

# Field Trip to Electronics Test and Development Centre, Hyderabad

21<sup>th</sup> November 2019

Department of Physics & Electronics



Due to the Rapid development of science and technology, the world is becoming “Smart”. Living in a smart world, people will be automatically and collaboratively served by the smart devices, smart transportation, smart environments, etc., we all know that it is all possible with IoT as well as Electronic equipment like sensors etc. To be a smart one, we should not only use smart devices but also be aware of their quality and maintenance.

Hence, the Department we arranged an industrial visit to State Level Laboratory, Electronic Testing and Development Centre, which is a part of Standardization Testing and Quality Certification (STQC) Directorate an attached office of the Ministry of Electronics and Information Technology, Government of India, Hyderabad on 21<sup>st</sup> November, 2019. STQC provides Certification Service both for Product and management system.

We visited testing, calibration, e governance and certification service units at. ETDC. The staff displayed us the working of the electronic component and its calibration. This trip to ETDC created interest among students towards practical work.



Staff and students at ETDC ,Hyderabad.



Motivational Speech given by the Scientist to our students.



After completing the visit at ETDC.

**Industrial Visit to Kwality Photonics, Hyderabad**  
**21<sup>th</sup> November 2019**

**Department of Physics & Electronics**

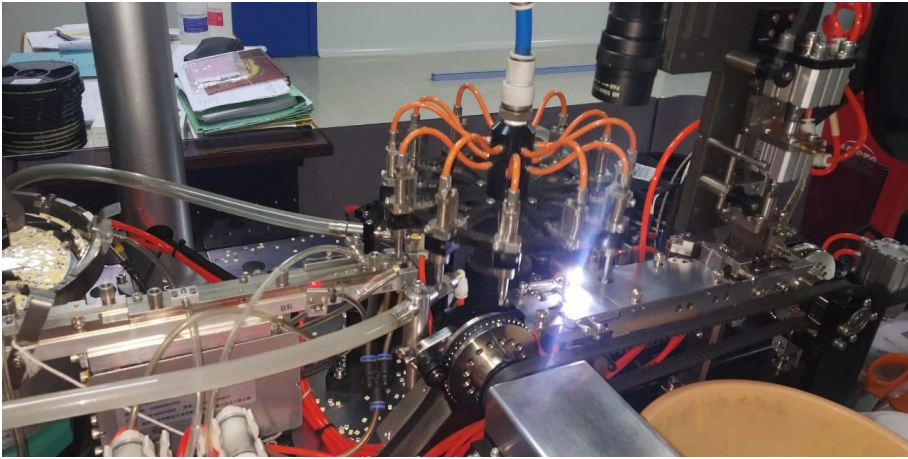


Light Emitting Diode is a lightening revolution in the present scenario because of their lower energy consumption over conventional lighting technologies. However, energy savings is only one aspect of effectiveness of LEDs. The quantity and quality of illumination together with the economic feasibility are also important in the determination of overall effectiveness. There is a need to update our knowledge in manufacturing the LEDs particularly for an Electronics student. Hence, the Department of Physics & Electronics KBN College, Vijayawada arranged an industrial tour to Kwality Photonics which is the largest producer of LEDs and opto electronic products, Hyderabad on 22<sup>nd</sup> November 2019.

There are mainly two units, one is manmade LEDs and the other is machine made LEDs. First, we visited manmade LEDs unit. In this unit, house hold purpose LEDs bulbs are manufactured. There are separate units for manufacturing enclosures, LED panel, connecting unit, final bulb fitting units. They explained the type of materials are used for manufacturing enclosures of different LED bulbs and the difference between long life & short life span LEDs with patience.

In second unit, we visited manufacturing of LED strips, LED tolls, LEDs which are used display and how phosphorus gas is filled. How the bulbs are created in various colours, setting of time to on off positions was explained by the staff in very good manner.

Students were benefited a lot through this field trip and they were motivated towards LED research.



Phosphorous filling in LED with machine



7-Segment Display



Sri. J.P.R and Sri D.P.K observing Phosphorous filling machine.



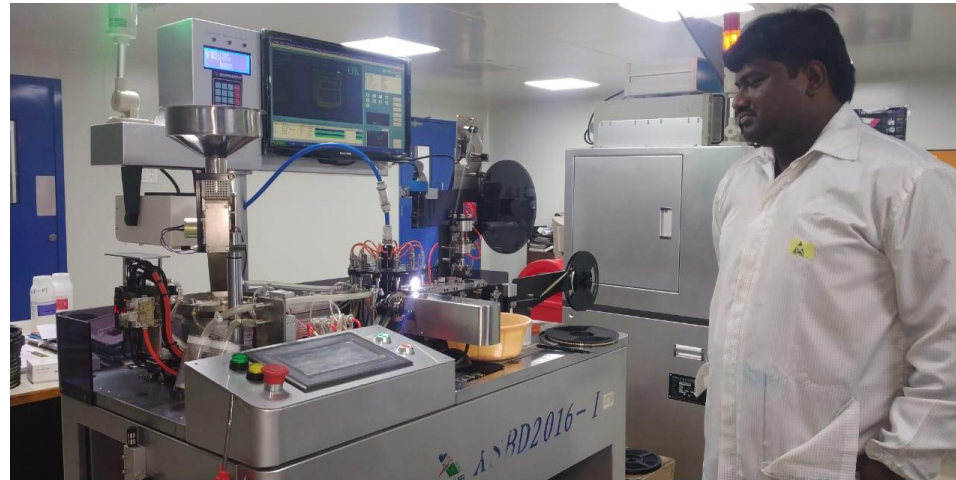
LED Arrangement in 7-segment display.



Soldering to LED's in 7-segment display.



Machine filling LED's in LED Strips.



Sri R. Uday Kumar observing LED roll manufacturing machine.



Students and Staff listening Manual construction of LED.



After completing the visit at Kwality Photonics.