

ME-NEWSLETTER

Session: 2018-19

Vision of the institute:

To be a leading educational institution recognized for excellence in engineering education & research producing globally competent and socially responsible technocrats.

Mission of the institute:

- To provide state of the art infrastructural facilities that support achieving academic excellence.
- To provide a work environment that is conducive for professional growth of faculty & staff.
- To collaborate with industry for achieving excellence in research, consultancy and entrepreneurship development.

Vision of the Department:

To be recognized as a centre of excellence for mechanical engineering education

Mission of the Department:

- To impart quality education aimed at producing competent professionals capable of applying their knowledge of science & engineering fundamentals creatively in areas related to mechanical engineering.
- To provide necessary support to the aspirants in their goal oriented academic pursuits through mentoring and value added curricular and co-curricular activities.
- To make students conscious of ethical values in pursuing their professions and to inculcate a desire among them to contribute positively to the development of a sustainable environment.

Program Educational Objectives (PEOs)

The educational objectives of undergraduate Mechanical Engineering Program are :

- To transform and develop students into competent professionals capable of solving technical and societal problems.
- To make the students fully aware of the way the mechanical engineering discipline is currently practiced and to inculcate in them a thirst for further knowledge.
- To produce professionals with strong work ethics and high sensitivity to environmental and sustainability issues.

PO's (Department of Mechanical Engineering)

Engineering Graduates will be able to:

1. **Engineering Knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
2. **Problem Analysis:** Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
3. **Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, social, and environmental considerations.
4. **Conduct investigations of complex problems:** Use research based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
5. **Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
6. **The engineer and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
7. **Environment and sustainability:** Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
8. **Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
9. **Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
10. **Communication:** Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
11. **Project management and finance:** Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
12. **Lifelong learning:** Recognize the need for, and have the preparation and ability to engage in independent and lifelong learning in the broadest context of technological change.

Program Specific Outcomes (PSOs)

1. Conceptualize, design, make / improve physical products, processes and systems using principles of design, manufacturing and Industrial engineering.
2. Design, develop and maintain various thermal engineering systems.

Department Activities:

- ICT based Short-Term Course on “Industry 4.0 Standard” (ICT-74) from 23-25 Jan 2019 organised by NITTTR, Chandigarh.
- Expert lecture on “Lean Green and Agile Manufacturing” by Dr. Devendra Banwet, Professor Emeritus, Department of Management Studies, Indian Institute of Technology, Delhi, 19 Nov 2018.
- Expert Lecture on “Multi-functional Biological Structures and Surfaces: An Inspiration for Engineering Design and Applications” by Mr. Charchit Kumar, GCET Alumnus and Joint PhD researcher. Freiburg Centre for Interactive Materials and ioinspired Technologies, University of Freiburg, Freiburg, Germany. Institute Charles Sadron (CNRS UPR022) Université de Strasbourg, Strasbourg, France. 13 Nov 2018.
- Expert Lecture on “Synergistic Damage Mechanics Approach for Progressive Damage and Durability Analysis of Composite Materials” by Dr. Chandra Veer Singh, Associate Professor, University of Toronto, Canada on 4 Aug 2018.
- Expert lecture on “How does one model success” by Dr. Navneet Arora, Professor, Department of Mechanical and Industrial Engineering, IIT- Roorkee on 18 Aug 2018.
- Expert lecture on “Additive Manufacturing and Industry 4.0” by Dr. Abid Haleem, Professor, Department of Mechanical Engineering, Jamia Millia Islmia, New Delhi on 2 November 2018.
- An expert lecture on “Renuable Energy” is organized for Mechanical Students presented by Dr. D.B Singh, Professor, Graphic Era University, Dehradun on 12 March 2019.



Industrial visits of students:

- Students visited the India International Hospitality Expo, ExpoMart.
- Third year Students visited NPTI on 22/11/18 with Mr. A. Nirala (100 students).
- One day Simulator Training on 210 MW Thermal Power Station, NPTI, Badarpur for V semester students on 20 & 22 Nov 2018.



Student Activities:

- The mechanical engineering society, GMECH organized a one day workshop on “Advanced Automotive Technical Training”.
- The Galgotias SAE collegiate club participated in formula event showcasing the SAE-SUPRA.
- Team “Zyklus” from Galgotias College of Engineering and Technology, Greater Noida took part in ninth season of SAE Efficycle which was held from 9th October 2018 to 13th October 2018 at Lovely professional university Phagwara, Punjab.



Faculty Research Publications: (Journals)

- S. Kumar, et al., "Assessing innovativeness of manufacturing firms using an intuitionistic fuzzy based MCDM framework," *Benchmarking: an International Journal* 26 (6), pp: 1823-1844, 2018.
- D. B. Singh, et al., "Development of characteristic equations for PVT-CPC integrated self-sustainable active solar distillation system," *Desalination* 445, pp: 266-279, 2018.
- A. K. Yadav, A. Dewangan "Synthesis and Stability Study of Biodiesel from Kachnar Seed Oil," *Journal of Energy Engineering. American Society of Civil Engineers*, 144 (5), pp: 253-260, 2018.
- Dewangan, et al., "Current scenario of biodiesel development in India: prospects and challenges," *Energy Sources, Part A: Recovery, Utilization, and Environmental Effects*, 40(20), pp: 2494-2501, 2018.
- K. Yadav, A. Dewangan "Effect of n- Butanol and Diethyl Ether on Performance and Emission Characteristics of a Diesel Engine Fuelled with Diesel-Pongamia Biodiesel Blend," *Journal of Energy Engineering. American Society of Civil Engineers*, 144 (6), 2018.
- D. B. Singh, A. K. Singh, "Energy metrics and efficiency analysis of solar distiller unit: A review," *Solar Energy, Elsevier* 173, pp: 53-75, 2018.
- P. K. Arora, et al. "Progressive damage response and crack growth direction for multiple through cracks of laminated composite finite plate *International Journal Engineering Solid Mechanics*, 6 (4), pp: 371-389 2018.
- D. B. Singh, et al., "Energy metrics analysis of N identical evacuated tubular collectors integrated double slope solar still," *Desalination, Elsevier* 148, pp: 546-560, 2018.
- D. B. Singh, et al. "Improving the performance of single slope solar still by including N identical PVT collectors." *Applied Thermal Engineering, Elsevier* 131, pp: 167-179, 2018.
- D. B. Singh, et al., "Energy metrics analysis of N identical evacuated tubular collectors integrated single slope solar still," *Energy, Elsevier*, 148, pp: 546-560, 2018.
- D. B. Singh, et al., "Enhancement in exergoeconomic and enviroeconomic parameters for single slope solar still by incorporating N identical partially covered PVT collectors," *Journal of Solar Energy Engineering: Including Wind Energy and Building Energy Conservation, ASME*, 140 (5), 2018.
- A. K. Singh, D.B. Singh, "Energy matrices and efficiency analyses of solar distiller units: A review," *Solar Energy*, 173, pp: 53-75, 2018.
- Singh DB, Kumar N, Harender SK, Sharma SK, Mallick A. Effect of depth of water on various efficiencies and productivity of N identical partially covered PVT collectors incorporated single slope solar distiller unit. *DESALINATION AND WATER TREATMENT*. 2019 Jan 1;138:99-112.
- Singh DB. Exergo-economic, enviro-economic and productivity analyses of N identical evacuated tubular collectors integrated double slope solar still. *Applied Thermal Engineering*. 2019 Feb 5;148:96-104.
- Singh AK, Singh DB, Mallick A, Sharma SK, Kumar N, Dwivedi VK. Performance analysis of specially designed single basin passive solar distillers incorporated with novel solar desalting stills: A review. *Solar Energy*. 2019 Jun 1;185:146-64.
- Prasad H, Kumar P, Yadav RK, Mallick A, Kumarb N, Singh DB. Sensitivity analysis of N identical partially covered (50%) PVT compound parabolic concentrator collectors integrated double slope solar distiller unit. *DESALINATION AND WATER TREATMENT*. 2019 Jun 1; 153:54-64.
- V. Singh, et al., "Finite Difference Analysis of Plane Couette Flow using MATLAB" accepted for publication in the 'Journal of Microcontroller Engineering and Applications. *Journal of Microcontroller Engineering and Applications*, 5(3), 2018.

Faculty Research Publications: (Conferences)

- Richa Saxena, Sanjoy Kumar Ghosha, Harish Kumar, P K Arora, Finite Element Analysis of Ring Force Transducer. IOP Conf. Series: Materials Science and Engineering 691, 2019.
- Saurabh suman, Pankaj Biswas, Ashish Kumar, Measurement of residual stresses in submerged arc welded p91 steel using surface deformation. International Conference on Mechanical and Energy Technologies, ICMET 2019, Accepted for Publication in Materials Today Proceedings, article in press.
- Brijesh Verma, Bharat Raj Bundel, Abhishek Sharma, Performance and Emission Characteristics of Combined biodiesel Blend of Non-Edible Oil in Diesel Engine. IOP Conf. Series: Materials Science and Engineering, 2019.
- Ashish Kumar, R.C. Singh, Rajiv Chaudhary, Recent progress in production of metal matrix composites by stir casting process: An overview. International Conference on Mechanical and Energy Technologies, ICMET 2019, Accepted for Publication in Materials Today Proceedings, article in press.
- Brijesh Verma, Bharat Raj Bundel, Abhishek Sharma, Study of Performance and Emission Characteristics of Non-Edible Biodiesel as a Sustainable Fuel in Diesel Engine. IOP Conf. Series: Materials Science and Engineering, 2019.
- P. K. Arora, et al., Optimization of Process Parameter in Electric Discharge Machining for SS420 Using Taguchi Technique. International Conference on Emerging Trends in Electro Mechanical Technologies and Management, New Delhi, 2019.
- M.A.Qadri, et al., Analysis of Firm Level Innovativeness. NCAME 2019, NIT Delhi.

Faculty Achievements:

FDPs Attended

- Mr. Ashish Kumar, attended five days Faculty Development Programme (FDP) on “Advancements in Manufacturing of Composite Materials and their Mechanical & Tribological Aspects” during 21/01/2019 to 25/01/2019 organized by I.T.S Engineering College, Greater Noida.
- Mr. Akhileshwar Nirala, attended five days Faculty Development Programme on “Advancements in Manufacturing of Composite Materials and their Mechanical & Tribological Aspects” during January 21/01/2019 to 25/01/2019, organised by Department of Mechanical Engineering, I.T.S Engineering College, Greater Noida, India.
- Dr. Brijesh Singh, successfully completed three days (June 21-23, 2019) workshop on “Executive Leadership Program” organized by Art of Living (sponsored by AKTU) at Rishikesh, Uttarakhand.
- Dr. Brijesh Singh, participated in three days (Sep 07-09, 2018) 4th World Summit on Accreditation “Challenges and Opportunities in Outcome Based Accreditation”, organized by National Board of Accreditation, Delhi.
- Dr. Pawan Kumar Arora, attended one week short term course on “Industry 4.0 Standard through ICT” during 23/01/2019 to 25/01/2019 organized by GCET in association with NITTTR Chandigarh.

Faculty Achievements:

NPTEL Courses

- Dr. Anil Kumar Sethi Successfully completed the online course on “Teaching and Learning in Engineering (TALE)”.
- Mr. Manohar Singh Successfully completed the online course on “Teaching and Learning in Engineering (TALE)”.
- Mr. Sharoj Akhtar Khan Successfully completed the online course on “Teaching and Learning in Engineering (TALE)”.
- Dr. Manoj Kumar Lohumi Successfully completed the online course on “Teaching and Learning in Engineering (TALE)”.
- Dr. Jeetendra Kumar Yadav Successfully completed the online course on “Teaching and Learning in Engineering (TALE)”.
- Dr. Pawan Kumar Arora Successfully completed the online course on “Outcome based pedagogic principles for effective teaching”.
- Dr. Brijesh Singh Successfully completed the online course on “Teaching and Learning in Engineering (TALE)”.
- Mr. Ashish Dewangan Successfully completed the online course on “Computational Fluid Dynamics”.

Campus Placement: (Session: 2018-19)

S. No.	Student Name	Roll No.	Company Name	Package
1	Adarsh Kumar Shukla	1509740006	Acadecraft	216000
2	Hardik Rana	1609740906	ANDT	240000
3	Rajat Shukla	1509740082	ANDT	240000
4	Nisha Nigam	1509740060	Ashok Leyland	700000
5	Sharmistha Raj Srivastava	1509740098	Ashok Leyland	700000
6	Siddhika Tripathi	1509740111	Ashok Leyland	700000
7	Loveishan Saxena	1509740051	Byjus	1000000
8	Manas Dwivedi	1509740053	Byjus	1000000
9	Mohd Sageer	1509740056	Byjus	1000000
10	Srijan Singh	1509740112	Byjus	1000000
11	Rajat Pathak	1609740915	Certybox	360000
12	Abhinav Gupta	1509740004	Cognizant	338000
13	Shubhanshu Maurya	1509740108	Cognizant	338000
14	Siddhika Tripathi	1509740111	Cognizant	338000
15	Loveishan Saxena	1509740051	Eckovation	300000
16	Neelaksh Sharma	1509740059	Edoofa	480000
17	Rishabh Gupta	1509740088	Eleation Services	240000
18	Prashant Pandey	1509740071	Enthuons	180000
19	Ayush Tripathi	1509740035	Future Supply	300016
20	Jaya Mishra	1509740045	Future Supply	300016
21	Madhav Agrawal	1509740052	Future Supply	300016
22	Shubham Sharma	1509740106	Future Supply	300016
23	Anuraag Dubey	1509740023	Industrybuying	192000
24	Prashant Tripathi	1509740072	Industrybuying	192000
25	Prithviraj	1509740074	Industrybuying	192000
26	Ravi Tiwari	1509740086	Industrybuying	192000
27	Shivendra Kumar	1509740101	Industrybuying	192000
28	Avinash Kr. Mishra	1509740032	Infosys	360000
29	Ayush Tripathi	1509740035	Infosys	360000
30	Madhav Agrawal	1509740052	Infosys	360000
31	Rahul Satyawali	1509740079	Infosys	360000
32	Rishabh Gupta	1509740088	Infosys	360000
33	Romit Jain	1509721093	Infosys	360000
34	Sharmistha Raj Srivastava	1509740098	Infosys	360000
35	Shaurya Bhardwaj	1509740100	Infosys	360000
36	Shubhanshu Maurya	1509740108	Infosys	360000
37	Adarsh Singh	1509740008	Just Dial	308000
38	Vibudh Upadhyay	1509740117	Prepinsta	250000
39	Anurag Agnihotri	1509740024	Ramp Group	180000
40	Ayush Tripathi	1509740035	TCS	336876
41	Pulkit Jain	1509740075	Vivo Mobile	360000
42	Shaurya Bhardwaj	1509740100	Vivo Mobile	360000
43	Rajnish Singh	1509740083	VVDN	320000
44	Saurabh Suri	1509740096	VVDN	320000
45	Vijayant Singh	1509740119	VVDN	320000
46	Manas Dwivedi	1509740053	Wipro	350000
47	Siddhika Tripathi	1509740111	Wipro	350000
48	Vaibhav Krishna	1509740116	Wipro	350000







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