REPORT ON ONEDAY WORKSHOP PROGRAMME ON

"STREET LIGHT AUTOMATION IN SMART CITY"

Background:

- Electronics engineering, is an electrical engineering discipline which utilizes nonlinear and active electrical components (such as semiconductor devices, diodes and integrated circuits) to design electronic circuits, devices, microprocessors, micro controllers and other systems. The discipline typically also designs passive electrical components, usually based on printed circuit boards.
- Electronics is a subfield within the wider electrical engineering academic subject but denotes a broad engineering field that covers subfields such as analog electronics,digital electronics,embedded systems and power electronics.
- The first question is what is meant by a 'smart city'. The answer is, there is no universally accepted definition of a smart city. It means different things to different people. The conceptualisation of Smart City, therefore, varies from city to city and country to country, depending on the level of development, willingness to change and reform, resources and aspirations of the city residents.
- A smart city is an urban development vision to integrate information and communication technology in a secure fashion to manage a city's assets. These assets include local departments' information systems, schools, libraries, transportation systems, hospitals, power plants, water supply networks, waste management, law enforcement, and other community services.
- Information and communication technology (ICT) is used to enhance quality, performance and interactivity of urban services, to reduce costs and resource consumption and to improve contact between citizens and government.
- Street lighting is a core piece of urban and rural infrastructure. Lighting helps to create a safe environment for both pedestrians and drivers. Streetlights have long been a major cost for local government. Although they offer immediate benefits in terms of street safety, the cost of running thousands of streetlights for many hours of the day adds up.
- New technologies allow these costs to be reduced or controlled. By replacing traditional sodium lamps with energy efficient LED lamps, running costs can be cut by up to 60%, as well as providing a brighter street environment. These new bulbs also last much longer than traditional bulbs, reducing maintenance costs significantly.

- Generally, street lights are switched on for whole night and during the day, they are switched off. But during the night time, street lights are not necessary if there is no traffic. Saving of this energy is very important factor these days as energy resources are getting reduced day by day.
- Automatic Street Light Control System is a simple and powerful concept, which uses transistor as a switch to switch ON and OFF the street light automatically. By using this system manual works are removed.
- It automatically switches ON lights when the sunlight goes below the visible region of our eyes. It automatically switches OFF lights under illumination by sunlight. This is done by a sensor called Light Dependant Resistor (LDR) which senses the light actually like our eyes.
- Automatic Streetlight needs no manual operation of switching ON and OFF. The system itself detects whether there is need for light or not. When darkness rises to a certain value then automatically streetlight is switched ON and when there is other source of light, the street light gets OFF.
- The purpose of doing smart city project is to create awareness among students, and create an opportunity to put their creativity to work in making their environment better.

Date and Venue:

- The workshop took place on 13th September 2017 at the Seminar Hall of RITE, Bhubaneswar. The training program was organized by RITE in association with M/S: Dreams Project, Bhubaneswar.
- The subject of the workshop was **"**Street Light Automation in Smart City".

Training Team:

- The resource person was Mr. Soumya Ranjan Nayak (MD, Dreams Project, Bhubaneswar) explained about the role of street light in smart city.

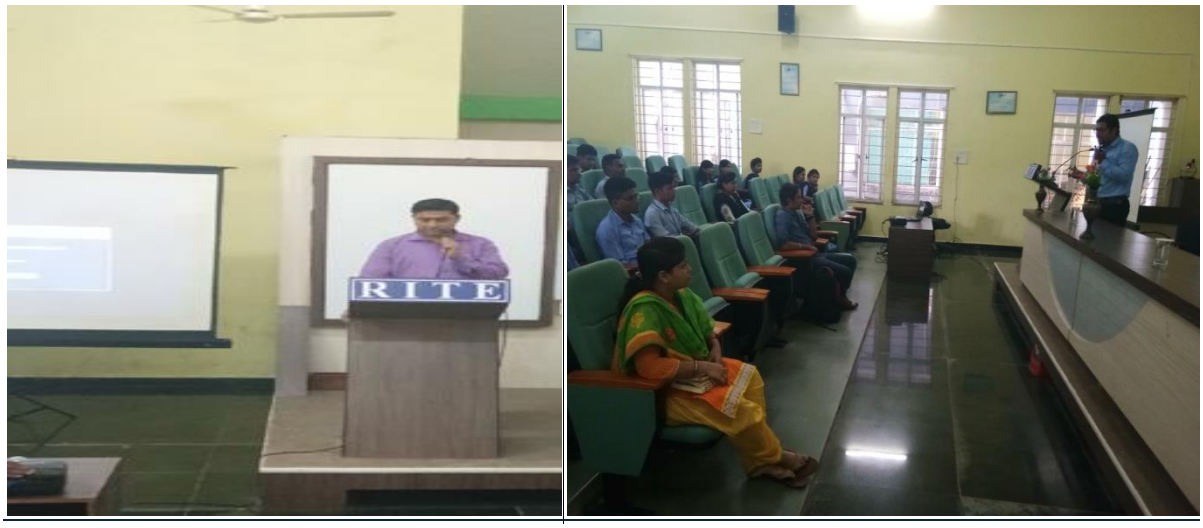
Agenda:

Time	Events
Session 1	
10.30 am	Welcoming to Dreams Project delegates to RITE.
11.00 am	Offering Bouquet to delegates.
11.05 am	Welcoming to Dreams Project delegates and RITE management to the dais.
11.10 am	Welcome address by HOD, Electronics & communication engineering Department.
11.15 am	Guest Speech
11.30 am	Training program
01.00pm	Lunch Break
Session 2	
1.45pm	Practical Session
4.00pm	Vote of thanks by Asst. Prof. Sanjiv Kumar Pal, Electronics & communication engineering Department.

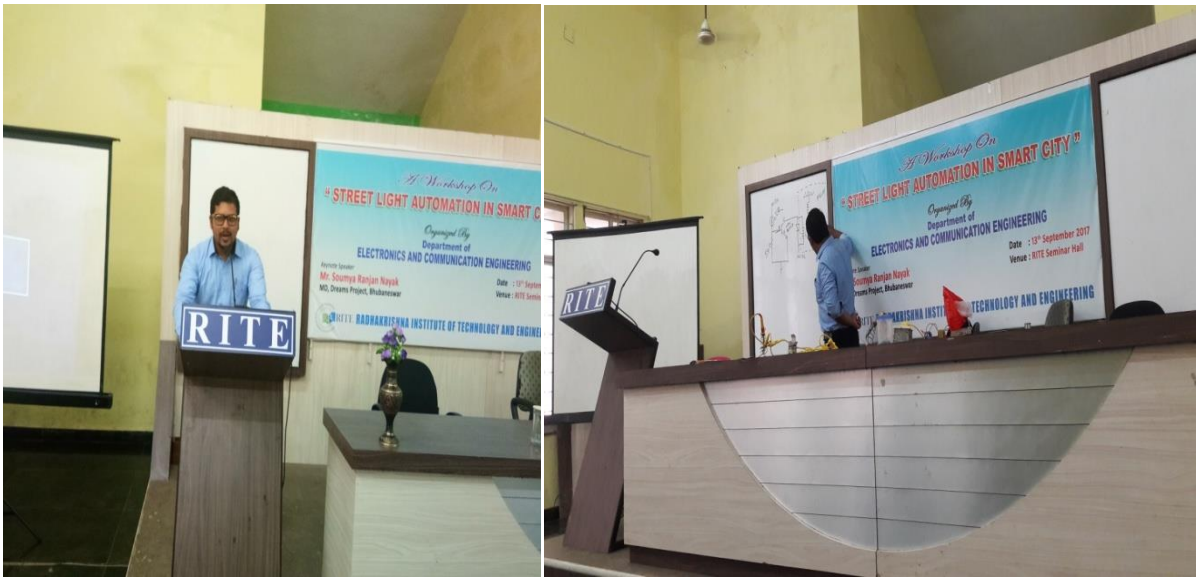
Participants:

- Total 30 numbers of participants (7^{th}, 5th, 3rd & 1^{st} Semester) of Electronics & Communication Engineering, and Electrical Engineering, Mr. P.C.Das (Dean-Academics) and faculties of Electronics & communication engineering department of RITE participated in the workshop.

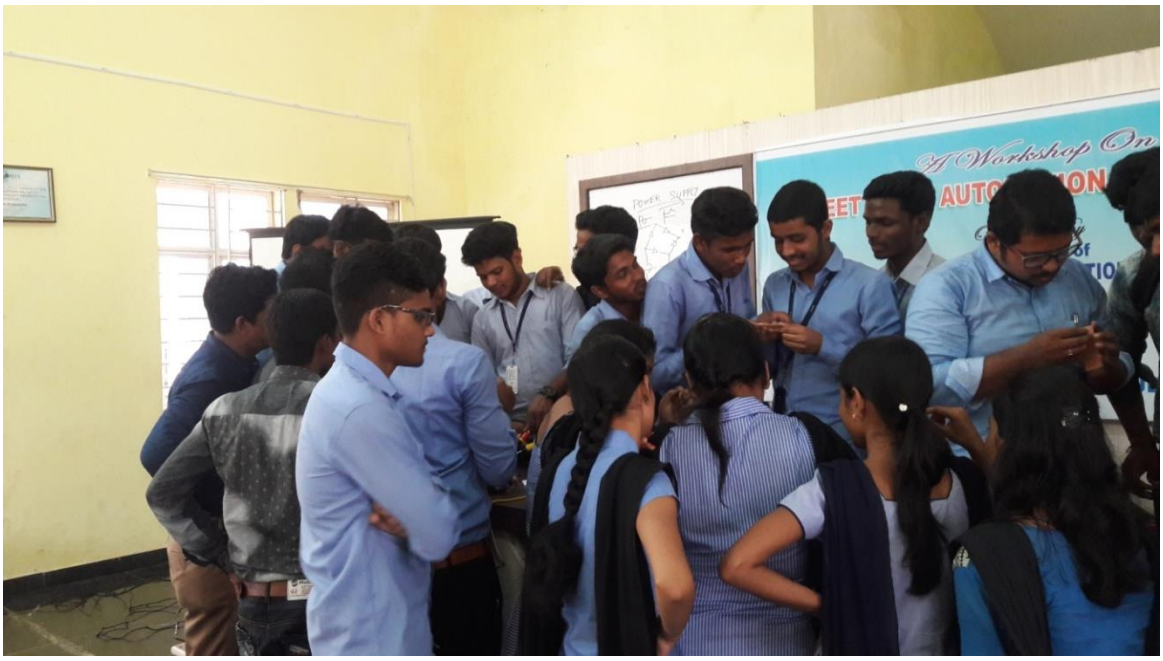
WORKSHOP PHOTOGRAPHS



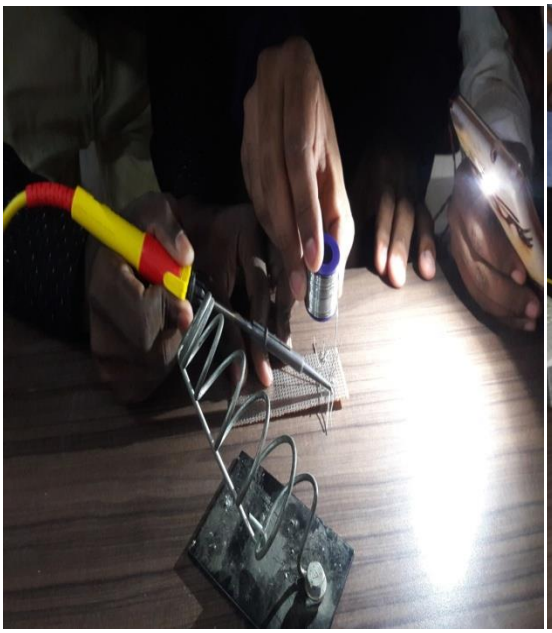
Mr. Sangram Sahoo, HOD (Electronics & communication engineering Department) welcomes to participants (7th, 5th, 3rd &1st Semester) of Electronics & Communication Engineering, Electrical Engineering, Mr.P.C.Das (Dean-Academics) and faculties of Electronics & communication engineering and addressing to the delegates of Dreams Project of RITE to the Dias.

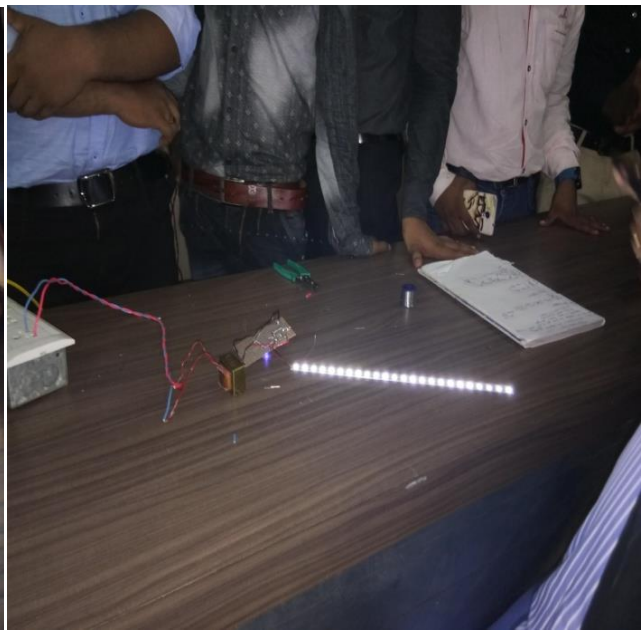


Mr.Soumya Ranjan Nayak (MD, Dreams Project) explaining about the role of Street Light in Smart City.

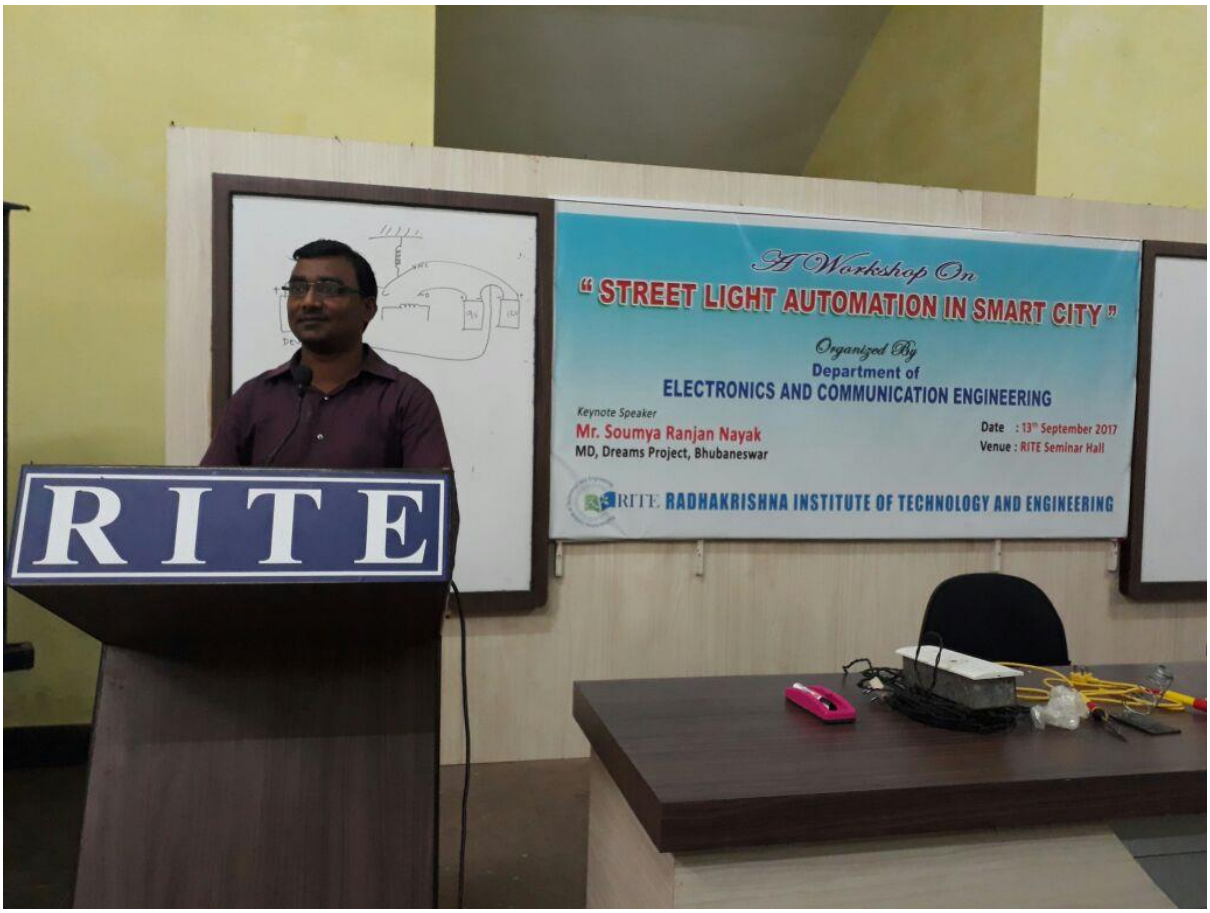


Doubt clearing session in workshop.





Students are experimenting with the equipments required for street light automation.



Vote of thanks given by Asst.Prof Sanjiv Kumar Pal, Electronics & communication engineering Department.

Prepared By;
Asst.Prof.Rasmita Lenka
ECE Department.