



DESIGN INNOVATION CENTRE

नवोन्मेष NEWSLETTER



IIT ROORKEE

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MESSAGE



The Design Innovation Center at IIT Roorkee sincerely appreciates the invaluable cooperation of all stakeholders, which has resulted in significant achievements, including the submission of 9 Indian Patent disclosures for product development. Additionally, we have successfully trained 2,563 students and introduced two Master's Degree programs and a PhD program. The first batch of students has graduated with an impressive placement record, and we now have a total of 65 students.

We would like to emphasize our unwavering commitment towards achieving excellence and making a positive impact on society in the days ahead. We are dedicated to working even harder in pursuit of our mission.

Prof. Inderdeep Singh, Coordinator, DIC, IIT Roorkee

Workshop on Design Thinking & Product Detailing



Workshop on
Design Thinking and Product Detailing
Organized by Design Innovation Center and Department of Design, IIT Roorkee
August 25-26, 2023



Punjab Engineering College, Chandigarh

Details of the workshop:

Number of Participants: 34

Course: B.Tech.

Participating Institute: 01

College: Punjab Engineering College, Chandigarh

Date: August 25-26, 2023

Venue: DIC, IIT Roorkee

Topics covered:

Rapid Prototyping, design thinking, user experience design, product detailing, CMM, 3D printer, etc.

Prototypes made by students



3D Printed Models

Workshop on Design for Sustainability

Details of the workshop:

Number of Participants: 24
Course: B.Tech.
Participating Institute: 01
College: National Institute of Design Haryana
Date: September 14, 2023
Venue: DIC, IIT Roorkee

Topics covered:

Sustainable design, product design with sustainable materials, concept of frugal innovation with sustainability, product design using Cradle to Grave Philosophy, demonstration of life cycle assessment software.



Workshop on

Design for Sustainability

Organized by Design Innovation Center and Department of Design, IIT Roorkee
September 14, 2023



Project Assessment Panel (PAP) Meeting MSME Innovative (Design) Scheme



The Project Assessment Panel (PAP) meeting was held at the Design Innovation Center (DIC) of IIT Roorkee on September 29, 2023. The PAP evaluates project proposals submitted by MSMEs under the MSME Innovative (Design) scheme of the Ministry of Micro, Small and Medium Enterprises, Government of India. The PAP comprised of 12 members including faculty members from IIT Roorkee, industry experts, MSME representatives, and student coordinators. The experts were from diverse backgrounds such as engineering, design, and management.

Dr. Inderdeep Singh has delivered an expert lecture on September 30, 2023 titled "3D Printing as an effective alternative to conventional polymer processing techniques" in a week online workshop on "3D printing applications and its Potential for entrepreneurship" organized by Mechanical Engineering Department, NIT Uttarakhand.

He delivered another key lecture titled "Awareness Session on Institute Innovation Council (IIC): Activities and Outcomes" at "Dev Bhoomi Uttarakhand University" on July 29, 2023.



Anup Garu

Ranjit

Gurdeep Singh

Shridhar Anand

Hemant Singh

Details of the webinar:

Organizing Institute: The Associated Chambers of Commerce and Industry of India

Date: September 05, 2023

Webinar on :

- Intellectual Property Rights
- Industrial Design
- Aesthetic, functional & ergonomic aspects of products

Dr. Rajat Agarwal delivered a lecture in online conclave organized by ASSOCHAM, on "Synergizing the Role of IPR and Industrial designs in the modern world". The design industry in India has evolved significantly over the years and is playing a crucial role in shaping the creative discipline of the nation. As a creative discipline, industrial design focuses on optimizing the aesthetic, functional and ergonomic aspects of products. While there is ample scope for growth, there are certain challenges plaguing the design sector from achieving its full potential and one of such challenges is lack of awareness of Intellectual Property Rights and best practices to enforce IPR in the global world. The conclave provide a platform to bring together creative minds, design enthusiasts and institutions to explore latest trends, innovations, and opportunities in the world of industrial design.

Guest Lecture on Design & Innovation Management in Resource Constraint Context

By Prof. Suchit Ahuja, Assistant Professor, Business Technology Management at Concordia University - John Molson School of Business



The objective was to introduce the concept of "Frugal Digital Innovation" and its relation with design applications. Prof. Suchit Ahuja graced this workshop as a guest lecturer. The audiences were students from Master of Design and Ph.D., and professors from other departments. Professor Suchit's eloquence and passion for the subject were evident as he delved into the complexities of social impact, digital strategy, digital platforms, frugal innovation, and responsible growth.

His lecture was a harmonious blend of theoretical concepts and groundbreaking research findings, making the intricate subject matter accessible to novice learners and seasoned researchers.

STUDENTS SECTION

Visit to G20 Summit by Mr. Arun Sharma, D.I.C. Ph.D. Fellow



DIC Ph.D. Fellow Mr. Arun Sharma attended the G20 University Connect Finale at Bharat Mandapam, New Delhi, on September 26, 2023. The programme is led by the Research and Information for Developing Countries (RIS), New Delhi, and was supported by the G20 Secretariat. The Prime Minister, Shri Narendra Modi, addressed about 3,000 students, faculty members, and Vice Chancellors of the participating Universities, while students from across the country joined the live event. The G20 University Connect initiative was undertaken with the aim to build an understanding of India's G20 Presidency among India's youth and enhance their participation in the different G20 events.

Granted Indian Patent and Publication in Reputed Journal

DIC Ph.D. Fellow Mr. Tejas Naik has been granted an Indian patent on "A Cam and Follower Mechanism for Reducing the Thread Count Variation in Pedal Operated Handloom."

In this quarter, he has also published one journal paper titled "Microwave-assisted molding of sisal/HDPE composites: Water absorption, diffusion kinetics and tribological behavior."



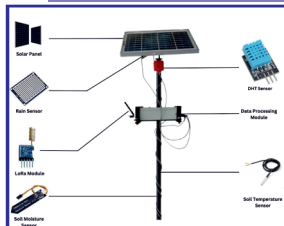
Field visit at various local farmers and research organizations in Ludhiana



D.I.C. Ph.D. Fellow, Mr. Arjun Kapoor, along with Prof. Bibhuti Ranjan Bhattacharjya and ICCo team, visited local mushroom farms (VMR Mushroom Farm), to understand the problems being faced by small scale and seasonal mushroom cultivators, and type of interventions that can be made, in order to make their business profitable. In October, a visit was made to CSIR CMERI CoEFM and ICAR - CIPHET, two well known research organizations in Ludhiana, to see the current status of projects being worked upon, and to foster a collaborative research relationship with the scientists.



IoT Based Smart Soil and Weather Monitoring System



DIC Ph.D. Fellow Mr. Aranya Gupta developed an IoT-based smart Soil and Weather monitoring system to promote smart farming and enhance the methodologies of agriculture.

In addition to this, Mr. Aranya fabricated a silicon chip for IoT & Hardware security applications. Also, successfully submitted a paper in "ASIAN HOST 2023" conference.



Newsletter Team

Prof. Inderdeep Singh
Coordinator, DIC
(dic-iitr@iitr.ac.in)
<https://www.iitr.ac.in/dic/>

Mr. Vishal Sharma
Project Officer (Liaison and Accounts)
Mr. Rachit Birla
Project Officer (Technical & Outreach)
Mr. Arya Yudhveer Singh
Project Officer (Design/Technical)

DIC Ph.D Fellows
Mr. Tejas Naik
Mr. Aranya Gupta
Mr. Arun Sharma
Mr. Arjun Kapoor