



DEPARTMENT OF
MECHANICAL ENGINEERING
NEWSLETTER
Volume #10

August 2019



Prof. Sunil Khanna

FROM THE DIRECTOR'S DESK...

Dear Colleagues and Students:

Industry 4.0 (the fourth Industrial revolution) encapsulates the future development trends to achieve more intelligent manufacturing. As we @ PDPU embark on this journey to towards Industry 4.0, I am Happy to Introduce the next issue of the Newsletter which not only share with all its readers the latest news and developments in the Department of Mechanical Engineering but would also be sensitizing all of us on the latest trends and developments in the Fourth Industrial Revolution.

The limitless power of technology to do good and the conviction of my faculty colleagues and students that the golden age is ahead of us - and not behind us – brings about the best in all of us which is reflected in their achievements.

Compliments to the editorial team for their passion for perfection and unbound creativity which makes me always look forward to the next edition of the Newsletter.

FACULTY ZONE

- ⇒ Publications
- ⇒ Conference/
Workshop Attended
- ⇒ Professional
Activities
- ⇒ Major
Administrative
Activities
- ⇒ Events/Workshop
Organized
- ⇒ New Joining



Prof. Vishvesh Badheka

FROM THE HEAD OF THE DEPARTMENT'S DESK

It gives me immense pleasure to share Newsletter of the Mechanical Engineering Department, August 2019. Mechanical Engineering Department. is the most happening Department of the School of Technology. Newsletter gives an overview of the activities carried out by students, staff and faculties during the month. You may please share your feedback, comments & suggestions to the coordinators

S T A F F ZONE

- ⇒ Projects
- ⇒ Training/Installation
of Major Equipment

STUDENT ZONE

- ⇒ Recognition

Editorial Team

- ◆ Faculty Coordinator:
Dr. Pankaj Sahlot
- ◆ Staff Coordinator:
Mrs. Pooja Nimavat



FACULTY

PUBLICATIONS

JOURNALS

Dr Vinay Vakharia and Dr. Pankaj Sahlot published the following journal papers in the month of August 2019 :

V . Vakharia and R. Gujar Prediction of compressive strength and portland cement composition using cross-validation and feature ranking techniques. Construction and Building Materials , Volume 225,, Pages 292-301,(2019)

A. K. Singh, **P. Sahlot**, M. Paliwal and A. Arora,” Heat transfer modeling of dissimilar FSW of Al 6061/AZ31 using experimentally measured thermo-physical properties”, The International Journal of Advanced Manufacturing Technology, DOI: 10.1007/s00170-019-04276-y, Aug. 2019

CONFERENCE PAPERS

Dr Vinay Vakharia published the following conference paper in the month of August 2019 :

A.S. Thakur, S. Patel, A. Chopra, **V. Vakharia** An Analysis of Critical Success Factors of Implementation of Green Supply Chain Management in Indian Tube Manufacturing Industries. International Conference on Human Systems Engineering and Design: Future Trends and Applications. IHSED 2019: Human Systems Engineering and Design II July 2019.



FACULTY

CONFERENCE/WORKSHOP ATTENDED

- *Dr Vishvesh Badheka* attended session delivered by Dr. D.J. Pandian, V.P. & Chief Investment Officer-AIIB, Beijing held on 14th August 2019 at PDPU Gandhinagar.



Dr. D.J. Pandian, V.P. & Chief Investment Officer-
AIIB, Beijing



FACULTY

PROFESSIONAL ACTIVITIES

The following Professionals visited *Dr Vishvesh Badheka* during the month of August 2019 :

- Mr Hardik Parekh, Manager, Blue Chip along with his team visited for Technical Interaction with the faculties of Department of Mechanical Engineering on various types of software held on 2nd August 2019.
- Mr Jaimin Patel, Faculty, Neotech Institute of Technology, Vadodara visited for Technical Discussion regarding PhD topic on FSW held on 14th August 2019.
- Mr Sunil Sachdeva, Ex-General Manager, Reliance India Limited (RIL) visited for possible joint professional assignment with PDPU on 14th August 2019.
- Mr Paridh N Patel, Cosmos Engitech Pvt. Ltd., Vadodara visited for possible MOU, Comprehensive Projects and Expert Session by industry professionals on 27th August 2019.
- *Dr Vishvesh Badheka* visited Hansa Management Services Pvt. Ltd., Pune on 9th August 2019 and interacted with :
 - Mr Raghavendra Pateil, COO, Mr Abhisesh Punnamaraju, Sr Executive and Deepali D Vanga , Deputy Manager – Human Resources, regarding possibility MDP at PDPU.
 - SPT-PDPU Alumni working with Hansa Management services.



@ Hansa Management Services Pvt. Ltd.,
Mr Abhisesh Punnamaraju, Sr Executive and SPT-PDPU Alumni



FACULTY

PROFESSIONAL ACTIVITIES

- **Dr Vishvesh Badheka** visited Defence Institute of Advanced Technology (DIAT), Pune on 9th August 2019, explored possibility of joint collaboration with Dr S K Panigrahi, Prof & Head, Mechanical Engineering Department and Prof Dinesh Singh G Thakur, Director , DIAT.



Dr S K Panigrahi, Prof & Head, Mech Engg Dept. Prof Dinesh Singh G Thakur, Director
@ Defence Institute of Advanced Technology (DIAT)

- **Dr Vishvesh Badheka** had a second visit to MILACRON, Ahmedabad on 22nd August 2019 along with Director SoT and Career Development Cell (CDC) team followed by PDPU and Department of Mechanical Engineering presentation and plant visit.



@MILACRON, Ahmedabad along with Director SoT, CDC team
& Mechanical-SOT Alumni



FACULTY

PROFESSIONAL ACTIVITIES

- **Dr Vishvesh Badheka** visited CEAT, Halol on 23rd August 2019 along with **Dr Vinay Vakharia** (DME) and Dr Pawan Sharma (ICT) followed by One day training to CEAT official and extensive technical interaction.



@ CEAT, Halol with Dr Vinay V , Dr Pawan S and CEAT officials

- **Dr Vishvesh Badheka** visited Kalpataru Power, Gandhinagar on 31st August 2019 and explored possibility of CP projects for Mechanical /Industrial students with Mr Dharmesh Mahant, Vice President.
- **Dr Vishvesh Badheka** presented ongoing DRDO project review held at DRDO, Pune on 8th August 2019.



FACULTY

MAJOR ADMINISTRATIVE ACTIVITIES

Department of Mechanical Engineering was engaged in the following Major Administrative Activities during the month of August 2019

- M. Tech Orientation Programme was followed by Department Presentation held on 1st August 2019.
- B. Tech Orientation Programme was followed by a session on 'Know Your Department' held on 5th August 2019.
- PhD Induction Programme was followed by a session on 'Outcome of Pass Out PhD scholars of the department' held on 5th August 2019.
- The following Industrial Professionals attended 7th Convocation of PDPU invited on behalf of Department of Mechanical Engineering
 - Mr Ankit Patel, COO, Rajiv Engineers, Ahmedabad
 - Mr Jignesh Patel, Scientist, SAC, ISRO, Ahmedabad
 - Dr Rajiv Srivastava, IOCL, Ahmedabad
 - Mr Nikunj Khatri, Production Engineer, Corrttech Energy Limited, Ahmedabad
- Alumni PhD Scholars from Department of Mechanical Engineering—Dr Rajesh working with IAF, Dr H G Rana working with LRDP and Dr Pritesh P working with KITRC visited on 29th August 2019 & participated in 7th PDPU convocation .
- Total 06 PhD Scholars of Department of Mechanical Engineering received degree during 7th PDPU convocation held on 29th August 2019.



PhD Scholars of Department of Mechanical Engineering during 7th PDPU Convocation



FACULTY

MAJOR ADMINISTRATIVE ACTIVITIES

Department of Mechanical Engineering was engaged in the following Major Administrative Activities during the month of August 2019

- **Dr Vinay Vakharia** gave presentation for M.Tech Design - First year students about the research areas ,faculties and lab facilities related to Design group of Department of Mechanical Engineering.



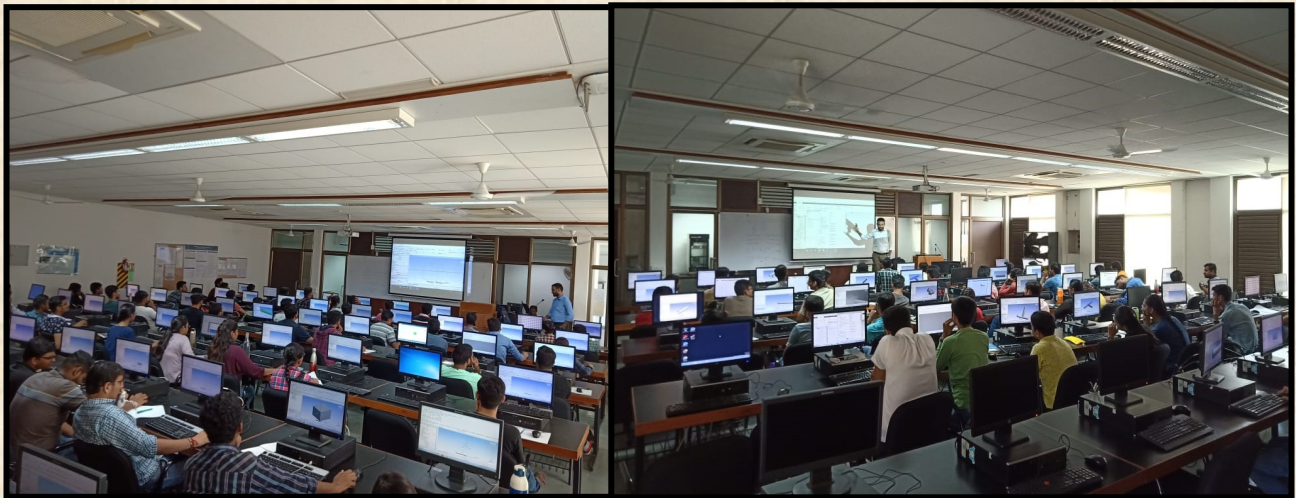
Presentation for M.Tech Design - First year students



FACULTY

EVENTS/WORKSHOP ORGANIZED

- **Dr Pavan Gurrala** was involved in a two day workshop organized on ANSYS at Computer Aided Design (CAD) Laboratory on 30th and 31st August 2019. The students had a hands-on sessions on the CFD capabilities.

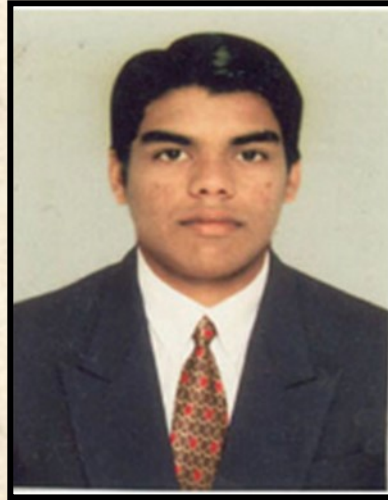


Two Day Workshop on ANSYS at CAD Lab

- **Dr. Vinay Vakharia** and Dr. Paawan Sharma conducted one day training program at CEAT Limited ,Halol on the topic "Machine Learning and Image Processing Applications in TYRE manufacturing industries " on 23rd August 2019.



One Day Training Program at CEAT Limited ,Halol

**FACULTY****NEW JOINING**

Mr. Ojas Satbhai, has completed B.E in Mechanical Engineering from Pune University and MS in Mechanical Engineering from Indian Institute of Technology (Kharagpur). He has recently submitted his PhD thesis in Mechanical Engineering Department of IIT Kharagpur. His research interests are broadly computational fluid dynamics (CFD), fluid flow control, fluid flow Instability, hydrodynamics and control theory. He has joined Department of Mechanical Engineering on 1st August 2019. Mr. Satbhai has contributed five publications in reputed international peer-reviewed journals and numerous other conference publications.



PROJECTS

Mr. Alpeshsinh Rajput has completed the project work of Performance testing of Solar water heating systems installed at the terrace of Gujarat National Law University ,GNLU, under the continuous guidance of *Dr. Jatin Patel*. It was arranged by the collaboration with GERMI Dept. (Mr. Gaurav Patel) & With GNLU (Mr. Kedar , HR executive).



Performance testing of Solar water heating systems installed at the terrace of GNLU



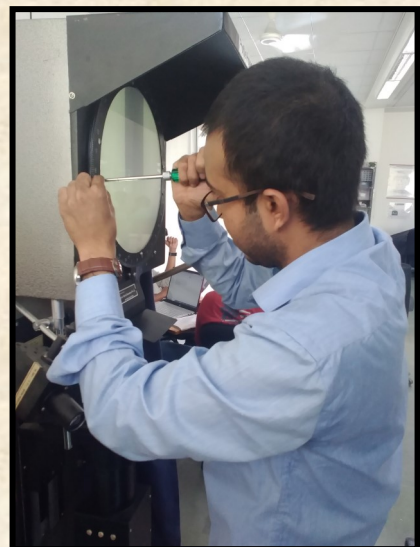
TRAINING/INSTALLATION OF MAJOR EQUIPMENT

Dr Vinay Vakharia and Mr Trushar Prajapati was involved in Installation and Demonstration done by AIMIL Ltd., Vadodara on Machinery Fault Simulator dated 7th August 2019. The equipment is useful for research and training in Fault diagnosis and Advanced Vibration Analysis.



Installation and Demonstration of Machinery Fault Simulator at DOM Lab

Mr Arvind Makwana made the correction in the orientation of viewing screen (Blur Glass) of profile projector (MMM lab equipment) and also corrected one of micrometer attached to it.



STUDENTS RECOGNITIONS

PDPU INNOVATIONS



ALL-TERRAIN E-VEHICLE Made by 25 students of BTech, the design was ranked 2nd in Gujarat and aims to give fresh boost to concept of e-vehicles.



E-NAKSHATRA: This prototype of hyper-efficient electric vehicle "can travel up to 122 km by spending just Rs 7", according to group captain Rutvik Ghiya.

PDPU INNOVATIONS

Team Kaizen displayed their electric vehicle, Nakshatra at 7th Convocation, PDPU on 29th August 2019 and their efforts and accomplishments were recognized by newspaper daily, Ahmedabad Mirror.

