# ME-NEWSLETTER

*Session: 2017-18*

## 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 (Departmentof 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:

- Department of Mechanical Engineering organized a two days Student Development Programme on “Thermal Physics and Fluid Dynamics” by Dr. Andrey V. Kuzmin (Publisher and Editor-in-Chief of scientific journal on technical sciences topics), from 16-17 Nov 2017.
- Organized an Orientation Programme on “Outcome Based Education” for GCET Faculty members in collaboration with Electronics and Communication Department on 28-29 March 2018.
- Organized a one week short term course on “Advanced Manufacturing Method” from 5-9 March 2018 based on ITC in association with NITTTR Chandigarh.
- International Seminar on “Research and Application of Renewable Energy” has been conducted on 11-12 June 2018 sponsored by AKTU.
- Department of Mechanical Engineering organized a seminar on “Solar cooling options for building space conditioning: An Overview” by Prof. S.C. Kaushik form IIT Delhi.
- The Department of Mechanical Engineering organized a guest lecture on “3D Printing of Composite Materials” presented by Dr. Chandan Kumar, Associate Professor, NIET, Greater Noida on 12 March 2018. The students had an interactive session and gained the knowledge of exploring new area of research.
- A guest lecture on “Additive Manufacturing in broader Prospective” presented by Dr. Harish Kumar, Professor, NIT, Delhi on 6 April 2018 was organized for the students of B.Tech third year.

## Industrial visits of students:

| S. No. | Date | Name of Industry and address | Semester | Student Strength | Faculty Incharge |
|---|---|---|---|---|---|
| 1 | 04-11-2017 | JITF, ECOPOLIS, Timarpur Okhla Waste Management company Pvt. Ltd. Old NDMC. Compost Plant Mathura Road New Delhi 110025. | V | 45 | Mr. Akhileshwar Nirala |
| 2 | 15-03-2018 | CNH Industrial India (New Holland) Greater Noida. | VI | 40 | Mr. Naveen Kumar |
| 3 | 23-03-2018 | Zep Infratech Pvt Ltd., Greater Noida | IV/VI | 60 | Mr. Vivek Kumar<br>Mr. Haridwar Prasad |
| 4 | 04-04-2018 | India Yamaha Motor Pvt. Ltd., Greater Noida | IV/VI | 60 | Dr. Sudhanshu Sharma<br>Mr. Dalvir Singh<br>Mr. R.K Gupta |


## Student Activities:

- Galgotias SAE collegiate club team Zyklus participated in SAE-NIS Efficycle at LPU Jalandhar, and won overall first runner up award (Rs. 75000/-), best durability award (Rs. 30000/-) and best women participation award (Rs. 5000/-).
- The team members were awarded at SAE foundation annual award function in the presence of SAE- International President Mr. Douglus Patton, Mr. Ashok Minda, Chairman, Minda Industries, Mr. I.V. Rao, Executive advisor, Maruti Suzuki and other dignitaries from automotive industries at Holiday Inn, Aerocity New Delhi on 5 Dec 2017.
- SAE-Baja, an event of ATV where the students designed and fabricated an off road vehicle.

## Faculty Research Publications: (Journals)

- Singh DB, Dwivedi VK, Tiwari GN, Kumar N. Analytical characteristic equation of N identical evacuated tubular collectors integrated single slope solar still. Desalination and Water Treatment, Taylor and Francis. 2017 Sep 1;88:41-51.
- Arora P, Srivastava S, Kumar H. Determination of crack growth direction for multiple offset edge cracks of a finite plate. Engineering Solid Mechanics. 2017;5(3):185-98.
- Singh DB. Exergoeconomic and enviroeconomic analyses of N identical photovoltaic thermal integrated double slope solar still. International Journal of Exergy. 2017;23(4):347-66.
- Kumar H, Moona G, Arora PK, Haleem A, Singh J, Kumar R, Kumar A. Monte carlo method for evaluation of uncertainty of measurement in brinell hardness scale. Indian Journal of Pure & Applied Physics (IJPAP). 2017 Jun 20;55(6):445-53.
- Dewangan A, Yadav AK. Wax deposition during production of waxy crude oil and its remediation. Petroleum Science and Technology. 2017 Sep 17;35(18):1831-8.
- Srivastava AK, Arora PK, Srivastava SC, Kumar H, Lohumi MK. Determination of Fracture Parameters for Multiple Cracks of Laminated Composite Finite Plate. Applied Composite Materials. 2018 Apr 1;25(2):381-98.
- Singh AK, Singh DB, Mallick A, Kumar N. Energy matrices and efficiency analyses of solar distiller units: a review. Solar Energy. 2018 Oct 1;173:53-75.
- Singh DB, Kumar N, Kumar S, Dwivedi VK, Yadav JK, Tiwari GN. Enhancement in Exergoeconomic and Enviroeconomic Parameters for Single Slope Solar Still by Incorporating N Identical Partially Covered Photovoltaic Collectors. Journal of Solar Energy Engineering. 2018 Oct 1;140(5):051002.
- Arora P, Srivastava S, Lohumi M, Kumar H. Progressive damage response and crack growth direction for multiple through cracks of laminated composite finite plate. Engineering Solid Mechanics. 2018;6(4):371-89.
- Shrivastava AK, Singh KK, Dixit AR. Tribological properties of Al 7075 alloy and Al 7075 metal matrix composite reinforced with SiC, sliding under dry, oil lubricated, and inert gas environments. Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology. 2018 Jun;232(6):693-8.

## Faculty Research Publications: (Conferences)

- Sudeep Roy, Shubham Sharma, Skand Sharma, Shashank, M.K Lohumi, Manohar Singh, Review on Fabrication of Aluminium 7075+ B4C Composites and its Testing. International conference on computational and experimental methods in mechanical engineering, 2017
- A. Dewangan, A.K.Yadav, CFD Analysis of Heat Transfer in Helical Coil Heat Exchanger. International Conference on Computational and Experimental Methods in Mechanical Engineering, 2017
- V.K Dwivedi, S. Sharma, Performance Analysis of Vapour Compression Refrigeration System with Different Expansion Devices. CETCME-2017
- V.K Dwivedi, S. Sharma, Genetic Algorithm: Review and Application, International Conference, on Computational and Experimental Methods in Mechanical Engg., 2017
- H. Kumar, P.K. Arora, Implications of 3D printing in supply chain management. International Conference on Advanced Production And Industrial Engineering, 2018

## Faculty Research Publications: (Conferences) Contd...

- A. Nirala, N. Kumar, Computational Fluid Dyanamics Modelleing of Two Phase Flow. International conference on New Frontiers in Engineering, Science and Technology (NFEST-2018),
- A. Dewangan, and A.K. Yadav, Properties and Characterization of Conventional and Alternative Aviation Fuels: A Review. International Conference of Advance Research and Innovation, 2018
- Dwivedi V.K., Tiwari P., Tiwari S., Importance of phase change material (PCM) in solar thermal applications: A review. International Conference on Emerging Trends in Electrical, Electronics and Sustainable Energy Systems, ICETEESES 2017
- Tripathi R., Tiwari G.N., Bhatti T.S., Dwivedi V.K., 2-E (Energy-Exergy) for partially covered concentrated photovoltaic thermal (PVT) collector. Energy Procedia, 142, pp. 616-623, 2017
- Singh K.K., Singh S., Shrivastava A.K., Comparison of Wear and Friction Behavior of Aluminum Matrix Alloy (Al 7075) and Silicon Carbide based Aluminum Metal Matrix Composite under Dry Condition at Different Sliding Distance. Materials Today: Proceedings, 4(8), pp.8960-8970, 2018
- Singh A.K., Singh D.B., Dwivedi V.K., Kumar N., Yadav J.K., A Review of Performance Enhancement in Solar Desalination Systems with the Application of Nanofluids. Proceedings - IEEE 2018 International Conference on Advances in Computing, Communication Control and Networking, ICACCCN 2018

## Faculty Achievements:

- Mr. Akhileshwar Nirala, attended five days Faculty Development Programme on “Challenges and Innovations in Civil Engineering” during 07/05/2018 to 11/05/2018, organised by Department of Civil Engineering, Galgotias College of Engineering and technology, Greater Noida.
- Mr. Ashish Dewangan, attended five days Faculty Development Programme on “Universal Human Values and Professional Ethics” during 19/12/2017 to 26/12/2017, organised by NIET, Greater Noida.
- Dr. Asim Qadri, attended three days Skill development Program on “Latest trends in power sector emphasising on solar technology & management” during 30/01/2019 to 01/02/2019 conducted by NPTI, Faridabad and organised by department of Mechanical Engineering, at Galgotias college engineering and Technology, Greater Noida
- Dr. Brijesh Singh, attended five days Faculty Development Programme on “Ethics of Sustainable Technologies in Energy and Environment” during 07/05/2018 to 11/05/2018, organised by Galgotias College of Engineering and technology, Greater Noida.
- Dr. Brijesh Singh, attended five days Faculty Development Programme on “Manufacturing World and Its Future” during 23/04/2018 to 28/04/2018, organised by JSS ATE, Noida.
- Mr. Dheeraj Kumar Das, attended five days short term course on “Analysis of heat transfer and fluid flow problems using FEM and FVM” during 03/07/2017 to 07/07/2017, organised by IIT (ISM) Dhanbad.
- Mr. Hitesh Kumar Gupta, attended five days Faculty Development Programme on “Ethics sustainable technologies in energy and environment” during 07/05/2018 to 11/05/2018, organised by Galgotia College of Engineering and Technology, Greater Noida, India.
- Mr. Hitesh Kumar Gupta, attended eight days Faculty Development Programme on “Universal Human Values and Professional Ethics” during 19/12/2017 to 26/12/2017, organised by NIET, Greater Noida.

## Faculty Achievements: Contd...

- Dr. Pawan Kumar Arora, attended one week Faculty Development Programme on "Manufacturing World and its Future" during 23/04/2018 to 28/04/2018, organised by JSS Academy Technical Education, Noida.
- Dr. Pawan Kumar Arora, attended five days short term course on "Advanced Manufacturing Method" during 05/03/2018 to 09/03/2018, organized by GCET in association with NITTTR Chandigarh.
- Mr. S. A. Khan, attended one week Faculty Development Programme on "Manufacturing World and its Future" during 23/04/2018 to 28/04/2018, organised by JSS Academy Technical Education, Noida.
- Dr. Sudhanshu Sharma, One day faculty development program on "Reflection on the Self" organized by Department of Electronics and Communication, Galgotias college engineering and Technology, Greater Noida on 7 th June 2018.

## Student Achievements:

- Prashasti Srivastava (2014) secured AIR 413 in Civil services 2017 exams and got IRTS cadre.
- Mr. Sanket Srivatava (2017) secured AIR 348 in GATE-2018 and Joined Engineers India Limited.
- Mr. Sujeet Agarhari (2018) secured AIR 508 and Joined M.Tech.(Thermal) from IIT-Kanpur.
- Ms. Anamika Singh (2016) got admission in IIM-Kozhikode in 2018.
- Mr. Ankit Ojha (2015) got admission in IIM Udaipur in 2018
- Mr. Ayush Goyal (2018) got admission Joined MBA in IBS, Hyderabad.

# Campus Placement: (Session: 2017-18)

| S.No. | Roll Number | Name | Name of company | Package |
|---|---|---|---|---|
| 1 | 1509740910 | Mohd Rihan Jamal | AKGEM Impex Pvt. Ltd. | 180000 |
| 2 | 1409740098 | Skand Sharma | Al Futtaim Carillion (Emrill) | 2100 AED |
| 3 | 1409740001 | Abhilakash Mahajan | Bhilwara Infotech Ltd. | 220000 |
| 4 | 1409740028 | Ayush Tiwari | Cube Highway1 | 276000 |
| 5 | 1409740001 | Abhilakash Mahajan | Fedex | 400000 |
| 6 | 1409740116 | Vinayak Sharma | Fedex | 400000 |
| 7 | 1409740021 | Arpit Srivastava | Future Supply Chain Solution Ltd. | 300003 |
| 8 | 1409740083 | Sapan Mishra | Future Supply Chain Solution Ltd. | 300003 |
| 9 | 1409740093 | Shubham Singh | Future Supply Chain Solution Ltd. | 300003 |
| 10 | 1409740104 | Sujeet Kumar Agrahari | Future Supply Chain Solution Ltd. | 300003 |
| 11 | 1409740118 | Vipin Pandey | Future Supply Chain Solution Ltd. | 300003 |
| 12 | 1409740122 | Vivek Kumar Singh | Future Supply Chain Solution Ltd. | 300003 |
| 13 | 1409721095 | Satyam Kumar Dwivedi | Infosys | 325000 |
| 14 | 1409740103 | Sudhanshu Srivastava | Infosys | 325000 |
| 15 | 1409740090 | Shubham Kumar | Kriti Digitech | 400000 |
| 16 | 1409740040 | Himanshu Singh | Mahindra and Mahindra Ltd. | 300000 |
| 17 | 1409740065 | Pushpendra Singh | Mahindra and Mahindra Ltd. | 300000 |
| 18 | 1409740075 | Rakshit Sharma | Mahindra and Mahindra Ltd. | 300000 |
| 19 | 1409740112 | Utkarsh Gupta | Multiplier Solution | 400000 |
| 20 | 1409721006 | Akash Bhargav | Optra Automation Pvt. Ltd. | 216000 |
| 21 | 1409740082 | Sameer Srivastava | Optra Automation Pvt. Ltd. | 216000 |
| 22 | 1409740114 | Vaibhav Malik | Optra Automation Pvt. Ltd. | 216000 |
| 23 | 1509740901 | Abhishek Kumar Shahi | Optra Automation Pvt. Ltd. | 216000 |
| 24 | 1409740090 | Shubham Kumar | Optra Automation Pvt. Ltd. | 216000 |
| 25 | 1409721120 | Vatan Saini | Radical Minds Technologies | 180000 |
| 26 | 1409740010 | Alisher Khan | Radical Minds Technologies | 180000 |
| 27 | 1409740022 | Ashish Kumar | Radical Minds Technologies | 180000 |
| 28 | 1409740027 | Ayush Kumar Goyal | Radical Minds Technologies | 180000 |
| 29 | 1409740034 | Dhruv Sharma | Radical Minds Technologies | 180000 |
| 30 | 1409740039 | Himanshu Narayan | Radical Minds Technologies | 180000 |
| 31 | 1409740044 | Krtin Arya | Radical Minds Technologies | 180000 |
| 32 | 1409740053 | Naman Tewari | Radical Minds Technologies | 180000 |
| 33 | 1409740058 | Nitish Kumar Kharwar | Radical Minds Technologies | 180000 |
| 34 | 1409740064 | Praveen Verma | Radical Minds Technologies | 180000 |
| 35 | 1409740060 | Pragyesh Rastogi | Success Mantra | 350000 |
| 36 | 1409740007 | Akshat Anand | Trident Techlabs Pvt. Ltd. | 323686 |
| 37 | 1409740029 | Babita Yadav | Vikas Group | 180000 |
| 38 | 1409740030 | Bhavna | Vikas Group | 180000 |
| 39 | 1409740112 | Utkarsh Gupta | Vivo Mobile | 360000 |
| 40 | 1409740005 | Aditya Dahiya | Vivo Mobile | 360000 |
| 41 | 1409740015 | Anshul Dwivedi | Zep Infratech Ltd. | 180000 |
| 42 | 1409721120 | Vatan Saini | Radical Minds Technologies | 180000 |
| 43 | 1409740010 | Alisher Khan | Radical Minds Technologies | 180000 |
| 44 | 1409740027 | Ayush Kumar Goyal | Radical Minds Technologies | 180000 |
| 45 | 1409740034 | Dhruv Sharma | Radical Minds Technologies | 180000 |
| 46 | 1409740039 | Himanshu Narayan | Radical Minds Technologies | 180000 |
| 47 | 1409740044 | Krtin Arya | Radical Minds Technologies | 180000 |
| 48 | 1409740053 | Naman Tewari | Radical Minds Technologies | 180000 |
| 49 | 1409740058 | Nitish Kumar Kharwar | Radical Minds Technologies | 180000 |
| 50 | 1409740064 | Praveen Verma | Radical Minds Technologies | 180000 |


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