

AY 2015-16 Even Semester

NEWSLETTER MECH. YANTRA

About the Institution

Jyothy Institute of Technology (JIT), managed by Jyothy Charitable Trust®, was started in the year 2011 with a mission to provide education in new frontiers of technology and their applications. The Trust was established by its President, Dr. B. N. V. Sunrahmanya, a Karnataka Rajyotsava and Nada Prabhu Kempegowada Awardee, an industrialist and a social worker of repute.

The institution is ideally located 1km off Kanakapura Road, at Thataguni, about 3 km from NICE Road. It is spread over an area of 10 acres with lot of greenery all around. It is built aesthetically and architecturally to meet the functional needs of class rooms while meeting all AICTE guidelines.

JIT is an offshoot of the 26 year-old Jyothy Kendriya Vidyalaya(JKV), which caters to students right from LKG level to PU level. The institution offers internships to students of all branches thus enhancing strong industry-institute relationship. This provides students an invaluable opportunity to understand and implement industry standards and requirements. They get exposed to and get the chance to view, learn and imbibe new technologies and keep pace with current technological trends. The internships also help the students to be industry ready as soon as they graduate.

About the Department of Mechanical Engineering

Mechanical Engineering, fondly known as an 'ever green branch' of engineering, applies the principles of basic engineering, physics, materials science, and metallurgy to design, analyse, manufacture, and maintain diverse mechanical systems ranging from small individual parts and devices (nuts and bolts, motors) to large systems (machine tools, space crafts, etc.).

The department is equipped with state of art laboratories such as computerized heat & mass transfer lab, computerized energy conversion lab, computerized material testing lab, computerised design lab, mechanical measurements and metrology lab, foundry & forging lab, finite element analysis lab, simulation lab, etc. to meet the academic needs while encouraging and supporting research and development activities of its facility.

The industry division of the department provides an industry environment by manufacturing industrial products within the institution with direct involvement of students. This helps in developing industrial skills amongst the students.

VISION OF THE DEPARTMENT

To achieve excellence in Mechanical Engineering Education, Innovation, Research and Entrepreneurship.

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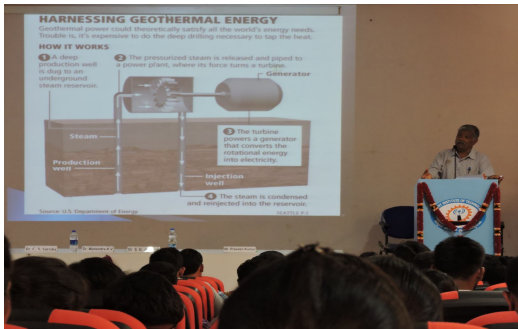
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MISSION OF DEPARTMENT

- M1. To provide intellectually vibrant teaching learning environment
- M2. To inculcate in students a culture of Research and Innovation in Engineering
- M3. To produce future Entrepreneurs and Leaders with Technological Patriotism

1. Activities:

- A Workshop on “Renewable Energy and Energy Conversion” was organized by the department in association with KSCST on 12th April, 2016.



- A Guest Lecture was delivered by Dr. Kishore Kashyap on “Shape Memory Alloys and Nanocomposites” in the campus on 2nd April, 2016.



2. Papers Published, Conference Attended

- Students published a paper on “Air Conditioning Powered by Engine Exhaust” in International Journal of Engineering Research, May 2016
- Students published a paper on “CFD Analysis of Shell and Tube Heat Exchanger” in International Journal of Engineering Research, May 2016
- A team of students and faculty published a paper on “Some Innovative concepts of Quick Charging” in International Journal of Innovative Research in Science, Engineering and Technology” April 2016.
- A team of students and faculty published a paper on “Comparison of Batteries in Automotives” in International Journal of Advanced Research” in April 2016
- Students presented a paper in the III International Conference on “Convergent Innovative Technologies” held at CIT, Bangalore, in May 2016
- A team of students and faculty published a paper on “Trends and Challenges in Electric Vehicles” in International Journal of Innovative Research in Science, Engineering and Technology” in May 2016
- Students presented a paper on “Design and Development of Electric Resistance Furnace with Auto Stir Casting Process” in the IV National Conference on Topical Transcend in Mechanical technology held at CIT, Bangalore, in May 2016
- Students presented a paper on “Industrial Applications of Austempered Ductile Iron” in the IV National Conference on Topical Transcend in Mechanical technology held at CIT, Bangalore, in May 2016



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- Students presented a paper on “Unmanned Grounded Vehicle with Six-legged Motion Mechanism” in the IV National Conference on Topical Transcend in Mechanical technology held at CIT, Bangalore, in May 2016
- Students presented a paper on “Understanding Phase Stability through Free Energy” in the IV National Conference on Topical Transcend in Mechanical technology held at CIT, Bangalore, in May 2016
- Students presented a paper on “Generation of Phase Diagram through MAT LAB” in MECHSHOW 2016 held at Don Bosco Institute of Technology in May 2016
- Students presented a paper on “Design and Development of Portable Pedal Power Generation” in MECHSHOW 2016 held at Don Bosco Institute of Technology in May 2016
- Students presented a paper on “Evaluation of Mechanical Properties of Hybrid MMC by Stir Squeeze Casting” in MECHSHOW 2016 held at Don Bosco Institute of Technology in May 2016
- Students presented a paper on “Tool Force Monitoring on Friction Stir Welding Process of thin Sheets” in MECHSHOW 2016 held at Don Bosco Institute of Technology in May 2016

3. Industrial Visits

- Students visited Mahatma Gandhi Institute of Rural Energy and Development (MGIRED) on 22nd April, 2016 to understand the energy needs of rural areas and how these needs can be met with new adaptive technologies
- Students visited BEML on 28th April, 2016 giving them good exposure to industrial

automation and how it can be used to vastly improve both production and productivity.

4. Student Articles

SELF CHECKOUT APP

Perpule 1Pay enables mobile app based self checkouts and queue management solutions for offline stores which improves the experience. Customers use the app to discover stores and the available offers running; this ensures a good connect between the retail stores and the customers. The app also serves as a true omni-channel platform allowing customers to shop in store or get the same products online.

The Perpule 1 Pay allows a customer to scan products, pay, and walk out of the partnered store without standing in the queue. The app allows one to scan the barcode of the product, and pay the store directly through debit/ credit cards, Net banking or UPI. The customer can also use their self-checkout kiosks set up in the partner stores. The verification mechanism at the end ensures zero theft and the whole process of checkout is likely to take less than a minute for a customer.

<http://www.perpule.com/>

...contributed by Omkar K R, IV semester



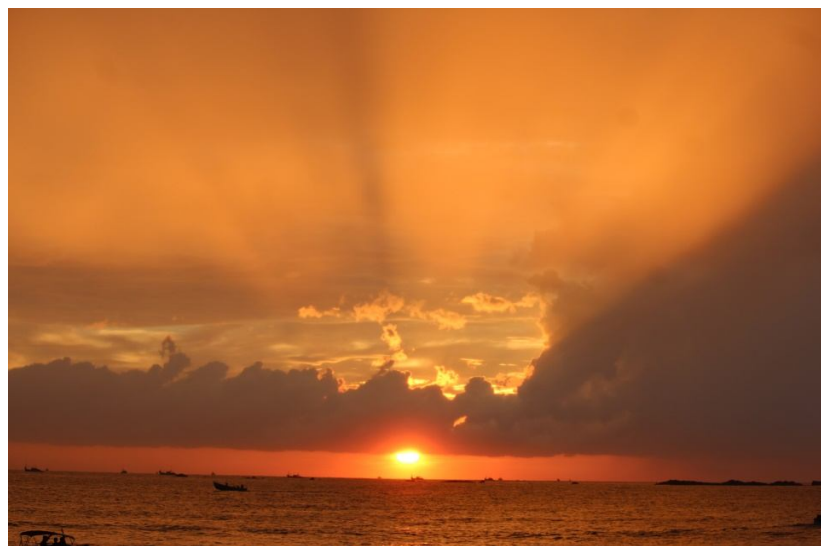
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7. Photography by Students



by Omkar K R, 4th semester



by Krishna B, 4th semester