



2021

Centre for Device Development

Davangere University,
Shivangotri,
Davangere 577-007

Vision:

To develop innovative prototypes and process technologies and transfer the technologies to the industry for product development

Mission

- To create an ambiance for interdisciplinary learning by loosening the complexities set by the conventional boundaries of Department/Faculty.
- To encourage research scholars, students, and faculty members across faculties and departments to come together and utilize the ideas, perspectives, and exclusive skills to solve problems beyond the scope of a single discipline.
- To carry out product development-oriented research involving cost-effective materials and processes for defence, space, bio, and industrial applications.

Goals

- To design, fabricate, test and validate suitable devices efficiently.
- To create a centre of expertise for teaching skills related to device development, prototype testing and validation.
- To accelerate development of industrially relevant devices for large-scale or societal applications.
- To provide facilities and expertise that enable commercialization of new devices.
- Devices of interest are, broadly classified, defence, space, bio-medical, energy, health and environmental applications

About the Centre

The fast pace of technological advances in recent times mandates the students to be industry-ready by acquiring broader skills while graduating from the institutes of higher education. In line with the above, the Centre for Device Development (CDD) has been established to act as a forum to enable students to implement their novel and creative ideas originating from fundamental concepts learned in the classroom and to perpetuate the hands-on knowledge gained in the laboratory into a new product or a novel process.

The CDD at Davangere University aims to develop new products — both hardware and software — that will have a social impact by leveraging exhaustive technology.



Device Development Centre

Our Products

1. MANUAL OPERATED LOW-COST PORTABLE V- SHAPED POWDER BLENDER

The embodiment herein generally relates to powder mixing which is used in many fields. More specifically, the invention provides a manually operated portable low-cost blender which can be affordable to research students and also useful in small scale research centers used for metal powder mixing.

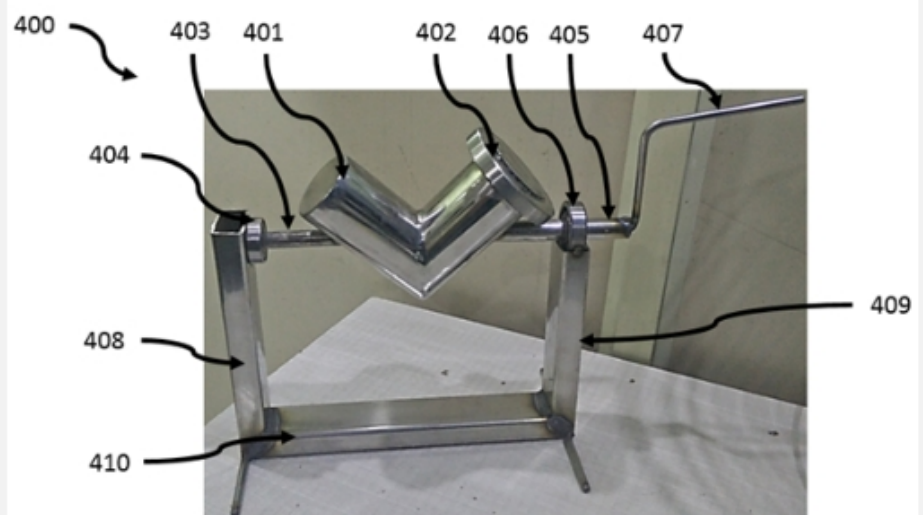


Figure 1. Manual operated low cost portable V-shaped powder blender

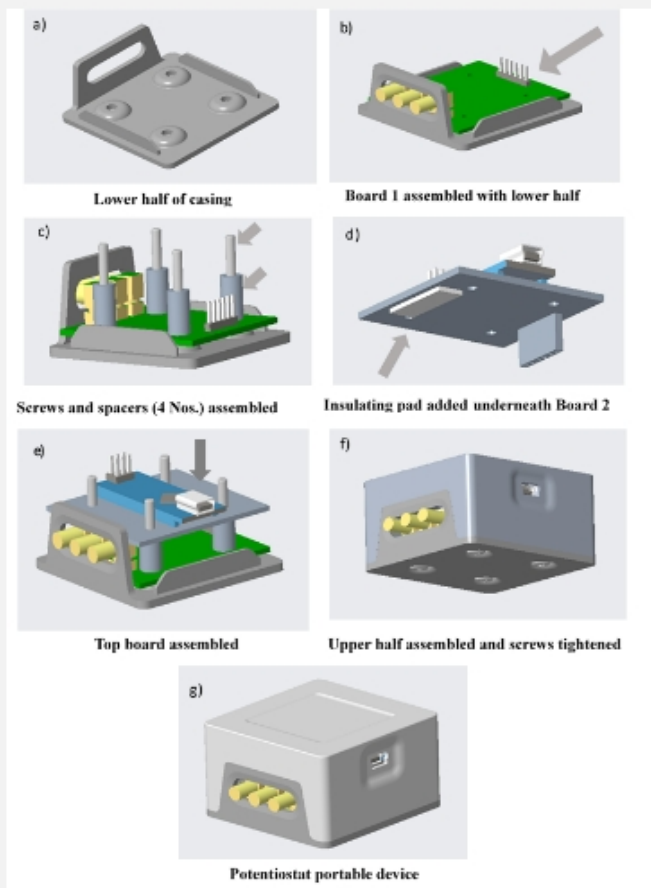
2. LOW-COST SUNLIGHT HARVESTING SYTEM FOR RURAL INDOOR LIGHTING

The embodiment herein generally relates to the field of renewable source of energy. More specifically, the invention provides a low-cost apparatus for harvesting sunlight for rural indoor lighting system.



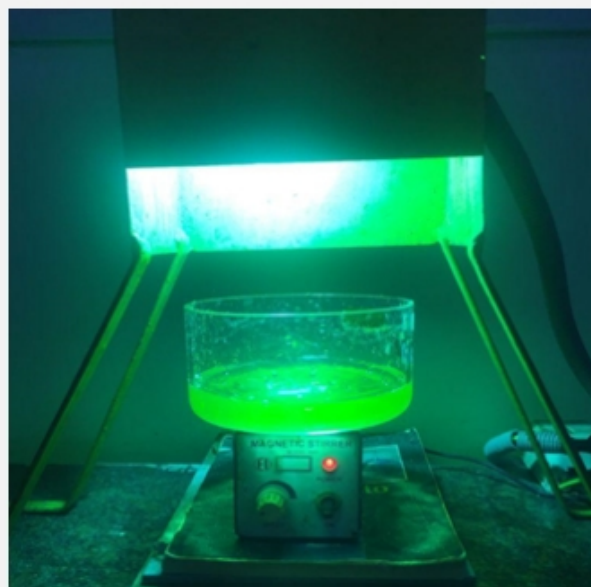
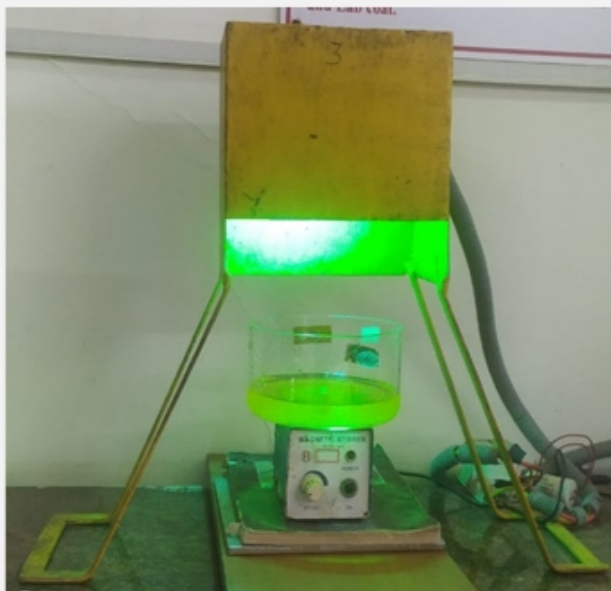
3. PORTABLE INSTRUMENT FOR HEAVY METAL DETECTION IN WATER

The invention is a portable detector for detecting heavy metals in water using an electrochemical technique that employs three-pole detection and can detect the concentration of various metals. The portable detector has the capability of capturing the imprint of possible concentrations of several metals. The portable detector is simple to use, portable, and easy to transport.



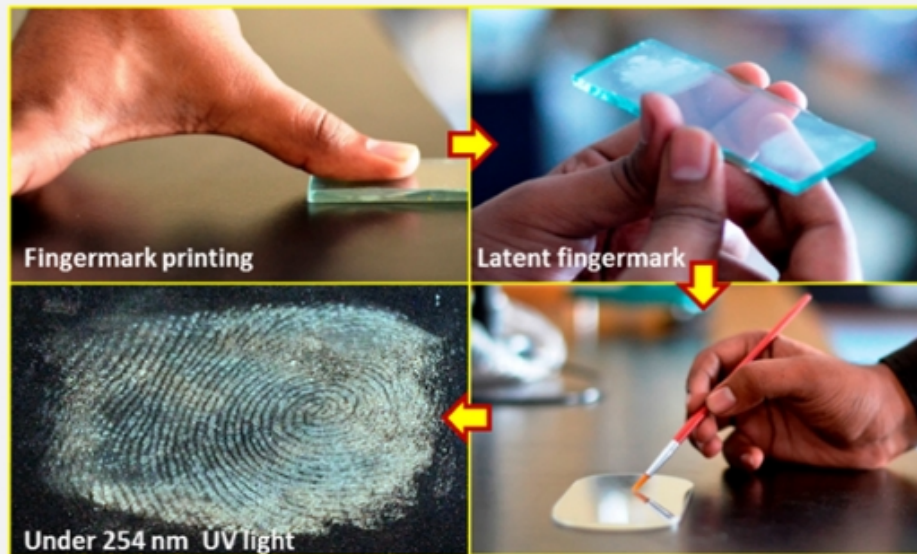
4. PHOTOCATALYTIC REACTOR

The latest invention relates to design the photocatalytic reactor & analyze the reactor performance by photocatalytic degradation of solutions in the presence of UV-Visible and catalyst or any other is in the fluidized state and investigation of the role of main factors that affecting the process. The main purpose of this method is used for the removal of organic pollutants present in the waste water or dyes.



5. FINGER PRINT TECHNOLOGY

The traditional LFP display methods are mature in technology, there are many disadvantages affecting their practical application, including limited working conditions, complex technology, low sensitivity, high equipment requirements, short retention time, toxic materials and so on. Therefore, researchers are developing new materials and technologies to simplify the visualization methods and improve the detection quality.



6. NANO SCINTILLATORS

Scintillates are one of the oldest types of radiation detector because measurements could be made with photographic film. Images could be collected or intensity measurements could be made. Measurements were also made with the human eye observing the brightness or frequency of flashes in the scintillator.



Steps and Stages



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Our Team