

## Mechanical Engineering Department, BITS Pilani, Pilani Campus

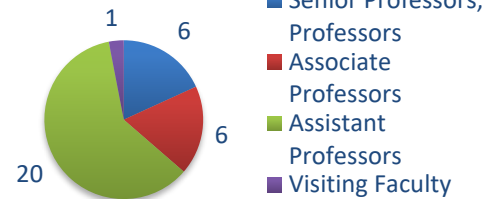
Welcomes application for Ph.D. program from motivated and meritorious students. Special invite for CSIR-UGC National Eligibility Test (NET) qualified candidates having own fellowship to join Ph.D. program in Mechanical Engineering Department. The shortlisting eligibility criteria for non-NET candidate is "First Division in both B.E. / B. Tech/ M.Sc. (First Degree) and M.E. / M. Tech (Higher Degree) or equivalent in Mechanical Engineering or allied disciplines (minimum 60% or equivalent in cases where the university does not declare First class)."

(Department Data pertaining to Calendar year 2021 only)

### ACADEMIC ACHIEVEMENTS



### Faculty

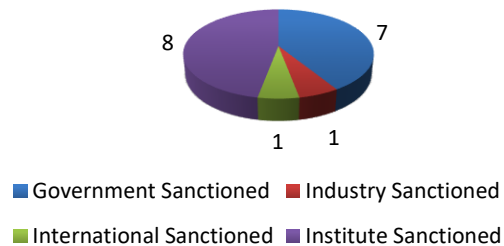


### Ph.D. Scholar in the Department

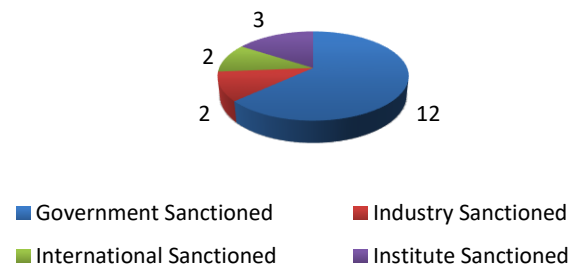
Full Time	: 39
Part Time	: 21
Aspirant Scheme	: 01

- QS World Ranking: 351 – 400, QS India Ranking in top 11
- Two faculty features within top 2% scientist in subject wise ranking of Stanford University

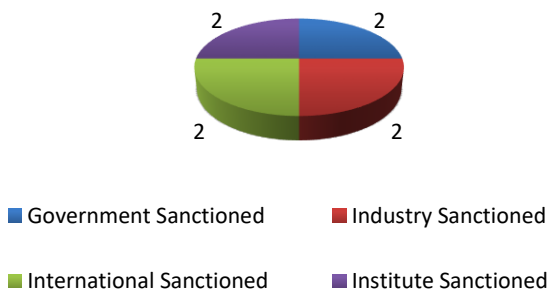
### Project Sanctioned: 350.64 Lakhs



### Projects Ongoing: 636.86 Lakhs



### Projects Completed: 305.45 Lakhs



### Department Laboratories & Room No.

Material Science Lab	2104
MEMS Lab	2111
Refrigeration Lab	2122
Thermal Science Lab	2123
Hydraulics Lab	2124
Computational Lab	2233
Supply Chain Lab	2235
IC Engine Lab	4105
Smart Building Lab ( <i>Sponsored</i> )	1103
Centralised Workshop Facility	7101

Faculty Homepage Link	Research Areas
<a href="#">Dr. A R Harikrishnan</a>	Heat Transfer and Fluid flows, Droplet evaporation, Droplet Impact Dynamics, Wetting and Interfacial physics, Colloids and complex fluids, Micro–nanoscale thermo-fluidics
<a href="#">Dr. Abhijeet K. Digalwar</a>	World Class Manufacturing, Sustainable Manufacturing, Green Manufacturing, Lean Manufacturing, Machine Tool Engineering, Operations Management, Total Quality Management, Performance Measurement Systems
<a href="#">Dr. Amit R. Singh</a>	Solid and structural mechanics, fluid dynamics, nonlinear elasticity, finite element method, computational contact mechanics, mechanics of soft shells, oriented particle systems
<a href="#">Dr. Aneesh A. M.</a>	Computational and experimental studies on fluid flow and heat transfer in mini and micro channels, Computational studies on Multiphase flows and Fluid Structure Interaction
<a href="#">Dr. Arun Kr. Jalan</a>	Fault Diagnosis, Machinery Condition Monitoring, Acoustics, Tribology
<a href="#">Prof. Bijay K. Rout</a>	Design Optimization of Mechanical Systems, Modeling, and Simulation of Dynamic Systems, Application of Design of Experiments Techniques and Evolutionary Algorithms for Robust Design.
<a href="#">Prof. C. Ranganayakulu</a>	Thermal/Heat Transfer: Compact Heat Exchangers, Boiling and Condensation, Design and Product Development
<a href="#">Dr. Divyansh Patel</a>	Micro-texturing of biomedical implants using electrochemical micromachining, advanced (non-traditional) machining processes
<a href="#">Dr. Faizan M. Rashid</a>	Composite Structures, Bio-mechanics, Mechanics of Materials, Fatigue, Impact Mechanics, Material Modeling and Material Characterization
<a href="#">Dr. Gaurav Watts</a>	Computational Structural Mechanics
<a href="#">Dr. Girish Kant</a>	Manufacturing
<a href="#">Dr. Jitendra S. Rathore</a>	Mechanics, Nanotechnology
<a href="#">Prof. K. S. Sangwan</a>	Sustainable Manufacturing, Lean Manufacturing, Integrated and Green Sustainable Supply Chain Management, Cellular Manufacturing System, Resource Efficiency in Machining, Design of Manufacturing System, Cyber Physical Production System/Industry 4.0, Application of Artificial Intelligent technique in design of Manufacturing System
<a href="#">Prof. Mani Sankar Dasgupta</a>	Next-generation Refrigeration systems, CO2 Trans-critical system, Environment friendly technologies, Sports Engineering, Mechanical Design & System Design.
<a href="#">Dr. Manoj Soni</a>	Renewable energy, Solar-thermal, Thermo-fluids
<a href="#">Dr. Md. Qaisar Raza</a>	Multi-phase heat transfer, Thermal management of electronics, Colloid and interface science, Bubble dynamics in microgravity
<a href="#">Dr. Murali Palla</a>	Mechanical behavior of advanced materials, Computational modelling, Phase transformation, Characterization of materials
<a href="#">Prof. P. Srinivasan</a>	Thermal and Materials
<a href="#">Dr. Prateek Kala</a>	Advanced Manufacturing Process, Rapid Prototyping
<a href="#">Dr. Radha Raman Mishra</a>	Microwave Processing of Materials, Additive Manufacturing, 4D Printing of materials, Composite Materials, Modelling and Simulation, Product Design and Development
<a href="#">Dr. Rajesh P. Mishra</a>	Maintenance Management, Quality Management, Operations Management, Optimization, World-Class Manufacturing, Lean Manufacturing, Reliability Centre Maintenance (in Manufacturing)
<a href="#">Dr. Sachin U Belgamwar</a>	MEMS, Electrochemical synthesis of carbon nanotube reinforced metal-matrix composites, Quantification of carbon nanotube distribution in composites, and microstructure-property correlations, Characterization of the nanocomposite, Thermo-physical properties of the nanocomposite
<a href="#">Dr. Saket Verma</a>	Hydrogen fueled IC engines and hydrogen energy, Thermal management of hydrogen based hybrid energy systems, Alternative fuel technology, dual fuel engines and unconventional engines, Applied thermodynamics, energy conservation, energy system modelling and optimization
<a href="#">Dr. Sharad Shrivastava</a>	Non-destructive testing, composite materials, biomedical engineering, thermal spray coatings, fracture mechanics, mechanics of materials
<a href="#">Dr. Shyam Sunder Yadav</a>	Incompressible and Compressible Two-Phase Flows with Phase Change, Fluid Structure Interaction of Haemodynamical flows, Finite Volume Methods for Fluid Dynamics, High Performance Scientific Computing, Fluid Dynamics and Heat Transfer, Computational Fluid Dynamics, Electrohydrodynamics, Open source codes
<a href="#">Dr. Soumyajit Roy</a>	Coupled dynamics of railway pantograph-catenary system, Wave propagation in continuous systems, Multibody dynamics, Dynamics of mechanical systems.
<a href="#">Prof. Souvik Bhattacharyya</a>	Thermal science, Natural refrigerant based transcritical heating cooling systems, Thermodynamic modelling and optimization, Energy Engineering and Planning, Natural circulation loops (NCLs)
<a href="#">Prof. Srikanta Routroy</a>	Supply Chain Management, Green Steel Supply Chain, Agriculture Supply Chain, Lean Manufacturing, Agile Manufacturing, Manufacturing Management, Evolutionary Optimization Techniques, Artificial Intelligent techniques in design of Manufacturing System
<a href="#">Dr. Suvanjan Bhattacharyya</a>	Experimental Heat Transfer, Transitional Flow, Computational Fluid Dynamics, Transport Phenomenon, Air-conditioning and Refrigeration, Turbulence Modelling, Solar Energy, Micro-channel heat transfer, Electronics Cooling, Newtonian and Non-Newtonian nano-fluid heat transfer
<a href="#">Dr. Tribeni Roy</a>	Energy storage devices (Li-ion batteries, supercapacitors), hybrid EVs, High potential window electrolytes, Multi-scale and multi-physics modelling (from atomistic to continuum), Machine learning
<a href="#">Dr. Tufan Chandra Bera</a>	Conventional and Unconventional Machining, CAD/CAM/CAE
<a href="#">Dr. Venkatesh K.P. Rao</a>	MEMS, NEMS, Dynamics, Finite Element Methods, Neuroscience, Oncology, Myography, Biomechanics, Medical diagnosis

Contact: HOD: Prof M. S. Dasgupta ([dasgupta@pilani.bits-pilani.ac.in](mailto:dasgupta@pilani.bits-pilani.ac.in), +91 9829227459)  
DRC Coordinator: Dr Venkatesh KP Rao ([venkateshkp.rao@pilani.bits-pilani.ac.in](mailto:venkateshkp.rao@pilani.bits-pilani.ac.in), +91 8660334624)