



January –June 2018

# e- Newsletter vol. 1 Issue 1

## DEPARTMENT OF MECHANICAL ENGINEERING

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### Editorial Board

Mr. Vijay Kumar

### Vision

To develop a skill based education system, creating quality Mechanical Engineers to cater the latest technological and socio-economic need of the nation.

### Mission

- Provide required infrastructure and facilities to create and disseminate knowledge in the field of Mechanical Engineering.
- Develop relation with industry and top class educational institutions for excellence in teaching, research and consultancy services.
- Impart quality education and training through Centers of Excellences to create future industry ready Mechanical Engineers.

### Message from Head of The Department

Mechanical engineering is a discipline of engineering that applies the principles of engineering, physics and mathematics for analysis, design, manufacturing and maintenance of mechanical system. The field has continually evolved to incorporate advancement in technology and mechanical engineers today are pursuing work in the field of nanotechnology, aerospace, metallurgical, petroleum, manufacturing, chemical and other engineering disciplines of varying amounts. Students are guided by the experienced faculty members and the technical staff.

To enhance student practical knowledge and their overall development; various activities are conducted by the department throughout the year. Guest lectures by eminent persons, industrial visit of students, conduct of seminars/workshops, personality development classes are some of the main events organized by the department.





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### From Editor's Desk

- It gives me great pleasure to present the first issue of the Newsletter of the Department of Mechanical Engineering. The intent is to provide the readers with up-to-date information regarding our current academic activities, our technical capabilities, student achievement and various skilled development programs from July 2017 to June 2018. Other than posting the latest envelopments in the Department, we shall address topics of interest in our forthcoming issues. If there are specific topics you would like to see addressed, please contact us by e-mail at vijay.kumar@abesit.in  
I look forward to receive your suggestions.



### Department Training program in various Center of Excellences

- A 40 hours training program on Pneumatic Automation System under the banner of CoE FESTO was conducted from 27 March to 26 April, 2018. 12 students participated in this training from different branches and other colleges. Trainers for the program were Prof. Balbir Singh, Prof. Amrish Chaturvedi, Prof. Amit Gupta and Prof. Vijay Kumar Assistant Professor, in ME department.
- A 20 hours training program on Hydraulic Automation System under the banner of CoE Bosch Rexroth was conducted from 03 April to 23 April, 2018. 12 students participated in this training from Mechanical Engineering branch. Prof. Sachin Rana and Prof. Saumava Somanta, Assistant Professor, in ME department imparted training to students.

**Center of Excellences**

<p><b>Advanced Robotic Control for Industrial Automation</b> with  </p>	<p><b>Entuple Technologies ANSYS Mechanical</b> </p>
<p><b>eLSI in Embedded Systems &amp; Robotics</b>  of IIT Bombay</p>	<p><b>Automation Technologies Hydraulic System</b>  Bosch Group</p>
<p><b>Industrial Automation Pneumatic Systems</b> </p>	



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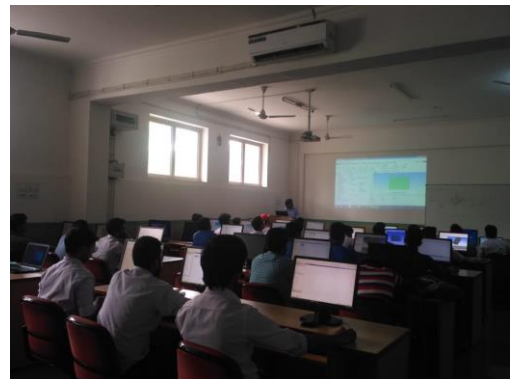
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- The training program on Pneumatic Automation System for 40 hours under the banner of CoE FESTO was conducted from 11 June to 20 July, 2018. 16 students participated in this training from different branches and other colleges. Trainers for the program were Prof. Balbir singh, Prof. Amrish Chaturvedi, Prof. Amit Gupta and Prof. Vijay Kumar.



- A 20 hours training program on Hydraulic Automation System under the banner of CoE Bosch Rexroth was conducted from 11 June to 20 July, 2018. 16 students participated in this training from Mechanical branch. Trainers for the program were Prof. Sachin Rana and Prof. Saumava Somanta.

- The training program on ANSYS design software under the banner of CoE Entuple Technology ANSYS was conducted from. 23 students participated in this 80 hours training from different branches and other colleges. Trainers for the program were Prof. Anand Prakash Gautam and Prof. Amit Gupta.



- The training program on Auto CAD and Solidworks designing tool was conducted from 11 June to 06 July, 2018. 23 students participated in this 60 hours training from different branches and other colleges. Prof. Rashmi Rani Maheshwari, Assistant Professor, in ME department imparted training to students.





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### Recent Events:

#### A. Industrial Visits:

- Prakash Industries Pvt. Ltd. Faridabad



An industrial visit to “Prakash Webtech Pvt. Ltd.” at Faridabad on April 23, 2018 was organized. During visit students observed various type of Vertical Machine Centre (VMC) i.e. 3-axis VMC & 5-Axis VMC and CNC machines performing various manufacturing processes and operations.

- Rajendra Gears Pvt. Ltd. Ghaziabad

Department of Mechanical engineering organized an Industrial visit of “Rajendra Gears” at Ghaziabad on November 10, 2017. The purpose of the visit was to learn about the manufacturing of different types of gears used in various industries.



#### B. Expert Lectures:

S. No.	Topic of Talks/Lecture	Name of Resource Person	Date
1	Multi Brand Automobile Functioning and Repair Techniques	Mr. S S SAXENA VSM (Retd.) Indian Air force	February 19, 2018
2	Balancing of Machines	Dr. AK Khare, Formal VC UPTU Lucknow	April 06, 2018
3	Scope of Design Software in Industry and Job Opportunity in the Field of Design	Mr. Amit Kumar, (Design consultant) Le-logix Ghaziabad	April 07, 2018
4	Application of Modern Welding Technology	Dr.R.S Parmar, Ex Professor and Head Mechanical Engg Deptt, IIT Delhi	November 13, 2017
5	Fundamental and Different Aspects of Tribology in Manufacturing	Dr. Jitendra Kumar ,(M.Tech and Ph.D, IIT Kanpur), Assistant Professor, SRM University, Kattankuathur, Channai	October 24, 2017
6	Latest Production Technology used in Automobile Industry	Mr. PK Jha, AGM, Maruti Suzuki, Gurugram	October 10, 2017
7	Energy Conservation and its Awareness	Mr. Rahul Saini, Senior Consultant for PCRA. GOI	September 01, 2017



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### C. FDP Organized:

1. Two days faculty development program was organized by the department on “Automation Technology-Hydraulic System” on January 11-12, 2018



### FDP Attended by the Faculty:

1. Prof. Basant Kumar Pandey Attended FDP on the topic of “Rapid Manufacturing Using CAD/ CAM for New Product Development” from June 18-23, 2018 at CPET Lucknow.
2. Prof. Basant Kumar Pandey & Dr. Sujeet Chaubey Attended FDP on the topic of “Reconfigurable Manufacturing System: Research” on July 02-06, 2018 at ABESEC Ghaziabad.
3. Prof. Vijay Kumar, Prof Amit Gupta & Prof. Suneet kumar attended 5 days FDP on CFD on June 04-09, 2018 at ABESEC Ghaziabad.
4. Prof. Sanjeev Kumar attended 5 days FDP on Human Value on June 14- 21, 2018 at KIET, Ghaziabad.
5. Prof. Rashmi Maheshwari attended 5 days FDP on “Instructional design delivery system embedded with use full state of art software tools” from 27th August to 01<sup>st</sup> September 2018 at JSS Noida

### Students Achievement:

1. Mr. Harshit Mishra, student of ME 3rd year completed two and half months summer internship at the Conn Center for Renewable Energy in the JB Speed School of Engineering at the University of Louisville, USA from 01st June to 15th August 2018.
2. Mr. Gopal Vishvakarma & Mr. Harshit Mishra won Gold medal in Business Plan at AKTU’S State level Technical, Literary and Management Events Fest 2017-18 conducted at Lucknow from April 09-11, 2018.
3. Mr. Lakshya Kumar won first position in Robo war at AKTU’s Zonal Level Technical, Literary and Management Fest 2017-18 conducted at IPEC Ghaziabad from March 22-24, 2018.
4. ABESIT Team Sand Stormers of 28 students of ME and EEE Departments participated in inter collegiate national level racing championship ‘All Terrain Vehicle Championship’ organized by Autosports India at Nasik between February 24-26, 2018. The overall rank of the team was 38 out of 86 team participated.
5. Gopal Vishwakarma & Harsit Mishra of ME-3rd year students won first prize at AKTU Startup- Parikrama 2nd Edition on 21th November 2017 at ITS Engineering College, 46, Knowledge Park III, Greater Noida, Uttar Pradesh.



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## Placement

The students of Mechanical Engineering department secured placements in top notch companies. Prominent recruiters for the students of Mechanical Engineering department are:



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## Publications:

### International Journals:

#### (A) Papers in Refereed Journals

1. Chaubey S. K., Jain N. K., “Investigations on microgeometry of meso bevel and meso helical gears manufactured by WEDM process” *International Journal of Advance Manufacturing Technology*, vol. 93, issue 9, pp. 4217-4231, 2017.
2. Sharma S., Taiwade R. V., Vashishtha H., Mukherjee S., “Microstructural characterization, mechanical properties and corrosion behaviour of pulsed current GTA welded bimetallic joints between superalloy C-276 and stabilized austenitic stainless steel grade 321”, *Materials Research Express*, vol. 6, no. 1, pp. 016532, 2018.
3. Yadav A. K., Khan M. E., Pal A., Singh B., “Ultrasonic-assisted optimization of biodiesel production from Karabi oil using heterogeneous catalyst”, *Biofuels*, vol. 9, issue 1, pp. 101-112, 2018.

#### (B) Book Chapter

1. Sachin Rana (2017) “FEA-Based Numerical Simulation and Theoretical Modeling for Predicting Thermal Contact Conductance” Book Chapter, Source Title: *Advanced Numerical Simulations in Mechanical Engineering*, IGI Global

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