

## **A One-Day Workshop on ‘Electric Vehicle Technologies’ at OPJU**

In a world where oil is a limited source, an alternate source of transportation fuel - an alternate source of transportation fuel – electricity – is not only a smart investment, but as some would say, it is an inevitable one. The concept of Electric Vehicle, or EV for short, has gained pace, though it is hardly a new concept. The main goal of EV is to produce more environment-friendly and efficient vehicles that also happen to meet new regulatory requirements set by the Government of India. And these vehicles could be so much more than cars. In addition to electric cars, electric trucks, electric buses, electric trams, electric bikes etc. all fall under the purview of electric vehicles. Realizing the importance of the research and development in the area of electric vehicles, Department of Mechanical Engineering, SOE, OP Jindal University, Raigarh organized a One-Day Workshop on “Electric Vehicle Technologies” on 13<sup>th</sup> Aug 2018, with the support of Solar Energy Society of India (SESI) OPJU Chapter, and Centre for Industry-Academia Collaboration, OPJU. The objectives of the workshop were to give an overview of electric vehicle technologies outlining their basic principles, working and to provide a suitable research platform for young researchers to address the challenges related to design and development of electric vehicles.

During inauguration, welcoming the guests, Dr. P.S. Bokare, Dean School of Engineering expressed the need for shifting the use of conventional internal combustion engines to electric vehicles, due to the adverse impact of exhaust from the gasoline engines on the health of humans and on the environment. He also emphasized on the fact that electric vehicles will create an additional economic development opportunities by improving quality of life, reducing energy spending, and decreasing reliance on foreign oil. He also put before the delegates the different avenues available for research in this area.

Dr R.D. Patidar, Registrar of the University highlighted the initiatives taken by the university to promote research and development. Dr Patidar said that it is the need of the hour to focus on new age generation technologies like electric vehicle technology. Further he added that OP Jindal University is committed to contribute towards development of nation and society; organization of this workshop is a step towards social responsibility.

## Technical Sessions

In the first and second technical session, Mr. Jeet Banerjee, Business Development & Strategy, Vikram Solar Power Plant made a very informative presentation and described how during his engineering he initiated a solar car project and made a team called Solar Mobil, involving the students of different streams of engineering and how he succeeded in realizing his dream. He also discussed in detail about the various technical aspects of his solar car. It was an informative session for the students where they understood the various aspects of design and analysis of an electric vehicle operated by solar power.

In the third technical session Mr. Nitin Sahu and his team, comprising of B.Tech 7<sup>th</sup> and 5<sup>th</sup> students of OP Jindal University, Raigarh showcased the electric vehicle developed by them during their internship at New Delhi. They explained about the various part-components of their electric vehicle and their assembling.

In the fourth technical session Mr. Yuvraj Sarda, Senior Manager Strategy, SUN MOBILITY, explored various niche transport segments for deploying electric vehicles such as last-mile commuting, employee transportation, intra city goods transport, car sharing and city taxis. He said that it is need of hour to have a network of charging stations for the commercial usage of electric cars.

Dr. S.S. Chakrabarti, HOD- Mechanical Engineering and Convener of the workshop expressed his gratitude and stated that the workshop achieved its objectives and provided the electric vehicle technology insights, present developments, and research challenges to the participants and delegates with the support of presentations. In the workshop, along with 140 participants from OPJU and other states institutions, faculty members of OPJU also participated. At the end of the workshop, Mr. Akash Pandey, Assistant Professor of Mechanical Engineering Department proposed the vote of thanks to the management, all the guests and team members for their co-operation and support in organizing the workshop.