DEPARTMENT OF PHYSICS DEVA MATHA COLLEGE, KURAVILANGAD

Affiliated to Mahatma Gandhi University, Kottayam



SYLLABUS

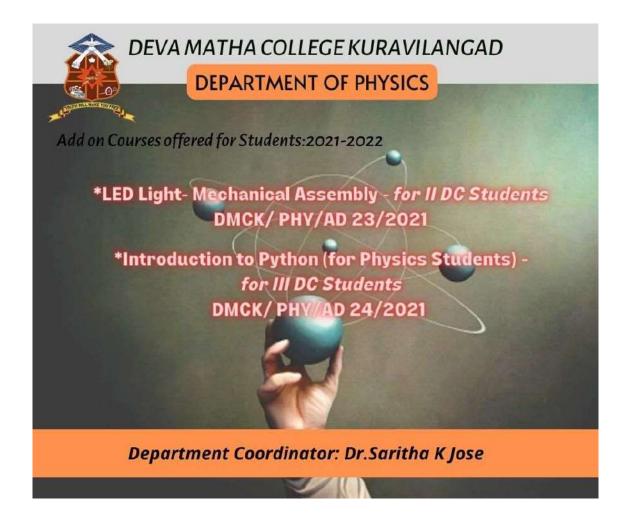
ADD-ON COURSE

in

LED LIGHT – MECHANICAL ASSEMBLY

Academic Year: 2021-22





Title: LED Light – Mechanical Assembly

Instructional Hours: 30 Hours

Duration: 4 Months

Mode of Instruction: Theory and Practical

Intake Capacity: 30 Eligibility: Plus Two

Add-on Course in

DMCK/PHY/AD23/2021 :LED light - Mechanical Assembly

Duration: 30 hours

Course Objectives

- To familiarize electronic components and the procedure of soldering
- To provide fundamental understanding of LED
- To practice the knowledge gained in assembling various LED luminaries such as LED bulb, LED tube light etc.

<u>Syllabus</u>

Module 1 (2 hrs)

Introduction and understanding safety procedure & preventive measures against electrical accidents

Module 2 (4 hrs)

Awareness of electronic components, pick & place process, soldering

Module 3 (10 hrs)

Hobby circuit design and assembling – Clap Switch, Burglar Alarm, Water Level Indicator, Automatic Night Lamp

Module 4 (4 hrs)

LED Basics : Operating voltage & current, Thermal Management, Array configuration

Module 5 (10 hrs)

Driver selection & All the aspects related to LED Luminary Assembly



Course Outcome

- The students get a rigorous idea about various electronic components and the procedure of soldering.
- The students acquire basic understanding of the principle behind light emitting diode.
- The students get hands-on training in assembling various LED luminaries such as LED bulb, LED tube light etc. that promotes their employability and entrepreneurial skills.

Assessment Procedure

- 1) Attendance
- 2) Examination

Grading

Marks Obtained	Grade
(%)	
90 and above	S
85-89	Α
80-84	В
75-79	С
Below 75	D



Principal Deva Matha College Kuravilangad - 686 633