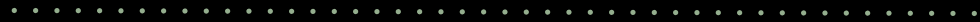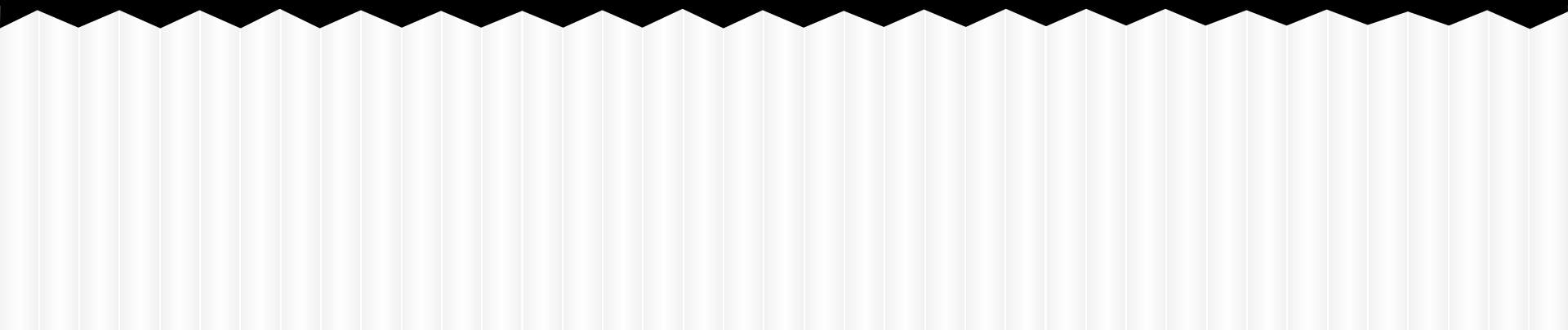# TECHNOVATION

ANNUAL REPORT 2014-15

Technovation

Summer Technovation
Eight teams were selected out of 12 abstracts out of which five projects worked enthusiastically throughout summer.

New projects during semesters
Followed by a well attended orientation, 35 project proposals were received. 13 of them were reviewed and mentored by Technovation mentors. About 7 projects started work in full enthusiasm though only 5 are continuing their work in spring semester

Revival of old projects
All kind of support was provided to major old Technovation projects and all hurdles effectively tackled. Project teams of Parinat and TUM TUM Tracker are achieving milestones.

Summer Technovation

1. Low cost CNC cutting and engraving machine (completed)
2. Fault testing and analysis of digital circuits (completed)
3. Refreshable Braille Display (completed)
4. Tilt Rotor (completed)
5. Unmanned Aerial Vehicle (completed)
6. Ultrasonic Blind Vision device (partially completed)
7. Foetal heart rate measuring device (project cancelled)
8. Blue - Ray (A bluetooth interfaced pointing device) (project cancelled)

Technovation

TechGSR
The new Social face of Technovation

- Designed a model Village – Hirewadi, Raigad in Maharashtra - reflecting on issues from livelihood generation, water scarcity to transportation facilities for emergencies.(eg: smokeless chula)
- Sammilan - An international socio tech conference held in August 2014 with MHRD TEQIp KIT and Harvard US India Initiative http://techgsr.com/sammilan.html)
- Smart Bucket Challenge : We shared a bucket consisting of rajma, soyabean, dal, wheat and other utilities like first aid kit, mosquito coils and coloring books for kids in Hirewadi as an evolved version of the ALS Ice Bucket Challenge. It was implemented on a mass level in Chattisgarh by Cabinet Minister. (http://techgsr. com/visits.html)

Technovation

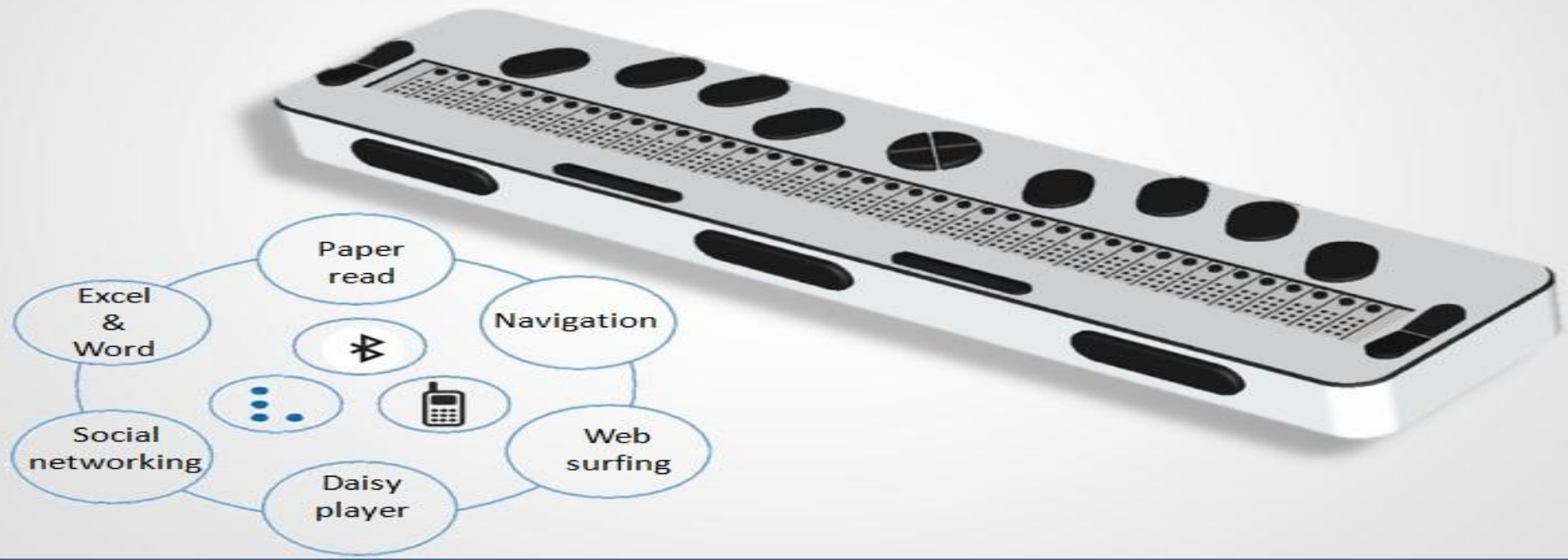## TechGSR
The new Social face of Technovation

- Accepted publications in various conferences – Rural development Conference in Bangkok, Wessex Institute , Sustainable planning conference in UK and Urban transport and the environment in Spain, over various themes like restructuring youth education for community involvement, and water management
- Smart campus workshop – Designed various solutions from device to avoid Mess food wastage to cycle pooling solutions to prevent resource wastage at the campus in IITB, with a turnover of 400 students and funding from various technical organisations like Arduino.

Electronic Braille Display
At 1/15th of the present cost

- Developed an electro-mechanical braille display as a Technovation project
- Awarded the best IITB plan of the year in EUREKA, Entrepreneurship Summit, IIT Bombay 2015

INN�‍VISION

Excel & Word
Paper read
Navigation
Social networking
Daisy player
Web surfing

Panther CNC
A low cost CNC cutting machine

- Participated in 'Hardware Modelling' competition in Inter IIT Tech Meet 2015

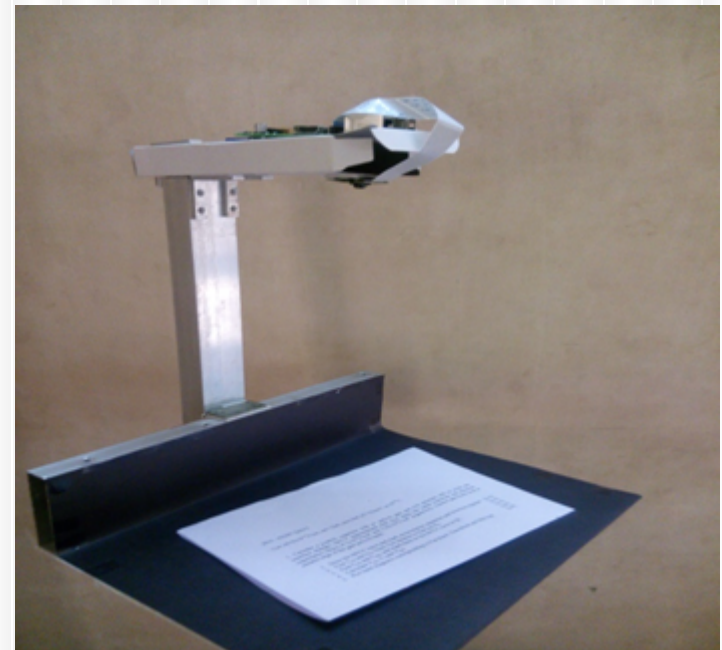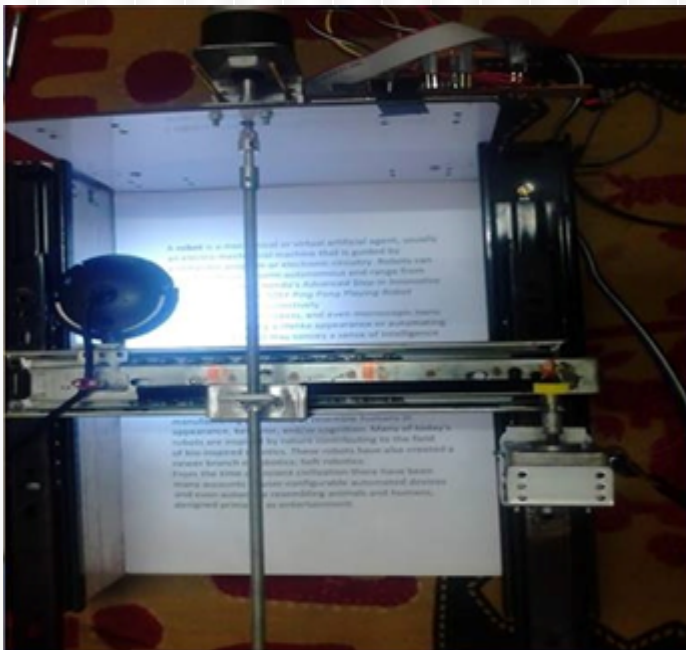# Wall climbing robot
Be it ceiling or wall, it climbs all!

Team developed a working model just under Rs 6,000

Text Reading Robot

- Started the project in ITSP with the aim of creating a low cost device for converting text into speech and translate into user's native language
- In consultation with NAB, Mumbai; analysed the specifications required for the device by visually impaired people
- Presented at Innovation Festival, Nehru Science Center

Four projects to be presented at Innovation Festival, Nehru Science Centre

Reading Robot

A portable device to convert documents into speech - for assistance of blinds

Parinat

A transformable humanoid robot

TUM TUM Tracker

A campus transport tracking system

Circuit Testing Device

Testing digital circuits using embedded system

Mentors of Technovation

- **Deepak Malani (PhD@EE)**
- **Harshad Bokil (MTech@EE)**
- **Riken Patel (IDC)**
- **Amaldev (MTech@EE)**
- **Omkar Jambovane (IDC)**
- **Apoorv Mittal (MTech@EE)**

Team of Technovation and Tinkerers' Lab

Manager
- Dewashish Kumar Dey
- Manmohan Mandhana
- Shyam Sunder Prasad

Conveners
- Akash Kishore
- Jashan Singhal
- Sumit Jain
- Umang Chapparia