#### DEPARTMENT OF PHYSICS, MATHEMATICS AND STATISTICS



REPORT ON

## ONE DAY WORKSHOP ON LED: ASSEMBLY, REPAIR AND APPLICATIONS

Date: 10/01/2025

Venue: Gurukripa Hall



Dr Sisira S

Coordinator

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Dr Sreejith Krishnan HOD



Smt Praveena Vijayan Principal



NAAC Accredited with 'A' Grade

DEPARTMENT OF PHYSICS, MATHEMATICS AND STATISTICS



**]** 10/01/2025,

] 10.30 am 📀

Lead by.

Gurukripa Hall



Dr Jincemon Cyriac Assistant Professor Department of Physics Christ College (Autonomous), Irinjalakuda



Dr Roshan Jose Assistant Professor Department of Physics Marian College Kuttikanam (Autonomous)



Gouri G NairSadasivan M J4th Year Physics3rd Year PhysicsMarian CollegeMarian CollegeKuttikanam (Autonomous)Kuttikanam (Autonomous)

## **Organizing Committee**

Smt Praveena Vijayan, Principal Sri Devadas V, IQAC Coordinator Dr Mohanan T, HOD, Department of Mathematics Dr Sreejith Krishnan, HOD, Department of Physics Dr Sisira S, Coordinator, Assistant Professor, Department of Physics Members Smt Krishnaprabha R, Assistant Professor, Department of Mathematics

Smt Sucharitha R S, Assistant Professor, Department of Mathematics Kumari Vaishnavi S, Assistant Professor, Department of Mathematics Smt Asha R, Assistant Professor, Department of Mathematics Kumari Sanjana C, Assistant Professor, Department of Statistics

### **CONTACT US** Dr Mohanan T:9446257051, Dr Sisira S: 9656199369

# PROGRAMME SCHEDULE

## Prayer

Welcome Speech

Presidential Address and Inauguration

**Keynote Address** 

## Felicitation

## Vote of Thanks

## Ms Arya PP & Jasmin S

- Dr Sisira S (Coordinator, Assistant Professor, Department of Physics)
- Smt Praveena Vijayan (Principal)
- Dr Jincemon Cyriac
  - (Assistant Professor, Department of Physics, Christ College,Irinjalakuda (Autonomous)

## Dr Roshan Jose

(Assistant Professor, Department of Physics, Marian College, Kuttikkanam (Autonomous)

## Dr Sowmya C S

(Senat Member, University of Calicut, HOD (Department of Hindi))

## Sri Devadas V

(IQAC Coordinator)

## Smt Sucharitha R S

(Assistant Professor, Department of Mathematics)

Technical session Interaction with Students Feedback and vote of thanks from students

#### **Report on One day Workshop on LED: Assembly, Repair and Applications**

LED (Light Emitting Diodes) is the newest and most exciting technological advancement in the lighting industry, which gained popularity in our market because of its advantages – high-quality illumination, long life and less maintenance. Light sources based on semiconductor technology has up to 20 times longer service life and better efficiency than fluorescent or incandescent lamps. Owing to this advantages of LEDs over conventional lighting technologies a one day workshop on "*LED: Assembly, Repair and Applications*", was organized by Department of Physics, Mathematics and Statistics together on 10/01/2025, at 10.30 AM at Gurukripa Hall, Sree Narayana College Alathur. Resource persons were Dr Jincemon Cyriac, Assistant Professor, Department of Physics, Christ College, Irinjalakkuda (Autonomous), Dr Roshan Jose, Assistant Professor, Department of Physics, Marian College, Kuttikkanam (Autonomous) and Mr Sadasivan M J (Third Year Integrated M.Sc. Student, Department of Physics, Marian College, Kuttikkanam (Autonomous).

The aim & scope of the workshop was to impart practical knowledge on assembling LED bulbs and to promote the use of energy-efficient lighting solutions. It would also enhance the employability of students. This workshop was a major step to sensitize students towards green technologies and make students socially responsible. The learning outcome of this workshop was that the student was able to appreciate the need for energy efficient devices and design optoelectronic circuits.

The inaugural meeting was commenced by prayer by Ms Arya P P and Jasmin S (Second Year B.Sc. Mathematics students). Dr Sisira S, Assistant Professor, Department of Physics has given the welcome speech. Mrs Praveena Vijayan, Principal, SreeNarayana College Alathur has

inaugurated the workshop by lighting the lamp and has given presidential address. Keynote address is delivered by resource person Dr Jincemon Cyriac, Assistant Professor, Department of Physics, Christ College, Irinjalakkuda (Autonomous). He raised certain pertinent issues linking with the electronic wastes that we throw away in to the nature and suggested the reuse of LED bulbs asa small solution for that. Dr Roshan Jose, Assistant Professor, Department of Physics, Marian College, Kuttikkanam (Autonomous) has also given keynote address by reflecting the theme of protecting nature for future generation. Dr Sowmya C S (Senate Member, University of Calicut & HOD, Department of Hindi), Mr Devadas V (IQAC Coordinator), Dr Mohanan T (HOD, Department of Mathematics) have felicitated the programme. Mrs Sucharitha R S (Assistant Professor, Department of Mathematics) has proposed vote of thanks. The other faculty members Dr N S Rajendran (Assistant Professor Department of Biochemistry), Dr Binumol M (Assistant Professor Department of Botany), Mrs Krishnaprabha R (Assistant Professor Department of Mathematics), Dr Jiju K R (Assistant Professor Department of Chemistry), Dr Praseeja Cheruparampath (Assistant Professor Department of Zoology), Ms Vaishnavi S (Assistant Professor Department of Mathematics), Mrs Asha R (Assistant Professor Department of Mathematics), Ms Sanjana C (Assistant Professor Department of Statistics) were also present on the occasion. Besides there are about large number of students from our College as well as from Sree Narayana Guru College of Advanced Studied Alathur were also attended workshop.

The workshop includes two sessions. In the first part of the workshop a seminar that explaining the basics of LED technology and its advantages over traditional lighting theories and applications of LEDs .The session was carried out by Dr Jincemon Cyriac. All the participants tookpart in the interactive session after the talk and have cleared their doubts. The second part is the hands on training programme for the participants. This session was accomplished by Ms Gouri G Nair and Mr Sadasivan M J. Participants were divided into groups to work on assembling the LED bulbs under the supervision of our resource persons. They were provided with damaged LED bulbs that were already collected from students and a kit containing all necessary components to repair it. Step-by-step guidance was provided on assembling the components to create a functional LED bulb. Safety measures, such as proper handling of electronic components and soldering techniques, were emphasized. Each group successfully assembled multiple LED bulbs, gaining practical experience in the process.

The workshop was concluded with a thanking statement by giving certificate and memento to the resource persons by Dr Sreejith Krishnan (HOD, Department of Physics) and Dr N S Rajendran (HOD, Department of Biochemistry). An online participation certificate was given to all the participants. Overall, the workshop was a success in conveying the importance of using of more energy efficient devices as well as to acquiring the practical skill to assemble LED bulbs and its repairing.

## DEPARTMENT OF PHYSICS, MATHEMATICS AND STATISTICS

## ONE DAY WORKSHOP ON LED: ASSEMBLY, REPAIR AND APPLICATIONS

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#### Highlights of the programme





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#### Certificates that were given to the resource persons



SREE NARAYANA COLLEGE ALATHUR (Affiliated to University of Calicut) (NAAC Accredited with A Grade)

DEPARTMENT OF PHYSICS, MATHEMATICS AND STATISTICS

#### WORKSHOP ON LED: ASSEMBLY, REPAIR AND APPLICATIONS

CERTIFICATE This certificate is proudly awarded to

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Assistant Professor, Department of Physics, Christ College, Irinjalakuda (Autonomous), who has conducted a technical session in the workshop on "LED Assembly, Repair and Applications" organized by Department of Physics, Mathematics and Statistics, Sree Narayana College Alathur on 10/01/2025.

Dr Sisira S Coordinator Department of Physics

Dr Sreejith Krishnan HOD, Department of Physics

Sri Devadas V **IQAC** Coordinator

Smt Praveena Vijayan Principal

SREE NARAYANA COLLEGE ALATHUR (Affiliated to University of Calicut) (NAAC Accredited with A Grade) DEPARTMENT OF PHYSICS, MATHEMATICS AND STATISTICS

WORKSHOP ON LED: ASSEMBLY, REPAIR AND APPLICATIONS

#### CERTIFICATE

This certificate is proudly awarded to

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Assistant Professor, Department of Physics, Marian College, Kuttikkanam (Autonomous), who has conducted a technical session in the workshop on "LED Assembly, Repair and Applications" organized by Department of Physics, Mathematics and Statistics, Sree Narayana College Alathur on 10/01/2025.

Dr Sisira S

Coordinator



Dr Sreejith Krishnan HOD, Department of **Department of Physics** Physics

Sri Devadas V **IQAC** Coordinator Smt Praveena Vijayan Principal

(Affiliated to University of Calicut) (NAAC Accredited with A Grade)

DEPARTMENT OF PHYSICS, MATHEMATICS AND STATISTICS

#### WORKSHOP ON LED: ASSEMBLY, REPAIR AND APPLICATIONS

CERTIFICATE This certificate is proudly awarded to

Mr Sadasivan M. J

Third Year Integrated MSc Student, Department of Physics, Marian College, Kuttikkanam (Autonomous), who has conducted a technical session in the workshop on "LED Assembly, Repair and Applications" organized by Department of Physics, Mathematics and Statistics, Sree Narayana College Alathur on 10/01/2025.

Smt Praveena Vijayan Principal

Dr Sisira S I Coordinator Department of Physics

Dr Sreejith Krishnan HOD, Department of Physics

Sri Devadas V IQAC Coordinator





DEPARTMENT OF PHYSICS, MATHEMATICS AND STATISTICS

WORKSHOP ON LED: ASSEMBLY, REPAIR AND APPLICATIONS

CERTIFICATE This certificate is proudly awarded to

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Fourth Year Integrated MSc Student, Department of Physics, Marian College, Kuttikkanam (Autonomous), who has conducted a technical session in the workshop on "LED Assembly, Repair and Applications" organized by Department of Physics, Mathematics and Statistics, Sree Narayana College Alathur on 10/01/2025.





Dr Sisira S Coordinator Department of Physics Dr Sreejith Krishnan HOD, Department of Physics

Sri Devadas V IQAC Coordinator Smt Praveena Vijayan Principal

DEPARTMENT OF PHYSICS, MATHEMATICS AND STATISTICS

One Day Workshop on LED: Assembly, Repair and Applications

## CERTIFICATE

This certificate is proudly awarded to

## VARNIKA C, Second Year BSc Mathematics,

Sree Narayana College, Alathur who have participated in

the one day workshop on "LED: Assembly, Repair and Applications" organized by Department of Physics, Mathematics and Statistics, Sree Narayana College Alathur on 10/01/2025.

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Sri Devadas V Smt Pi



Principal

Dr Sisira S Coordinator Department of Physics

Dr Sreejith Krishnan HOD, Department of Physics

IQAC Coordinator