



Mechanotimes.....2020-2021(Oct 2020-Dec2020) Issue 2

EDITOR'S COLUMN

The department Newsletter will definitely help to showcase the activities that are happening in the Department. It also helps in building up teamwork which is very much needed today in the world of competition. It provides a platform for exposing the merits and academic achievements of the faculty and students. This enhances the documentation culture of the institute. This would definitely create an impact in the minds of readers, by way of providing larger visibility and dimension to the campus. I hope that this culture of releasing Newsletter continue forever and become a quoted example for all other colleges.



Editor in chief

Dr. Pawan Nain

Vision of the Department

- ❖ To emerge as centre of quality education for creating competent mechanical engineers catering to the ever-changing needs of industry and society.

Mission of the Department

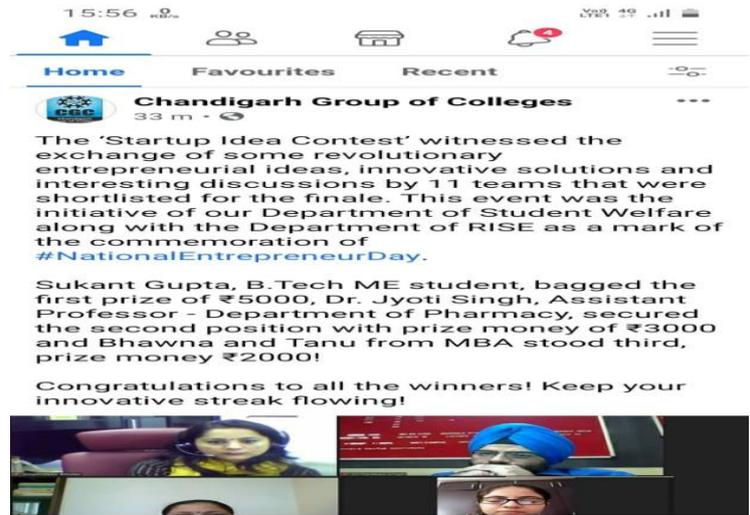
- M1** To provide quality education by constantly updating departmental resources and using effective Teaching learning methodology.
- M2** To promote research practices in the field of mechanical engineering in pursuit of academic Excellence and for the benefit of society.
- M3** To establish industrial collaborations for imparting contemporary knowledge to keep pace with the Technological challenges in the interdisciplinary and core areas of mechanical engineering.
- M4** To provide opportunities to the students for global exposure through international collaborations.
- M5** To nurture students through pre-placement training programs to succeed in campus placements and To provide guidance for entrepreneurship and higher studies.

Program Educational Objectives (PEOs)

- PEO1:** Develop dexterity to analyze and synthesize data and technical concepts for design, development and manufacturing.
- PEO2:** Meet the present needs of industry effectively.
- PEO3:** Embrace multidisciplinary view with an ability to work diligently as leader /team member on various projects with a focus on the economic, environmental and social feasibility of the project.
- PEO4:** Exhibit communication skills along with mathematical and scientific fundamentals to excel in various career related aspects.
- PEO5:** Engage in continuous self-improvement, personal enrichment and professional ethics through lifelong learning.

ACHIEVEMENTS

The event was organized by DSW and rise department which is startup idea contest in which the one of the student from Mechanical engineering department namely Sukant Gupta won 1st prize with the cash prize of Rs. 5000.



Sukant Gupta, a student of Mechanical engineering department successfully initiated his career with the startup namely scrapbuk services pvt ltd in Mohali. He also won many business hackathons and ideathons at college level and filed numerous patents. He is the founder of the scrapbuk services pvt ltd.

Team MEC innovators are one of the team from Mechanical engineering department which works on the innovations and different ideas for patentable purpose. The three students namely- Sukant Gupta, Arihit Sehgal and Sangram Singh Thakur from Mechanical Engineering department and Neeraj Kumar from Electronics and communication Engineering successfully filed 20 patents in one year. The name of these students flourished in the column of the tribune newspaper.



CHANDIGARH: As an interdisciplinary approach in research and problem-solving is the need-of-the-hour in fostering the progress of the nation, this 4-student team from Chandigarh Group of Colleges, Landran from branches of Mechanical Engineering (ME) and Electronics and Communication Engineering (ECE) has successfully utilized this aspect

WEBINAR/ TRAINING PROGRAMMES

S/No	Identified Gaps	Action Taken	Date/Month/ Year	Resource Person with Designation	% of students
1	Problem solving of Convection problems by Programming	Training on Latest Technologies	22.10.2020	Dr. Ramjee Repaka, Assistant Professor, IIT Ropar	83
2	Expertise to Industrial parameter measuring devices	Expert talk	29.10.2020	Mr. Kunal Gaur, Head Design, ISIE, India	85
3	Analysis of Truss	Expert talk	03.11.2020	Dr. Varun Sharma, Assistant Professor, IIT Roorkee	77
4	knowledge of basic management and engineering economics aspects	Expert talk	04.12.2020	Mr. Sangram Biswal, P2P Analysis & Solutions	80

ARTICLE

Constructing the Future with Flying Robots

There are drones for package delivery, drones for search and rescue, drones for sensing, and drones for photography, among others. Now another application for drones has taken another step closer to reality: Drones for construction. Researchers at the Swiss Federal Institute of Technology (ETH) Zurich have demonstrate that the [flying robots](#) they customized and programmed can then build a rope bridge between scaffolding without human intervention, and the bridge can support the weight of a person walking across it. According to the researchers, flying machines offer a number of advantages over machines traditionally used to construct buildings and other objects because they can fly in and around existing objects and access places that may be difficult for non-aerial robots “We’ve done research and a lot of different projects with flying machines for a long time,” says Federico Augugliaro, lead robotic researcher on the project. Augugliaro , who recently was awarded a Ph.D. in science from ETH Zurich, and earlier earned an M.S. in robotics, systems and control from the same university, has been working on flying machines as part of his academic work. Another earlier project included dancing quadcopters that demonstrated coordinated flight for a swarm of flying machines, and ability to hover “One area we decided to explore was [flying machines](#) interacting with their environment and [to do so by building] a structure that cannot be built in other ways by machines,” Augugliaro says. “We usually do some fundamental research to come up with methods and strategies that demonstrate what’s possible and demonstrate some concepts. With the bridge it was to showcase that flying machines can build a structure that is load-bearing. Instead of something more abstract, we went for a bridge because it is really tangible. You “We had to solve different things and develop, for example, the rope-deploying mechanism and create some new algorithms.”The team used existing flying machines, which they customized with various components such as electronics and the rope-deploying mechanism to connect the scaffolding anchor points.



Jaspreet Hothi
ME-3rd Sem

WIND ENERGY

Wind is nothing more than the movement of air from one place to another. It is air set in motion naturally. Winds exist over the earth's surface because of the variations in air pressure. These are in turn due to the variations in solar heating. Coriolis force due to earth rotation is also an important factor in wind production. In mid 1600s, Evangelista Torricelli gave the scientific explanation for the winds as, "winds are produced by differences of air temperature, and hence density, between two regions of the earth." Winds are caused by the differential or uneven heating of the Earth's surface by radiant energy from the sun. Reason for the uneven heating is the composition of earth's surface. Since the Earth's surface is made of very different types of land and water, it absorbs the sun's energy at different rates. Another reason is the seasonal variations in solar incidence. Wind speed is influenced by the ground and generally increases with height above ground. This is because obstacles and the roughness of ground features such as vegetation, buildings, and mountains cause the wind to slow down. As the wind blows as long as the sun shines, Wind is called a renewable energy source



Abhinab Thakur
ME-(E+F)-4th Sem

GALLERY



Chandigarh Group of Colleges

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The 'Startup Idea Contest' witnessed the exchange of some revolutionary entrepreneurial ideas, innovative solutions and interesting discussions by 11 teams that were shortlisted for the finale. This event was the initiative of our Department of Student Welfare along with the Department of RISE as a mark of the commemoration of [#NationalEntrepreneurDay](#).

Sukant Gupta, B.Tech ME student, bagged the first prize of ₹5000, Dr. Jyoti Singh, Assistant Professor - Department of Pharmacy, secured the second position with prize money of ₹3000 and Bhawna and Tanu from MBA stood third, prize money ₹2000!

Congratulations to all the winners! Keep your innovative streak flowing!



CGC Landran's student team MEC Innovators Files 20 Patents in One Year

Punjab Tribune Bureau | September 10, 2020 07:36 PM

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CHANDIGARH: As an interdisciplinary approach in research and problem-solving is the need-of-the-hour in fostering the progress of the nation, this 4-student team from Chandigarh Group of Colleges, Landran from branches of Mechanical Engineering (ME) and Electronics and Communication Engineering (ECE) has successfully utilized this aspect in coming up with astounding discoveries and patent filings.

The team encompasses Sukant Gupta, the Team Leader, who is pursuing Mechanical Engineering along with Sangram Singh Thakur and Arihit Sehgal from the same branch and Neeraj Kumar from ECE and is known by the name of MEC INNOVATORS. With their collective efforts and creative instincts, they have filed 19 pa



CHANDIGARH GROUP OF COLLEGES

Building Careers. *Transforming Lives.*



It is the mark of an educated mind to be able
to entertain a thought without accepting it

Aristotle