NEW HORIZON
COLLEGE OF ENGINEERING
New Horizon Knowledge Park, Ring Road, Marathalli
Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Department of Electrical and Electronics Engineering

The "**BEST PROJECTS OF THE YEAR AWARD**" in **Karnataka State Council for Science and Technology, Indian Institute of Science Campus, Bengaluru** in the **44th Series of Student Project Programme: 2020-21** was awarded to a Team of Faculty and Students from Department of Electrical and Electronics Engineering, NHCE on 15th September 2021. Cash prize of **Rs 8500 /-** was handed over to the proud students and faculty. The event was organised by Indian Institute of Science Campus, Bengaluru. High Regards to the Management and our Principal for their continuous support for participation in technical sponsored projects.

Congratulations

BEST PROJECTS OF THE YEAR AWARD

Project Title: IMPLEMENTATION OF SMART E-VEHICLE CHARGING STATION POWERED BY RENEWABLE ENERGY

Project Ref No: 44S_BE_0101

by

KSCST
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Karnataka State Council for Science and Technology
Indian Institute of Science Campus, Bengaluru 560 012

44th Series of Student Project Programme: 2020-21

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Abstract: Electric vehicles are a moderately on-going innovation that is looking for its spot on the lookout. It has a few favorable circumstances, for example, the decreased nursery outflows, fuel reserve funds and its convenience. Lately, establishment of sustainable power offices is expanding quickly in light of the development to stifle the arrival of nursery gasses answerable for the warming of the earth and to save petroleum products, which are becoming progressively valuable. Besides, the expense of photovoltaic frameworks is diminishing step by step. Along these lines, it is accepted that cost of photovoltaic force will be falling later on. Nonetheless, in Japan, the enormous measure of surplus power from photovoltaic frameworks applies an awful impact on the force network. In this project, an EV charging station using sustainable power is proposed. The proposed EV charging station draws energy from photovoltaic frameworks and wind turbine at a low cost and uses that ability to charge a fixed battery. At that point the force is being utilized to charge electric vehicles; it also presents a few opportunities for electric force supply from sustainable wellsprings of electric vehicle charging stations. This project also introduces an energy management and control method for power supply of electric vehicles charging station. Solar photovoltaic arrays and wind turbine are integrated to replace energy from fossil fuel and decrease pollution from carbon emissions. An additional main supply is also added in order to maintain regular power supply to the system, here we are using proteus software to simulate the circuit.

Index terms: Electric vehicles, Smart E-vehicle, Renewable energy.