

### **Overview of the Department:**

Mechanical Engineering has been on an integration phase with other disciplines for the past few decades and offers many challenging career opportunities for the students. The Department of Mechanical Engineering in VJIT was established in 1999 and is accredited by NBA in 2010. Going by the technological advances the Department has been actively engaged in transforming the learning systems and creating a sound knowledge base in the minds of the students. Innovations, hands on workshops, community projects & industry internships fine tune the students into industry ready.

### **VISION OF INSTITUTE:**

To develop into a reputed Institution at National and International level in Engineering, Technology and Management by generation and dissemination of knowledge through intellectual, cultural and ethical efforts with human values.

To foster Scientific Temper in promoting the World class professional and technical expertise

### **Vision of Department:**

To be recognized as a center of excellence in providing Mechanical Engineering education of international standards leading to well qualified engineers who are innovative, immediate contributors to their profession, successful in advanced studies and employable globally.

### **Mission of Department:**

To educate, prepare and mentor students to excel as professionals and grow throughout their careers in the field of Mechanical Engineering. This can be accomplished by:

Providing the facilities and environment conducive to a high quality education, strong foundation in the fundamental principles of Mechanical Engineering and preparing them for diverse careers.

Engaging in academic activities, which strengthen the students' regional, national and international reputation.

## **Program Educational Objectives (PEOs):**

**PEOI:** To induce thorough understanding of basic sciences, mathematics and mechanical engineering in students to demonstrate their ability both in theory and practical.

**PEOII:** To encourage students to analyze & acquire real time core engineering knowledge and contemporary industrial practices.

**PEOIII:** To pursue higher studies, become globally employable, imbibe the essence of team work and become entrepreneurs in a multidisciplinary environment.

**PEOIV:** To encourage students to develop leadership and communication skills, through which they can demonstrate their environmental, social, ethical responsibilities, and to provide a platform for lifelong learning and inculcate the culture of R&D.

## **Program Specific Outcomes (PSOs):**

### **PSO1:**

An ability to analyze and solve problems of welding special materials and employing reverse engineering techniques for the design of mechanical engineering components.

### **PSO2:**

An ability to design, develop and implement mechanical engineering solutions in view of sustainability, environmental issues with social responsibility.

## **Department Advisory Board:**

Department of Mechanical Engineering has constituted a Departmental Advisory Board with the following members for the academic year (2017-18):

Dr.G.Sreeram Reddy	Chairman
Dr.V.V. Satyanarayana	Convener Program Coordinator
Dr. B.V.Reddy	Member
Mr. Rajesh Kumar	Member
Mr. Ramesh, M.D., CanterCADD, Suncity, Hyderabad	Member
J. Laxma Reddy	Member
G.Sowmya	Member
VarunReddy(1691A03J7)	Member

**PROGRAM ASSESSMENT COMMITTEE:**

Department of Mechanical Engineering has constituted Program Assessment Committee with the following members:

S.No	Name	Position
1	Dr. Sreeram Reddy	Chairman
2	Dr. V.V.Satyanarayana	Convener
	Dr. N. Ravinder Reddy	Member
4	Mrs. J. Emeema	Member
5	Mr. K. Rajesh Kumar	Member
6	Mr. J. Jagadesh Kumar	Member

**PATENTS:**

Name of the Faculty	Title of the Patent	Application Number
Dr. L.Madan Anand Kumar Dr. V.V. Satyanarayana Dr. G.Sree Ram Reddy Dr. N. Ravinder Reddy J.Jagadeesh Kumar Mr. Shaik Gulam Abul Hasan Mrs. Sudha Bindu Mr. K. Rajesh Kumar Mr. N. Naveen Kumar Mr. P. Chandra Kumar Mr. Challagondla Rakesh Mrs. Syed Saniya Fatima Mrs. Sai Vasavi Guddati	A Water Purification System	201741030250 A Dated : 08/09/2017
Dr. V.V. Satyanarayana Dr. G.Sree Ram Reddy .Jagadeesh Kumar	Method for Computing Gaussian Curvature Deviation	201741035554 A Dated: 13/10/2017
Dr. L.Madan Anand Kumar Dr. G. sree Ram Reddy T.Pavan Kumar K.Srinivasa Rao	Window Assembly for Absorbing Sunlight and Controlling Weather Admission	201741042689 Dated: 18/12/2017
Dr. N. Ravinder Reddy	SYSTEM AND METHOD FOR A FRICTION STIR WELDING TOOL	201741042693, Dated: 08/12/2017

## Research Publications:

### Faculty:

Name of Faculty	Title of Paper	Journal Name
Dr. V.V.Satyanarayana	Applications of multivariate quality control techniques in a manufacturing industry	IIEJ
N. RAVINDER REDDY	Macro and Micro Structural Characteristics of Friction Stir Welded AA6082-T6 Butt Joints	IJMST
N. RAVINDER REDDY	Parameter Optimization of Friction Stir Welding of AA 6082 T6 Using Response Surface Methodology	IJMSE
T. PAVAN KUMAR	DESIGN AND ANALYSIS OF POLYURETHANE COMPOSITE	ICEMS
T. PAVAN KUMAR	FABRICATION AND COST ANALYSIS OF POLYURETHANE BUMPER	ICEMS

### By Students:

Name of Student	Title of Paper	Journal Name
Mohammed Abdul Zameer, Mohammed Abdul Rahman Abid	Theoretical and thermodynamic of portable peltier based indoor air conditioning system	IJMETMR
Aayush Agarwal, Vishal Jadhav, A.N.Sri Anurag, P.Nikhil Krishna	Fabrication of portable CNC milling machine for wood	IJSRSET
M Ravi, M Abhishek Reddy, S.Naveen Kumar, B.Kranthi Kumar	Design and manufacturing of prosthetic arm	IJIEMR
S Saiteja, Bandaru Saidarao	Production of Aluminium 6351 open cell foam	IJIEMR
MD.Gaffar, Mudavath Shankar	Experimental investigation on welded joints of dissimilar steels	IJCET

Nalla Sairam, Gannapuram Ahish, Meda Sandeep	Functional design and fabrication of travelling type swivel chute wagon filler-a prototype	IJSRSET
Devanasivarami Reddy, Sugali Rajeev Naik, Akula Venu, Paramkusam govardhan	Thermal management of inertial navigation system in aerospace	IJIEMR
B.Poulu, K Sai Venkat Ram, D. Naren Sai, P. Krishna Kumar	Fabrication of prototype of telescopic boom radial ship loader	IJCET
N.Uday Kumar Goud, CH.Nikhil, Y.Akhil Sai, S.Anil Kumar Reddy	Fabrication and testing of pedal driven wood turning lathe machine	IJCET
N.Kiran Kumar, S.Arvind Kumar. K.Srikanth. S.Vishal	New product and analysis for structural pedestal to withstand heavy static loading with improved movable conditions	IJCET
MD Sohail, Naser Ahmed Khan, P. chandra Kumar	THE MOELECTRIC PORTABLE AIR CONDITIONING SYSTEM	IJIEMR
Bootla Akhil, Birudala Raga Harshith Reddy	A Review on anti-roll bar used in locomotives and vehicles	IJCET
Birudala Raga Harshith Reddy, Govind Sai Kumar, M.Bharath Kumar	A Critical review on quenching and partitioning on commercial steels	IJSRSET
K.Sai Krishna, P. Avinash, B. Anish Kumar, P.Akhil Kumar	Comparative anlysis of an evaporator tube with and without fins	IJCET
G.Pavan Kumar	Fabrication of solar tracking and wind energy water pumping system	IJMETMR
P Sai Kumar, R. Saketh Reddy, Swastik Sahal	Green Silencer	IJSTM
Ketham Madhana Mohan Reddy, Akhil Huggi, Thirunahary Swetham, M.Chandra Kanth	A Critical Review on of 3D printing materials and details of materials used in FDM	IJSRSET
D.Maheshwari Yadav, P.Veena	A Critical review on severe plastic deformation	IJSRSET
Manasa Palle, Takalapally Sunil	Effect of D-Gun sprayed ceramic coatings on aluminum material to	IJCET

	review hardness and corrosion properties	
V.Mercy Soumya, S.Vavaneetha, A.Nagarjun Reddy and J.Jagadesh Kumar	Design considerations of radomes: A Review	IJMET
U.Uday Kumar, A.Nagarjun Reddy, V.Mercy Soumya and S. Navaneetha	Design and finite element analysis of air borne	IJMET
T.Vinod, T Venkat Sai	A Critical Review on casting types and defects	IJSRSET
Adulaa Sai Teja Reddy, Bootla Akhil, Birudala Raga Harshith Reddy	Cost effective solutions by design and anlysis of links used in anti rolling device in bogies for a mass production	IJCET
Doddigarla Prashanth kumar, Gaddam Arun Reddy, Patlola Rajender Reddy, s. Prasad Kumar	Design and fabrication of super heater used in boiler	IJSRSET
Bageliker Ananth Sai, Madhira Srikanth Reddy, Rapolu kumaraswami, Bandi Karthik Reddy	Extraction of water from ambient air by using thermoelectric modules	IJSRSET
B.Soban Goud	Optimisation and analysis of riveted structure with aluminium frame	IJSRSET
MD Sohail	The moelectric portable air conditioning system	IJIEMR
G.Akash Reddy, A. Ravinder Reddy	Pneumatic bending machine	IJMETMR

## **PROFESSIONAL BODY ACTIVITIES:**

### **Indian Society for Technical Education:**

- Department has conducted a Seminar on 19<sup>th</sup> August, 2017 on the topic of "Supply chain Management in Manufacturing."
- On 22nd July, 2017, the department with collaboration of ISTE conducted a seminar on "Statistics for Research".

### **Indian Institute of Welding:**

- Under Indian Institute of Welding, department of Mechanical Engineering Department has conducted a seminar on "Nano-Technology in Welding" On 22nd December, 2017
- In collaboration with IIW, the department on 16th September, 2017 has arranged a talk on "Challenge in Under Water Welding".

### **Indian Engineering and Operations Management:**

- On 26th October, 2017 the department has conducted a seminar on "Project scheduling using MS Project".
- As a part of Project orientation for the students the department has conducted a talk on "IBM SPSS Project oriented demo" on 30th November, 2017.

### **Society of Automobile Engineers:**

- In order to enrich the practical exposure on IC Engines department with SAE conducted a one day workshop on "Multi Port Fuel Injection", dated 16th December, 2017.

### **Institute of Engineers (Mechanical):**

- To enhance the students with technical rights on publications department on 14th October, 2017 has conducted a seminar on "Intellectual Property Rights".

**PLACEMENTS:**  
2013-17 Batch

Name of the Company	No. of Students Placed	Month of Campus Placement
TCS	7	January, 2017
Delloite	3	January, 2017
Tech Mahindra	6	January, 2017
Attrra Infotech	4	January, 2017
Vistex	4	February, 2017
Lattice Cloud	3	March, 2017
Cyient	7	June, 2017

**FDP/ Seminar/Workshop Conducted By the Department:**

- A two day Faculty Development Program on “A Research Course in Engineering Drawing” was conducted as a refresher course for the faculty members on 6 & 7th July, 2017.
- Department has organized a two Day Workshop on “Recent Trends in Manufacturing” on 16 & 17th December, 2017.

**FDP/ Seminar/Workshop Attended by the Faculty:**

- **DESIGN & IMPLEMENTATION OF STUDENT CENTERED LEARNING CONDUCTED BY IIDEA** conducted by K G Reddy College of engineering and Technology on 5<sup>th</sup> & 6<sup>th</sup> June.
- **WORKSHOP ON FACULTY ADVISERS FORUM, SAEINDIA SOUTH SECTION** at MLRIT on 23<sup>rd</sup> & 24<sup>th</sup> June.
- **ENGINEERING MECHANICS MADE EASY** at NCRM from 28<sup>th</sup> June to 2<sup>nd</sup> July.



- **FDP ON DESIGN OF MACHINE ELEMENTS** at CVSR on 4<sup>th</sup> & 5<sup>th</sup> July.
- **EXPERT TALK ON E-MOBILITY** at IIT, Delhi on 8<sup>th</sup> July.
- **ADVANCES IN COMPUTER AIDED ENGINEERING FOR COMPLEX MACHINE COMPONENTS** at Anurag College from 13<sup>th</sup> to 15<sup>th</sup> July.
- **WORKSHOP ON MODELING AND ANALYSIS OF COMPOSITE MATERIAL USING ANSYS** at MIC College of Technology 28<sup>th</sup> & 29<sup>th</sup> August.
- **RECENT ADVANCEMENT IN COMPOSITE MATERIAL** at CMR on 15<sup>th</sup> & 16<sup>th</sup> September.
- **TEACHER EFFECTIVENESS -NUTURING YOUR WELL BEING** at MREC on 17<sup>th</sup> & 18<sup>th</sup> November.
- **TWO WEEK FDP ON RECENT ADVANCES IN DESIGN AND DEVELOPMENT OF MECHATRONICS & ROBOTIC SYSTEMS** at MGIT from 4<sup>th</sup> to 16<sup>th</sup> December.
- **1st INTERNATIONAL CONFERENCE ON ADVANCEMENT & INNOVATION IN ENGINEERING, TECHNOLOGY&MANGEMENT** at JBREC on 28<sup>th</sup> & 29<sup>th</sup> December.

**MECHINDIA**