



**AARUPADAI VEEDU
INSTITUTE OF TECHNOLOGY**
OMR, PAIYANOR, CHENNAI - 603104



**VINAYAKA MISSION'S
RESEARCH FOUNDATION**
(Deemed to be University under section 3 of the UGC Act 1956)



STUDENT SOLAR AMBASSADORS WORKSHOP ON 02-10-2019

Demo Day - Event Report

This year is the 150th birth anniversary of the father of our Nation, Mahatma Gandhiji. To commemorate the event, it was decided to promote the message of 'Energy Swaraj' by the Gandhi Global Solar Yatra (GSSY). As a co-incidence this year is also the Diamond Jubilee year of IIT Bombay. Hence it was decided by IIT Bombay to organize a Student Solar Ambassadors Workshop along with the other technical institutions in India to create a Guinness World Record on the 150th Birth Anniversary of Mahatma Gandhi, on 2nd October 2019.

As a premier educational institution in the South India, which is striving not only to provide quality education but also which strongly believes in community development as the national development with social responsibility as its main agenda, The Vinayaka Mission's Research Foundation, Chennai Campus, decided to take part in workshop and conduct it as a mass event.

Aarupadai Veedu Institute of Technology (AVIT), the institution under the umbrella of the Vinayaka Mission's Research Foundation, is a technical Institution which has specialized courses related to the energy engineering. AVIT believes that, today the world is at the helm of a contradictory multiple energy crisis wherein, on one side the access to the energy sources has to be provided to billions while, on the other side, there is an ever increasing demand and usage of energy which has inadvertently become the reason for the catastrophic climate change. There is an urgent call to provide affordable, reliable, sustainable and modern energy for all, considering simple fact that still more than 1 billion people lack access to electricity. Who will carry this message to the world to say that it is the right time to switch over to alternate energy sources? They are none other than the student community.

Vinayaka Mission's Research Foundation, and its group of institutions always uphold and encourage student participation in community activities considering the fact in this early age, the students are the best ambassadors for carrying out the message to reach the global



community. Hence it was planned to convert this commemorative event as a demonstration where the students learn and make their own solar devices and use them to evidence the world, about the possibility on clean and alternative energy and also to prove that 'Energy Swaraj' can be achieved "not by mass production, but production by the masses". This is what is required to be applied in the field of energy, for energy sustainability to address the Nation's Sustainable Development Goals [SDGs]. Here the students, the likely to be future users of the solar energy will not only promoted its usage in their own generations they also become the Student Solar Ambassadors.

The event was initiated by the department of electrical and electronics engineering of Aarupadai Vedu Institute of Technology, VMRF, Chennai Campus and was meticulously planned by Dr. L. Chitra, HoD/EEE, AVIT. It was she who motivated the entire faculty and the students to involve in this workshop to make the event successful. The programme started with assembling of all the students in the AVIT auditorium and started as planned and scheduled with the invocation of the almighty. The inaugural address was delivered by Dr. L. Chitra, HoD/EEE, AVIT, to announce the future prospects of solar energy which the institution will adopt in future. She also stressed the need for the student involvement in such techno-social activities. At the end of the inaugural session, participants were made to feel the need and importance of the solar in future



Faculty of EEE during the Inaugural session in the AVIT Auditorium



After the inaugural session, the first session in the fore-noon, was the discussion on the agenda of the workshop which was handled by the faculty of EEE, Mr. N.P. Gopinath, Mr. S. Prakash, during which the faculty discussed on the current climate scenario and climate change, they also justified why solar energy is better than conventional source of energy its Benefits and usage. At the end of the session the participants felt the importance of renewable energy in general and solar PV in particular and were eager to involve themselves in the practical session.

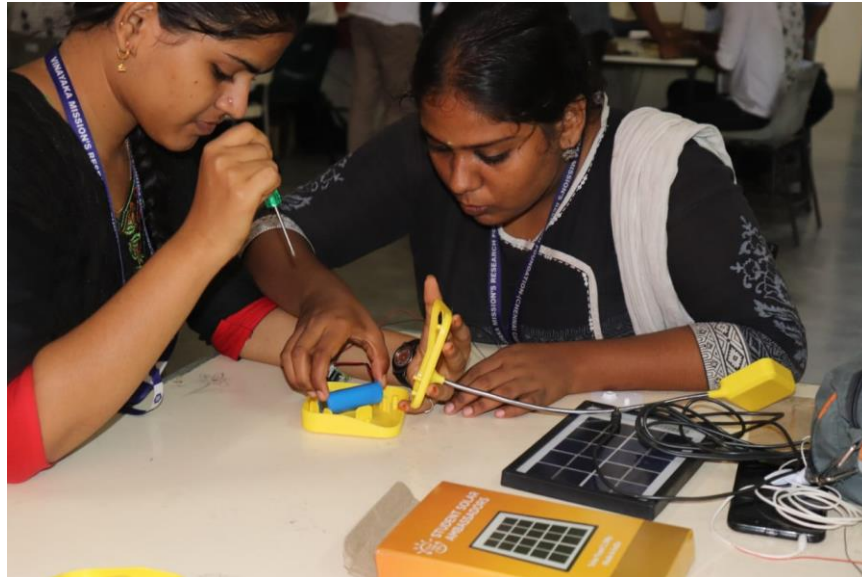
In the second session the students got split into various batches, 25 students under the mentor ship of a faculty, who was previously trained by the IIT Bombay in the basics, assembling and trouble shooting. The students were Familiarized on the toolkit, Solar lamp components, physical and technical testing. Every batch of 25 students was provided with a toolkit. During this session the students involved and Spent more time in the technical testing of the components, Solar panel testing in an open area to demonstrate the Variance of current and voltage parameters by varying the light intensity falling on the solar panel. At the end of this session, participants were able to test all the technical components and were well versed with the technical parameters of all components of the solar lamp kit.



Students receiving their solar lamp kits and instructions for assembling from faculty

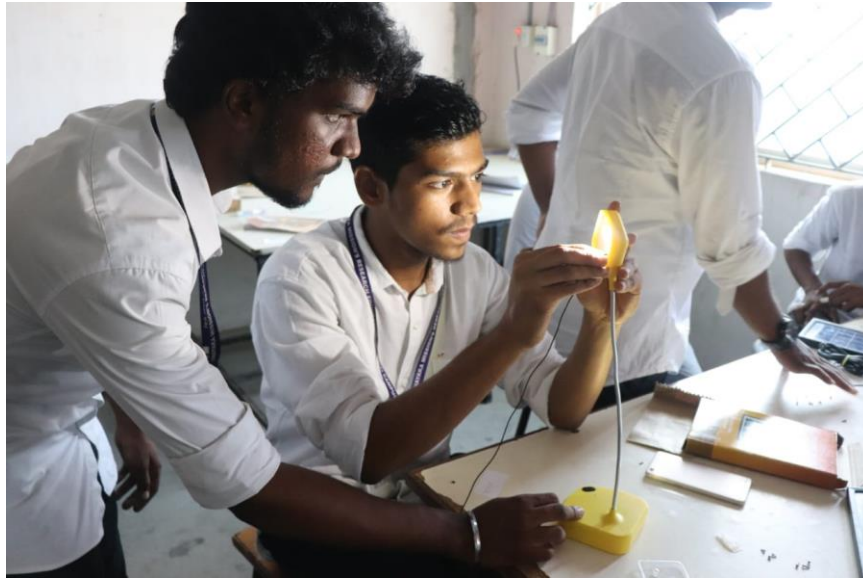


The Post lunch session was the session where the students assembled the solar lamp. It was a step by step guided session where the trained faculty members took utmost care of all the participants by personally visiting the worktables of the students and gave specific instructions.



Students involving themselves in assembly of the solar study lamp

The students assembled the LED lamp, battery and the lamp body as per the procedure, they were trained to solder the required points, and procedures like Gluing of gooseneck with base top cover and LED cap, gluing the silicon switch, to base and the Insertion of load wire into the gooseneck of the LED cap. Fixing of the PCB into the base bottom with the screws and fixing of the battery in the slot, aligning of the LED strip inside LED top cover, fixing LED face and LED reflector with the help of the screw, quality check of the final assembled lamp and packaging. After the successful assembling they were also trained to test their product using the measuring instruments.



Testing of the solar study lamp



Students with the assembled lamps at the end of the work shop along with the faculty

The solar ambassador workshop successfully ended with vote of thanks by Dr. L. Chitra, HOD/EEE, AVIT. She thanked the management of VMRF, Campus Director, Principal and Vice - principals of AVIT, all the faculty involved and particularly the students who spent the entire day useful to themselves and made the event successful.