

SOCIAL INITIATIVES

COMAL Program

In this scheme, one project is completed and the following projects are in progress –

1. Briquette Machine

DIC team has improved the design of a Briquette Machine proposed by the Sri Arya Trust, Uttarkashi, Uttarakhand.

Associated Faculty: Prof. Inderdeep Singh



2. Promotion of Village Homes in Remote Locations

To develop innovative facilities at villages in remote locations of Himalayan regions.

Proposal By: VilloTale, a start-up in Uttarakhand

Status: The Proposal is under Consideration by DIC

3. '6 Stroke Engine' Project

Six-stroke engine project is in-progress under COMAL scheme.

Proposal By: Mr. Athar Khan, Roorkee, Uttarakhand



4. 'Hearing Aid 2.0'

Hearing Aid 2.0 Project is proposed for DIC support under COMAL scheme.

Proposal By: Mr. Davinus Kamil and Ms. Melshida Kamil, Coimbatore, Tamilnadu.

Status: The Proposal is under Consideration by DIC



Throughout the country, the total 10 Registration had applied under COMAL Scheme out of which one project is completed and two are under consideration.

MISCELLANEOUS

Curriculum Development workshop Glimpse



MODULAR COURSES

- "Importance of Product Design Innovation, Generating and Protecting IP in the current scenario"

Resource Person:

Prof. Gaurav Manik, Department of Polymer Science and Engineering, IIT Roorkee.

- "Marketing of Innovations"

Resource Persons:

Prof. Z. Rahman, Prof. Vinay Sharma and Prof. Rajat Agrawal, Department of Management Studies, IIT Roorkee

FUTURE EVENTS

- Summer Internship Program 2020
- Project to Product (P2P) 2019 - 2020
- Workshops
- DIA Program
- DIC U2U Program

NEWSLETTER TEAM

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**Innovate
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Be an Innovator

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नवोन्मेष NEWSLETTER



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MESSAGES



"Design Innovation Center, IIT Roorkee humbly acknowledges the heartfelt cooperation of all concerned which yielded submission of six Indian Patent disclosures on products being developed, training of 1170 students (workshop: 726 and DIA: 344), four COMAL projects apart from other programs during the last one and half years of existence; two Masters Degree programmes are also in the final stages of launching. Let me reiterate our commitments to work harder towards achieving better for the society in the days to come."

Prof. Apurbba Kumar Sharma, Coordinator, DIC, IIT Roorkee

Design Innovation Center, IIT Roorkee organised one two-day Academic Curriculum Development Workshop during Dec 06-07, 2019. Resource persons from IISC Bangalore, IIT Delhi, IIT Guwahati, IIT Hyderabad, NID Ahmedabad, Dassault Systems, Zenatix Solutions Pvt. Ltd., Log 9 Materials, and Designit participated. The workshop deliberated and finalized the program structures of the DIC Masters programs – Master in Innovation Management (MIM) & Master in Industrial Design (M. Des.).



ACHIEVEMENTS

- **ARIIA Trophy:** National Design Competition For ARIIA Trophy Design



Designed by: Prof. Gaurav Raheja, Department of Architecture and Planning and Co-Coordinator and Co-PI, DIC, IIT Roorkee.

- **Nomination for Best 100 Innovations 2019**
Adaptive feedback controlled hydro-dissection Device -



As the best innovation of IIT Roorkee in the event IIA INTERNATIONAL INNOVATION FAIR (IIIF 2019).

Innovators- Mr. Rajendra Kumar Arya (PhD Scholar) Prof. Akshay Dvivedi, Mechanical and Industrial Engineering Department, IIT Roorkee

- **Master's Programs :**

Two masters' programs are proposed

- i) Master in Industrial Design (M. Des.)
- ii) Master in Innovation Management (MIM)

HIGHLIGHTS

- **Inception:** May 17, 2018: the MHRD approved DIC at IIT Roorkee (IITR)
- **Invention:** Modular accessory for the mobility enhancement of manual wheelchairs
Inventor – Aditya Peshin
Mentor – Prof. Akshay Dvivedi, MIED, IIT Roorkee (Patent Pending)
- **Invention:** Teaching Tool for deaf school students
Inventor – MS. Mansi Shivhare, Prof. Sonal Atery, DOP, IIT Roorkee (Patent Pending)

INTERNSHIP

Summer & Winter Internship 2019

DIC has offered 14 Summer & 04 winter Internships 2019 for two and one month.

Applications from following Institutes:

IIT Roorkee, NIT Tiruchirapalli, IIT BHU, IIT Surat, IIT Bhubaneshwar, IIT Kharagpur, NIT Rourkela, MNIT Jaipur, IIT Dhanbad.

Some of the Project title:

- Garbage Collection Robot
- Walking Cane with a Reacher/Gripper
- Lower Limb Prosthetic Device
- Inclusive educational Game
- Teaching Tool for Deaf School Students
- Electrochemical Treatment of Industrial wastewater.



COMPLETED PROJECTS

1. Development of Grinding assisted rotary disc electrochemical discharge machining facility for multiple operations. (Tarlochan Singh and Prof. Akshay Dvivedi MIED)
2. Adaptive Feedback Controlled Hydro-Dissection Device (Rajendra Kumar Arya and Prof. Akshay Dvivedi MIED) (Patent application Submitted)
3. A kit for rapid quantitation, titration and detection of chikungunya virus from agro-industry waste (Neetu, Vedita Anand Singh, Prof. Shailly Tomar and Prof. Pravindra Kumar Dept. of Biotechnology) (Provisional Patent application Submitted)
4. Development of Modular Accessory for mobility enhancement of manual wheelchairs (Aditya Peshin and Prof. Akshay Dvivedi MIED)
5. Investigation of a Himalayan pine species as a potential drug in the treatment of Swine flu (H5N1) (Naveen Kushwaha, Gaurav Kumar Silori and Prof. Vimal Kumar, Chemical Engg)

PRODUCTS



Garbage Collection Robot



Inclusive Educational Game
(Patent application Submitted)



Lower Limb Prosthetic Device

WORKSHOPS

Theme: Design Thinking Approach for Product Innovation, January 13–17, 2020.

Participants: 40 Students and 01 Faculty



Theme: Design Thinking Approach for Product Innovation, February 17–21, 2020.

Participants: 39 Students and 01 Faculty

Theme: Applications of the Latest Technologies in the Area of Product Design, January 20–24, 2020

Participants: 30 Students and 03 Faculty



Theme: Design Innovation Awareness Programme, February 08, 2020.

School Students: 71 Students and 07 Faculty

HIMALAYAN SUMMIT (Date: - May 21, 2019)

Guest of Honour- Prof. Pradyumna Vyas, Member Secretary, India Design Council

Key note Speaker- Padma Shri Dr. Anil P Joshi, Founder HESCO

Other Participants- NGO's and IIT Roorkee Students.

Issues Discussed- Sustainable development, Cottage Industry, Livelihood, Agriculture, Clean Water, Transportation, Medical Facilities, Education and Technological Development



PATENTS

- 'Four-Way Directional Control Valve'
Inventor - Mr. Shah Faizan (M.Tech), AMU Aligarh.
Mentor - Dr. Apurbba Kumar Sharma and Dr. Thanga Raj Chelliah
(Patent application Submitted)
- A kit for rapid quantitation, titration and detection of chikungunya virus from agro-industry waste.
Inventor – Ms. Neetu, & Ms Vedita Anand Singh, Phd, Department of Biotechnology.
Mentor - Prof. Shailly Tomar and Prof. Pravindra Kumar, Department of Biotechnology,
Application No. 201911035044.
- Adaptive feedback controlled hydro-dissection device
Inventor – Mr. Rajendra Kumar Arya
Mentor - Prof. Akshay Dvivedi, Mechanical and Industrial Engineering Department. **Application No. 201911044036.**