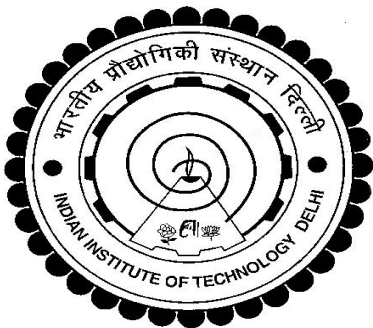


Government Sponsored Innovation Initiatives

Design Innovation Center (DIC) Indian Institute of Technology Delhi

In partnership with

IIIT Delhi
IGDTU for Women
IIT Mandi



MHRD's Design Innovation Center (DIC)

Purpose

- To create design & innovation ecosystem for translation of ideas into products and solutions for people, society and industry
- To establish institutes/universities as potential public spaces of innovation in order to address grand challenges facing our society
- To bring design thinking and design culture as an essential component in currently changing phase of engineering education

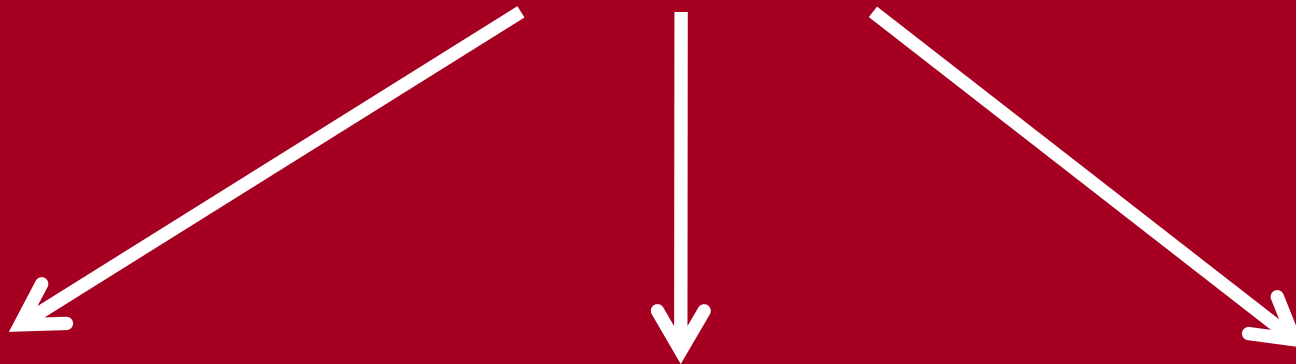
MHRD's Design Innovation Center (DIC)

Objectives

- Opportunities for multi-disciplinary interactions among students/faculty
- Co-creation of products and solutions involving end user at every stage of development
- Sustaining translational research projects for longer durations
- Exciting students early in their programmes
- Formal mechanisms for interaction with outside world

MHRD's Design Innovation Center (DIC)

**DIC (IIT Delhi) + Partnering Institutes
(IIT Mandi), IGDTU for Women & IIIT Delhi**



New Courses

**Innovation
Labs**

Schemes &

Activities

New Initiatives in Design and Innovation

As a part of DIC (Design Innovation Center), following three new initiatives have been started to promote design and innovation among students and faculty.

- **Design Innovation Summer Award (DISA):** Summer Internship for UG students who would like to engage in product design and innovation activities addressing specific needs of industry/people/society.
- **Design and Innovation Fellowship:** pre-incubation fellowships for students who would like to continue with the institute beyond their graduation up to 12 months working towards translational research and/or commercialization of their innovations/ products.
- **Design and Innovation Translational Seed Grant:** To bridge gap between a successful proof-of-concept prototype/solution and a market ready product or market deployable solution.

DISA (Design Innovation Summer Award)

- ❑ DISA is a new summer internship programme for students who would like to spend summer vacation working towards product design and innovation activities addressing specific needs of industry/people/society.
- ❑ Emphasis of this 8-week internship award is on ***knowledge application*** leading to products/solutions which have potential to impact and not on mere knowledge creation.
- ❑ The three categories of proposals supported under DISA are Products/Solutions leading to
 1. Ideas to proof-of-concept prototypes
 2. proof-of concept prototype to field deployable functional prototypes
 3. Product refinement by *design-build-test-modify* iterations

DISA (Design Innovation Summer Award)

Sample DISA Projects

- ❑ A-maze: A rectangular bag made of cardboard which can be converted into a desk.
- ❑ Day lighting by direct use of sunlight using fibre optics
- ❑ A system for monitoring particulate matter in the household
- ❑ Smart-Scope: A smartphone based Microscopic Imaging device
- ❑ Customised CV analysis using NLP and Ontology
- ❑ Developing a system to handle a network of vending machines to dispense items.
- ❑ An affordable way of Diabetic Retinopathy Detection
- ❑ Harvesting Energy from Residual Radiations in Atmosphere.

Alumni Sponsored Innovation Initiatives

Alumni Sponsored Innovation Activities (Batch of 86 and 89)

- ❑ IIT alumni batch of 1986 has started “IIT Delhi Innovation Center” to promote innovation activities among students on campus.
- ❑ Students are provided with equipment and consumables which they require for design and fabrication. The plan is to expand this 24x7 prototyping facility to present 30 student capacity to 500 student capacity.
- ❑ Similarly IIT alumni batch of 1989 has initiated “IIT Delhi Innovation Award” to recognize students who excel in innovation activities.
- ❑ There is also provision to provide small seed grants for students who would like engage in innovation activities.

24x7 Tinkering Lab/Maker Lab (Supported by 86 Batch Alumni and MHRD)



Student Innovations Supported/Recognized under IIT Delhi Innovation Award (89 Batch)

- ❑ Pranay Jain & Anshul Singhal – Portable Braille Reader
- ❑ Dhruv Jain & Team – Indoor Navigation System for the Visually Impaired
- ❑ Parveen Kumar – Low Cost Pedal Assisted Electric Tricycle
- ❑ Vishakha Shankar, Apekshit Solanki, Sameera – Use of Waste Plastic & Glass in pavements
- ❑ Ankit Kumar, Pulkit Sapra: Hand held Braille embosser
- ❑ Mukul Gupta & Team – Pre-Engineered Bamboo Structures For Modern Construction: A green sustainable Solution
- ❑ Siddharth Garg & Team – Android App for Women's safety
- ❑ Portable immuno-magneticcapture system (iMC2) for early stage typhoid diagnosis in 6 hr

Industry Sponsored Innovation Initiatives

Industry Sponsored Initiatives

- ❑ Industry has come forward to support innovation activities on campus through various programmes

- ❑ These programs cover some or all phases of innovation

 - Ideas Stage

 - Proof of Concept Stage (POC)

 - Functional Prototype Stage

 - Incubation Stage

Industry Sponsored Initiatives

Industry Sponsored Innovation Programs Launched at IIT Delhi include:

- ❑ ICICI (Trinity program covering idea stage to functional prototype stage)
- ❑ Google Pilot (Proof of Concept and Functional Prototype Stage)
- ❑ Ericsson Innovation Award (Idea to Incubation)
- ❑ Pfizer (IIT Delhi Innovation and IP Program)
- ❑ Goldman Sachs (Functional Prototype Stage)
- ❑ POSOCO – Power System Award for best innovation