INDIAN INSTITUTE OF TECHNOLOGY MANDI
DESIGN PRACTICUM
Open House 21st May 2017

On 21st May 2017, IIT Mandi witnessed an exemplary demonstration of low cost technology prototypes for solving problems of society. These prototypes were developed by students as part of their Design Practicum course IC201P.

Design Practicum is a unique course of IIT Mandi offered to second year B.Tech students. Students learn product design, development, manufacturing and even marketing skills though this practicum course. Interdisciplinary teams of six students, randomly selected from different branches propose product ideas and then build working prototypes. Many of these product ideas were derived from the needs of the society and particularly Himachal Pradesh.

This year students made twenty two projects listed below.

Team no.	Title	Brief description
1	Solar Warming Mechanism for Deep Mountainous Valleys	The system aims at transferring warmth and sunlight to sunlight deficient regions from areas that are illuminated by sunlight.
2	Chef-O-Matic	Smart App-Controlled Automatic Food Making Machine
3	Remote Bottle Picker and Crusher	This robot picks, crush and store plastic bottles.
4	Wise Irrigation System	We wish to implement an uncomplicated and low-cost hybrid of Sprinkler and Drip Irrigation System to ensure judicious use of water during irrigation of a wide variety of crops.
5	Monkey Menace Alarm	A tool to protect the fields of the farmers from the damage caused by monkeys (and possibly other wild animals).
6	Automatic Junk Dealer	Our product will take the junk/garbage as input from the user and pay them appropriately according to its weight and type, storing the junk in different compartments sorted according the type of junk.

7	Life Saving Bot	An automatic/manual bot that prevents loss of life due to drowning
8	Blindle	Kindle for the visually challenged
9	Roboworm	Our project is a robot which tunnels horizontally and lays a cable without disturbing the top surface.
10	LaundryPal	A product that will steam iron your clothes and fold them for you.
11	Smart Pesticide Spraying Bot	A smart remote controlled bot which goes around a farm and sprays pesticides, without the need of manual operation.
12	AAWAAZ	Conversion of sign language to voice (English)
13	WASTE – GO – WAYS	An automated waste segregator to differentiate solid wastes into metal, (most of) plastics and glass.
14	AERO (Autonomous Delivery Robot)	Our robot will deliver goods and mails using GPS according to the location given by the user.
15	Vizion	A reading and writing tool for the blind.
16	IRA	IRA - Book Scanner, Translator, and Vocaliser.
17	Sports Field Marking Robot	An autonomous robot that can mark the sports field lines accurately on the ground upon giving instruction by the operator through an android device application
18	SAMPURN	Brainwaves Controlled Prosthetic Arm
19	Air Well	Endless, pure water from air.
20	Wall-E	A wall climbing Suit which can lift upto 100 kgs of weight
21	DROGON	Quadcopter will be able to capture aerial video footage and perform real time video processing. It involves object detection, face recognition and object tracking.
22	Sadhvuta	A mobile communal garbage bin that sorts

All the above projects (working prototypes) were displayed to external judges and visitors for evaluation in IIT Mandi Open House.