Bright Idea Competition

Organised by

DSIR-Tepp Outreach Cum Cluster Innovation Centre (TOCIC)
IIT Guwahati

and

DSIR-TOCIC, Sri Padmavati Mahila Visvavidyalayam, Tirupati

In association with

BITS Pilani

Supported by

Department of Scientific & Industrial Research (DSIR)
Ministry of Science & Technology, Govt. of India

Venue: BITS Pilani, Pilani Campus

Online Platform supported by BITS Pilani

Date & Time: January 23, 2021 from 2:30 PM to 5:00 PM

Chairman

Prof. Sukhomay Pal, Coordinator, TOCIC, IIT Guwahati

Prof. P. Uma Maheswari Devi, Coordinator, TOCIC, SPMVV – Tirupati

Co Coordinators from BITS Pilani

Prof. Pratik Sheth, Department of Chemical Engineering

Dr. Tufan Chandra Bera, Department of Mechanical Engineering

Dr. Satyendra Kr Sharma, Department of Management

Expert from IIT Guwahati

Prof. Chandan Das, Department of Chemical Engineering, IIT Guwahati

Prof Swarup Bag, Department of Mechanical Engineering, IIT Guwahati

Experts from BITS Pilani

Prof. Suresh Gupta, Department of Chemical Engineering

Prof. Anupam Singhal, Department of Civil Engineering

Prof. M S Dasgupta, Department of Mechanical Engineering,

Prof. Navneet Gupta, Department of Electrical and Electronics

WINNERS

Name: Isha Dogra

Affiliation: BITS Pilani, Pilani Campus, INDIA

Project Title: The Unwaster

Abstract:

A unique, integrated, and comprehensive waste management solution which takes care of the entire waste produced, on-site. Simultaneously, our design plan is kept flexible according to prospect-specific needs. We propose lesser total (capital and operational) cost, and promising end-products like BioCNG and organic fertilizer to generate multiple income sources and employment opportunities.

Name : Sarthak Mahapatra

Affiliation : BITS Pilani, Pilani Campus, INDIA

Project Title : IoT based Smart Charging Socket for Electric Vehicles

Abstract :

The Smart Charging Socket is an innovative & cost-effective solution to set up electric vehicle charging points anywhere with a standard electricity connection. The device is integrated with a mobile application to allow users to locate the points, pre-book charging slots and pay digitally. They can also monitor the vehicle charging status and control it through the app to provide a seamless charging experience.

Name: Lakshit Mittal

Affiliation: BITS Pilani, Pilani Campus, INDIA

Project Title: Designing and Manufacturing of an Optimal Battery Pack

Abstract:

The project proposes to design and manufacture an optimal battery pack using optimization algorithms. The design of battery pack not only includes the efficient arrangement of cells in the delimited space, but it also includes the efficient distribution of phase change material in the battery pack. Ultimate outcome of the project will be a light-weight battery pack with minimum temperature imbalance and reduced value of maximum temperature.

Name : Sanchit Tiwari

Affiliation : BITS Pilani, Hyderabad Campus, Hyderabad, INDIA

Project Title : ASTRA (Automated Solution for Transportation in Remote Area)

Abstract :

We aim at Providing an AI enabled indigenous customizable assistive robot to avoid unnecessary vulnerability towards infections, automating the environment and increasing efficiency of manual labor. The world has changed after the pandemic. Hence, the solutions to the current pandemic and its afterlife demand a multidisciplinary approach. We believe, every life is precious and hence we aspire to provide the nation with the 'ASTRA' they deserve against a pandemic struck afterlife.

Name : Siddhartha Shandilya

Affiliation: BITS Pilani, KK Birla Goa Campus, Goa, INDIA

Project Title: Enhancement of Thermal Efficiency of Burner by Enhancing Design of Gas Burner

Abstract :

In the proposal, an alteration in the cooking system is proposed. The proposed alteration will help in conserving the thermal energy in form heat which will save LPG as the efficiency will increase and hence same amount of food will be cooked in less amount of time, consequently saving LPG by a good fraction. There is a system provided for thermal energy conservation in a rectangular chamber viz. Two chambers in the system in which inner surface made of a copper/aluminium plate so as to provide the highest rate of heat conduction. The outer surface is made of lead so as to prevent radiation heat loss to the surrounding, with Insulation provided in between them.