**WORKSHOP ON SOLAR AND SMART ENERGY SYSTEMS**

**AIM OF THE WORKSHOP**:

Solar and smart Energy Systems workshops involve hands-on experience on two emerging fields- Renewable Energy and Electrical Energy Efficiency.

**First day**: Participants learn about renewable energy sources and the techniques to yield electrical energy using solar power. This includes practical exposure to solar energy production along with real-life application of charging mobile devices.

**Second day**: Starts with concepts on Smart energy and other industry trends like green energy, smart building, smart grid and energy harvesting technologies. To help participants learn about the efficient use of electrical energy, a prototype Smart Traffic Control System is executed as project outcome.

**COURSE HIGHLIGHTS**:

* Design and develop smart traffic signal control systems and the solar powered mobile charger
* Understanding renewable energy and smart systems
* Exposure to embedded systems, microcontroller programming and digital sensors.
* Practical experience with live working projects on smart system and solar panels

**COURSE STRUCTURE**:

* Lecture session- 3 hrs
* Circuit design session- 3 hrs
* Solar mobile charger testing session-2 hrs
* Design of smart traffic control system- 3 hrs
* Hardware and programming session- 3hrs
* Testing of traffic control system-2 hrs

**TOPICS COVERED:**

* Renewable energy- An introduction
* Solar panel- Functioning and applications
* Smart energy systems- necessity and implementation
* Electronics-
* Microcontroller- architecture
* Development board – design and components
* Digital sensor- circuit and calibration
* Traffic control system- design and implementation
* Programming- Embedded C programming, IDE, and flashing

**KIT CONTENT**:

* 21 V SOLAR PANEL
* DEVELOPMENT BOARD
* 9V BATTERY
* DIGITAL SENSORS
* COMPONENTS OF MOBILE CHARGER
* NOSE PILER
* WIRE STRIPPER
* OTHER WORKING TOOLS

**WORKSHOP FEES:** Rs. 1100/- per participant.

**WORKSHOP DATE:** 10th and 11th Nov, 2016.

**CONTACT DETAILS**:

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