Wireless Power Transfer for Electric Vehicles

Electric Vehicle Power Trains and Renewable Energy

**Facilities/Resources available for Industry & Educational consultancy:**

Electric Vehicle Power circuits servicing, and plug-in and wireless battery charging for Electric Vehicles



**Dr. S. MAGESHWARI**

**Assistant Professor**

Department of Electrical and Electronics Engineering

Email: mageshwari@nitt.edu

Mobile: +91-9444902847

**Research Interests:**

Analog and Digital Electronics

Computer networks

Renewable energy Sources

**Facilities/Resources available for Industry & Educational consultancy:**

Testing of DC and AC Micro grids



**Dr. JOSEPHINE R.L**

**Assistant Professor**

Department of Electrical and Electronics Engineering

Email: josephinerl@nitt.edu

Mobile: +91-9750541213

**Research Interests:**

Power Electronics

Renewable Energy Systems

Power Quality

**Facilities/Resources available for Industry & Educational consultancy:**

Solar Array Simulators

Power Quality Analyzers



**Dr. VIVEK MOHAN**

**Assistant Professor**

Department of Electrical and Electronics  
Engineering

Email: vivekmohan@nitt.edu

Mobile: +91-8113093716

**Research Interests:**

Power Markets, Uncertainty and Risk Management  
in Power Systems, Power System Finance

Optimal Power Flow Applications

Reliability Studies

### **Facilities/Resources available for Industry & Educational consultancy:**

Consultancies: Risk Assessment of Energy projects, Power Market Design, Microgrid and Distributed generation planning and feasibility studies, Load Flow Studies, Design of tariff and power distribution system business models, power system reliability studies

### **Consultancy Expertise:**

- Optimal energy planning of distribution systems and microgrids
- Optimal sizing and siting of energy sources
- Tariff design and business model development for power distribution systems



#### **Dr. KARTHIK THIRUMALA**

##### **Assistant Professor**

Department of Electrical and Electronics Engineering

Email: thirumala@nitt.edu

Mobile: +91-9994479395

##### **Research Interests:**

Power Quality

Power Electronic Applications to Power System

### **Facilities/Resources available for Industry & Educational consultancy:**

DSP and FPGA kits are available in the research labs.

Power Electronic components are available in the department Power Electronics lab.



**Dr. MANORANJANSAHOO**

**Assistant Professor**

Department of Electrical and Electronics Engineering

Email: sahoon@nitt.edu

Mobile: +91-7842730026

**Research Interests:**

Power electronics converter design

Single stage buck-boost inverter

SIMO converter

Multilevel PWM Inverter

Induction motor drive

Power converter for Renewable Energy Applications

**Facilities/Resources available for Industry & Educational consultancy:**

Development of efficient fault tolerant power electronic converter for renewable energy application

Development of multiport converter for Electric vehicle applications

Development of Power Drive for EV



**Dr. SHELAS SATHYAN**

**Assistant Professor**

Department of Electrical and Electronics Engineering

Email: shelassathyan@nitt.edu

Mobile: +91-9561450634

**Research Interests:**

Power electronics

EV Battery charger

Soft switching converters

Renewable energy integration

Wide band gap devices



**Dr. ANKUR SINGH RANA**

**Assistant Professor**

Department of Electrical and Electronics Engineering

Email: [ankur@nitt.edu](mailto:ankur@nitt.edu)

Mobile: +91-9910478111

**Research Interests:**

Wide area measurement systems, PMUs, Power system reliability, Power System protection, Smart Grid Communication Technologies, Power System Applications in Microgrid



**Dr. K. P. Pinkymol**

**Assistant Professor**

Department of Electrical and Electronics Engineering

Email: [pinkymol@nitt.edu](mailto:pinkymol@nitt.edu)

Mobile: +91-9526710598

**Research Interests:**

Power electronic Convertors, Solid State Transformer, Multilevel Inverter and Modulation Techniques



**Dr. M. A. Aneesa Farhan**

**Assistant Professor**

Department of Electrical and Electronics Engineering

Email: [aneesa@nitt.edu](mailto:aneesa@nitt.edu)

Mobile: +91-7598164452

**Research Interests:**

Distributed Generation and Microgrids, Microgrid Protection, DSP and AI Techniques in Power systems Protection, Power Systems and Wide Area Measurements

**Dr. ASHOK KUMAR**

**Assistant Professor**

Department of Electrical and Electronics Engineering

Email: krashok@nitt.edu

Mobile: +91-9651853535

**Research Interests:**

Renewable energy power processing

Single-stage & two stage solar micro-inverters

Modeling & control of power converters



**Dr. S. KAYALVIZHI**

**Assistant Professor**

Department of Electrical and Electronics Engineering

Email: kayalvizhi@nitt.edu

Mobile: +91-9790050752

**Research Interests:**

Planning studies in active distribution network, Demand side Management, application of evolutionary algorithms in multi-objective problem domain, control and management of microgrid operations, OPF studies on transmission system



**Dr. NAVEEN YALLA**

**Assistant Professor**

Department of Electrical and Electronics Engineering

Email: naveenyalla@nitt.edu

Mobile: +91-9068693477

**Research Interests:**

High power factor converters, Electric vehicle charges, Multi level converters, Solid state Transformers



# Department of Energy and Environment

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## About the department

Year of Establishment: 1995

Number of Faculty : 3

Courses offered

UG: -

PG: M. Tech (Energy Engineering)

Ph.D& M.S (by research)







**Dr. M. PREMALATHA**

**Professor**

Department of Energy and Environment

Email: latha@nitt.edu

Mobile: +91-9894600407

**Research Interests:**

CO<sub>2</sub> sequestration using micro-algae and phyco-remediation.

Solar water heating systems and solar distillation.

Energy Audit and Management

**Facilities/Resources available for Industry & Educational consultancy:**

ISO certified Testing and Analysis lab.

NABL accredited calibration lab.

Algal biotechnology lab and Algal cultivation shed.

**Consultancy Expertise:**

1. Testing and analysis of solid and liquid samples.
2. Calibration of instruments: electrical, pressure and temperature parameters.
3. Energy Audit for MSMEs/Industries.



**Dr. RUBEN SUDHAKAR D**

**Assistant Professor**

Department of Energy and Environment

Email: rubensudhakar@nitt.edu

Mobile: +91-9481208902/8105507766

**Research Interests:**

Combustion and Gasification systems for heat and power

CO<sub>2</sub> capture technologies

Energy System Analysis

Energy Efficiency

**Facilities/Resources available for Industry & Educational consultancy:**

Design and Development of Combustion and Gasification systems

Energy audit and conservation Fluidized bed systems

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**Dr. V. M. JAGANATHAN**

**Assistant Professor**

Department of Energy and Environment

Email: vmjagan@nitt.edu

Mobile: + 91 - 9710829732

**Research Interests:**

Thermo-chemical conversion of solid fuels, Bio-char applications, Carbon Sequestration technique, Energy efficient technologies, Solar energy, Energy storage methods

**Facilities/Resources available for Industry & Educational consultancy:**

Heat & Power generation using renewable resources, Green cooling technologies, Value added product synthesis from biomass, Energy solutions using 3-D printing technologies

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# *Department of Humanities & Social Sciences*

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## About the department

Year of Establishment: 2004

Number of Faculty : 11

### Courses offered

PG: M.A (English Language & Literature)

Ph.D





**Dr. V. VINOD BALAKRISHNAN**

**Professor**

Department of Humanities & Social Sciences

Email: vinod@nitt.edu

**Research Interests:**

Language & Linguistics



**Dr. R. MURUGESAN**

**Professor**

Department of Humanities & Social Sciences

Email: rmurugan@nitt.edu

**Research Interests:**

Industrial economics, Professional Ethics, Applied Econometrics, Entrepreneurship Development



**Dr. R. JOSEPH PONNIAH**

**Professor**

Department of Humanities & Social Sciences

Email: joseph@nitt.edu

**Research Interests:**

Biolinguistics, English Language teaching, Second language acquisition



**Prof. R. GURURAJ**  
**Associate Professor**

Department of Humanities & Social Sciences  
Email: guru@nitt.edu

**Research Interests:**

Technical Communication, Computer assisted language teaching & learning



**Dr. G. NAGASUBRAMANIYAN**  
**Associate Professor**

Department of Humanities & Social Sciences  
Email: nagus@nitt.edu

**Research Interests:**

Managerial economics, Organizational behaviour, Industrial Psychology, Personnel Management, Sociology & Culture



**Dr. SATHYARAJ VENKATESAN**  
**Associate Professor**

Department of Humanities & Social Sciences  
Email: sathya@nitt.edu

**Research Interests:**

Graphic medicine, Global health medicine, Literary health humanities, Comic studies



**Dr. S. MEKALA**

**Associate Professor**

Department of Humanities & Social Sciences

Email: mekala@nitt.edu

**Research Interests:**

Curriculum design, Teaching & Learning Methods, Corporate communication, 21<sup>st</sup> century skills education



**Dr. V. K. KARTHIKA**

**Assistant Professor**

Department of Humanities & Social Sciences

Email: vkkarthika@nitt.edu

**Research Interests:**

Second language acquisition, Multilingual education, Cultural studies, English Medium instruction, Soft skills and Employability skills



**Dr. M. PADMAJA**

**Assistant Professor**

Department of Humanities & Social Sciences

Email: padmaja@nitt.edu

**Research Interests:**

International economics, Applied econometrics, Foreign Direct Investment, Industrial Economics





**Dr. UMASANKAR PATRA**

**Assistant Professor**

Department of Humanities & Social Sciences

Email: [umasankar@nitt.edu](mailto:umasankar@nitt.edu)

**Research Interests:**

Anglo-American modernism, Autobiography studies, Queer studies and Modernity in India,



**Dr. NISHA VISWANATHAN**

**Assistant Professor**

Department of Humanities & Social Sciences

Email: [nishav@nitt.edu](mailto:nishav@nitt.edu)

**Research Interests:**

Postcritical literary studies, Author studies, Literary Theory, Philosophy of Literature, Critical Posthumanism



# ***Department of Instrumentation and Control Engineering***

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## About the department

Year of Establishment: **1993**

Number of Faculty : 15

### **Courses offered**

**UG: B.Tech (ICE)**

**PG :**

**M.Tech:** (Process Control & Instrumentation)  
(Joint Programme with Chemical Engg.)

**Ph.D& M.S (by research)**





**Dr. M. UMAPATHY**

**Professor (HAG)**

Department of Instrumentation and Control  
Engineering

Email: [umapathy@nitt.edu](mailto:umapathy@nitt.edu)

Mobile: +91-9443013136

**Research Interests:**

Sensors and actuators, Instrumentation system design, MEMS, Smart Materials, Energy Harvesting, Modelling and control of smart structures, sliding mode control

**Facilities/Resources available for Industry & Educational consultancy:**

MEMS Design Tools, LASER displacement Sensor, Probe station, LCR meter, Vibration test and measuring Equipment.

**Consultancy Expertise:**

Design and Testing of Sensors and any measuring instrument.

Design of controllers for any application.

Design and development of Bio medical Instruments for Physiological measurements.



**Dr. RAMAKALYAN AYYAGARI**

**Professor**

Department of Instrumentation and Control  
Engineering

Email: rkalyn@nitt.edu

Mobile: +91-9443923485

**Research Interests:**

Mathematical Control Theory, Complexity,  
Algorithms, Robotics, Cyber-Physical Systems.

**Facilities/Resources available for Industry & Educational consultancy:**

MATLAB, Mobile Robotic Kits, A full-fledged Industrial Robotics Lab with Pick-and-Place Robots

**Consultancy Expertise:**

- I am interested in designing large scale control systems, in particular cyber-physical systems, network security, software development.
- Recently I have successfully completed a MeITy/ITRA funded project "Decongesting India's transportation networks using mobile devices" sanctioned by Information Technology Research Academy (ITRA).
- Currently working on a exa-scale control system project.
- In general, I am also interested in other large-scale electrical/mechanical/chemical/ production engineering, and non-engineering systems, finance and economics.



**Dr. G. UMA**

**Professor**

Department of Instrumentation and Control Engineering

Email: guma@nitt.edu

Mobile: +91-9443454987

**Research Interests:**

MEMS, Sensors and Actuators, Instrumentation System Design, Energy Harvesting, Biomedical Instrumentation, Process Control

**Facilities/Resources available for Industry & Educational consultancy:**

MEMS Design Tools, LASER displacement Sensor, Probe station, LCR meter, Vibration test and measuring Equipment's.

**Consultancy Expertise:**

- Design and Testing of Sensors and any measuring instrument
- Design and development of Bio medical Instruments for Physiological measurements.



**Dr. B. VASUKI**

**Professor**

Department of Instrumentation and Control Engineering

Email: bvas@nitt.edu

Mobile: +91-9443186478

**Research Interests:**

Interval Analysis, Instrumentation System and Control Engineering

**Facilities/Resources available for Industry & Educational consultancy:**

8- 1/2 Digit Multimeter and LCR meter

**Consultancy Expertise:** Design and Testing of Instrumentation systems and uncertainty analysis of measurement.



**Dr. DHANALAKSHMI K.**

**Professor**

Department of Instrumentation and Control Engineering

Email: dhanlak@nitt.edu

Mobile: +91-9443858456

**Research Interests:**

Sensors and Actuators/Drives

Intelligent Material Systems and Structures

Flexible Mechatronics Design and Applications

Energy Harvesting

**Facilities/Resources available for Industry & Educational consultancy:**

NiTi wires, springs – for design and development of appropriate mechatronic systems

Instrumentation systems – for test and analysis

Precision Impedance Analyser 20 Hz – 20 MHz

Laser Displacement Sensor : 0 - 50 mm, 0 - 100 mm

Miniature ‘S’ type Load cell: 2 kg

Fluxmeter / Precision milli Gauss meter: 3000 mG

Current probe: 100kHz, 100 A

Thermal Imager

Anemometer

Interfacing Cards: USB-1408FS – for testing and simulating control systems / control algorithms

**Consultancy Expertise:**

New actuator/drive for soft robotics, flexible mechatronics, agriculture, aerospace and automotive.

Self-sensing actuator for structural health monitoring and vibration control.

Assistive devices, bio-medical, bio-mimetics using SMA technology.

Ambient energy scavenging system, Renewable energy microgrid.



**Dr. N. SIVAKUMARAN**

**Professor**

Department of Instrumentation and Control  
Engineering  
Email: nsk@nitt.edu  
Mobile: +91-9443745705

**Research Interests:**

Modelling and Control system design for industrial processes.  
Intelligent System Design  
Modal based/free controller design  
Networked Control System/Cloud/SCADA/Wireless Automation

**Facilities/Resources available for Industry & Educational consultancy:**

**Process Control**

Distributed Control System- CENTUM CS, Yokogawa  
PLC System - ABB/Seimens  
Wireless/SCADA based system  
Wireless Transmitter, Yokogawa  
Pilot Test rigs: Quadruple Tank System, pH, Heat Exchanger, Hybrid Tank

**Biomedical System Design**

Data Acquisition System, National Instruments  
Digital Video EEG system - 32 channels – 2D & 3D Scalp maps

**Agriculture**

Data Acquisition System, National Instruments  
Design of Signal Conditioning Circuits using Engineering Laboratory Virtual Instrumentation Suite, National Instruments  
Pilot Test rigs

**Consultancy Expertise:**

### **Process Control**

Modelling / Estimation/ Control for industrial processes.

Prediction based design using Soft Computing Methods.

Metaheuristic based predictions based on Optimization methods

Statistical data Analysis

### **Biomedical System Design**

Modelling / Estimation/ Control for Physiological System.

Emergency Response Support System for Critical care Diagnostics.

Deep learning algorithms for Seizure Prediction and Diagnostics.

Image Processing and Pattern Matching.

### **Agriculture**

Post-Harvest Technologies – Cold Storage System

Health Monitoring of Crops

Training Programme in the area of measurement and Control and Automation  
for process/Biomedical/Agriculture





**Dr. K. SRINIVASAN**

**Associate Professor**

Department of Instrumentation and Control Engineering

Email: [srinikkn@nitt.edu](mailto:srinikkn@nitt.edu)

Mobile: +91-9443661591

**Research Interests:**

Next Generation Controller

Estimation, Modelling and Control for linear/non-linear system

Networked control system

Soft Sensor Development and Sensor linearization

Cloud/SCADA /Wireless based automation

**Facilities/Resources available for Industry & Educational consultancy:**

CENTUM CS Distributed Control System

ABB/Seimens/AB PLC System

Wireless/SCADA based automation of Conveyor system

Yokogawa industrial Wireless Transmitter

Process Test rig: pH, Multi process, Heat Exchanger, Hybrid tank

**Consultancy Expertise:**

Modelling / Estimation/Control of non-linear industrial process using linear/non-linear technique.

Scalable, flexible, user friendly and performance guaranteed controller development using multi model/ MPC/Next generation controller

Soft Sensor development, multi sensor data fusion and sensor linearization technique using conventional and intelligent techniques.

Networked based estimation and controller development of linear /non-linear system.

Executive Training Programme in the area of measurement and Control Health

Monitoring of Crops

Training Programme in the area of measurement and Control and Automation for process/Biomedical/Agriculture



**Dr. D. EZHILARASI**

**Associate Professor**

Department of Instrumentation and Control Engineering

Email: ezhil@nitt.edu

Mobile: +91-9444878908

**Research Interests:**

Modelling and Control, Energy harvesting from vibration, Control of Longitudinal train Dynamics, adaptive Sliding mode control, Agricultural Green House Automation

**Facilities/Resources available for Industry & Educational consultancy:**

Fully automated Green House for crop growth analysis & related study (150 Sq.m)

Interfacing Cards - dSpace 1104, USB-1408FS, NI-Elvis, NI-DAQ - for testing and simulating control algorithms for complex systems

Prepolarized Condenser microphones with preamplifiers for vibration & acoustic testing

State of Art Control Plants – Quanser Gyro, Twin rotor Quanser AERO, Rotary double inverted pendulum

ARM CORTEX M4 Series Experimenter Boards (with Matlab Simulink interface), TMS320C6713 DSP Boards for developing standalone applications

Venticell- forced air heating oven for sterilization and other temperature tolerance testing applications

**Consultancy Expertise:**

Model development for assistive devices, high-speed train and other systems

Design of model based robust controllers (Adaptive and sliding mode control) with specific requirement

Design of energy harvesters for low power devices

Crop growth analysis, consultancy related to nutrients requirement and climatic condition requirement for sensitive and rare plant varieties

Sensing & control of agricultural parameters



**Mr. Goldin R Bennet**

**Associate Professor**

Department of Instrumentation and Control Engineering

Email: bennet@nitt.edu

Mobile: +91-

**Research Area:**

Measurement System Design, Harnessing solar energy, Product Design and Development



**Dr. S. NARAYANAN**

**Assistant Professor**

Department of Instrumentation and Control Engineering

Email: narayanan@nitt.edu

Mobile: +91-9486437744

**Research Interests:**

PID Control Design  
Control Engineering

**Facilities/Resources available for Industry & Educational consultancy:**

Model based control design solution and model free control design solution



**Ms. V. SRIDEVI**

**Assistant Professor**

Department of Instrumentation and Control Engineering

Email: sridevi@nitt.edu

Mobile: +91-9443082579

**Research Interests:**

Signal processing, EEG signal analysis for epilepsy ,  
Instrumentation, Embedded Systems, Wireless Sensor  
Network

**Facilities/Resources available for Industry & Educational consultancy:**

EEG LAB for Research and Clinical study

32 – channels video EEG system for scalp EEG recording with high resolution camera to pick up the clinical symptoms.

**Consultancy Expertise:**

I am interested to collaborate in the field of Signal processing, EEG signal analysis, embedded system design with programming capabilities in MATLAB and embedded C. Also, I am interested in 3D modelling.



**Dr. GEETHA CHAKARAVARTHI**

**Assistant Professor**

Department of Instrumentation and Control Engineering

Email: geethac@nitt.edu

Mobile: +91-9444479121

**Research Interests:**

Microwaves, Antenna design, Biomedical Instrumentation,  
Sensors, Structural Health Monitoring, Electromagnetic  
Non destructive Evaluation

### **Facilities/Resources available for Industry & Educational consultancy:**

Defect detection and characterization using RFID based wireless sensors

Wireless sensor network for condition monitoring of structures

EM material characterization

EM sensors for biomedical applications

Medical device design



#### **Dr. R PERIYASAMY**

#### **Assistant Professor**

Department of Instrumentation and Control Engineering

Email: periyasamyr@nitt.edu

Mobile: +91-9179826937

#### **Research Interests:**

Biomedical Instrumentation, Foot Biomechanics & Diabetes,

Diagnostic Device Development, Sensors & Transducer, Bio Signal & Image processing

### **Facilities/Resources available for Industry & Educational consultancy:**

#### **In terms of Equipment:**

NI DAQ, Sensory measurement device, Hardness tester, Infrared Thermometer, Multiwavelength NIRS probe system for oxygen concentration measurement in blood. Software: Matlab, LabView

#### **Consultancy Expertise:**

I am interested in Diagnostic device development and Rehabilitation therapy. I am also expertise in the area of biomedical instrumentation, foot biomechanics, diabetic foot risk detection, Postural analysis and detection



**Dr. KARTHICK P A**  
**Assistant Professor**

Department of Instrumentation and Control Engineering  
Email: pakarthick@nitt.edu  
Mobile: +91-7538838231

**Research Interests:**

Neurological and neuromuscular disorders, Human Machine Interface, Signal processing, Machine learning algorithms

**Facilities/Resources available for Industry & Educational consultancy:**

MATLAB, Python

**Consultancy Expertise:**

If any Consultancy Services from your side for CII people: I am interested in developing active rehabilitation devices, in particular low cost rehabilitation devices for neurological disorders such as stroke and epilepsy etc. I am also keen in developing automated system for the diagnosis of various neurological, neuromuscular and cardiovascular disorders using signal processing principles and machine learning algorithms.



**Dr. SHIRAZ SOHAIL**  
**Assistant Professor**

Department of Instrumentation and Control Engineering  
Email: ssohail@nitt.edu

**Research Interests:**

MEMS device, Instrumentation, Sensor Design and Fabrication, Analog circuit design

# Department of Mathematics

## About the department

Year of Establishment: 1964

Number of Faculty : 17

### Courses offered

UG: -

PG : M.Sc

Ph.D & M.S (by research)







**Dr. PONALAGUSAMY R**

**Professor HAG**

Department of Mathematics

Email: rpalagu@nitt.edu

Mobile: +91-7402448889

**Research Interests:**

Computational Bio-fluid Mechanics

**Facilities/Resources available for Industry & Educational consultancy:**

Mathematical Tools



**Dr. K. MURUGESAN**

**Professor (HAG)**

Department of Mathematics

Email: murugu@nitt.edu

Mobile: +91-9443785050

**Research Interests:**

Numerical Techniques

Differential & Integral Equations and  
image processing

**Facilities/Resources available for Industry & Educational consultancy:**

**Consultancy Expertise:**

Educational Consultancy



**Dr. T. N. JANAKIRAMAN**

**Professor HAG**

Department of Mathematics

Email: janaki@nitt.edu,tnjrjraman2000@yahoo.com

Mobile: +91-9894794198

**Research Interests:**

Graph Theory and its applications,

Algorithms,

Cryptography,

Number Theory,

Image Processing,

Clustering in all Communication Networks.

**Facilities/Resources available for Industry & Educational consultancy:**



**Dr. V. KUMARAN**

**Professor**

Department of Mathematics

Email: kumaran@nitt.edu

Mobile: +91-9444808236

**Research Interests:**

Fluid Mechanics

Operations Research

**Facilities/Resources available for Industry & Educational consultancy:**



**Dr. V. RAVICHANDRAN**

**Professor**

Department of Mathematics

Email: ravic@nitt.edu

Mobile: +91-9818838637

**Research Interests:**

Geometric Function Theory

**Facilities/Resources available for Industry & Educational consultancy:**

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**Dr. R. TAMILSELVI**

**Associate Professor**

Department of Mathematics

Email: tamil@nitt.edu

Mobile: +91-7598176202

**Research Interests:**

Fluid Dynamics

Operations Research

**Facilities/Resources available for Industry & Educational consultancy:**

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**Dr. P. SAIKRISHNAN,**  
**Professor**  
Department of Mathematics  
Email: psai@nitt.edu  
Mobile: +91-9787877471

**Research Interests:**

Boundary Layer Theory, Fluid dynamics

**Facilities/Resources available for Industry & Educational consultancy:**

Department of mathematics have software for scientific computing. Modelling problems mathematically and finding the most efficient way to solve the problem



**Dr. V. LAKSHMANA GOMATHI NAYAGAM**  
**Associate Professor**  
Department of Mathematics  
Email: velulakshmanan@nitt.edu  
Mobile: +91-9443881718

**Research Interests:**

Fuzzy Mathematics: Theory and Modelling

**Facilities/Resources available for Industry & Educational consultancy:**



**Dr. V. SHANTHI**

**Associate Professor**

Department of Mathematics

Email: vshanthi@nitt.edu

Mobile: +91-9487440341

**Research Interests:**

Numerical Analysis for Differential equations

**Facilities/Resources available for Industry & Educational consultancy:**

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**Dr. I. JEYARAMAN**

**Assistant Professor**

Department of Mathematics

Email: jeyaraman@nitt.edu

Mobile: +91-9884164316

**Research Interests:**

Linear Algebra

Optimization



**Dr. N. PRAKASH**

**Assistant Professor**

Department of Mathematics

Email: prakashn@nitt.edu

Mobile: +91-7845688072

**Research Interests:**

Functional Analysis

Best Approximation Theory

Geometry of Banach Spaces



**Dr. JITRAJ SAHA**

**Assistant Professor**

Department of Mathematics

Email: jitraj@nitt.edu

Mobile: +91-9477033914

**Research Interests:**

Mathematical Analysis of ODEs and PDEs

Numerical Analysis

Scientific Computing



**Dr. VAMSINADH THOTA**

**Assistant Professor**

Department of Mathematics

Email: vamsinadh@nitt.edu

Mobile: +91-8173980996

**Research Interests:**

Best Approximation Theory

Geometry of Banach Spaces

### **Facilities/Resources available for Industry & Educational consultancy:**

Department of mathematics have software for scientific computing. Modelling problems mathematically and finding the most efficient way to solve the problem

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#### **Dr. N. SHIVARANJANI**

##### **Assistant Professor**

Department of Mathematics

Email: ranjani@nitt.edu

Mobile: +91-9159177345

##### **Research Interests:**

Numerical analysis of singular perturbation problems, delay differential equations, differential equations in mathematical biology

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#### **Dr. ATUL KUMAR VERMA**

##### **Assistant Professor**

Department of Mathematics

Email: atul@nitt.edu

##### **Research Interests:**

Mathematical Modelling of stochastic transport systems, discrete Markov model

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**Dr. M. SIVANESAN**

**Assistant Professor**

Department of Mathematics

Email: [sivanesan@nitt.edu](mailto:sivanesan@nitt.edu)

**Research Interests:**

Differential and Integral Equations, Wave-structure interactions



**Dr. ABHIJIT DAS**

**Assistant Professor**

Department of Mathematics

Email: [abhijit@nitt.edu](mailto:abhijit@nitt.edu)

**Research Interests:**

Fluid dynamics, Boundary layer flows, non-Newtonian fluid flows, Numerical analysis

# *Department of Management Studies*

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## About the department

Year of Establishment: 1987

Number of Faculty : 16

### Courses offered

UG: -

PG : MBA

Ph.D& M.S (by research)





**Dr. G. KANNABIRAN**

**Professor (HAG)**

(On Lien as Director IIIT Sri City Chittoor AP)

Department of Management Studies

Email: kb@nitt.edu

Mobile: +91-9443152355

**Research Interests:**

IS strategy, e-Business, e-governance, Enterprise systems, Supply chain management, Knowledge management, IS off shoring, software project management

**Facilities/Resources available for Industry & Educational consultancy:**

Knowledge management, Enterprise system, Software Project management



**Dr. M. PUNNIYAMURTHY**

**Professor (HAG)**

Department of Management Studies

Email: punniya@nitt.edu

Mobile: +91-94860 01130, +91-9443866660

**Research Interests:**

Machine Learning, Game Theory, Applied Statistics & Data Analysis, Operations Management, Project Management and Costing, Logistics and Supply Chain Management, Operations Research & Decision Sciences and Materials Management

**Facilities/Resources available for Industry & Educational consultancy:**

Business analytics, Machine learning, Operations management, Logistics and Supply chain management



**Dr. N. THAMARAISELVAN**

**Professor**

Department of Management Studies

Email: selvan@nitt.edu

Mobile: +91-9443777217

**Research Interests:**

Self Service Technologies, Brand Leveraging Strategies, Customer Satisfaction Analytics Services Marketing, Social and online Medias

**Facilities/Resources available for Industry & Educational consultancy:**

Brand leverage strategies, services marketing, Market Research and customer satisfaction analytics



**Dr. V. J. SIVAKUMAR**

**Professor**

Department of Management Studies

Email: vjs@nitt.edu

Mobile: +91-94880 58971

**Research Interests:**

Marketing Management, Strategic Brand Management, Sales Management ,Retail Marketing, Customer Relationship Management, Entrepreneurship

**Facilities/Resources available for Industry & Educational consultancy:**

Customer relationship management, sales management, strategic brand management and retail marketing



**Dr. B. SENTHIL ARASU**

**Professor**

Department of Management Studies

Email: arasu@nitt.edu

Mobile: +91-94432 11106

**Research Interests:**

Financial Management, Stock market, Derivatives, Behavioural Traits and Investment Decisions

**Facilities/Resources available for Industry & Educational consultancy:**

Stock market prediction, Personal Finance, Investment decisions and SME financing

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**Dr. P. SRIDEVI**

**Associate Professor**

Department of Management Studies

Email: psridevi@nitt.edu

Mobile: +91-9486001176

**Research Interests:**

Support Vector Machine, Information System, Data mining, Business Intelligence, Enterprise Resource Planning

**Facilities/Resources available for Industry & Educational consultancy:**

Data mining, business intelligence, Support vector machine

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**Dr. G. MURUGANANTHAM**

**Associate Professor**

Department of Management Studies

Email: murugan@nitt.edu

Mobile: +91-9865175135

**Research Interests:**

Marketing, Consumer Behaviour, Advertising, Branding

**Facilities/Resources available for Industry & Educational consultancy:**

Branding, advertising and consumer behaviour

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**Dr. V. LAVANYA**

**Assistant Professor**

Department of Management Studies

Email: lavanya@nitt.edu

Mobile: +91-9080345411

**Research Interests:**

Human Resources, Organizational Behaviour, Entrepreneurship

**Facilities/Resources available for Industry & Educational consultancy:**

Human resources, Employee retention, organizational climate



**Dr. S. NIVETHITHA**

**Assistant Professor**

Department of Management Studies

Email: snive@nitt.edu

Mobile: +91-9344546699

**Research Interests:**

Employment relationships - psychological contract, employee turnover intention and turnover; Implications of HR practices; Stress and Burnout; Performance Management, HR Analytics.

**Facilities/Resources available for Industry & Educational consultancy:**

Leadership Development, Employee Engagement, Performance Management, Employee Well-being, Workplace Happiness, HR Analytics, Employee pulse surveys, HR and OB models/tool development.

**Consultancy Expertise:**

Consultant to leading textile and rubber manufacturing organizations in the area of employee engagement, leadership development, performance management system, employee well-being. Developed HR and OB models/tools to examine the employee opinion on organizational practices.



**Dr. S. YAMINI**

**Assistant Professor**

Department of Management Studies

Email: syamini@nitt.edu

**Research Interests:**

Operation and analytics, supply chain management, operation management, behavioural dynamics in decision making, Stochastic modelling and Applications





**Dr. Shobitha Poulose**

**Assistant Professor**

Department of Management Studies

Email: shobitha@nitt.edu

**Research Interests:**

Employee work life balance, Work and non-work consequences, working conditions, work stress, Individual and organizational interventions towards work life balance



**Dr. B. JANARTHANAN**

**Assistant Professor**

Department of Management Studies

Email: jana@nitt.edu

**Research Interests:**

Cyber psychology, technology oriented marketing, internet advertising and promotions, smartphone game advertising, MSME development and entrepreneurship



**Dr. S. MALOLAN**

**Assistant Professor**

Department of Management Studies

Email: malolan@nitt.edu

**Research Interests:**

Closed loop supply chains – Return acquisition price modelling, remanufacturing system design, sustainable economic policies

Manufacturing 4.0 - Performance monitoring and Prescriptions



**Dr. I. RAJESH**

**Assistant Professor**

Department of Management Studies

Email: irajesh@nitt.edu

**Research Interests:**

Customer experience management, Customer engagement, Services marketing, Research methodology, Consumer behaviour, Marketing Analytics



**Dr. MANJU MAHIPALAN**

**Assistant Professor**

Department of Management Studies

Email: [mmanju@nitt.edu](mailto:mmanju@nitt.edu)

**Research Interests:**

Organizational behaviour, positive psychology and its relevance in work environment, workplace spirituality in enhancing work related outcomes



**Dr. J. KIRUBAKARAN**

**Assistant Professor**

Department of Management Studies

Email: [kirubakaran@nitt.edu](mailto:kirubakaran@nitt.edu)

**Research Interests:**

Financial Management, Stock market, International Economics, Financial Modeling & Research Methodology

# *Department of Mechanical Engineering*

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## About the department

Year of Establishment :1964

Number of Faculty : 28

### Courses offered

UG : B.Tech (Mechanical Engineering)

PG :M.Tech (Thermal Power Engineering)

M.Tech (Industrial Safety Engineering)

Ph.D& M.S (bv research)





**Dr. K. SANKARANARAYANASAMY**

**Professor (HAG)**

Department of Mechanical Engineering

Email: ksnsamy@nitt.edu

**Research Interests:**

Pressure vessel design, Vibrational Analysis, Industrial safety, Laser Materials Processing



**Dr. M. UDAYAKUMAR**

**Professor (HAG)**

Department of Mechanical Engineering

Email: muday@nitt.edu

**Research Interests:**

Thermodynamics, IC engines, Combustions, Fluid power systems and Control



**Dr. S. SHANMUGAM**

**Professor (HAG)**

Department of Mechanical Engineering

Email: shunt@nitt.edu

**Research Interests:**

Design of pressure vessel and piping, Stress analysis of machine elements, FEM applications, Solar energy applications



**Dr. S. VENKATACHALAPATHY**

**Professor**

Department of Mechanical Engineering

Email: [svc@nitt.edu](mailto:svc@nitt.edu)

**Research Interests:**

Heat Transfer, Heat Exchanger Design, Electronic Cooling, Computational Fluid Dynamics

**Available Facilities and Consultancy Services to be Provided:**

Thermal Conductivity Measurement for Solids & liquids, Dry -Well Thermocouple Calibrator.

Thermocouple Welding Machine., Thermal Imaging Camera

Vaccum Diffusion Pump, Solar Intensity Measurement Devices- Pyranometer, Albedometer, etc.



**Dr. A. R. VEERAPPAN**

**Professor**

Department of Mechanical Engineering

Email: [aveer@nitt.edu](mailto:aveer@nitt.edu)

**Research Interests:**

FEM, Thermal power equipment design, Fluid mechanics and machinery, Thermal engg



**Dr. S.P. SIVAPIRAKASAM**

**Professor**

Department of Mechanical Engineering

Email: spshivam@nitt.edu, spsivam@yahoo.com

Mobile: +91-99445 47215

**Research Interests:**

Industrial safety, Process safety, Ergonomics, Emission and control, Particulate matters, Welding fumes, Pyrotechnics, Green manufacturing, Airbag gas generants performance analysis

**Facilities/Resources available for Industry & Educational consultancy:**

Personal Air Sampler with Cascade Impactor

Impact Sensitivity Measurement Apparatus

Friction Sensitivity Tester

Time – Pressure test apparatus for energetic materials.

Thermal tank testing equipment for performance analysis of Automotive Airbags

Noise level meter

**Consultancy Expertise:**

Safety Audit, HAZOP, Dispersion Modelling with software tools, Quantitative Risk Assessment, HIRA, Onsite/Offsite Emergency Plan, Accident Investigation, Noise survey, Safety Trainings, Airbag gas generants performance analysis



**Dr. R. B. ANAND**

**Professor**

Department of Mechanical Engineering

Email: rbanand@nitt.edu

**Research Interests:**

Fluid mechanics, Turbomachines, Internal combustion engines, Power plant engineering





**Prof. S. S. ARULAPPAN**

**Associate Professor**

Department of Mechanical Engineering

Email: sarul@nitt.edu

**Research Interests:**

Machine Design, Wind energy, Ocean wave energy



**Dr. K. PANNIRSELVAM**

**Associate Professor**

Department of Mechanical Engineering

Email: pannir@nitt.edu

Mobile: +91-94880 59034

**Research Interests:**

Instrument

**Facilities/Resources available for Industry & Educational consultancy:**

Vibration analyser , Vibration monitoring, Oven Calibration



**Dr. M. SHAHUL HAMEED**

**Associate Professor**

Department of Mechanical Engineering

Email: hameed@nitt.edu

**Research Interests:**

Vapor absorption refrigeration, Alternate refrigeration



**Dr. R. ANAND**

**Associate Professor**

Department of Mechanical Engineering

Email: anandachu@nitt.edu

Mobile: +91-94448 38909

**Research Interests:**

Fuels and combustion, Internal Combustion Engines, Alternative Fuels, Waste to Energy Conversion, Solar fuels, Fuel Cells.

**Facilities/Resources available for Industry & Educational consultancy:**

**Fuels Lab**

- Gas-chromatography
- Microwave-assisted transesterification – 1 liter
- Ultrasonic-assisted transesterification – 500 mL
- Microwave Pyrolysis oil – 1 liter
- Electrical Pyrolysis oil – 1 liter
- Filtration – Centrifuge (500 mL)
- Vacuum Distillation - 1 liter

- Kinematic viscosity
- Cloud and Pour point
- Acid value and Free fatty acid
- Saponification value
- Iodine value

### **Engine Lab**

- ❖ SI Engine Performance, emission and combustion testing for fuels like petrol and alcohols - Single Cylinder engine, Multi cylinder engine, Carburetor system, MPFI system
- ❖ Diesel engine Performance, emission and combustion testing for fuels like Diesel, Biodiesel and Biodiesel Blends – Single Cylinder engine, Multi cylinder engine, Variable compression ratio engine, Mechanical fuel injection system, CRDI injection system, EGR setup

### **Consultancy Expertise:**

Performance, emission and combustion testing of Dual fuel engine using fuels like diesel and LPG



**Dr. V. ARUL MOZHI SELVAN**

**Associate Professor**

Department of Mechanical Engineering

Email: arulmozhi@nitt.edu

**Research Interests:**

Energy & Fuels, Nanoadditives, IC Engines, Acoustic Metamaterials and Composites, Noise Vibration and Harshness (NVH)

**Available Facilities and Consultancy Services to be Provided:**

Biofuel preparation and characterization

Fuel borne Nanoadditives and its effect on IC Engines

Rheological and Heat Transfer performance of Hybrid Nanolubricants

Performance, Combustion, Emission Test on Automotive and Stationary Engines

Acoustic Metamaterials and Nanocomposites for Automotive Applications

Noise, Vibration and Harshness (NVH)



**Dr. K.R. BALASUBRAMANIAN**

**Associate Professor**

Department of Mechanical Engineering

Email: krbala@nitt.edu

Mobile: +91-94435 61873

**Research Interests:**

Thermal Engineering, Thermodynamics, Turbomachines, Design, Laser Materials Processing, CAD/CAM, Fluid Mechanics

**Facilities/Resources available for Industry & Educational consultancy:**

Calibration of Pressure Gauges, Ergonomic survey in industries.

Portable Types Surface Roughness Tester, Thermocouple Calibration Setup



**Dr. V. MARIAPPAN**

**Associate Professor**

Department of Mechanical Engineering

Email: vmaris@nitt.edu

**Research Interests:**

Thermodynamics, Refrigeration & Air conditioning, Computational Fluid dynamics



**Dr. T. RAMESH**

**Associate Professor**

Department of Mechanical Engineering

Email: tramesh@nitt.edu

**Research Interests:**

Engineering Design, MEMS and Micro Devices, Finite Element Methods, Powder Metallurgy, Biomaterials



**Dr. S. SURESH**

**Associate Professor**

Department of Mechanical Engineering

Email: ssuresh@nitt.edu

**Research Interests:**

Heat pipes, Phase change materials, Nanofluids, Heat Transfer, Energy Engineering, Environmental & pollution control

**Facilities/Resources available for Industry & Educational consultancy:**

UV-VIS Spectrophotometer  
FTIR Spectrophotometer  
Differential Scanning Calorimeter  
Thermo Gravimetric Analyzer  
C-Therm Trident Thermal conductivity Analyzer  
Contact angle meter  
Laser Flash Apparatus  
Force Tensiometer  
Thermal cycling chamber

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**Dr. N. SIVA SHANMUGAM**

**Associate Professor**

Department of Mechanical Engineering

Email: nsiva@nitt.edu

Mobile: +91-94436 49278

**Research Interests:**

Finite Element Method, Welding, Wire Arc Additive, Manufacturing, Ergonomics

**Facilities/Resources available for Industry & Educational consultancy:**

Universal Testing Machine – 1 kN, 25 kN, 50 kN& 1000 kN  
Welding – GTAW, PAW, M-PAW, RSW, GMAW-CMT, Robotic-MIG  
Wire Cut EDM & Die-Sinker EDM Machine  
Impact Test (Metals)  
Shear tester

Hardness Test (Rockwell & Brinell)

Fatigue Testing Machine – 100 kN

CO2 Laser Engraving / Cutting Machine (Non-metals)

Gait analysis system and Finger TPS

Vibration Exciter

Micro Force Measuring Instrument

FEM Packages like COMSOL, ANSYS and ABAQUS (Research Versions)

Micro Strain Measuring Instrument



**Dr. NANDA NAIK KORA**

**Assistant Professor**

Department of Mechanical Engineering

Email: [naik@nitt.edu](mailto:naik@nitt.edu)

**Research Interests:**

Activated tungsten inert gas welding process,  
Duplex stainless steel alloys



**Dr. ASHOK KUMAR NALLATHAMBI**

**Assistant Professor**

Department of Mechanical Engineering

Email: [nashok@nitt.edu](mailto:nashok@nitt.edu)

**Research Interests:**

Metal Quenching - cooling strategies, Leidenfrost effect, distortion and residual stresses, quench cracks Metal Casting – solidification and process modeling, continuous casting of steel, aluminum, copper, hot tearing. Thermomechanical process modeling, material characterization, metal plasticity, thermal fracture



### **Available Facilities and Consultancy Services to be Provided:**

Process modelling – industrial casting & quenching process modelling

OptiCast – casting simulation software for thermomechanical simulation of continuous casting

Optimum cooling strategy development for minimizing distortion and residual stresses

Quenching Experimental facility for optimum cooling strategy validation

Infrared thermography - Quench crack experimentation on aluminum, copper plates

Hot tearing investigation



**Dr. S. S. HARISH**  
**Assistant Professor**

Department of Mechanical Engineering

Email: harish@nitt.edu

**Research Interests:**

Refrigeration, Heat Exchanger design, Mixed Refrigerants, VCR systems, Expansion capillary design



**Dr. P. KAUSHIK**  
**Assistant Professor**

Department of Mechanical Engineering

Email: pkaushik@nitt.edu

**Research Interests:**

Fluid dynamics, Computational fluid dynamics, Non-newtonian fluids



**Dr. S. VEDHARAJ**

**Assistant Professor**

Department of Mechanical Engineering

Email: vedha@nitt.edu

**Research Interests:**

Alternate Fuels

High Efficiency Combustion

IC Engines

**Available Facilities and Consultancy Services to be Provided:**

**Fuels Lab**

- Gas-chromatography
- Microwave-assisted transesterification – 1 liter
- Ultrasonic-assisted transesterification – 500 mL
- Microwave Pyrolysis oil – 1 liter
- Electrical Pyrolysis oil – 1 liter
- Filtration – Centrifuge (500 mL)
- Vacuum Distillation - 1 liter
- Kinematic viscosity
- Cloud and Pour point
- Acid value and Free fatty acid
- Saponification value
- Iodine value

**Engine Lab**

- ❖ SI Engine Performance, emission and combustion testing for fuels like petrol and alcohols - Single Cylinder engine, Multi cylinder engine, Carburetor system, MPFI system
- ❖ Diesel engine Performance, emission and combustion testing for fuels like Diesel, Biodiesel and Biodiesel Blends – Single Cylinder engine, Multi cylinder engine, Variable compression ratio engine, Mechanical fuel injection system, CRDI injection system, EGR setup

- ❖ Performance, emission and combustion testing of Dual fuel engine using fuels like diesel and LPG
- 



**Dr. R. PRAKASH**

**Assistant Professor**

Department of Mechanical Engineering

Email: rprakash@nitt.edu

Mobile: +91-9444810545

**Research Interests:**

- Structural Health Monitoring
- Mechanics of Composite Structures
- Computational Mechanics
- Finite Element Analysis
- Vibration Control

**Facilities/Resources available for Industry & Educational consultancy:**

- Stirring Machine
- Composite Materials cutting machine
- Composite Curing Oven

**Consultancy Expertise:**

- Structural Health Monitoring
  - Mechanics of Composite Structures
  - Computational Mechanics
  - Finite Element Analysis
  - Vibration Control
-



**Dr. BISHWESHWAR BABU**

**Assistant Professor**

Department of Mechanical Engineering

Email: bishweshwar@nitt.edu

**Research Interests:**

Solid mechanics and design, Finite element method, Plates and shells, Structural dynamics and stability, Nonlinear Mechanics, Composite structures, Nonlinear theories of elasticity



**Dr. G. RAJASEKARAN**

**Assistant Professor**

Department of Mechanical Engineering

Email: graja@nitt.edu

**Research Interests:**

Machine design, Mechanics of nanomaterials, Molecular dynamics, Atomistic modelling of nanomaterials, Nanocomposite materials, Vibration control



**Dr. SREEJITH MOHAN**

**Assistant Professor**

Department of Mechanical Engineering

Email: sreejith@nitt.edu

**Research Interests:**

Particulate emission and control, Welding fume analysis, Green technology, Industrial Hygiene, Mathematical modelling and Finite element method, Biomechanics and Ergonomics, Nanocoating and Tribo-corrosion



**Dr. NIVISH GEORGE**

**Assistant Professor**

Department of Mechanical Engineering

Email: nivish@nitt.edu

**Research Interests:**

Functionally graded materials, Composite and nanocomposite materials, Sandwich structures, Magneto Electro Elastic materials, Finite element analysis



**Dr. RAGHU RAM KARTHIK DESU**

Assistant Professor

Department of Mechanical Engineering

Email: desu@nitt.edu

**Research Interests:**

Granular systems, Discrete Element Modelling, Predictive Modelling and optimisation (ANN, GA), Additive Manufacturing, High temperature material testing, Fusion

# ***Department of Metallurgical and Materials Engineering***

## **About the department**

Year of Establishment: 1964

Number of Faculty : 16

## **Courses offered**

**UG:** B. Tech (MME)

**PG:** M Tech (Welding  
Engineering)

M. Tech (Materials Science &  
Engineering)





**Dr. T. SRINIVASA RAO**

**Professor HAG**

Department of Metallurgical and Materials Engineering

Email: tsrao@nitt.edu

Mobile: +91-7893150786

**Research Interests:**

Powder metallurgy composites

Mechanical alloying

**Facilities/Resources available for Industry & Educational consultancy:**

**Consultancy Expertise:**

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**Dr. S.NATARAJAN**

**Professor HAG**

Department of Metallurgical and Materials Engineering

Email: sn@nitt.edu

Mobile: +91-94860 01136

**Research Interests:**

Corrosion Engg, Surface Engg, Tribology and allied areas pertinent to Agriculture, Aerospace, Automobile, Mining, Power, Petrochemical, Process, and Textile industries.

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**Dr. V. MUTHUPANDI**

**Professor HAG**

Department of Metallurgical and Materials Engineering

Email: [vmuthu@nitt.edu](mailto:vmuthu@nitt.edu)

Mobile: +91- 9486001126

**Research Interests:**

Structure property correlation

Welding

Surface modification and corrosion



## **Dr. S. Raman Sankaranarayanan**

### **Professor**

Department of Metallurgical and Materials Engineering

Email: [raman@nitt.edu](mailto:raman@nitt.edu), slagdoctor@gmail.com

Mobile: +91-9894702353; WA: 93 85 61 21 53

### **Research Interests:**

Process metallurgy; Process modeling; Quality management; Techno economic analysis of metallurgical industry

### **Facilities/Resources available for Industry & Educational consultancy:**

Areas: Engineering Education, Steel industry, Process Metallurgy, Process Modeling, Fluxes, Slags, Mould powders, Utilization of Metallurgical wastes, Rare Earths, Economic aspects of metallurgical industry, Quality Management, Cost of Quality (CoQ) Resources: melting furnaces, thermodynamic software

### **Consultancy Expertise:**

1. Very keen to work with the steel industry
2. Very keen to work on synthesis of rare earth based speciality chemicals
3. **Prior consulting experience** on quality improvement in foundry industry
4. **Prior consulting experience** on breakouts and CoQ in continuous casting of steels
5. **Prior consulting experience** on steel making slags in steel plants
6. Prior industrial experience in fluxes, slags, continuous casting
7. Very keen to offer tailor made training programmes for steel industry



**Dr. S. KUMARAN**

**Professor**

Department of Metallurgical and Materials Engineering

Email: kumara@nitt.edu

Mobile: +91-9944434705

**Research Interests:**

Powder compaction and sintering

Non-equilibrium materials (Nano Amorphous etc.,)

Shape memory alloys, Mechanical alloying

**Facilities/Resources available for Industry & Educational consultancy:**

Mathematical Tools



**Dr. S.P. KUMARESH BABU**

**Professor**

Department of Metallurgical and Materials Engineering

Email: babu@nitt.edu

Mobile: +91- 9487438564

**Research Interests:**

Metal Casting

Welding

Corrosion



**Dr. B. RAVISANKAR**

**Professor**

Department of Metallurgical and Materials Engineering

Email: brs@nitt.edu

Mobile: +91-9442505336

**Research Interests:**

Mechanical behaviour and metal forming

**Dr. S. MUTHUKUMARAN**

**Professor**

Department of Metallurgical and Materials Engineering

Email: smuthu@nitt.edu

Mobile: +91- 9442069381



**Research Interests:**

Welding  
Manufacturing  
NDT  
Materials Science

**Dr. N. RAMESH BABU**

**Associate Professor**

Department of Metallurgical and Materials Engineering

Email: nrb@nitt.edu, rameshrohith@gmail.com

Mobile: +91- 9944932221



**Research Interests:**

Biomaterials, Ceramic Materials, Nanomaterials  
Nanostructured Processing (Plasma Electrolytic  
Processing, Microwave Processing, Spark Plasma  
Sintering)



**Dr. KATAKAM SIVA PRASAD**

**Associate Professor**

Department of Metallurgical and Materials Engineering

Email: ksp@nitt.edu

Mobile: +91-9444192278

**Research Interests:**

Mechanical behaviour of materials

Welding technology

Materials Characterization

Nanomaterials



**Dr. S. JEROME**

**Assistant Professor**

Department of Metallurgical and Materials Engineering

Email: jerome@nitt.edu

Mobile: +91- 9443022544

**Research Interests:**

Welding Processes

Welding Metallurgy

**FEA in welding**



**Dr. D. NAGARAJAN**

**Assistant Professor**

Department of Metallurgical and Materials Engineering

Email: nagarajand@nitt.edu

Mobile: +91-7639641307

**Research Interests:**

Metal forming (bulk & sheet), Die-less forming process, Incremental sheet forming, Flow forming, Severe plastic deformation, Light alloys development and forming for aerospace and automotive applications, optimization of 3D optical measurement techniques

### **Facilities/Resources available for Industry & Educational consultancy**

Non-contact 3D Laser Scanning System, Surface Roughness Tester (Taylor Hobson), Electrolytic Grid Printing Machine for FLC measurements, Erichsen Cupping Tester for formability measurements, Load cells (10 kN and 50 kN Universal Type), LVDT (100 mm and 300 mm stroke length), Data Acquisition System (For recording load, stroke and temperature), Electrolytic Polishing Machine, Metallography sample preparation unit (Hot mounting press, semi-automatic polishing machine, abrasive wheel cutting machine, low speed diamond cutter), Optical microscopes & Stereo microscope, Hydraulic press (80 Tons), Proving rings for load cell calibration (Compression type - 1000 kN & Tension type - 100 kN)



**Dr. V. KARTHIC**  
**Assistant Professor**

Department of Metallurgical and Materials Engineering

Email: karthikv.gce@gmail.com

Mobile: +91- 9788444987

#### **Research Interests:**

Simulation



**Dr. NIMU CHAND REGER**  
**Assistant Professor**

Department of Metallurgical and Materials Engineering

Email: nimu@nitt.edu

#### **Research Interests:**

Biomaterials, Surface coating, Heat Treatments



**Dr. A. MUTHUCHAMY**

**Assistant Professor**

Department of Metallurgical and Materials Engineering

Email: muthuchamy@nitt.edu

**Research Interests:**

Metal joining, Metal matrix composites, Welding metallurgy, Phase transformation

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**Dr. PRINCE GIDEON KUBENDRAN AMOS**

**Assistant Professor**

Department of Metallurgical and Materials Engineering

Email: prince@nitt.edu

**Research Interests:**

Phase field modelling and simulation, Microstructure stability, Computational Material Science

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# Department of Physics

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## About the department

Year of Establishment :1964

Number of Faculty : 17

### Courses offered

**PG** :M.Sc (Physics) , M.Tech  
(NDT), M.S (NDT)

**Ph.D**





**Dr. D. SASTIKUMAR**

**Professor HAG**

Department of Physics

Email: sasti@nitt.edu

Mobile: +91-9488600672

**Research Interests:**

Fiber optics Sensors,  
Laser Materials Processing

**Facilities/Resources available for Industry & Educational consultancy:**

**1. Nd: YAG Laser**

(JPRO-230-10 Spectra Physics) Used as a high power source



**2. INFRARED THERMOGRAPHY CAMERA**



SC 7500/ (FLIR - AUTOMATION TECHNOLOGY)

To analyze the heat transfer in the sample in an image form.



**Dr A. CHANDRA BOSE**

**Professor**

Department of Physics

Email: [acbose@nitt.edu](mailto:acbose@nitt.edu)

Mobile: +91-9444065746

**Research Interests:**

Nanomaterials

Photocatalysis

supercapacitor

Energy harvesting materials

**Facilities/Resources available for Industry & Educational consultancy:**

**1. HR TEM (Tecnai G230S-TWIN)**

To analyze the surface morphology of the samples



**2. Cyclic Voltmeter (Biologic 150)**

To study the electrochemical properties of the samples



**3. Impedance analyser (Solartron 1260)**

To measure the impedance of the sample





**Dr. J. HEMALATHA**  
**Professor**

Department of Physics  
Email: hemalatha@nitt.edu  
Mobile: +91-9600974565

**Research Interests:**

Polymer Nanocomposites and  
Nanofluids

**Facilities/Resources available for Industry & Educational consultancy:**

**1. ATOMIC FORCE MICROSCOPE (PARK SYSTEMS NX10)**

- To study the topography of the samples
- To analyze the surface roughness of the samples
- To analyze the ferroelectric, magnetic response of the samples using advanced modes.



**2. MAGNETO RESISTANCE MEASUREMENT SETUP**

To analyze the magneto resistance of the sample for an applied magnetic field of 0.75 Tesla (Maximum field)





**Dr. N. GOPALAKRISHNAN**

**Professor**

Department of Physics

Email: ngk@nitt.edu

Mobile: +91-9894914905

**Research Interests:**

Thin films, Nanomaterials,  
Spintronics, Gas sensing and  
Water purification

**Facilities/Resources available for Industry & Educational consultancy:**

**Low Temperature Photoluminescence (LTPL)(HORIBA-I**

To study the photoluminescence properties of the samples



**Dr. N.V. GIRIDHARAN**

**Associate Professor**

Department of Physics

Email: giri@nitt.edu

Mobile: +91-9443689391

**Research Interests:**

Ferroelectrics and Multiferroics, Bulk and Thin films

**Facilities/Resources available for Industry & Educational consultancy:**

**Precision Multiferroic Tester (Radiant Technologies Inc. USA)**

To study Ferroelectric, piezoelectric, magneto-capacitance properties of Specimens





**Dr. M. ASHOK**

**Professor**

Department of Physics

Email: ashokm@nitt.edu

Mobile: +91-9486067408

**Research Interests:**

Biomaterial, Photo catalysis, Material Science

**Facilities/Resources available for Industry & Educational consultancy:**

**1. FTIR (Fourier Transform-  
Infra Red) Spectrometer  
(Thermo Scientific Nicolet iS5)**

To detect the range of function group present in the sample



**2. UV- Visible Spectrometer (UV 1700)**

Used for the quantitative determination of the materials in sample.



**3. Raman spectrometer (Enspectra R532)**

To verify the crytallanity of the samples  
To study the electronic transition of elements



**4. Cyclic voltammetry (Palmsens3)**

To study the electrochemical properties of an analyte in :



**5. Solar simulator (lamp only) [Oriel LCS-100 small area Sol1A]**

To excite the excitons in the sample with the solar radiation

**6. Ultrasonic Processor (Model no: VC 505)**

Used for nanoparticle dispersion , homogenous dispersion



**7. Photocatalysis set-up**

To check the photodegradation of the contaminant with the



**8. C-scan**

To examine the defect in the material



**9. Olympus OmniScan SX**

To detect and analyse the flaws in NDT components







**Dr.SANTHOSH KUMAR M.C.**

**Associate Professor**

Department of Physics

Email: [santhoshmc@nitt.edu](mailto:santhoshmc@nitt.edu)

Mobile: +91-9443843014

**Research Interests:**

Thin Films, Photovoltaics

Nanomaterials and NDT

**Facilities/Resources available for Industry & Educational consultancy:**

**1. UV-vis-NIR Spectrometer (Jasco V670)**

To study the absorbance, transmittance and diffuse reflectance of the samples



**2. Spectrofluorimeter (Jasco FP8500)**

To determine the organic compounds present in the san



**3. Hall effect measurement system  
(ECOPIA HMS5000)**

To measure the carrier concentration of the samples



**Consultancy Expertise:**

Optical and Electrical characterization of thin films and coatings



**Dr. B. KARTHIKEYAN**  
**Associate Professor**  
Department of Physics  
Email: bkarthik@nitt.edu  
Mobile: +91-9994372825

**Research Interests:**

NanoPhotonics - Nonlinear Optics and  
Raman Spectroscopy

**Facilities/Resources available for Industry & Educational consultancy:**

**1. LabRam HR Evolution Micro Raman Spectrometer**

**LabRam HR Evo Model : 356399**

To analyze the structural fingerprint by  
which molecules can be identified



**2. Time Resolved Fluorescence Spectrometer**

**Model Delta Flex-01-NL TCSPC**

To record fluorescence decay via Time-  
Correlated Single Photon Counting



**3. Nd-YAG Laser (Second Harmonic  
Generation Quanta-RayINDI)**

To analyze SHG efficiency through an  
acousto-optic Q-switching



**4. Fluorescence Spectrometer**

**[FluoroMax-4 Spectrofluorometer (Horiba Scientific)]**

To analyze the fluorescence property of  
a sample through concentration of an analyte.





**Dr. R. JUSTIN JOSEYPHUS**

**Associate Professor**

Department of Physics

Email: rjustinj@nitt.edu

Mobile: +91-9952848153

**Research Interests:**

Magnetism and Magnetic Materials

**Facilities/Resources available for Industry & Educational consultancy:**

**1. Liquid Nitrogen plant (NL-280)**

To obtain high purity liquefied nitrogen



**2. Vibrating Sample Magnetometer (Lakeshore 7404)**

To analyze the magnetic nature of the samples



**3. Thermogravimetric analyzer (EXSTAR TG/DTA 620)**

To analyze the thermal stability of the samples



**Consultancy Expertise:**

Soft and hard magnetic materials, nanomagnetic particles, metal and alloy powders through chemical synthesis, applications and processing of magnetic materials



**Dr. S. MANIVANNAN**  
**Associate Professor**  
Department of Physics  
Email: ksmani@nitt.edu  
Mobile: +91-9629505060

**Research Interests:**

Carbon Nanotubes, Nonlinear Optical Materials,  
Transparent Conducting Films, Polymer  
nanocomposites

**Facilities/Resources available for Industry & Educational consultancy:**

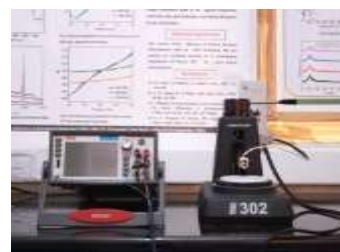
**1. LCR Hi-TESTER  
(HIOKI 3532-50)**

To measure the inductance, capacitance, and resistance of a circuit.



**2. SOURCE MEASUREMENT UNIT  
(KEITHLEY 2450)**

To analyze voltage and/or current by Sourcing and measuring at the same Time



**3. DIODE LASER  
(VORTRAN LASER TECHNOLOGY, INC.)**

To analyze the optical and electrical properties of semiconductor





**Dr. R. NAGALAKSHMI**

**Associate Professor**

Department of Physics

Email: nagalakshmi@nitt.edu

**Research Interests:**

Nonlinear optical materials, Vibrational Spectroscopy, Magnetism and Superconductivity at low temperatures, Single crystal growth of rare earth intermetallics



**Dr. ANNAPUREDDY VENKATESHWARLU**

**Assistant Professor**

Department of Physics

Email: annp@nitt.edu

**Research Interests:**

Flexible energy harvesters, Smart actuators & sensors, Photostrictive materials, Nano-structured materials



**Dr. T. SONAMANI SINGH**

**Assistant Professor**

Department of Physics

Email: takhel@nitt.edu

**Research Interests:**

Microswimmers, Microbotics, Swarm Dynamics, Electronic nose (E-nose), Swarm Intelligence, Artificial Neural network



**Dr. SOMNATH MUKHOPADHYAY**

**Assistant Professor**

Department of Physics

Email: somnath@nitt.edu

**Research Interests:**

Theoretical astrophysics, Compact stars, Gravitational waves



**Dr. VENKATA SURYANARAYANA MUMMIDI**

**Assistant Professor**

Department of Physics

Email: venkata@nitt.edu

**Research Interests:**

Theoretical High energy Physics



# Department of Production Engineering

## About the department

Year of Establishment: **1983**

Number of Faculty : **18**

### Courses offered

**UG:** - B. Tech (Production Engineering)

**PG :-** M. Tech (Manufacturing Technology)

**M. Tech** (Industrial Engineering & Management)

**Ph.D& M.S** (by research)







**Dr. P. ASOKAN**

**Professor HAG**

Department of Production Engineering

Email: asokan@nitt.edu

Mobile: +91-9443112380

**Research Interests:**

Supply Chain Management,  
Distribution Network Design,  
Optimization in Manufacturing, Operation Management

**Facilities/Resources available for Industry & Educational consultancy:**

Retrofit Kit, Triac CNC Machine, HMT STC-15,

Dynamometer, Leadwell CNC Machine,

Vertical Machining CNC



**Dr. S. KUMANAN**

**Professor HAG**

Department of Production Engineering

Email: kumanan@nitt.edu

Mobile: +91-94895 53835

**Research Interests:**

Intelligent Manufacturing, Modelling, Simulation and  
Optimization in manufacturing, Supply Chain Management.

**Facilities/Resources available for Industry & Educational consultancy:**

In charge of Intelligent Manufacturing Lab, Data analytics lab and OM Lab.



**Dr.-Ing. M. DURAISELVAM**

**Professor**

Department of Production Engineering

Email: durai@nitt.edu

Mobile: +91-9994373486

**Research Interests:**

Laser surface Engineering, Micromachining, Tribology, Additive Manufacturing, Product Engineering, Digital Manufacturing

**Facilities/Resources available for Industry & Educational consultancy:**

3D metal printer, laser shock peening system, Laser materials processing workstation, Femtosecond laser micromachining system, high temperature indentation tester, pin-on-disc tribometer, roller-on-roller tribometer, inverted pin-on-disc, surface roughness tester, white-light interferometer, scratch tester, ultrasonic flaw detector.

**Consultancy Expertise:**

Metal additive manufacturing, Laser based cutting, welding, surface treatments and drilling, laser surface texturing, innovative product design, digital manufacturing and all kinds of tribo-characterization



**Dr. P. SATHIYA**

**Professor**

Department of Production Engineering

Email: psathiya@nitt.edu

Mobile: +91-94434 94090

**Research Interests:**

Welding Technology, Solid State Joining, Materials Behaviour subjected to Welding.

**Facilities/Resources available for Industry & Educational consultancy:**

Vickers Micro Hardness Tester, Abrasive Cutter, Belt Grinder, Comsol Multi Physics Software, Electro-chemical work station, Box Type Muffle Furnace, Optical Microscope, Broaching Machine, TIG and MIG welding.

**Consultancy Expertise:**

Sample preparation & Microstructure, Corrosion, Heat treatment,



**Dr. R. JEYAPPAUL**

**Professor**

Department of Production Engineering

Email: jeyapaul@nitt.edu

Mobile: +91-9444290049

**Research Interests:**

Optimization Techniques

Taguchi Methodology

**Facilities/Resources available for Industry & Educational consultancy:**

Vibration Analysis Tool, and Ergo Master, GAMS Software, Systat Software, ILOG C Plex and  
Systat 12

**Dr. C. SATHIYA NARAYANAN**

**Associate Professor**

Department of Production Engineering

Email: csathiya@nitt.edu

Mobile: +91-8056615876

**Research Interests:**

Sheet metal forming, EDM

**Facilities/Resources available for Industry & Educational consultancy:**

Universal Milling Machine, HMT Lathe, Electrochemical Machine, Drilling Tool Dynamometer, Lathe Tool Dynamometer, Grinding Tool Dynamometer, Milling Tool Dynamometer and Digital Tool Tip Temperature Indicator

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**Dr. P. SENTHIL****Associate Professor**

Department of Production Engineering

Email: [senthil@nitt.edu](mailto:senthil@nitt.edu)

Mobile: +91-9843710101

**Research Interests:**

Rapid Manufacturing, Machining of Metal Matrix Composites, Modeling and Optimization of Manufacturing Processes, Computer Aided Design

**Facilities/Resources available for Industry & Educational consultancy:**

Dynamometer, Leadwell CNC turning centre , Vertical Machining centre, Trainer CNC, FDM machine, Vickers Micro Hardness Tester, surface roughness tester and polymer impact testing machine.

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**Dr. S. PRASANNA VENKATESAN**

**Associate Professor**

Department of Production Engineering

Email: prasanna@nitt.edu

Mobile: +91-9345120537

**Research Interests:**

E-waste assessment, refurbishing

Health care logistics

Supply chain risk management

Manufacturing system simulation

**Facilities/Resources available for Industry & Educational consultancy:**

State of the art softwares for modeling, optimization and simulation GAMS, Flexsim, Witness etc.,

**Consultancy Expertise:**

SERB-DST sponsored research project on e-waste



**Dr. K. PANNEERSELVAM**

**Associate Professor**

Department of Production Engineering

Email: kps@nitt.edu

Mobile: +91-9952842776

**Research Interests:**

Advance Manufacturing Process, Composite Material processing, Modelling and Optimization of Manufacturing process.

**Facilities/Resources available for Industry & Educational consultancy:**

- Twin Screw Extruder plant
- Injection Moulding Machine and Compression Moulding Machine
- 3d Printer
- Computerized Tensometer and Impact Testing Machine, Ultra-Sonic Bath,
- Melt Flow Index Tester,
- Hot Air Oven,
- Butt Fusion Welding machine and Density Testing Equipment
- Hydraulic, Pneumatic, Electro Pneumatic, Electro Hydraulic circuit simulation Software with hardware kits

**Consultancy Expertise:**

Development of new Polymer composite material manufacturing and Characterization.

Polymer and Polymer composite product manufacturing



**Dr. P. PARTHIBAN**  
**Associate Professor**

Department of Production Engineering

Email: parthiban@nitt.edu

Mobile: +91-9443430246

**Research Interests:**

Logistics and Supply Chain Management,  
Operations Research, Production and  
Operations Management, Enterprise Resource  
Planning.

**Facilities/Resources available for Industry & Educational consultancy:**

SCM Guru Software, ILOG C Plex, Softwares for modeling and optimization, ERP softwares



**Dr. J. JERALD**  
**Associate Professor**

Department of Production Engineering

Email: jerald@nitt.edu

Mobile: +91-94425 30103

**Research Interests:**

Micro/Nano machining,  
Flexible manufacturing Systems,  
Optimization

**Facilities/Resources available for Industry & Educational consultancy:**

High Precision Multi Process Machine, Surface Grinding Machine and Co-ordinate Measuring Machine





**Dr. V. SENTHILKUMAR**

**Associate Professor**

Department of Production Engineering

Email: [vskumar@nitt.edu](mailto:vskumar@nitt.edu)

Mobile: +91-9500403991

**Research Interests:**

Metal matrix composites Modelling and simulation,  
Powder metallurgy,  
Impact studies & Crashworthiness of armour steels  
Mechanics of Composite Materials

**Facilities/Resources available for Industry & Educational consultancy:**

Servo Controlled Hot Deformation Testing Facility, Planetary Ball Mill, Cryogenic Milling Facility, COMSOL Software, DEFORM 3D Software and Cryogenic Cooling system for material processing.

**Consultancy Expertise:**

Development of high strength metal matrix composite for coating/structural applications

Development of Processing Map for high strength alloys and composites

Blast/Crash worthiness of high strength and armour grade materials

Design and analysis of light weight sandwich structures



**Dr. V. ANANDAKRISHNAN**

**Associate Professor**

Department of Production Engineering

Email: krishna@nitt.edu

Mobile: +91-98421 67599

**Research Interests:**

Engineering Graphics and Drafting,  
Engineering Mechanics, Machine Drawing,  
Theory of Machines, Metal Forming

**Facilities/Resources available for Industry & Educational consultancy:**

Metrology labs: Optical Microscope, IR Thermometer, etc.

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**Dr. S. VINODH**

**Associate Professor**

Department of Production Engineering

Email: vinodh@nitt.edu

Mobile: +91-9952709119

**Research Interests:**

Lean Manufacturing  
Sustainable Manufacturing  
Product Development  
Rapid Manufacturing

**Facilities/Resources available for Industry & Educational consultancy:**

3D Printer – Prototype development

Product development

Lean tools/techniques deployment



**Dr. D. LENIN SINGARAVELU**

**Associate Professor**

Department of Production Engineering

Email: [dlenin@nitt.edu](mailto:dlenin@nitt.edu)

Mobile: +91-9487069811

**Research Interests:**

Brake Friction Materials, Tribology, Non-conventional Machining, Shape Memory Alloys, Processing of Polymers, Joining of Advanced Materials and Composites

**Facilities/Resources available for Industry & Educational consultancy:**

Rotational Molding Machine, Manual Preform Press, Weighing Balance with density apparatus and Plough Shear Mixing Machine



**Dr. V. SATHEESHKUMAR**

**Assistant Professor**

Department of Production Engineering

Email: [satheeshv@nitt.edu](mailto:satheeshv@nitt.edu)

Mobile: +91-9952648848

**Research Interests:**

Materials Joining and forming,  
Adhesives and polymers, sandwich sheets,  
light weight materials development



**Dr. T. JAGADESH**

**Assistant Professor**

Department of Production Engineering

Email: [jagadesh@nitt.edu](mailto:jagadesh@nitt.edu)

Mobile: +91- 9080746066

**Research Interests:**

Micro manufacturing, Metrology, Precision machining,  
Additive manufacturing, Laser based manufacturing,  
Finite element simulations, Design of machine tool,  
Composites, Tribology, Cryogenics

### **Consultancy Expertise:**

- Micro manufacturing
- Metrology
- Precision machining
- Laser based manufacturing
- Additive manufacturing
- Finite element simulations
- Composites
- Cryogenics



**Dr. VASU. M**

**Assistant Professor**

Department of Production Engineering

Email: mvasu@nitt.edu

Mobile: +91- 9611604276

**Research Interests: Machinability Studies and Optimization technique.**



**Dr. MATRUPRASAD ROUT**

**Assistant Professor**

Department of Production Engineering

Email: martuprasad@nitt.edu

**Research Interests:**

Metal forming, High-temperature deformation, Recrystallization, FE modelling of bulk metal forming process



**Dr. VINEET KUMAR YADAV**

**Assistant Professor**

Department of Production Engineering

Email: vineet@nitt.edu

**Research Interests:**

Advanced manufacturing process, Hybrid machining process, Micro-machining, Laser beam machining



**Dr. PRAKASH KUMAR**

**Assistant Professor**

Department of Production Engineering

Email: prakashkumar@nitt.edu

**Research Interests:**

Machine Design, Nonlinear dynamics, Vibration



**Dr. SANTOSH KUMAR MISHRA**

**Assistant Professor**

Department of Production Engineering

Email: santosh@nitt.edu

**Research Interests:**

Hydraulics, Hydrostatic Transmission system, Fault diagnosis, Solar power system with nanomaterials

