

SKILL DEVELOPMENT PROGRAMME ON LED BULB MANUFACTURING

Dept. of Physics, St. Joseph's College (Autonomous), Irinjalakuda
25th, 26th January 2018

Report:

As the world is heading towards severe energy crisis, there is an ever increasing need for alternate energy resources and energy efficient devices. One particular field, which has witnessed tremendous breakthroughs, of late, in terms of energy efficiency, is solid state lighting (SSL) or Light emitting diodes (LED). LED bulbs are 80-90% more energy efficient than conventional incandescent bulbs and are several times more durable, with much lower greenhouse gas emission. In order to familiarize the students with the practical aspects of this important technology and provide valuable hands-on experience, Dept. of Physics conducted a two-day skill-development programme on 'LED bulb manufacturing' for the outgoing degree students on 25th & 26th January, 2018. The principal of St. Joseph's college, Dr. Sr. Christy inaugurated the programme on 25th January at 9.00 AM. The technical session was handled by Mr. Thomas P J, Luna Institute of Engineering Technology, Irinjalakuda. Around 42 students attended this programme on both days, with faculty and staff monitoring their activities. At the end of the technical session, all the students were able to build LED bulbs on their own which were later given to them to be used at their homes.

Aim & Scope

1. Empower students with technical skills needed for industry as well as day-to-day life
2. Enhance the employability of students
3. Sensitize students towards green technologies
4. Make students socially responsible.

Learning outcome

A student who has gone through this programme should be able to:

1. Appreciate the need for energy efficient devices
2. Design opto-electronic circuits
3. Build LED based lighting-circuits in serial manner.
4. Design strategies to reduce electricity usage at home.

Expenditure

Sl. No.	Item	Amount	Invoice No.	Date
1	Electronic components	2898	C4508	20-01-2018
2	Cable	1000	C4509	20-01-2018
3	Chemicals & connecting wire	2660	C4557	22-01-2018
4	Multimeter, soldering iron & lead	11770	C4559	22-01-2018
5	Fiber glass	165	683	22-01-2018
6	Remuneration for the resource person	750	-	25-01-2018
7	Remuneration for the resource person	750	-	26-01-2018
	Total	19993/-		

Acknowledgement

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