

Sponsored Project

<p>Title: Automation Technologies</p> <p>Funded by : Government of India, Ministry of Science and Technology</p> <p>Scheme: DST - FIST (Level I) for Post Graduate Teaching Research Facility</p> <p>Order No :SR/FST/ETI-399 dated 7th June 2016</p> <p>Grant(Rs): 259.00 Lakhs</p>	
<u>Facility</u>	<u>Utilization</u>
<p>Factory Automation (Drives and controls) - PLC and Servo set up with pulse / network output, Micro PLC and HMI set up, Integrated FA set up, Motion controller set up, Modular PLC set up</p>	<ul style="list-style-type: none"> • To augment Theory and practical courses of Mechatronics and Manufacturing PG programs • To carry out project works of Mechatronics and Manufacturing PG programs • To support Automation related experimental work of PhD program • To provide training to UG students
<p>Gantry based FMS - 2 axes high speed CNC gantry (15 kg payload), Gripper Index Unit, input and output conveyor, Pre and post gauge mounting</p>	
<p>AGV based FMS - CNC Turn and Mill Centres, 2 /3 Axes loading and unloading Arm, ASRS, Vision station</p>	
<p>Industrial Robotics - Industrial Robot -16Kg pay load in working cell with controller and teach pendant, PLC with device net communication, Gripper and Magazines, path programming software</p>	
<p>Sensorics - Integrated Sensor board with interface ASI System, RFID System, Ultrasonic System, Photoelectric System , Encoders, Vision Systems</p>	
<p>Hydraulic and Pneumatic Control Systems - Industrial Mobile Hydraulics / Pneumatics Double sided Work Stations with all accessories for Basic HP and Electric HP system</p>	
<p>Coordinators: Prof. Vijay Desai and Dr. Navin Karanth</p>	

Industry Institute Interaction

<p>Title: Hexagon Next Gen 3D Lab Funded by :Hexagon Capability Center India Private Limited, Hyderabad & NITK, Surathkal Scheme: Industry Institute Interaction Initiative Grant(Rs): 7.17 Cr.</p>	
Facility	Utilization
<p>Smart Plant 3D - PLC and Servo set up with pulse / network output Micro PLC and HMI set up Integrated FA set up Motion controller set up Modular PLC set up</p>	<ul style="list-style-type: none">• Plant models for various industry segments• Equipment and Piping• Structural models for various industry segments
<p>Coordinators: Prof. K. V. Gangadharan and Dr. Mrityunjay Doddamani</p>	

Sponsored Project

Title: Centre for system Design (CSD)

Funded by: Ministry of Human Resource and Development (MHRD),
GOI

Scheme: NITK and National Instruments Ltd. Industry Collaboration

Grant(Rs): 500.00 Lakhs

Title: SOLVE Lab [Phase – 1 and Phase -- 2]

Funded by: Ministry of Human Resource and Development (MHRD),
GOI

Scheme: NMEICT (National Mission on Education through ICT) -
Virtual Labs

Grant(Rs): 900.00 Lakhs

Title: Remote Triggered Lab

Funded by: Ministry of Human Resource and Development (MHRD),
GOI

Scheme: NMEICT (National Mission on Education through ICT) -
Virtual Labs

Grant(Rs): 150.00 Lakhs

Facility

Accelerometers - YMC (10mV/g , 100 mV/g),Kistler50g, 500 g PCB
Shear Accelerometer 10 mV/g, 100 mV/g

Force Sensors - Kistler (5, 50, 250 & 500 lbf);HBM S2 and S9; HBM
Strain gauge based Force sensor ($\pm 10\text{kN}$ and $\pm 1\text{kN}$)

Pressure sensor - (SENSYM19C200PG4K , 19C100PA4K and
19C005G5)

**National Instruments Data Acquisition systems and Lab VIEW
(V2016)**

Coordinators: Prof. K V Gangadharan, Dr. Pruthviraj U, Prof. Vijay
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Vidya Shetty, Prof. Ravikiran Kadoli



IMPACTING RESEARCH INNOVATION
AND TECHNOLOGY



Ministry of Human Resource Development
Government of India



सड़क परिवहन और राजमार्ग मंत्रालय
MINISTRY OF ROAD TRANSPORT & HIGHWAYS
भारत सरकार
Government of India

Project Title:- Development of Cost Effective Magneto-Rheological (MR) Fluid Damper in Two wheelers and Four Wheelers Automobile to Improve Ride Comfort and Stability

Budget:- Rs. 3.55 Crores

Time Period: 2017-2020

Principal Investigator: **Dr. Hemantha Kumar**, Dept. of Mechanical Engineering, NITK

Co –Investigators

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