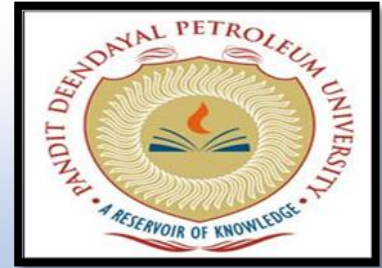




**Newsletter
Department of
Mechanical Engineering
December 2018**



From the Director's Desk...

Dear Reader,

I am delighted to introduce this first edition of the mechanical department newsletter. We intend to make it a regular publication and to use it to keep you in touch with news and developments related to the Department of Mechanical Engineering, School of Technology (SOT).

I take this opportunity to congratulate the editorial team for bringing out this newsletter, which in itself is an achievement considering the effort and time required. May all our students, staff and faculty soar high in uncharted skies and bring glory to the world and their profession with the wings of education.



*Dr. T.P. Singh
Director
School of Technology*

From the Head of the Department's Desk...

It gives me immense pleasure to share newsletter of the mechanical engineering dept., November 2018. Mechanical Engineering Dept. is the most happening dept. of the school of technology. Newsletter gives an overview of the activities carried out by students, staff and faculties during the month of Nov. You may please share your feedback, comments & suggestions to the coordinators.



*Dr Vishvesh Badheka
HOD, Mechanical Engineering
School of Technology*

FACULTY ZONE

Publications

Journals

➤ *Dr Vivek V. Patel published following journal papers*

- Li, W., P.L. Niu, S.R. Yan, **V. Patel**, and Q. Wen. Improving microstructural and tensile properties of AZ31B magnesium alloy joints by stationary shoulder friction stir welding. *Journal of Manufacturing Processes* 2019, 37, 159-167.
- **Patel, V.**, W. Li, and Y. Xu. Stationary shoulder tool in friction stir processing: a novel low heat input tooling system for magnesium alloy. *Materials and Manufacturing Processes* 2018, 1-6.
- Godhani, P.S., **V.V. Patel**, J.J. Vora, N.D. Chaudhary, and R. Banka. Effect of Friction Stir Welding of Aluminum Alloys AA6061/AA7075: Temperature Measurement, Microstructure, and Mechanical Properties. in *Innovations in Infrastructure*. 2019. Singapore: Springer Singapore.

Conferences

➤ *Dr Vishvesh Badheka presented following papers in National welding seminar at Cochi during 12-16th Dec 2018*

- Effect of Welding Parameters on Microstructures and Properties of Wear Plates, Bhargavi Korot, Jinesh Sanghvi, Surya Jain, **Vishvesh J Badheka**, Nirmal Saha, Vinod Patil, Siva P (Jointly with EWAC)
- Comparisons on the relation of fillet size with various weld modes in MIG welding. Anuj R. Gandhi, Anand Patel, Kaushal Shah, **Vishvesh J. Badheka**, Jignesh Patel (Jointly with Apollo Gujarat)
- Darji, R., **Badheka, V.**, **Mehta, K.**, Joshi, J., Yadav, A, 2018. Autogenous TIG welding of Copper. National Welding Seminar - Indian Institute of Welding, 13-15 Dec. 2018.
- Characterization of Dissimilar Weld Joints Of Stainless Steel to Copper using Inconel Transition by Orbital TIG Technique , Vyom Desai, Jaydeep Joshi, **Vishvesh Badheka**, Ashish Yadav .(ITER India)

- **Dr. Kush Mehta** published following conference paper in *National welding seminar at Cochi during 12-16th Dec 2018*
- Vyas, H., Mehta, K. P., **Badheka, V.**, Doshi, B, 2018. Preliminary Investigations on Dissimilar Friction Welding Al-SS Joints for Pipe to Pipe Configuration. National Welding Seminar - Indian Institute of Welding, 12-16 December 2018.
- **Dr. Anurag Mudgal** published a conference paper in Feasibility and parametric study of a thermal- energy driven Reverse Osmosis system for Water Treatment in India; Anurag Mudgal; Vivek Patel; Jatin Patel, Bhaumik Modi; 5th -7th December 2018 at BITS Dubai.

Book Chapters

- **Dr. Kush Mehta** published a book chapter Sustainability in Welding and Processing. In Innovations in Manufacturing for Sustainability (pp. 125-145). Springer, Cham.

Awards

- **Dr. Kush P. Mehta** and **Dr. Niravkumar P. Patel** received an award for Young Engineer event 2018 of Indian Institute of Welding.
- **Dr Anurag Mudgal** awarded as keynote speaker and conference chair for a session at International Conference on Recent Advances in Fluid and Thermal Science; 5th -7th December 2018 at BITS Dubai.

Expert Lectures Delivered

- **Dr Vivek K. Patel** delivered expert lecture on "Evolutionary optimization algorithm and its application" in STTP held at VVP Engineering college, Rajkot during 10th to 14th December.

Professional Meetings

Outside Campus

- **Dr Vishvesh Badheka** attended National welding seminar at Cochi during 12-16th Dec 2018 and he also chair one session as session chair during National Welding seminar on 15th Dec 2018 (Session 7B on residual stresses, distortion and corrosion)
- **Dr. Garlapati Nagababu** had successfully completed International workshop on small wind turbine from 30th November to 9th December 2018, Organized by National Institute of Wind energy (NIWE), Chennai.
- **Dr. Garlapati Nagababu** presented a paper entitled " A comparative analysis of LIDAR and wind mast measured wind data a with the reanalysis datasets for an offshore location of Gujarat" at International conference on emerging trends in mechanical engineering (ICETME-2018), SRIT, Andhrapradesh.
- **Dr. Kush Mehta** attended a conference of National Welding Seminar organized by Indian Institute of Welding held in Cochin on 13-15 December 2018 and received the best young Engineer Award.
- **Dr Anurag Mudgal** attended International Conference on Recent Advances in Fluid and Thermal Science; 5th -7th December 2018 at BITS Dubai.



Dr. Kush Mehta receiving an award for Best Young Engineer event organized by Indian Institute of Welding [Team Members: *Dr. Kush P. Mehta* and *Dr. Niravkumar P. Patel*]

Professional Meetings

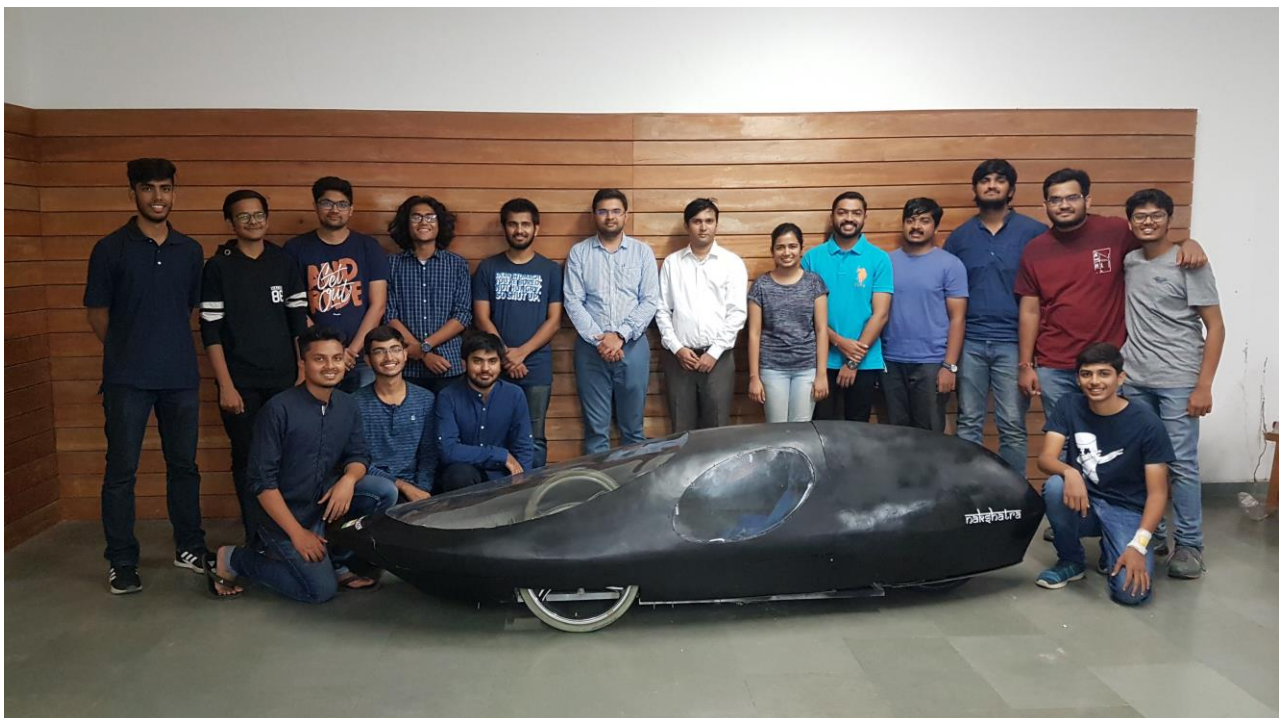
- **Dr Badheka** arranged interaction session of M.Tech (Thermal/Design) students on 7th Dec 2018 with Mr C Baranidharan, Head- Design & Engineering, Thermax Pune
- **Dr Badheka** visited Mr Sadashiv Yesugade, AVP and Mr Devendra Gupta, AVP (R &D), of Indian Dairy Machinery Company Ltd, IDMC, Anand on 22nd Dec 2018
- **Dr Badheka** Visited Head and Faculty of Material Science Dept of SP University on 22nd Dec 2018
- **Dr Badheka** Visited Dr.A.Mathiazhagan, Professor, Dept. of Ship Technology, Cochin University on 12th Dec 2018
- Mr Rhythm Patel, Supply Chain Management-Onshore, L&T Knowledge City ,Vadodara visited Dr Badheka regarding industry connect for possibility of placement on 24th Dec 2018.
- **Training & others**
 - **Dr Badheka and Dr. Pankaj Sahlot** visited IIT Gandhinagar for faculty recruitment along with Director SOT on 11th Dec 2018
 - Dr Badheka undergone TCSion training on 20th Dec 2018
- **Dr Vishvesh Badheka also attended professional assignments**
 - UG Viva (Material Sci & Metallurgy) Production Engineering.BVM on 8th Dec 2018
 - DPC (GTU) Mr Gaurav Patel at BVM on 8th Dec 2018
 - M.Tech dissertation viva at GTU on 26th Dec 2018.
 - DPC (Homi Bhabha National Institute) of Mr Jaydeep Joshi at ITER office, Gandhinagar on 27th Dec 2018
 - Attended BOS meeting at Production Engineering, BVM on 29th Dec 2018



STUDENT ZONE

Achievements

- **Anuj Gandhi (16BME012)** published a conference paper at **National welding seminar, Cochi**. Dr. Vishvesh Badheka attended the conference as the corresponding author and presented the research paper.
- Team Kaizen participated in Challenger Event for Shell Eco-Marathon Asia 2019 under the guidance of Mr. Krunal Mehta
- Three Mechanical engineering students selected by INOXCVA for CP project visited Kalol plant on 1st Dec 2018 for technical discussion and plant visit.
- Three Mechanical engineering students selected by CEAT for CP project visited Halol plant on 4th Dec 2018.
- CEAT conducted zoom interview for four chemical engineering students on 4th Dec 2018 & selected two for CP project
- Dr Badheka conducted Best presentation award competition under IIW-PDPU student chapter for final year Mechanical Engineering students, 24 team participated, 3 best team were awarded best presentation award by Director SOT on 4th Dec 2018.



Team Kaizen at Challenger Event for Shell Eco-Marathon Asia 2019 with faculty member Mr. Krunal Mehta

Best presentation Award



15BME048 15BME002 15BME025 Welding in pressure vessel shell

Best presentation Award



15BME004 15BME005 15BME001 Welding in automobiles (4-wheelers)



Dr. Kush Mehta explaining Manufacturing facilities of PDPU to School students



PDPU Gandhinagar students participated in the BMW's skill next initiative and received a BMW Engine and Automatic Transmission Assembly for Educational purposes at no cost.

Newsletter Coordinators:

Dr Janardhan V and Dr Pankaj Sahlot