

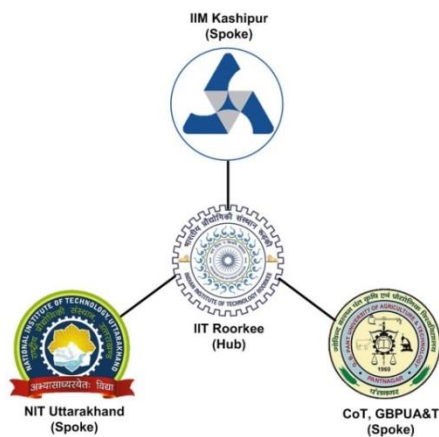
## About Design Innovation Centre

The Ministry of Human Resource Development (MHRD), Government of India has approved to establish a Design Innovation Centre (DIC) at Indian Institute of Technology Roorkee as a Hub and NIT Uttarakhand as one of the spokes. The centre will focus on innovations around engineering products, add value to the available Engineering designs and promote early stage startup companies. The sanctioned amount for the centre is ` 10 Crores. Several ideas will be perused for development of new pedagogy in teaching and training in design and innovations. A number of design technologies for Hilly terrain will be taken up at DIC, NIT Uttarakhand.

### Objectives of DIC centre:

- (i) Promote a culture of innovation and creative problem solving
- (ii) Provide an opportunity for new projects to students through curricular and extra-curricular projects
- (iii) Knowledge sharing and collaboration amongst Industry, Academia, Government Institutions, Research Laboratories, etc.
- (iv) Commercialize innovations and take them to the end users.

### DIC Model:

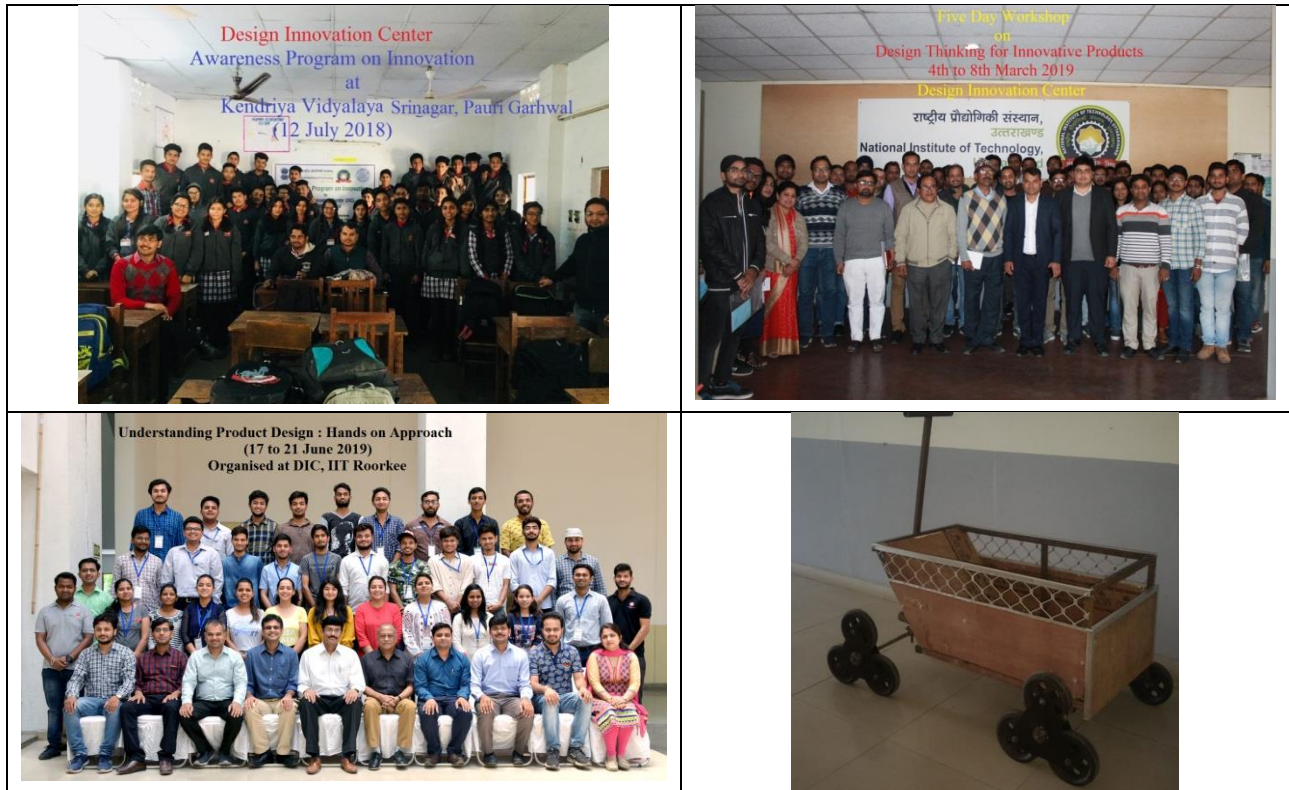


### Ongoing Projects:

S. No	Innovative Project Details	Status
1	Development and characterization of Pine needle fiber reinforced biodegradable composites	Ongoing
2	Design and analysis of braking mechanism of Tri-wheel trolley for hilly terrain	Ongoing
3	Design and development of load carrier for hilly-terrain	Ongoing

## Completed Events:

- (a) Awareness Program on Innovation at Kendriya Vidyalaya, Srinagar, Pauri Garhwal, 12<sup>th</sup> July 2018.
- (b) A five day workshop on “Design Thinking for Innovative Products” (04<sup>th</sup>-08<sup>th</sup> March 2019) at NIT Uttarakhand.
- (c) A five day workshop on Understanding Product Design: A hands-on Approach (17<sup>th</sup> to 21<sup>st</sup> June 2019) in association with DIC, IIT Roorkee.
- (d) Awareness Program on Innovation at Kendriya Vidyalaya, Pauri Garhwal on 30 August 2019



## Meetings:

- a) First meeting was held at IIT Roorkee for project submission on 19<sup>th</sup> May 2017.
- b) Launching ceremony of Design Innovation Center at IIT Roorkee on 17<sup>th</sup> September 2018
- c) Joint Review Meeting of DIC Team (Hub and Spokes) with Mr. Nitish Kumar, MHRD Representative at IIT Roorkee on December 12, 2018.
- d) A meeting of DIC IIT Roorkee and all the three spokes representatives with Prof. P.V.M. Rao, Coordinator DIC and Head Design, IIT Delhi on 24th December 2018.
- e) Two days DIC Marketing workshop at IIT BHU on 04th to 05th February 2019.
- f) Joint Review Meeting of DIC Team (Hub and Spokes) with Joint Secretary, MHRD, GOI via video conferencing at IIT Roorkee on July 02, 2019.

- g) Trouble-shooting session for implementation of EAT Module in the PFMS at New Delhi on 09th August 2019.



### Completed Projects:

#### (a) Course – (MEP 102) Product Realization for B.Tech 1<sup>st</sup> Year students

S.No.	Project Title	Faculty Name	Student name	Amount (Rs.)	Remarks
1.	Wireless Power Transfer	Mr. Nitesh Kumar	Yogita Chauhan (BT18CSE019) Sushmit Chauhan (BT18EEE018) Amit Pandey (BT18MEC018) Ramkendra Singh Panwar (BT18CIV014) Deepti Rana (BT18CE015)	2250	Approved
2.	Fully Automated Solar Grass Cutter	Mr. Gaurav Kumar	Aman Srivastav (BT16EC042) Alok Kumar (T16MEC044)	3050	Approved
3.	Smart Lighting System	Dr. Jagrati Sahariya, Dr. Hariharan Muthusamy	Utkarsh Dyundi (BT18EEE002) Kartik Nautiyal (BT18ECE003) Gaurav Verma (BT18MEC003) Ramanand (BT18CSE003)	1402	Approved
4.	Automatic Irrigation System	Dr. Ghanapriya Singh	Esha Sachan (BT18CSE012) Vaibhav Tonk (BT18ECE011) Faizan Ashraf (BT18EEE012) Amit Chauhan (BT18MEC012)	3950	Approved
5.	Accident Detection and Messaging System	Mr. Vivek Kumar	Monika Meena (BT18CIV011) SRK Prasad (BT18ECE010) Gajendar (BT18CSE011) Babalu Kumar (BT18MEC011) Ankit Agarawal (BT18EEE011)	3957	Approved
6.	Vehicle Detection and Bifurcation Between Trucks and Car System	Mr. Nithanshu Chauhan	Aditi Pathak (BT18ECE008) Himanshu Khyalia (BT18CIV009) Siddhath Thakur (BT18EEE009) Sunil umar Verma (BT18CSE009) Km. Asha (BT18EC009)	4990	Approved
7.	Gas Leak Safety Device (SNIFFER)	Dr. Gurinder Singh Brar	Pranjul Agarwal (BT18ECE021) Nikhil Singhal (BT18IV030) Anurag Sisodia (BT18CSE022) Nishu Saini (BT18MEC029)	5319	Approved



			Babita Negi (BT18CIV026)		
8.	Home Automation Appliances	Mr. Neeraj Kumar	Vedant amgain (BT18CIV021) Kanha Khatri (BT18CSE025) Anchal Singh (BT18ECE019) Saurabh Jaiswal (BT18EEE022) Anshul Gupta (BT18MEC025)	2630	Approved
9.	Hostel Room Climate Control	Dr. Anshul Sharma	Divakar Lakhera (BT18CSE002) Pushkar Shahi (BT18MEC002) Akanksha Saini (BT18ECE002) Dev Vrat Joshi (BT18CIV002) Utkersh Rajvenshi (BT18EEE007)	4250	Approved
10.	Automatic Gas leakage Detection System	Mr. Gaurav Kumar	Saumya Pande (BT18ECE007) Himanshu Bohra (BT18EC008) Anshul Kumar (BT18CSE008) Lavkush Yadav (BT18EEE008) Ujjwal Gupta (BT18CIV008)	2495	Approved
<b>Other Projects</b>					
1	Design & Fabrication of Different Shapes of Fins & Heat Transfer Analysis on ANSYS	Dr. Lalta Prasad	Puneet Agarwal (BT16MEC005) Jitendra R. Meena (BT16EC006)	8626	Approved/ paid
Total (Rs. fortyfive thousand nine hundred nineteen only)				45919	



### Proposed Activities:

(a) **B.Tech and M.Tech:** Students from all Engineering Department (Mechanical, Civil, Electronics, Electrical, and Computer Science and Engineering) may submit their project proposal to the DIC office throughout the year.

(b) **Internship:** B.Tech students can do the Internship for 4-6 weeks at DIC NITUK.

### Upcoming Events:

- International Conference on Innovative Engineering Design (ICIED-2019) from 18<sup>th</sup> to 20<sup>th</sup> January 2020 in association with The Institutions of Engineers (India), Uttarakhand State Center, Dehradun
- State level Exhibition cum Innovation Competition on 27<sup>th</sup> September 2019 at NIT Uttarakhand
- Awareness Program on Innovation at Jawahar Navodaya Vidyalaya, Pokhal, Tehri Garhwal on 30 August 2019







(d) Five day workshop on “3D Printing and Design” sponsored by AICTE Training and Learning program from 16-20 October 2019 at NIT Uttarakhand.

**DIC Team:**

Photo	Name and Designation	Email Id	Contact No.
	Prof. Shyam Lal Soni, Director, NIT Uttarakhand	director@nituk.ac.in	01346257400
	Dr. Dharmendra Tripathi, Dean (Research & Consultancy), Chairperson	dtripathi@nituk.ac.in	01346257412
	Dr. Rakesh Kumar Mishra, Associate Dean (Research & Consultancy), Member	ad.randc@nituk.ac.in	01346257412
	Dr. Pawan Kumar Rakesh, Assistant Professor, Mechanical Engineering Department - Coordinator	pawanrakesh@nituk.ac.in	01346257451
	Dr. Anshul Sharma, Assistant Professor, Mechanical Engineering Department- Member	anshul@nituk.ac.in	01346257446
	Dr. Yogesh Kumar Prajapati, Assistant Professor, Mechanical Engineering Department - Member	yogesh.k@nituk.in	01346257445
	Dr. Dungali Sreehari, Assistant Professor, Mechanical Engineering Department- Member	sreehari@nituk.ac.in	01346257448
	Dr. Vikas Kukshal, Assistant Professor, Mechanical Engineering Department- Member	vikaskukshal@nituk.ac.in	01346257451
	Mr. Rajesh Kumar, Research Fellow	rajeshkumaruit1@gmail.com	9696738586

**Student Representative:**

S. No.	Photo	Name	Department	Email Id	Contact No.
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1		Mr. Subham Prasad	Mechanical Engineering	Subhamprasad1919@gmail.com	9749077947
2		Mr. Vaibhav Mishra	Mechanical Engineering	mechvaibhav15valour@gmail.com	7800612429
3		Mr. Shivam Tripathi	Electrical Engineering	shivam.eeemt18@nituk.ac.in	9533224296
4		Mr. Sandip Deshmukh	Computer Science & Engineering	Sandip.qwerty@gmail.com	7782872643
5		Mr. K Sandeep	Civil Engineering	k.sandeep5796@gmail.com	7381017438
6		Mr. Raghavendra Nath Yadav	Electronics Engineering	Raghav58333@gmail.com	7985617146

**Equipment Purchased:**

1. Drilling Cum Milling Machine
2. Rapid Prototyping Machine

**Equipment under Procurement:**

3. Compression Molding Machine
4. Pipe Bending Machine
5. CNC Milling Machine

**Contact Details:**

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