

# DEPARTMENT OF PHYSICS

## DEVA MATHA COLLEGE, KURAVILANGAD

Affiliated to Mahatma Gandhi University, Kottayam



### REPORT

OF

### ADD-ON COURSE

IN

### LED LIGHT – MECHANICAL ASSEMBLY

*(Conducted for II DC Physics students)*

**Academic Year : 2021-2022**

## **Add-on Course in**

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

Duration: 30 hours

Number of students enrolled : 22

The Physics Department of Deva Matha College Kuravilangad has organised an Add-on Course in LED light - Mechanical Assembly for the II DC Physics students of the college. 22 students registered and successfully completed the course. The course was conducted during the months of November, December and January . Resource Persons who engaged the classes were renowned in the respective area. The course is of 30 hours duration including offline classes along with practical sessions.

#### **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.

#### Syllabus

<b>Module 1</b>	<b>(2 hrs)</b>
Introduction and understanding safety procedure & preventive measures against electrical accidents	
<b>Module 2</b>	<b>(4 hrs)</b>
Awareness of electronic components, pick & place process, soldering	
<b>Module 3</b>	<b>(10 hrs)</b>
Hobby circuit design and assembling – Clap Switch, Burglar Alarm, Water Level Indicator, Automatic Night Lamp	
<b>Module 4</b>	<b>(4 hrs)</b>
LED Basics : Operating voltage & current, Thermal Management, Array configuration	
<b>Module 5</b>	<b>(10 hrs)</b>
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.

## Mode of Evaluation

Attendance and Examination

## STUDENTS LIST

SL. NO	CLASS NO	NAME OF THE STUDENT	CLASS
1	20UG110	ABIN JOSE	II DC PHYSICS
2	20UG111	ALLEN JOSEPH BABU	II DC PHYSICS
3	20UG119	ANN MINI BABY	II DC PHYSICS
4	20UG120	ANU L MATTAM	II DC PHYSICS
5	20UG122	ARUNA P.R	II DC PHYSICS
6	20UG123	ARYA BHAKTHAKUMAR	II DC PHYSICS
7	20UG112	ASWIN PRAKASH	II DC PHYSICS
8	20UG113	ELDHO YOHANS GEORGE	II DC PHYSICS
9	20UG124	EMIL MARIA JOBY	II DC PHYSICS
10	20UG115	JITHIN FRANCIS	II DC PHYSICS
11	20UG125	MARIYA ALPHONSE RENCE	II DC PHYSICS
12	20UG126	NANDANA JAYAPRAKASH NAIR	II DC PHYSICS
13	20UG127	SREYA S KUMAR	II DC PHYSICS
14	20UG116	T K JOSE	II DC PHYSICS
15	20UG117	THOMAS SUNNY	II DC PHYSICS
16	20UG118	YADHUKRISHNAN	II DC PHYSICS
17	20UG101	AKSHAI RAMESH M.	II DC PHYSICS
18	20UG104	APARNA THILAKAN	II DC PHYSICS
19	20UG105	FARIZA YOOSUF	II DC PHYSICS
20	20UG106	NIDHI S BINU JAMES	II DC PHYSICS
21	20UG103	NIKHIL JOHNSON	II DC PHYSICS
22	20UG108	PRIYA ANIL BISWAS	II DC PHYSICS

## PHOTOS





# Attendance Sheet

**DEVA MATHA COLLEGE KURAVILANGAD**  
 ADD ON COURSE FOR II DC PHYSICS 2021-2022  
**LED LIGHT - MECHANICAL ASSEMBLY**  
 Attendance Sheet

Sl. N	Class No.	Name	6/11/2021	20/11/2021	27/11/2021	4/12/2021	11/12/2021	15/01/2022
1	20UG110	ARIN JOSE	✓	✓	✓	✓	✓	✓
2	20UG111	ALLEN JOSEPH BABU	✓	✓	✓	✓	✓	✓
3	20UG119	ANN ANIL BABY	✓	✓	✓	✓	✓	✓
4	20UG120	ARUL MATTAM	✓	✓	✓	✓	✓	✓
5	20UG122	ARUNA P. H.	✓	✓	✓	✓	✓	✓
6	20UG123	ARYA BHAKTAKUMARI	✓	✓	✓	✓	✓	✓
7	20UG112	ASWIN PRADASH	✓	✓	✓	✓	✓	✓
8	20UG113	ELDH VDHANS	✓	✓	✓	✓	✓	✓
9	20UG124	EMIL MARIJA JOBY	✓	✓	✓	✓	✓	✓
10	20UG115	JITHIN FRANCIS	✓	✓	✓	✓	✓	✓
11	20UG125	MARIYA ALPHONSE RENCI	✓	✓	✓	✓	✓	✓
12	20UG126	NANDANA	✓	✓	✓	✓	✓	✓
13	20UG127	JAYAPRAKASH NAIR	✓	✓	✓	✓	✓	✓
14	20UG116	SREYA S KUMAR	✓	✓	✓	✓	✓	✓
15	20UG117	T. V. JOSE	✓	✓	✓	✓	✓	✓
16	20UG118	THOMAS SUNNY	✓	✓	✓	✓	✓	✓
17	20UG101	VADHUKISHANAN	✓	✓	✓	✓	✓	✓
18	20UG104	ANSHAI RAMESH M	✓	✓	✓	✓	✓	✓
19	20UG104	APARNA THILAKAN	✓	✓	✓	✓	✓	✓
20	20UG105	FARAZA KOCOSUF	✓	✓	✓	✓	✓	✓
21	20UG106	WIDHI S BINJU JAMES	✓	✓	✓	✓	✓	✓
22	20UG108	NIRHIL JOHNSON	✓	✓	✓	✓	✓	✓
23	20UG108	PRITHA ANIL BISWAS	✓	✓	✓	✓	✓	✓

## Feedback Form of 'LED Light – Mechanical Assembly'

Timestamp	1. Name	2. Class No.	3. How do you rate the course as a whole?	4. How do you rate the co-ordination of the course by the Department of Physics?	5. How do you rate the usefulness of this course?
3/20/2022 11:48:38	T K Jose	20UG116	5	5	5
3/20/2022 12:02:24	Sreya s kumar	20UG127	5	5	5
3/20/2022 12:35:15	Eldho yohansgeorge	20ug113	5	5	5
3/20/2022 12:36:31	Nikhil Johnson	20UG103	5	5	5
3/20/2022 14:18:36	Priya Anil Biswas	20UG108	5	5	5
3/20/2022 16:24:50	JITHIN FRANCIS	20UG115	5	5	5
3/20/2022 17:27:53	Arya Bhakthakumar	20UG123	5	5	5
3/20/2022 17:29:30	Emil Maria Joby	20UG124	3	5	4
3/20/2022 17:49:37	Allen Joseph Babu	20UG111	5	5	5
3/20/2022 17:55:35	Thomas Sunny	20UG117	5	5	5
3/20/2022 18:31:35	Fariza Yoosuf	20UG105	2	1	1
3/20/2022 19:48:44	Nidhi S Binu James	20UG106	4	5	4
3/20/2022 20:17:57	Ann Mini Baby	20UG119	5	5	5
3/20/2022 22:13:01	Akshai Ramesh M	20UG101	5	5	5
3/20/2022 22:30:24	Yadhukrishnan	20UG118	5	5	5
3/20/2022 23:15:17	JITHIN FRANCIS	20UG115	5	5	5
3/22/2022 17:14:47	Anu L Mattam	20UG120	5	5	5
3/23/2022 9:43:25	Aruna PR	20UG122	5	5	5
3/25/2022 14:51:51	Mariya Alphonse Rence	20UG125	4	5	4

## Exam Marklist

Name	class No.	Score
Akshai Ramesh M	20UG101	24 / 30
Nikhil Johnson	20UG103	28 / 30
APARNA THILAKAN	20UG104	28 / 30
Fariza Yoosuf	20UG105	28 / 30
Nidhi S Binu James	20UG106	28 / 30
Priya Anil Biswas	20UG108	28 / 30
Abin Jose	20UG110	28 / 30
Allen Joseph Babu	20UG111	28 / 30
ELDHO YOHANS GEORGE	20UG113	28 / 30
JITHIN FRANCIS	20UG115	24 / 30
T K Jose	20UG116	28 / 30
Thomas Sunny	20UG117	26 / 30
Yadhukrishnan	20UG118	28 / 30
Ann Mini Baby	20UG119	22 / 30
Anu L Mattam	20UG120	28 / 30
Aruna PR	20UG122	24 / 30
Arya Bhakthakumar	20UG123	24 / 30
Emil Maria Joby	20UG124	26 / 30
Mariya Alphonse Rence	20UG125	30 / 30
Nandana Jayaprakash Nair	20UG126	28 / 30
Sreya s kumar	20UG127	30 / 30





## DEVA MATHA COLLEGE KURAVILANGAD

Kuravilangad P O, Kottayam, Kerala- 686 633

NAAC Accredited 'A' Grade Institution

Affiliated to Mahatma Gandhi University, Kottayam

### CERTIFICATE

This is to certify that .....  
has successfully completed the Add-on Course titled "LED Light – Mechanical Assembly" conducted by the Department of Physics of Deva Matha College Kuravilangad during the academic year 2021-2022 with grade -----.

Dr. Saritha K. Jose  
Co-ordinator

Dr. Saji Augustine  
H.O.D

Dr. Sunil C. Mathew  
Principal

Dr. Saritha K Jose  
Add-on Course Coordinator  
Department of Physics



Principal  
Deva Matha College  
Kuravilangad - 686 633