Mission

To provide a platform to students and faculty members having zeal for learning and creativity, and passion to convert their creative ideas into significant, more viable design innovations.

Objectives

- Providing knowledge about basic as well as development of healthcare innovations.
- Teaching an efficient health care delivery and making candidates aware of major sources of intellectual property for healthcare ventures.
- Learning and practicing a step-by-step prioritizing clinical problems and opportunities for innovation.
- Developing skills for interdisciplinary collaboration and learning basics of licensing and partnership agreements.
- Developing communication and leadership skills.

Projects Undertaken:

S.No.	Title	Department
1.	Voice Recording and touch screen control based wheel chair for handicapped person	Applied Mechanics (Biomedical Engineering)
2.	Design of Ankle Foot Rehabilitation Robotic Assistive Device	Applied Mechanics (Biomedical Engineering)
3.	Transport Hybrid Vehicle	Mechanical Engineering Department
4.	Gauging Stress, Anxiety and Depression levels in Students	Computer Science and Engineering Department
5.	eHealth and Medical Record Digitalization	Computer Science and Engineering Department
6.	Development of Low Cost System for Real-Time ECG Data Acquisition and Wireless Remote Monitoring	Electronic Communication and Engineering Department
7.	Development of Portable Cataract Detection System	Electronic Communication and Engineering Department
8.	Human Health Risk Assessment based on total Concentration and Bio-availability of Contaminants in urban dust/soil. [Sustainable Risk Management Tool	Civil Engineering Department
9.	Design and fabrication of a low cost fused deposition modelling machine	Meachanical Engineering Department
10.	Design an optical sensor using Graphene/MoS2 for biomedical application	Electronics and communication Engineering Department

1. Voice Recording and touch screen control based wheel chair for handicapped person

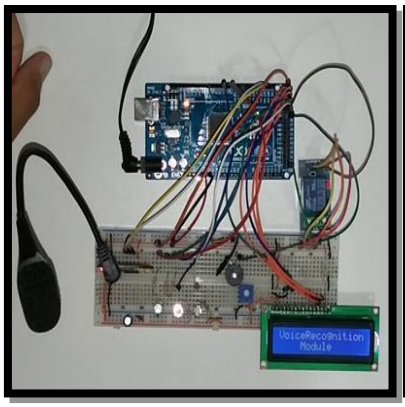
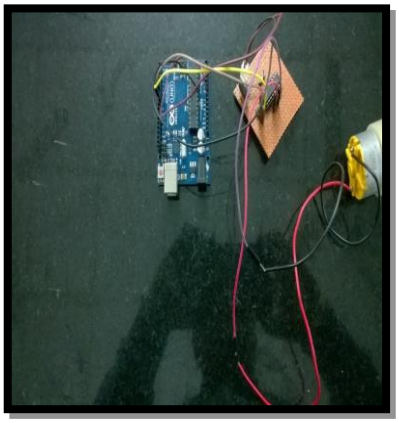


Figure of connection on

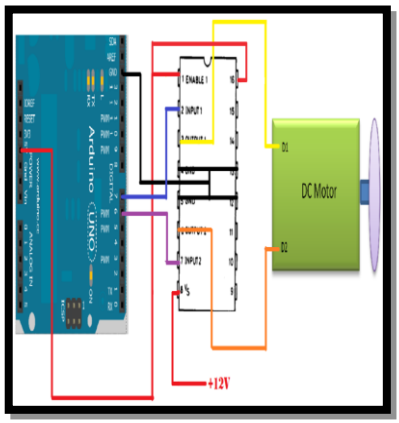
Complete circuit of the

Prototype of the wheel

2. Design of Ankle Foot Rehabilitation Robotic Assistive Device



Electronic circuit to be mounted on Mechanical assembly

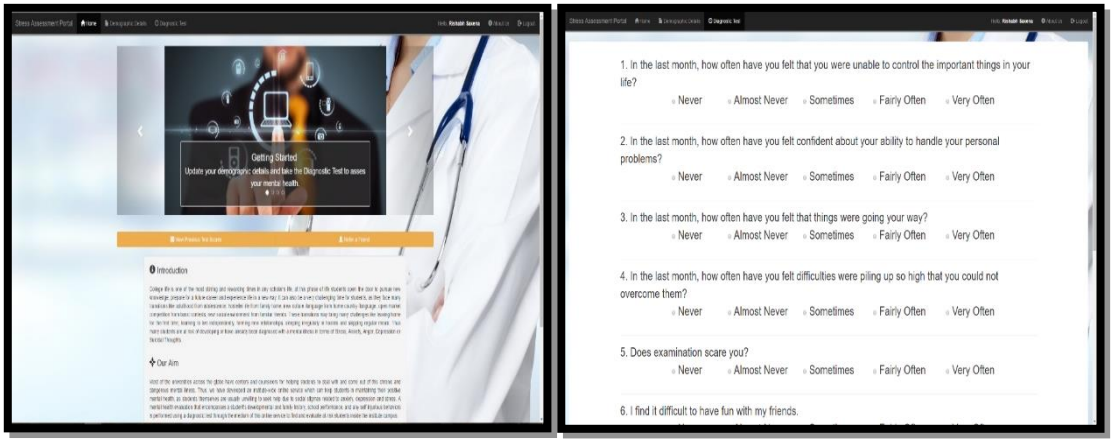


Interfacing Circuit for Arduino to Motors

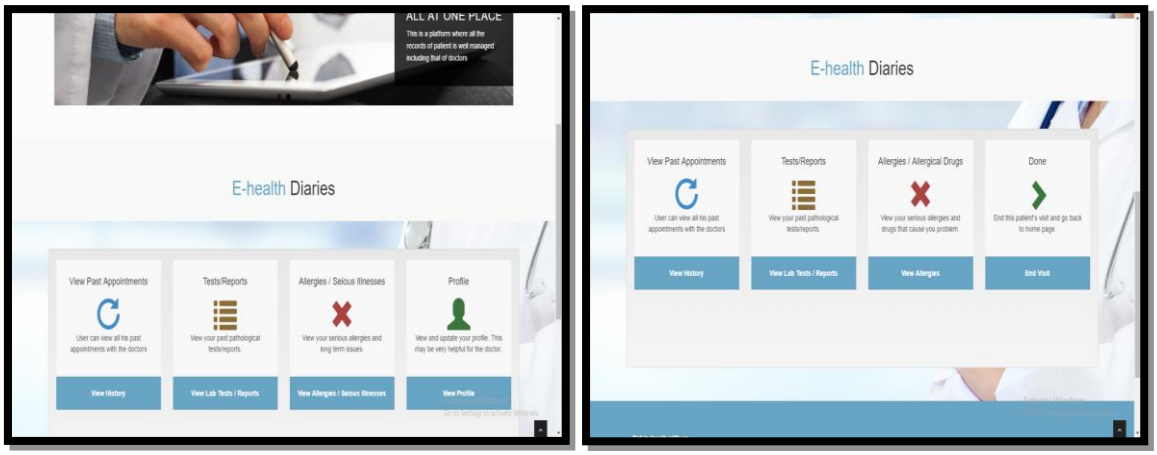
Ankle Foot Rehabilitation

3. Transport Hybrid Vehicle

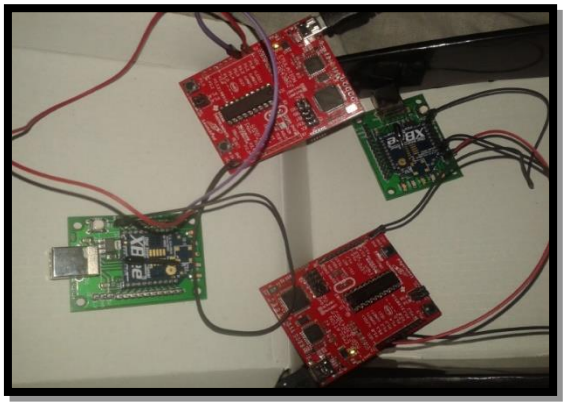
4. Gauging Stress, Anxiety and Depression levels in Students



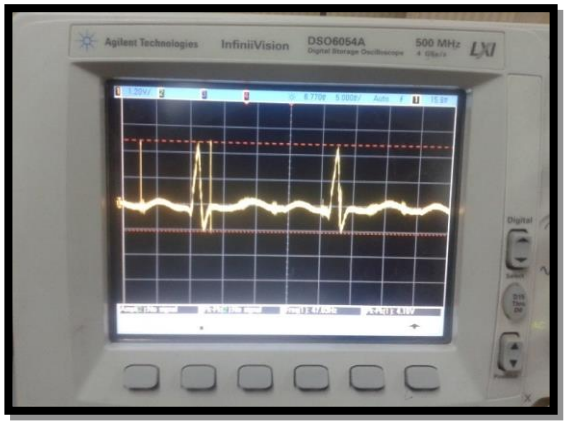
5. eHealth and Medical Record Digitalization



6. Development of Low Cost System for Real-Time ECG Data Acquisition and Wireless Remote Monitoring

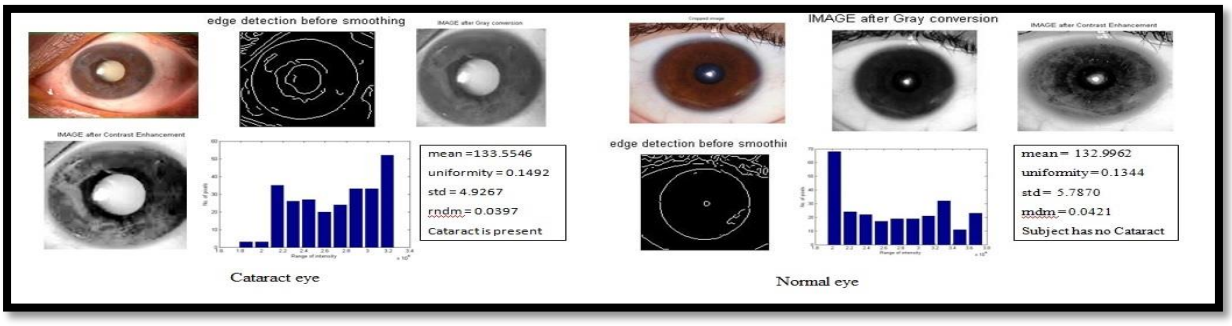


Experimental apparatus for wireless transmission and recreation of analog signals



Received ECG signal sourced from simulator displayed on a DSO

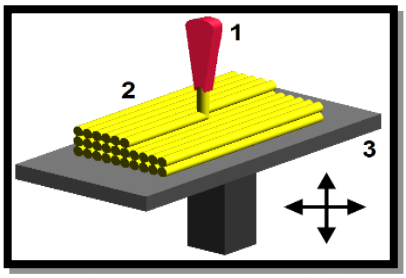
7. Development of Portable Cataract Detection System



Low Cost and Portable system for Cataract Detection

8. Human Health Risk Assessment based on total Concentration and Bio-availability of Contaminants in urban dust/soil. (Sustainable Risk Management Tool)

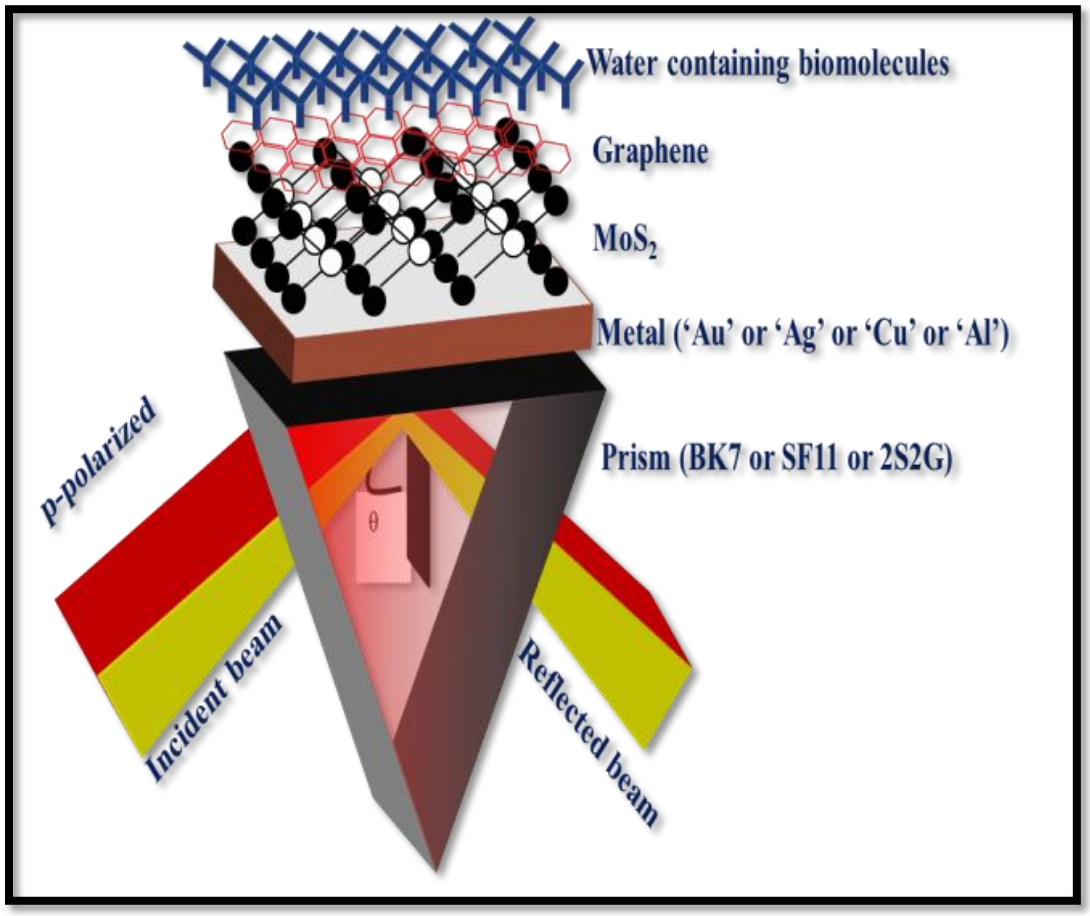
9. Design and fabrication of a low cost fused deposition modeling machine



Fused Deposition Modelling

3D printer based on fused deposition modelling machine

10. Design an optical sensor using Graphene/MoS2 for biomedical application



E-Summit (Renaissance)

Design and Innovation Centre has organized an E-Summit in association with Centre for Promoting Innovation during January 29-31, 2016 and during this three days event, various lectures, workshops, panel discussions, start up pitching and other competitions were organized.

Courses

Following courses have been finalized and considered by Senate. These courses will be open for B. Tech final year students as open electives:

- Innovations in Healthcare
- Design, Research and Ethical Guidelines

Ongoing Projects:

- Investigating the potential of gold nanostructure based electrochemical immunoassay for diagnosis of ovarian cancer
- Evaluating the efficacy of various extracts and oils of different medicinal plants & development of bio-formulations
- Mobile application development
- Designing ways for collection of root exudates
- Nanoparticles toxicity and development of bio-formulations

Dr. Shivesh Sharma

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