# VOL. 1 # ISSUE 2 # 2018-19



#### DEPARTMENT OF MECHANICAL ENGINEERING



# TO VIBRAZONE eNewsletter





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#### FROM PATRON'S & DIRECTOR DESK

Learning is a lifelong process. Education is more important affair in our life than learning or being literate. The newsletter is a good way to learn about developments and activities and let others Know. I congratulate all the people who have been associated with this publication.



DR. R K Agrawal Chairman

It is wisely said that change is the only thing that is permanent in life. So be it, for the department as well. Since this is for first time, the E-newsletter is introduced, I congratulate the editorial board, advisory board and the department for the very first step towards online publication. I hope everyone would be benefited with it.



Mr. Pankaj Agrawal Vice-Chairman

As we all know, a newsletter mirrors a college, a department, its vision and mission. It also highlights events, activities and academic process and achievements. I congratulate the department for its first E-newsletter. I do hope that this will encourage many more including students to use it as a platform to express their creativity.



DR. L K Tyagi Director

#### FROM HOD'S DESK

The spirit of improvement is not always a spirit of liberty; for it may aim at forcing improvement on an unwilling people.

Mechanical Engineering is the largest of the engineering disciplines and a large number of mechanical engineers go into manufacturing of computer and electronic products, machinery and transportation equipments.

The department cares for student support, mentoring, tutoring, study skills workshops and career development. Mechanical Engineering students culminate their studies with a year-long capstone project requiring design problem solving, creative thinking, project planning and teamwork. A broad selection of technical electives encourages students to pursue special interests in design and manufacturing, energy and environmental issues, thermal and fluid sciences materials, dynamics & controls and robotics.

Er. Udayvir Singh

Head-Department of Mechanical Engineering



## .\* Departmental Activities " \*.

#### GINNI FILAMENTS LTD. 26 Feb. 2019

Students of B.Tech, II & III year, Mechanical Engineering have visited GINNI FILAMENTS LTD., Chhata, Mathura on 26 FEB, 2019. Students were accompanied by Mr. Satendra Kumar, and Mr. Raunak Katiyar. These students have interacted with Industry Experts and discussed about integrated operations with presence across cotton spinning, knitting, processing, and garmenting. The company expanded into knitted fabrics and installed knitting machines from M/s. Terrot and Cie & Mayer to produce Single Jersey, Interlock, Rib Terry and Lycra fabrics.

The students participated enthusiastically in order to obtain the basic knowledge about the preparation of thread of different gauge from bulk cotton package (cart board) under the blown air through the duct passage and they applied the technical skills to understand such a big automation in the processes. Beyond this, they were also aware about the fire free handling and other security procedure in order to avoid man as well as machine loss. This type of industrial visit enhances the knowledge of the students.



## o \* 🥦 Faculties Achievements 🛂 \*

- Er. Shashi Kant Singh has successfully completed the 8 weeks faculty development program on "FINITE ELEMENT ANALYSIS" from NPTEL in Elite Silver Group(Feb. 2019 Apr. 2019).
- Er. Vipin Kumar has attended the Faculty Development Programme on Universal Human Values & Professional Ethics was conducted from 28 May- 04 June, 2018 at Hindustan College of Science & Technology, Farah, Mathura under the aegis of Dr. A.P.J.Abdul Kalam University, Lucknow, under TEQIP III programme.



## \* Students Achievements \*

Akash Srivastava, student of batch 2016-20, has been selected for development of prototype grant with supporting fund (Rs. 12000) under "Innovation Gallery – Environment and Rural Innovation", Dr. APJ Abdul Kalam Centre (KC). This was an golden opportunity for Akash Srivastava for presenting his excellent innovative ideas belonging to Environment & Rural innovation and now the prototype will become the part of showcased in Kalam Library at University Campus, Lucknow.



### **Design & Fabrication of GO-KART**



Fourth year students of batch 2015-2019(Yogesh Sharma, Sachin Kumar, Pankaj Sharma, Deepak Kumar and Karan Goyal) have been designed and fabricated the GO-KART. Students created this go cart from the scrap and other resources present in the organization. The design process of the vehicle is iterative and is based on various engineering and reverse engineering processes depending upon the availability, cost and other such factors. The design objectives, set out to be achieved were three simple goals applied to every component of the vehicle: durable, light-weight and high performance, to optimize the design by avoiding over designing, which would also help in reducing the cost. Students proceeded by setting up the budget for the project and worked to fabricate the entire kart. in most economical way possible.

# . \* 3-3 Departmental Topper's 3-3 \*.

3<sup>rd</sup> Semester Vivek Agnihotri Harsh Gupta 78.9% Vishal Maurya 79.4% 86.5% 5th Semester Sahil Saxena Aakash Srivastava Hari Om 89.3% 87.4% 86.7% 7th Semester Naman Gupta Pradutta Kesharwani Saurabh Kumar



78.8%

78.2%

81.9%

### \* 🥕 Recent Trends in Mechanical Engineering Field 📭 🔭

- Industry 4.0 (Fourth Industrial revolution
- 4D Printing Technology
- MEMS: Nanoelectromechanical systems
- Digital Twins
- Hyperloop Technology
- Air Brakes Systems
- 3D Metal Priting
- · Computational Fluid Dynamics
- IIoT (Industrial Internet of Things)
- Beamed-energy Propulsion
- Autonomous Vehicle
- Scramjet (Supersonic Combustion Ramjet)
- Strir Friction Welding
- Biomimetics
- Agile Manufacturing
- Advances in HVAC
- Advances in Gas Turbine Technology







# Message from Desk of Editor



Er. Shashi Kant Singh Editor-in-Chief

We are glad to bring out the Issue 2 of Vol. 1 of our eNewsletter VIBRAZONE. Carrying forward our agenda of information clubbed with knowledge. This issue addresses new joining, faculty achievements, student achievements and recent technologies that came in existence.

I really thankful to our head of department.

VIBRAZONE is thankful to all who contributed to this issue. We are equally open to comments, criticism and suggestions to make it more informative.