



Mechanical Engineering Department Sardar Vallabhbhai National Institute of Technology Ichchhanath, Surat – 395007

From H.O.D's Desk



I have great pleasure and pride to announce that the department of mechanical engineering, SVNIT is publishing the first newsletter. This newsletter will help to share the news, events and achievement of department. I would like to congratulate all members of editorial board for their sincere effort. I sincerely wish that this new publication turns out to be resounding success.

Department Vision

Department of Mechanical Engineering, Sardar Vallabhbhai National Institute of Technology, Surat perceives to be globally accepted center of quality technical education based on innovation and academic excellence.

Department Mission

Department of Mechanical Engineering, Sardar Vallabhbhai National Institute of Technology, Surat strives to disseminate technical knowledge to its under graduate students, post graduate students and research scholars to meet intellectual, ethical and career challenges for sustainable growth of humanity, nation and global community.



Newly Joined Faculty Members



Dr. Prabhanshu

Area of Interest: Gasification, Heat transfer, Solar thermal

Email: prabhansu@med.svnit.ac.in

Phone: +91 8709649164/9122496493



Dr. Amit Kumar

Area of Interest: Thermodynamics, Solar thermal desiccant, Air conditioning and adsorption refrigeration

Email: amit.kumar@med.svnit.ac.in

Phone: +91 9050254684



Dr. Sumit Khare

Area of Interest: Solid mechanics, Vibrations, Plates and shells, Mechanics of laminated composites

Email: sumitkhare@med.svnit.ac.in

Phone: +91 8109152818



Dr. Naresh Yarramsetty

Area of Interest: Heat transfer, Refrigeration and air conditioning, Thermodynamics, Heat pipes

Email: naresh@med.svnit.ac.in

Phone: +91 9966731733



Dr. Pallvita Yadav

Area of Interest: Manufacturing processes, Advanced machining processes

Email: pallvita.y@med.svnit.ac.in

Phone: +91 8115582469/8299146206



Dr. Rohan Pande

Area of Interest: Biomass cookstove, Heat transfer, Thermodynamics, Nanofluids

Email: rohanpande@med.svnit.ac.in

Phone: +91 8793113173/7020038381

DR. CHANNIWALA SALIM ABBASBHAI

Retired Professor, MED

& Bhatnagar Fellow

Date of Joining: 16/06/1981 Date of Retirement: 30/09/2019



❑ Tell us about your childhood education and what motivated you to pursue this career?

I was admitted in Madresa Taiyebiyah Boy's high school, Zampabazar, Surat so from 8th standard itself I learned turning, drawing and electrical wiring operations. I got admitted to prescience and was in top 5. So I was already involved in technical stuff since childhood, which became a motivation for me to pursue engineering. Then I did my B.Tech from SVNIT, and M Tech from IIT Bombay.

❑ How you felt when you joined SVNIT?

My grandfather was a teacher by profession. So teaching was in my blood. So this profession I chose by my choice not by pressure. I felt happy and now also I feel the same.

❑ Tell us about the wonderful moments that you experienced in your life?

My financial condition was poor, my mother used to sieve clothes to earn money, so at that time I was mostly going to do job but the HOD of SVNIT came to my house and convinced my grandfather and mother to let me go for higher studies. My mother said that *"Main do saal our kapade sil lungi, tu ja our padhai kar"*. This was the best moment of my life. Then when I fired first hydrogen powered engine in IIT Bombay, it was also a beautiful moment of my life.

❑ We know that you work late night, so how you manage your family and work life?

The quality of time matters not the quantity of time so I always manage to give quality of time to my family. I took my wife who is Ayurveda doctor and serves for free to IIT Bombay when I was doing PhD and there I used to work 24 x 7. So my family gets pleasure through my work itself.



Talk with Prof by Rajat Singh (Branch Councilor – MED)

❑ We have heard that you like ‘chai’ the most. So if you have to choose between ‘chai’ and research what will you choose?

When I was in IIT Bombay I drank almost one tanker of chai so research and chai go hand in hand. Now also I always go to canteen and drink 5-6 minimum cups of tea daily.

❑ Tell us about your projects and research work you have done till date?

“unified correlation to estimate HHV (higher heating value) from proximate analysis of solid fuels.” This literature is used as reference for all coal mines operation. “heat loss coefficient for box- type solar cookers” this paper is accepted world- wide in place of MIT literature on same topic. Now I am doing projects in defence and one project in biogas production.

❑ In your opinion, how can students increase their interest in research at B. Tech. level?

Students should go to class daily. Learning and research are two side of a coin. Teacher may be good may be bad but the words he speaks are developed through experience. Internet might give the information but teacher will give you knowledge. Going to field and experiencing the work, doing practical in lab, develops research aptitude in students.

❑ what suggestions you want to give to the students of SVNIT?

Come to class daily and learn things, maintain minimum decorum of class and enjoy every lecture. Whatever innovative idea is there in your mind project it on paper. I always say this to students “Attack work before it attacks you”, always complete any work you have taken. Don’t leave it incomplete. Also students should maintain the divine climate of campus.



Dr. Shailendra Kumar

- “Abrasive water jet machining of composites” and “AI applications in sheet metal forming” National Institute of Technology, Srinagar, 22-26 July, 2019
- “AI applications in press tool design”, Uka Tarsadia University, Bardoli, July 1-5, 2019

Dr. A .A .Shaikh

- “Recent advances in manufacturing technology” GEC Banswara, Rajasthan, September 16-21, 2019
- “Experimental methods for manufacturing of composite materials ” Nirma University, June 29, 2019
- “Application of natural fibre Reinforced composite in medium and small sector ” S.N.P.I.T, Umrah, June 17, 2019
- “industry 4.0-Theory and applications” Uka Tarsadia University, Bardoli, July 1-5, 2019

Dr. Tushar N. Desai

- “New Trends in Quality Management” Madan Mohan Malaviya University of Technology, Gorakhpur, September 12, 2019

Dr. Ravi Kant

- “Design for Environment: A product development prospective” Madan Mohan Malaviya University of Technology, Gorakhpur, September 12, 2019

Dr. Manish K Rathod

- “Lecture Series on MATLAB” Government Engineering College Jhalawar, Jhalawar, Rajasthan, July 16-20, 2019

Dr. H. K. Dave

- “Additive Manufacturing” at Uka Tarsadia University, Bardoli during STTP on “Industry 4.0 – Theory and Applications” on 2nd July, 2019.

- **Javed Malek & Tushar N. Desai**, "Prioritization of sustainable manufacturing barriers using Best Worst Method, Journal of Cleaner Production" Volume 226 (2019): 589-600.
- **Vaishak S and Purnanand V. Bhale**. "Photovoltaic/thermal-solar assisted heat pump system: Current status and future prospects", Solar Energy 189 (2019): 268-284.
- **Vaishak S and Purnanand V. Bhale**. "Effect of dust deposition on performance characteristics of a refrigerant based photovoltaic/thermal system", Sustainable Energy Technologies and Assessments 36 (2019): 100548.
- **Mayank Zala, Ravi Solanki, Purnanand V Bhale and Vaishak S** "Experimental Investigation on Anaerobic Co-Digestion of Food Waste and Water Hyacinth in Batch Type Reactor under Mesophilic Condition." Biomass Conversion and Biorefinery (Accepted For Publication).
- **Lal A. and Markad K**. "Stochastic mixed mode stress intensity factor of center cracks FGMs plates using XFEM", International journal of computational materials science and engineering, 1950009.
- **Lal A. and Jain K**. "Hygro-thermally induced stress intensity factor of an edge crack piezo laminated composite plate", Multidiscipline Modeling in Materials and Structures, (Accepted For Publication).
- **Lal A. and Rahul K**. "Finite element based stochastic nonlinear progressive failure response of piezo-laminated composite plate with elliptical cutouts", International journal of applied mechanics (IJAM), (Accepted For Publication)
- **Joshi V and Rathod M. K**. "Thermal performance augmentation of metal foam infused phase change material using a partial filling strategy: An evaluation for fill height ratio and porosity". Applied Energy. (2019) 1;253:113621.
- **Makwana A. H. and Shaikh A. A**. "The role of patch hybridization on tensile response of cracked panel repaired with hybrid composite patch: experimental and numerical investigation". The Journal of Adhesion. (2019) 20:1-35.
- **Chitturi S. K. , Shaikh A. A, and Makwana A. H**. "Static analysis of thermoset-thermoplastic-based hybrid composite". International Journal of Structural Integrity. (2019)
- **Varsi A. M. and Shaikh A. H**. "Experimental and statistical study on kerf taper angle during CO2 laser cutting of thermoplastic material". Journal of Laser Applications. (2019) 30;31(3):032010.
- **Rajpara P., Shah R. D. and Banerjee J.**, "Effect of hydrogen addition on combustion and emission characteristics of methane fuelled upward swirl can combustor". International Journal of Hydrogen Energy. (2019) 43(36):17505-519
- **Dave H. K., Prajapati A. R., Patadiya N. H. Rajpurohit S. R., Raval H. K.**, "Open hole tensile testing of 3D printed part using in-house fabricated PLA filament", Rapid Prototyping Journal. (article in press)
- **Rajpurohit S. R., Dave H. K.**, "Fused deposition modeling using Graphene-PLA nanocomposite filament", International Journal of Modern Manufacturing Technologies. (article in press)
- **Vyavahare S., Teraiya S., Panghal D., Kumar S.**, "Fused deposition modelling: a review", Rapid Prototyping Journal (article in press).

Gallery



Upcoming Events

Sr. No.	STTP Detail	Organized Faculty	Date of STTP
1.	Engineering Design Using Drafting and 3D-modeling	Dr. A. A. Shaikh Dr. D. I. Lalwani	19 - 23 October, 2019
2.	Advanced Engineering Optimization through Intelligent Techniques (AEOTIT)	Dr. R. Venkata Rao	25 – 29 November, 2019
3.	Fundamentals of Energy Management and Applications (FEMA 2019) ATAL Academies sponsored	Dr. M. H. Bade. Dr. A. V. Doshi Dr. V. D. Kalyankar	25 - 29 November, 2019
4.	Design, Modeling and Simulation of Advanced Composite Structures Using FEM Softwares (MATLAB, ABAQUS and ANSYS)	Dr. Achchhe Lal	9 – 13 December, 2019
5.	3D PRINTING & DESIGN	Dr. H. K. Dave	16 – 20 December, 2019
6.	Reality based Welding Simulator: Significance, Hands on Training and Industrial Correlation	Dr. V. D. Kalyankar	23 - 27 December, 2019

Sr. No.	Conference Detail	Organized Faculty	Date of Conference
1.	61 st National Convention & 5 th International Conference on Industrial Engineering	Dr. Ravi Kant Dr. T. N. Desai	12-14 December 2019
2.	4 th National Conference on Advances in Materials and product design (AMPD)	Dr. A. A. Shaikh Dr. D. I. Lalwani	28-29 December 2019