



PDP

PANDIT
DEENDAYAL
PETROLEUM
UNIVERSITY

SOT

SCHOOL OF
TECHNOLOGY

NEWSLETTER
September & October
2020



SCHOOL OF TECHNOLOGY DEPARTMENT OF MECHANICAL ENGINEERING

FACULTY ZONE

- > Publications - Journals
- > Patent Filed
- > Publications - Conference Papers
- > Publications - Book Chapter
- > Webinars Attended
- > Events/Webinar Organized

FACULTY ZONE

- > Administrative Assignments
- > Funded Projects
- > Consultancy
- > Professional Activities
- > DC Conducted
- > Webinars Delivered
- > Professional Visits
- > Recognition

STAFF ZONE

- > Training or Installation of Major Equipment
- > Administrative Activities
- > Webinar Attended

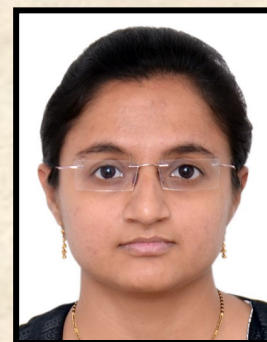
STUDENT ZONE

- > Webinars Attended
- > Internship
- > Patent Filed

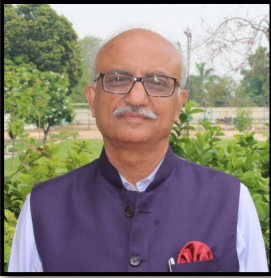
Editorial Team



Dr. Pankaj Sahlot
Faculty Coordinator



Mrs. Pooja Nimavat
Staff Coordinator



DIRECTOR'S DESK...

Prof. Sunil Khanna

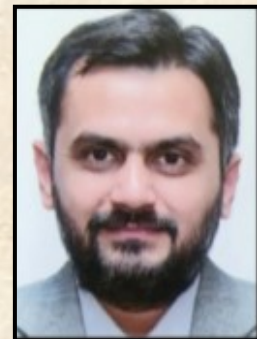
Dear Colleagues and Students:

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.

HEAD OF THE DEPARTMENT'S DESK ...



Prof. Vishvesh Badheka

It gives me immense pleasure to share Newsletter of the Mechanical Engineering Department, September & October 2020. 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.



FACULTY

PUBLICATIONS

JOURNALS

Dr. Simran Jeet Singh, Dr. Vivek K Patel, Dr. Vipindas K published the following Journal in the month of September 2020

- ⇒ V. Kumar, V., **S. J. Singh**, V. H. Saran, and S. P. Harsha. "Vibration characteristics of porous FGM plate with variable thickness resting on Pasternak's foundation." *European Journal of Mechanics-A/Solids* : 104124. <https://doi.org/10.1016/j.euromechsol.2020.104124> (2020)
- ⇒ **Patel VK**, Raja BD, Savsani VJ, Yildiz AR. Qualitative and Quantitative Performance Comparison of Recent Optimization Algorithms for Economic Optimization of the Heat Exchangers. *Archives of Computational Methods in Engineering*. 1-16, <https://doi.org/10.1007/s11831-020-09479-1> (2020).
- ⇒ B.N.Sahoo, A. Mohanty, S.Gangopadhyay, **Vipindas K**, An insight into microstructure and machining performance of deep cryogenically treated cemented carbide inserts, *Journal of Manufacturing Processes*, Volume 58, Pages 819-831, <https://www.sciencedirect.com/science/article/abs/pii/S1526612520305867> (2020).



PATENT FILED

Dr. M.B. Kiran has successfully registered a patent 333615-001, dated 25th September 2020.



FACULTY

PUBLICATIONS

CONFERENCE PAPERS

Dr. Simran Jeet Singh and Dr. Vivek Kumar presented the following papers at 2nd International Conference on Recent Advances in Mechanical Engineering (RAME 2020) held on 18th to 19th September 2020 organized by Department of Mechanical & Production Engineering, Centre for Energy and Environment, DTU Delhi.

- ⇒ “Effect of thickness stretching on sandwich plate with FGM core and piezoelectric face sheets” by Dr. Simran Jeet Singh
- ⇒ Effect of non-Newtonian Behavior of Lubricant on Performance of Externally Pressurized Thrust Bearing by Dr. Vivek Kumar
- ⇒ Performance of Hydrodynamic Journal Bearing Operating with Shear-Thinning Lubricants by Dr. Vivek Kumar

Dr. Vinay Vakharia presented the following conference paper in the month of October 2020:

H T Thakker, V Dave, *V Vakharia* and S Singh, “Fault Diagnosis of Ball Bearing Using Hilbert Huang Transform and LASSO Feature Ranking Technique”, 4th International Conference on Mechatronics and Electrical Systems dated 11th to 13th October 2019 (2020) 012006, <https://iopscience.iop.org/article/10.1088/1757-899X/841/1/012006/meta>.

BOOK CHAPTER

Dr. M.B. Kiran published the following Book Chapter in the month of September 2020:

"A Novel Way to Schedule Flexible Manufacturing System" published in book Operations Management and Systems Engineering, Bhatt Srushti, J.A.Vadher, Anish Sachdeva Pradeep Kumar O P Yadav R K Garg Ajay Gupta, Lecture Notes in Interdisciplinary Industrial Engineering, Springer, 24th September 2020, pp 427-446, ISSN 2522-5022, <https://doi.org/10.1007/978-981-15-6017-0>.



WEBINARS ATTENDED

Dr. Vishvesh Badheka attended the following webinars during the month of October 2020:

- ⇒ LNG and its potential in India by organised Cryogenic Society of India held on 3rd October 2020 .
- ⇒ 6-days Short term program on ‘Advanced Welding Technology and Failure Analysis’ organised by Metallurgy and Material Science Department, IIT Indore. Sponsored by AICTE - QIP from 5th to 10th October 2020.
- ⇒ University Colloquium on National Educational Policy delivered by Dr. C. Gopalkrishnan, Director, School of Petroleum Management, PDPU held on 10th October 2020.

Dr. Pankaj Sahlot attended the following webinars during the month of September 2020:

- ⇒ Short Term Course on Additive and Smart Manufacturing” organized by Department of Production Engineering, National Institute of Technology, Tiruchirappalli during 7th to 11th September 2020
- ⇒ “Materials Processing for Energy Storage, Sensors, Solar/Electronic Applications organized by PDPU Gandhinagar on 11th September 2020

Dr. Abhishek Kumar attended AICTE sponsored course on “Precision and Micro - Manufacturing” organized by IIT Indore during 5th to 10th October 2020.



FACULTY

WEBINARS ATTENDED

Dr. Simran Jeet Singh attended the following webinars during the month of September 2020:

- ⇒ AICTE Training And Learning (ATAL) Academy Online FDP on “Mechanics of Composite Materials and Structures”, organized by M.B.M. Engineering College, Faculty of Engineering and Architecture, J.N.V. University, Jodhpur on 09th to 13th September 2020.
- ⇒ One Week Online Faculty Development Program under TEQIP-III on “Design Aspects and Industry 4.0”, organized by University College of Engineering & Technology, Bikaner on 10th to 14th September 2020.
- ⇒ 2nd International Conference on Recent Advances in Mechanical Engineering (RAME 2020) held on 18th to 19th September 2020 organized by Department of Mechanical & Production Engineering, Centre for Energy and Environment, DTU Delhi.

Dr. Vipindas K attended the following webinars during the month of September 2020:

- ⇒ AICTE sponsored online Short Term Training Program (STTP) series on Recent Advances in Tribology and Surface Engineering Series 2 of 4 Tribology of Machine Components and Applied Tribology from 14th to 19th September 2020.
- ⇒ National Seminar (web) on “Advances in Machining” organized by the department of Mechanical Engineering, National Institute of Technical Teachers' Training & Research (NITTTR) Kolkata on 26th September 2020.

Dr. Abhishek Kumar attended the following webinars during the month of September 2020:

- ⇒ “Welding and Corrosion Resistance of Nickel Alloys” organized by IIW, Mumbai on 19th September 2020.
- ⇒ Short Term Course on “Advanced Welding Technology and Failure Analysis” organized by IIT Indore from 19th to 24th September 2020.
- ⇒ Participated in Online Short Term Course on “Advanced Manufacturing Processes & Applications (AMPA-2020)” organised by NIT, Jaipur from 24th to 26th September 2020.
- ⇒ Technology Transfer by Mr. Andre Kwok " Organized by IIC, PDPU on 28th October 2020.



FACULTY

WEBINARS ATTENDED

Dr. Anirudh Kulkarni attended the following webinars during the month of September 2020:

- ⇒ “Trends in Biomedicine and Life Sciences publishing”, organised by Springer Nature on 2nd September 2020
- ⇒ Abstracting and Indexing organised by Springer Nature on 9th September 2020.

Dr. Vivek K Patel attended the TEQIP-III Sponsored One week short term training program on "Green Energy: The Energy of Future (GEEF-2020)" organized by Organised By Rajasthan Technical University, Kota during 7th to 11th September 2020.

Dr. Rajesh Patel attended the following webinars during the month of September - October 2020:

- ⇒ “Role of Accreditation of Higher Educational Institutions (HEI’s)” under National Education Policy (NEP) 2020 organized by Internal Quality Assurance Cell, The M. S. University of Baroda on 18th September 2020 .
- ⇒ "Design Thinking in Energy Sector" organized by Innovation and Incubation Centre (IIC) in association with Faculty of Engineering and Technology (FoET), PDPU on 17th October 2020.

Dr. M.B Kiran attended the following webinars during the month of September 2020:

- ⇒ "In conversation with Shri A.S. Kiran Kumar, Vikram Sarabhai professor at Indian Space Research Organization, Bangalore, on 6th September 2020.
- ⇒ "Innovation beyond COVID for India" by Shri, Nikhil Malhotra from Tech Mahindra company on 9th September 2020
- ⇒ "How to set up a startup?", by Shri Aniruddha Damani, Managing Partner at Artha Venture Fund, Ahmedabad, on 22nd September 2020.
- ⇒ Symposium on Artificial Intelligence (online), organized by JIO Institute, Mumbai, Maharashtra, India on 7th September 2020



FACULTY

EVENTS /WEBINARS ORGANIZED

- ⇒ **Department of Mechanical Engineering** arranged following Webinars during September 2020 :
- ⇒ Webinar on "Application of Smart Materials & Structures in Mechanical Systems" conducted in association with ASME-PDPU student chapter on the occasion of Teacher's Day, 5th September 2020 by **Dr. Simran Jeet Singh and Dr. Vivek Kumar**.
- ⇒ One day workshop on "Revisiting CFD: An introduction to ANSYS Workbench, Matlab, and OpenFOAM" conducted in association with ASME-PDPU student chapter on occasion of Engineers' day, 15th September 2020 by **Dr Anirudh Kulkarni** along with **Dr Pankaj Sahlot and Dr Ravi Kant**, . An overwhelming attendance of 168 participants from a wide spectrum of programs and expertise.
- ⇒ Webinar Series on "NANOSCIENCE & NANOTECHNOLOGY" during 11th-12th-13th September 2020 by **Prof. Ramesh Guduru**.
- ⇒ One week online workshop on "Modelling Approach in Micro-Machining Processes", by **Dr Abhishek Kumar** 26th to 30th October 2020. It included a total of 15 Sessions and 12 experts from IITs including Prof. V K Jain having 735 participants including 5 International Participants (two Faculty), 7 Research Scientists, 6 Postdoctoral fellows and 7 Industry Personnel.
- ⇒ Guest lecture on Simulation for the subject of Manufacturing and service system on the topic "Benefits of Simulation in thermal power plants" by Mr. R.D. Chauhan, General Manager (Retd.), National Thermal power Corporation, Ahmedabad dated 15th September 2020 (online-Microsoft Team platform) conducted by **Dr. M. B Kiran**. During guest lecture, he stressed the need for simulators in Thermal Power Plants. Also, covered the structure and function of simulator with examples and case study.
- ⇒ One Day National Conclave on Industry 4.0 dated 17th October 2020 by **Dr. M. B Kiran**. Five eminent speakers have addressed the participants. The main objective of organizing One Day National Conclave on Industry 4.0 is to create awareness about the significance of Industry 4.0 and it's applications in manufacturing and allied sectors. Experts in the area of Industry 4.0 have participated in the conclave and laid down the roadmap for future steps to be taken for Industry 4.0 and the engineering revolution in India. Eighty-eight people from across India participated in the Conclave.

FACULTY

EVENTS /WEBINARS ORGANIZED

2nd_Updated Social Media - 82




SPEAKERS



DR. VIVEK KUMAR
Assistant Professor,
School of Technology,
Department of Mechanical Engineering,
PDPU



DR. SIMRAN JEET SINGH
Assistant Professor,
School of Technology,
Department of Mechanical Engineering,
PDPU

WEBINAR BY DEPARTMENT OF MECHANICAL ENGINEERING

Application of Smart Materials & Structures in Mechanical Systems

5th SEPTEMBER 2020, SATURDAY
11:00AM - 12:00PM

[Register Now!](#) [Free Registration](#)

2nd_Updated Social Media - 104





1 DAY NATIONAL CONCLAVE ON INDUSTRY 4.0

17th OCTOBER 2020, SATURDAY
10:00 AM IST ONWARDS

SPEAKERS



Mr. Anand
Plant Quality & Launch,
BMW, Fort Motors, India



Dr. Duraj Selvam
Professor & Dean,
National Institute of Technology, Tiruchrappalli



Mr. Jagan Trivedi
Founder,
Efforts Consulting



Mr. Brijesh Kamany
CEO,
Teksou Microsystem



Mrs. Sita Saminaden
Director, Stephen Business School,
Madurai



Prof. Sunil Khanna
Director, SOT, PDPU



Prof. Vishvesh Badhika
Head, Department of Mechanical Engineering,
School of Technology, PDPU



Dr. M. B. Kiran
Associate Professor, Department of Mechanical Engineering,
School of Technology, PDPU

PROGRAM CHAIRS **ORGANISERS**

[Free Registration](#) [Register Now!](#)



5th_Updated Social Media - 95




NANOSCIENCE & NANOTECHNOLOGY

WEBINAR SERIES BY DEPARTMENT OF MECHANICAL ENGINEERING

MODULE-1

MATERIALS PROCESSING FOR ENERGY STORAGE, SENSORS, SOLAR/ELECTRONIC APPLICATIONS

11th-13th SEPTEMBER 2020
5:00PM ONWARDS

PDPDU SPEAKERS



PROF. S. S. MAHDHARAN
Director General,
PDPU



PROF. SUNIL KHANNA
Director,
School of Technology, PDPU



DR. RAMESH K. GUDURU
Department of Mechanical Engineering,
School of Technology, PDPU



DR. KALLASADHAN MUKHERJEE
Department of Chemistry,
School of Technology, PDPU



DR. ANKUR SOLANKI
Department of Physics,
School of Technology, PDPU

GUEST SPEAKERS



DR. R. PRASADA RAO
C-MET,
Pune



DR. RAMEDRA SUNDAR DEO
Scientist, Institute of Nano Science & Technology,
BST Lab, Govt. of India
Mohali



DR. YOGESH SRIVASTAVA
Dept. of Physics,
IITM,
Singapore

E-Certificates will be Provided

[Register Now!](#) [Free Registration](#)

SOT ENGINEER'S DAY 15th September




15th SEPTEMBER 2020, TUESDAY
11:00AM (IST) ONWARDS

WEBINAR

Revisiting CFD: An introduction to ANSYS Workbench, MATLAB, and OpenFOAM

BY DEPARTMENT OF MECHANICAL ENGINEERING



DR. PANKAJ SAHLOT
Assistant Professor,
Department of Mechanical Engineering



DR. RAVI KANT
Assistant Professor,
Department of Mechanical Engineering



MR. ANIRUDH KULKARNI
Assistant Professor,
Department of Mechanical Engineering

AGENDA OF THE WEBINAR

- 11.00 - 11.10 AM Opening remarks by Dignitaries.
- 11.10 - 11.30 AM Introduction to CFD and the state-of-the-art, and various tools that shall be discussed
- 11.30 AM - 01.00 PM Session on ANSYS Workbench by Dr Pankaj Sahlot
- 01.00 - 02.00 PM Virtual Lunch Break
- 02.00 - 03.30 PM Session on MATLAB by Dr Ravi Kant
- 04.00 - 05.30 PM Session on OpenFOAM by Mr Anirudh Kulkarni
- 05.30 - 05.35 PM Vote of Thanks, Declaration of the upcoming workshop series.

[Free Registration](#) [Register Now!](#)  

NANOSCIENCE & NANOTECHNOLOGY


WEBINAR SERIES BY DEPARTMENT OF MECHANICAL ENGINEERING

MODULE-1


DAY-1
THEME: ENERGY

11th SEPTEMBER 2020
5:00PM ONWARDS


SPEAKERS




PROF. S. S. MAHDHARAN
Director General,
PDPU




PROF. SUNIL KHANNA
Director,
School of Technology, PDPU



DR. RAMESH K. GUDURU
Department of Mechanical Engineering,
School of Technology, PDPU




DR. KALLASADHAN MUKHERJEE
Department of Chemistry,
School of Technology, PDPU




DR. ANKUR SOLANKI
Department of Physics,
School of Technology, PDPU


GUEST SPEAKERS



DR. R. PRASADA RAO
C-MET,
Pune





DR. RAMEDRA SUNDAR DEO
Scientist, Institute of Nano Science & Technology,
BST Lab, Govt. of India
Mohali



DR. YOGESH SRIVASTAVA
Dept. of Physics,
IITM,
Singapore

E-Certificates will be Provided

[Register Now!](#) [Free Registration](#)

NANOSCIENCE & NANOTECHNOLOGY


WEBINAR SERIES BY DEPARTMENT OF MECHANICAL ENGINEERING

MODULE-1


DAY-2
THEME: ENVIRONMENT

12th SEPTEMBER 2020
5:00PM ONWARDS


SPEAKERS




PROF. S. S. MAHDHARAN
Director General,
PDPU




PROF. SUNIL KHANNA
Director,
School of Technology, PDPU



DR. RAMESH K. GUDURU
Department of Mechanical Engineering,
School of Technology, PDPU




DR. KALLASADHAN MUKHERJEE
Department of Chemistry,
School of Technology, PDPU




DR. ANKUR SOLANKI
Department of Physics,
School of Technology, PDPU


GUEST SPEAKERS



DR. R. PRASADA RAO
C-MET,
Pune





DR. RAMEDRA SUNDAR DEO
Scientist, Institute of Nano Science & Technology,
BST Lab, Govt. of India
Mohali



DR. YOGESH SRIVASTAVA
Dept. of Physics,
IITM,
Singapore

E-Certificates will be Provided

[Register Now!](#) [Free Registration](#)

NANOSCIENCE & NANOTECHNOLOGY


WEBINAR SERIES BY DEPARTMENT OF MECHANICAL ENGINEERING

MODULE-1


DAY-3
THEME: NANO DEVICES

13th SEPTEMBER 2020
5:00PM ONWARDS


SPEAKERS




PROF. S. S. MAHDHARAN
Director General,
PDPU




PROF. SUNIL KHANNA
Director,
School of Technology, PDPU



DR. RAMESH K. GUDURU
Department of Mechanical Engineering,
School of Technology, PDPU




DR. KALLASADHAN MUKHERJEE
Department of Chemistry,
School of Technology, PDPU




DR. ANKUR SOLANKI
Department of Physics,
School of Technology, PDPU


GUEST SPEAKERS



DR. R. PRASADA RAO
C-MET,
Pune





DR. RAMEDRA SUNDAR DEO
Scientist, Institute of Nano Science & Technology,
BST Lab, Govt. of India
Mohali



DR. YOGESH SRIVASTAVA
Dept. of Physics,
IITM,
Singapore

E-Certificates will be Provided

[Register Now!](#) [Free Registration](#)

FACULTY

EVENTS /WEBINARS ORGANIZED

Revised Social Media - 109




ONLINE SHORT TERM COURSE ON MODELING APPROACH IN MICRO-MACHINING PROCESSES

BY DEPARTMENT OF MECHANICAL ENGINEERING (NBA Accredited)

26TH - 30TH OCTOBER 2020
10:00AM ONWARDS

 DR. S. SUNDAR MANOHARAN Director General, Pandit Deendayal Petroleum University	 PROF. SUNIL KHANNA Director, School of Technology, PDPU	 DR. VISHVESH BADHEKA Head, Department of Mechanical Engineering
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ORGANIZING SECRETARY

 DR. ABHISHEK KUMAR Asst. Professor, Department of Mechanical Engineering, PDPU, Gandhinagar	 DR. ANKIT OZA, (PhD, PDPU) Asst. Professor, Department of Engineering and Physical Sciences, Institute of Advanced Research, The University for Innovation, Gandhinagar
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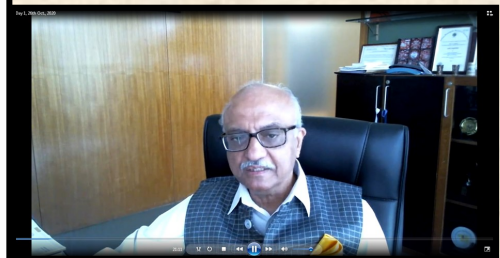



REGISTRATION DETAILS
(SEATS ARE AVAILABLE ON FIRST COME FIRST SERVE)

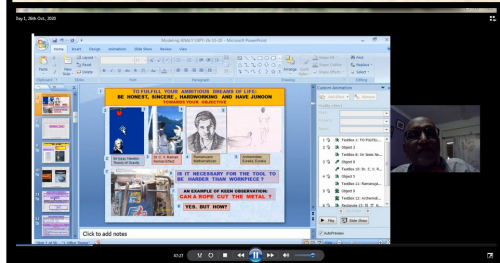
STUDENTS FREE/-	FACULTY FROM ACADEMIC INSTITUTIONS INR 250/-	INDUSTRY PARTICIPANTS INR 500/-
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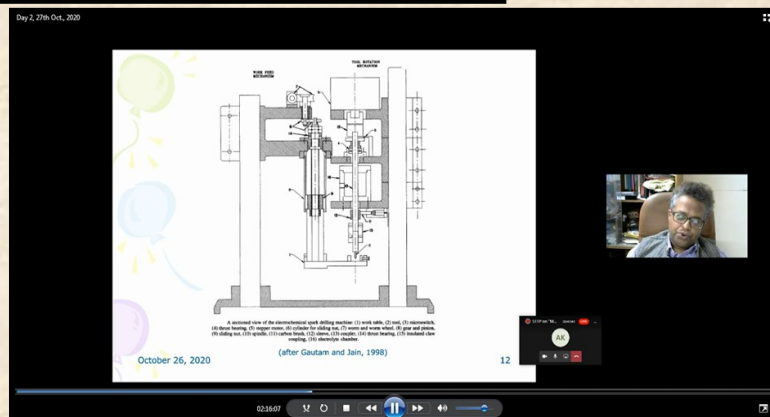
Address by Prof. Vishvesh Badheka,
HOD Mechanical Department



Address by Prof. Sunil Khanna ,
Director, SOT



1st Technical Talk by
Prof. V K Jain, IIT Kanpur



Lecture by Prof. Pulak M Pandey, IIT Delhi, during STTP



FACULTY

ADMINISTRATIVE ASSIGNMENTS

Department of Mechanical Engineering conducted the following Administrative activities in the month of September - October 2020:

- ⇒ M. Tech admission PI on M. Tech Mechanical - Thermal Engineering, Design and Manufacturing Technology conducted on 19th, 20th and 21st September 2020 by the committee.
- ⇒ PhD admission PI conducted on 27th October 2020 by the committee.
- ⇒ The Departmental Orientation for B. Tech (Mechanical/Automobile) held on 30th October 2020.

Dr. M.B. Kiran carried out the following administrative assignments during the month of September 2020:

- ⇒ Presentation on "LNG Project- Logistics by Trucks in safe environment" to the project stakeholders on 04th September 2020.
- ⇒ Conducted GATE classes, for seven hours, for final year B. Tech. (Mechanical Engineering Students) in 1st and 3rd week of September 2020.[02nd to 4th, 14th, 16th to 18th September 2020).
- ⇒ Conducted Faculty Advisor Meeting on 24th September 2020 for B. Tech. Mechanical Engineering Students. Minutes of the meeting was shared to the coordinator.

Dr. Vivek K Patel carried out the following administrative assignments during the month of September 2020:

- ⇒ NEET 2020 invigilation duty on 13th September 2020.
- ⇒ Conducted Faculty Advisor Meeting with B. Tech Students on 27th September 2020.



FACULTY

ADMINISTRATIVE ASSIGNMENTS

Dr. Vishvesh Badheka carried out the following administrative assignments during the month of September - October 2020:

- ⇒ Mechanical Department ROADMAP presentation presented to CSC on 1st September 2020.
- ⇒ Coordinated M. Tech programs Personal Interviews (PI) held during 19th to 28th September 2020 under School of Technology.
- ⇒ Attended following meetings: Joint meeting on National & International conference on 2nd September 2020, Nano webinar on 5th September 2020, IE lab visit and SHELL proposal on 4th September 2020, DPC (synopsis) on 25th September 2020, DPC on 28th September 2020, NIRF meeting dated 23rd October 2020.
- ⇒ BOS meeting for B. Tech (Automobile engineering) program held on 14th October 2020. The meeting was attended by all internal and external members.

Dr. Abhishek Kumar carried out the following administrative assignments during the month of September - October 2020:

- ⇒ NEET 2020 invigilation duty on 13th September 2020.
- ⇒ Coordinated Mid Sem Review of Seminar and Dissertation for M. Tech Manufacturing.
- ⇒ Conducted Faculty Advisor meeting with students of Mechanical Engineering.



FACULTY

FUNDED PROJECTS

Dr. Abhishek Kumar modified and Re- Submitted Project proposal on “Experimental and numerical investigations on the effect of process parameters on the weld quality of polymeric materials by friction stir welding” to GUJCOST for duration 36 months and costing 20.3 Lakhs dated 2nd September 2020.

Dr. M.B. Kiran as a Project investigator (**Prof. Vishvesh Badheka, Dr. Abhishek Kumar, Prof. Anirbid Sircar** as co-project investigators) submitted a research project proposal on "LNG Project- Logistics by Trucks in safe environment" to SHELL company on 08th September 2020.



CONSULTANCY



PANDIT DEENDAYAL PETROLEUM UNIVERSITY, Gandhinagar
&
EFFORTS CONSULTING, Ahmedabad
INVITES YOU
FOR



EXECUTIVE DEVELOPMENT SESSION

<p>1: SIMULATION OF MANUFACTURING SYSTEM (24th October, Saturday, 6pm to 8 pm)</p> <ul style="list-style-type: none"> • Introduction to Simulation and Relevance • Scope of Simulation • Impediments to Simulation • System Requirement • Random Number and its Significance • Random number generation techniques • Tests for Random numbers • Software based simulation • Case Studies 	<p>2: DIGITAL IMAGE PROCESSING & APPLICATION (31th October, Saturday, 6pm to 8 pm)</p> <ul style="list-style-type: none"> • Introduction to digital image processing • System requirements • Image pre-processing • Different types of filters • Image processing operations • Scope of Image processing • Application • Relevance in context of Industry 4.0 environment
<p>3: COMPUTER AIDED INSPECTION USING AI (7th November, Saturday, 6pm to 8 pm)</p> <ul style="list-style-type: none"> • Introduction to Artificial Intelligence • Types of Industrial Inspection System • Post Process Inspection • Online Inspection • In Process Inspection • Applicability of AI in Industrial Inspection • Scope of AI in the context of Industry 4.0 environment • Cloud based Inspection 	<p>4: LEAN PRODUCTION SYSTEM & CASE STUDIES (14th November, Saturday, 6pm to 8 pm)</p> <ul style="list-style-type: none"> • Introduction to LEAN Production System • History, Concepts and Key Terms • Muda - Mura - Muri • 7 steps of Lean Execution • Lean Model • Flow Management and TPM • Quality Management and Service Management • Case Studies

About Trainer

Trainer has 22+ years of experience in the field of Professional practices, Teaching and Has trained more than 3000+ professional for the subject. He shall assist for the session through various case studies and discussions.

Registration detail

Rs. 599/- (for all the programs) / Rs. 199/- (for an individual Session)
Contact: Mohit - 6333015502, Email: info@effortsconsulting.com
(*Certification will be provided to all the participants)

Dr M B Kiran conducted the following Executive Development Program

⇒ Simulation of Manufacturing System dated 24th October 2020.

⇒ Digital Image Processing & Applications dated 31st October 2020.



FACULTY

PROFESSIONAL ACTIVITIES

Dr Vishvesh Badheka took up the following professional activities in the month of September - October 2020:

- ⇒ Attended Final PhD Viva-voce held at Gujarat Technological University on 1st September 2020 .
- ⇒ Doctoral Progression Committee meeting held at Nirma University on 21st September 2020.
- ⇒ Attended NAB stakeholders meeting organised by Metallurgy Department, Government Engineering College (GEC), Gandhinagar on 11th October 2020.
- ⇒ 12th Meeting of the Board of Examiner of the Indian Institute of Welding-ANB held on 12th October 2020.
- ⇒ IIW-Baroda Br Executive committee meeting held on 21st October 2020.
- ⇒ Attended 2nd Convocation of GSFC University held on 25th October 2020.

Dr. Abhishek Kumar took up the following professional activities in the month of September - October 2020:

- ⇒ Reviewed a paper entitled “A Novel Approach for Removal of Delaminated Fibers of a Reinforced Composites Using Electrochemical Discharge Machining” for Journal of Engineering Manufacture on 29th September 2020.
- ⇒ Reviewed article entitled "Controllable, Consistent and High-throughput Generation of Micro-dimple Array by Mask Electrolyte Jet Machining and Duckbill Electrolyte Nozzle” for Journal of Engineering Manufacture- IMechE (Sage Publication) on 28th October 2020

Dr. M.B. Kiran interacted with the Ms. Bhatt Chitrangi and Mr. Bhavesh of Bosch Rexroth India Limited, Sanand, Ahmedabad dated 3rd October 2020 for exploring comprehensive projects for the students of B.Tech. Mechanical Engineering .



FACULTY

DC CONDUCTED

DC Review	Date	PhD Scholar	External Expert	Guide/Supervisor
Final Viva Voce	4 th September 2020	Mr. Jaspal Dabhi (13RME002)	Dr. Nirvesh S. Mehta	Dr. Sukanta Dash
Synopsis	25 th September 2020	Mr. Motwani Karan Hiralal (14RME02P)	Prof. R. N. Patel	Dr. Jatin Patel
2nd	28 th September 2020	Mr. Jay Patel (19RME001)	Prof. Mitesh Shah	Dr. Rajesh Patel
Final Viva Voce	16 th October 2020	Mr. Vivek Patel (14RME05P)	Dr. R.N.Patel	Dr. Rajesh Patel
Synopsis	28 th October 2020	Mr. Nikhil Chotai (13RME001)	Dr. Bharat M. Ramani	Dr. Vivek K. Patel



PhD Defence of Dr. Vivek Patel



FACULTY

WEBINARS DELIVERED

OUTSIDE PDPU

Dr. Vishvesh Badheka delivered the following invited talks in the month of September - October 2020:

- ⇒ **‘Role of IIW- Students Chapters and Activities’** was delivered during Inauguration of Students Chapter at SVNIT-Surat held on 5th September 2020 and at C. V. Raman College of Engineering-Bhubaneswar held on 21st September 2020.
- ⇒ **‘EBW, Laser, Hybrid & Solid State Welding Processes’ (Lesson-8)** under 91st Transition arrangement refresher course of Indian Institute of Welding on 18th September 2020.
- ⇒ **‘Mechanised Welding & Robotics’ (Lesson-20)** under 91st Transition arrangement refresher course of Indian Institute of Welding on 26th September 2020.
- ⇒ **‘Advances in Arc Welding’** under Short term program on ‘Advanced Welding Technology and Failure Analysis’ organised by Metallurgy and Material Science Department, IIT Indore on 20th September 2020.
- ⇒ **‘Advances in Solid State Welding’** under Short term program on ‘Advanced Welding Technology and Failure Analysis’ organised by Metallurgy and Material Science Department, IIT Indore on 21st September 2020.
- ⇒ **‘Solid state additive manufacturing processes’** under TEQIP –III Sponsored Online Short Term Training Program on Advances in Manufacturing (AIM 2.0) organised by SVNIT-Surat held on 5th October 2020.
- ⇒ **‘Welding Based additive Manufacturing processes’** during National Welding Meet organised by IIW Jamshedpur Branch held on 9th October 2020.
- ⇒ **‘Advances in Welding’** under Mechanical Engineering Department, Uka Tarsadia University held on 12th October 2020.

Dr. Harshal Oza delivered the invited talk on **“Legged Robotics: A Control Systems Perspective in Industry 4.0 Realm”** for the students of B.E Mechanical Engineering at Government Engineering College, Bhavnagar on 24th October 2020. Approximately 45 students and faculties of the institute and other institute benefited from the lecture.

Dr. M. B. Kiran delivered a Guest Lecture to the students of Mechanical Engineering Department, Dayananda Sagar College of Engineering, Bangalore, Karnataka on 8th October 2020.



FACULTY



PROFESSIONAL VISITS OUTSIDE PDPU

Dr. Vishvesh Badheka visited Navrachana University, Vadodara regarding ongoing collaborative work on 21st October 2020.



Dr. Vishvesh Badheka coordinated the visit of Mr Ashit Shah and Mr Neil Shah from Weld flow Engineers, Vadodara visited Welding Research facility on 16th October 2020.



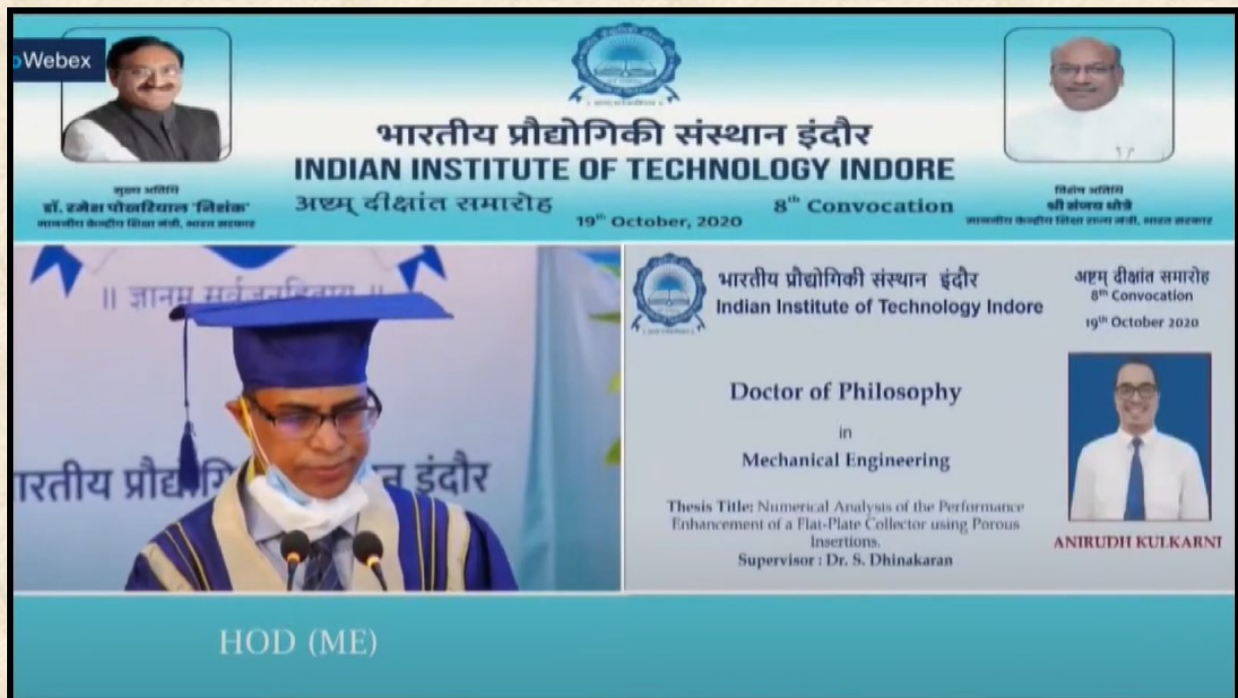


FACULTY

RECOGNITION

Dr. Simran Jeet Singh received the Best paper award in Technical Session 10 (PI-3), for presenting a research paper titled, “Effect of thickness stretching on sandwich plate with FGM core and piezoelectric face sheets”, in the 2nd International Conference on “RECENT ADVANCES IN MECHANICAL ENGINEERING”, (RAME-2020) held on 18th - 19th September 2020, organized by Department of Mechanical & Production Engineering, Centre for Energy and Environment, DTU Delhi.

Dr. Anirudh Kulkarni has defended his PhD thesis titled, "Numerical analysis of the performance enhancement of a flat–plate solar collector using porous insertions" at Indian Institute of Technology Indore on 6th October 2020. The PhD degree was awarded to him on 19th October 2020 in the 8th Convocation at Indian Institute of Technology Indore.



Webex

भारतीय प्रौद्योगिकी संस्थान इंदौर
INDIAN INSTITUTE OF TECHNOLOGY INDORE
अष्टम् दीक्षांत समारोह 19th October, 2020 8th Convocation

मुख्य अतिथि
डॉ. प्रदीप शर्मा 'जिहांगीर'
भारतीय प्रौद्योगिकी संस्थान इंदौर, भारत सरकार

विजाल अतिथि
डॉ. अनिरुध कुलकर्णी
भारतीय प्रौद्योगिकी संस्थान इंदौर, भारत सरकार

॥ ज्ञानम् सर्वं चरन्वितम् ॥

भारतीय प्रौद्योगिकी संस्थान इंदौर
Indian Institute of Technology Indore

अष्टम् दीक्षांत समारोह
8th Convocation
19th October 2020

Doctor of Philosophy
in
Mechanical Engineering

Thesis Title: Numerical Analysis of the Performance Enhancement of a Flat-Plate Collector using Porous Insertions.
Supervisor : Dr. S. Dhinakaran

ANIRUDH KULKARNI

HOD (ME)



TRAINING OR INSTALLATION OF MAJOR EQUIPMENT

Mr. Ashok Chavda, Mr. Ramkrushna Panchal and Mr. Jayesh Panchal made Surface Plate Stand (with Manual Adjustable Levelling System) Made in Mechanical Workshop with use of Workshop Facility made by Available Material Scrap.





ADMINISTRATIVE ACTIVITIES

Mr. Alpehsinh Rajput provided M.Tech admission support on 21st & 22nd September 2020 and also NRI Admission support in Document Verification during the third week of September 2020

WEBINAR ATTENDED

Mr. Alpehsinh Rajput got training on 3D Printing by attending the webinar organized by MSME Indo German Tool Room, Ahmedabad on 5th September 2020.

STUDENTS

WEBINARS ATTENDED

Bagerwal Parth Kamleshbhai (18MMT001) attended the following webinars :

- ⇒ One Day Online Program "COOLFEST-2020" organized by ISHRAE Ahmedabad Chapter on 5th September 2020.
- ⇒ "Solar Refrigeration and Air conditioning" on 9th September 2020 organised by Department of Mechanical Engineering of VVCE and ISHRAE Mysore Chapter.
- ⇒ Online Quiz on 'National Education policy' organized by sanskardham, Ahmedabad from 5th September to 15th September 2020.
- ⇒ 'Role of an Engineer in Building Nation' conducted by 'Rotaract club of VVCE' held on 16th September 2020.
- ⇒ "Marketing on LinkedIn" course offered by LinkedIn Learning on 20th September 2020.
- ⇒ AICTE Training And Learning (ATAL) Academy Online FDP on "Computational Fluid Dynamics" at Symbiosis Institute of Technology, Pune from 21st to 25th September 2020.
- ⇒ "Corporate Innovation and Entrepreneurship" conducted by PDPU IIC in association with SPM on 8th October 2020.
- ⇒ "Entrepreneurship, Management and leadership" conducted by PDPU IIC in association with SLS on 13th October 2020.
- ⇒ Virtual factory visit of "BLOWTECH" in association with ISHRAE Ahmedabad chapter on 17th October 2020.
- ⇒ "Execution, Traction and Scale" conducted by PDPU IIC in association with SPM on 23rd October 2020.

STUDENTS

INTERNSHIP

- ⇒ Rushikesh Bhatt (19BME105) has completed online internship as "Campus Ambassador" for INTERNATIONAL MODEL UNITED NATIONS from 17th August 2020 – 27th September 2020. The internship certificate issued by International MUN is recognized by the United Nations & the Australian Embassy. The letter of Recommendation was also received from Executive Chairman – IMUN. The internship was secured through Internshala, link for which was sent through Career Development Cell of PDPU.
- ⇒ Rajveer Jadeja (19BME142) completed Internship Program Auto CAD on 1st September 2020 from Verzeo, IIT Kharagpur.

STUDENTS

PATENT FILED

Team Kaizen has filed following six design patents under the guidance of Dr. Pankaj Sahlot and Dr. Krunal Mehta.

- ⇒ Rutvik Ghiya, Ujjawal Jha, Anuj Rajesh Gandhi, Dr. Krunal Mehta, Dr. Pankaj Sahlot, Chassis of energy efficient super mileage Electric car, Indian Design Patent (design registration filed), 333620-001, 25th September, 2020.
- ⇒ Rutvik Ghiya, Rohan Lalchandani, Piyush Rathi, Krunal Mehta, Pankaj Sahlot, Shell for Energy Efficient Super-Mileage Electric Car, Indian Design Patent (design registration filed), 333624-001, 25th September, 2020.
- ⇒ Shubham Sharma, Harshil Pancholi, Harsh Sharma, Amaan Shahana, Krunal Mehta, Pankaj Sahlot, Hook for mounting electrical hub motor for Energy Efficient Super-Mileage Electric Car, Indian Design Patent (design registration filed), 333621-001, 25th September, 2020.
- ⇒ Meet Bilimoria, Neh Pandya, Mihir Raval, Anuj Rajesh Gandhi, Krunal Mehta, Pankaj Sahlot, Knuckle for Energy Efficient Super-Mileage Electric Car, Indian Design Patent (design registration filled), 333622-001, 25th September, 2020.
- ⇒ Rohan Lalchandani, Harsh Sharma, Harshil Pancholi, Shubham Sharma, Ujjawal Jha, Krunal Mehta, Pankaj Sahlot Torque arms designed to secure the axle of 500-1000W motor used in prototype vehicle Nakshatra for propulsion, Indian Design Patent (design registration filed), 333623-001, 25th September 2020.
- ⇒ Mihir Raval, Neh Pandya, Piyush Rathi, Meet Bilimoria, Amaan Shahana, Krunal Mehta, Pankaj Sahlot, Torque arm for 500-1000W hub motor used in prototype electric vehicle, Indian Design Patent (design registration filed), 333625-001, 25th September 2020.

B. Tech Students filed following two design patents under the guidance of Dr. Pankaj Sahlot

- ⇒ Vrund Shah, Manav Sheth, Trupal Patel, Pankaj Sahlot, Two Stage Disinfection Tunnel, Indian Design Patent (design registration filed), 332434-001, 27th August 2020.
- ⇒ Aman Agarwal, Raj Chokshi, Dhruv Jhalani, Mohit Patel, Karuturi Saitanmay, Pankaj Sahlot, 3-Phase Disinfection Tunnel to sanitize full body, Indian Design Patent (design registration filed), 332435-001, 27th August 2020