

# St. Mary's College (Autonomous)

## Department of Physics

### HANDS ON TRAINING IN PRACTICAL PHYSICS – (15.12.2021 – 17.12.2021)

#### • Invitation

**Three Days Intercollegiate  
Lecture cum Hands on Training  
in Practical Physics**

**UNDER STAR SCHEME  
2021 – 2022**

**Sponsored by**

**DEPARTMENT OF BIOTECHNOLOGY**  
Ministry of Science & Technology  
Government of India

**Organized by**  
**MARIAN STAR CENTRE**  
Department of Physics  
St. Mary's College (Autonomous)  
(Re-accredited by NAAC with 'A+' Grade)  
Thoothukudi – 628 001

**Resource Person:**  
**Mr. K. Balasubramanian, Industrialist,**  
Rethan Machining Solutions, Tirunelveli

**Date:** 15.12.2021 – 17.12.2021  
**Time:** 8:30 a.m. – 1:30 p.m.

**Venue:**  
**Lecture:** Star Hall  
**Hands on Training:** Physics Lab

**ORGANIZING COMMITTEE**

**Patron**  
Rev. Sr. Flora Mary  
Secretary, St. Mary's College (Autonomous), Thoothukudi

**Chairman**  
Dr. Sr. A. S. J. Lucia Rose  
Principal, St. Mary's College (Autonomous), Thoothukudi

**Convener**  
Dr. Sr. Jessie Fernando  
Head and Associate Professor  
Department of Physics, St. Mary's College (Autonomous), Thoothukudi

**Overall Coordinator & Member Secretary**  
Dr. Sr. Arockia Jenecius Alphonse  
Assistant Professor of Botany, St. Mary's College (Autonomous),  
Thoothukudi

**Department Coordinator**  
Ms. P. Dhanalakshmi  
Assistant Professor of Physics, St. Mary's College (Autonomous),  
Thoothukudi

**Executive Members**  
Dr. S. Eulrista Immaculate Sylvia, Associate Professor of Physics  
Ms. A. Lucas Renoline, Associate Professor of Physics  
Dr. M. Sheeba, Assistant Professor of Physics  
Ms. A. Valentina, Assistant Professor of Physics

**Registration Link:**  
<http://www.stmcollege.edu.in/links/171118>

**For any queries**  
Mail id: [stmphys2021@gmail.com](mailto:stmphys2021@gmail.com)  
[smctstar02021@gmail.com](mailto:smctstar02021@gmail.com)

#### • Certificate

**HANDS ON TRAINING IN PRACTICAL PHYSICS**

Organized by  
Marian Star Centre  
Department of Physics  
St. Mary's College (Autonomous),  
Re-accredited by NAAC with 'A+' Grade,  
Thoothukudi - 628001.

Sponsored by  
Department of Biotechnology  
Ministry of Science & Technology,  
Government of India

**CERTIFICATE OF PARTICIPATION**

**Ms. JAFFRY.T**  
III B. Sc Physics

**St. Mary's College (Autonomous), Thoothukudi-1.**  
has successfully completed **HANDS ON TRAINING IN PRACTICAL PHYSICS**  
from 15.12.2021 to 17.12.2021 by the department of Physics,  
St. Mary's college (Autonomous), Thoothukudi, Tamilnadu, India.

*Arockia Jenecius Alphonse*  
Dr. Sr. A. Arockia Jenecius Alphonse  
DBT - Overall Coordinator

*Jessie Fernando*  
Dr. Sr. Jessie Fernando  
Convener

*Lucia Rose*  
Dr. Sr. A. S. J. Lucia Rose  
Principal

- Photos



## Report

The three day intercollegiate lecture cum hands on training in practical physics was organized by department of physics under star college scheme from 15.12.2021 to 17.12.2021. The resource person was Mr. K. Balasubramanian, Industrialist, Rethan Machining Solutions, Tirunelveli.

On 15.12.2021, the session 1 was conducted at star hall from 9:00am – 11:00am. The participants for this program were physics students from Kamaraj college, Thoothukudi and St. Mary's college (autonomous), Thoothukudi. The total number of participants were about 120. The lecture session was about simple working with electricity components. In this session, sir discussed about electrical components

and proximity. He explained about voltage type, diodes, capacitors, resistances, relay and transformers. For proximity, he explained about its types such as inductive, capacitive, optical and ultrasonic. Session 2 was conducted in the physics lab from 11:30am – 1:30pm. In this session students practically worked with those components which students learnt in the session 1. It was a very useful session. It was a knowledge gaining session.

On the second day 16.12.2021, the meeting was held at STAR HALL. The First Session started at 9:30 am. The session was about Wireless Electricity, Home Electrical System and Home Surveillance Electrical System. The Resource person made the session very interesting. Mr. Balasubramanian gave a clear idea about possibilities of wireless electricity and its advancements in future and briefly about electrical components like MCB, GFCI, Switches, Incoming power lines, Lights, Serve panel, Wiring, Sub panel, and ELCP. And also, about CCTV, Fire alarm and Burglar alarm. The meeting ended at 11:20 am. In the second session, the Resource person guided the participants to work with these components practically.

On the third of "Intercollegiate Lecture cum Hands on Training in Practical Physics" sponsored by the Department of Biotechnology(17.12.2021), the lecture session was held at the 'STAR HALL'. The session started at 9.00 a.m. with a prayer song followed by the lecture of the resource person, Mr. K. Subramanian, Industrialist, Rethan Machining Solutions, Tirunelveli District. The session was about Control Panel wiring circuit. The resource person made the session simple and explained each and every concept in a detailed manner. He threw light on the three-phase circuit, single phase circuit, applications of relay and proximity sensors, DC voltage and AC voltage supply in control line and power line and also about the use of various circuit breakers like MCB, MPCB etc.....

After the lecture the resource person cleared the doubts of the students regarding contactors, applications of relay and proximity sensors in three phase circuits.

From 12.00p.m. – 1.30p.m., the practical session was held in the physics lab. The resource person guided the students to use the electrical component and also motivated them to reach heights by achieving great things in the field of electrical physics.

*Devi Sda*  
Head of the Department  
**HEAD**  
Department of Physics,  
St. Mary's College (Autonomous),  
Thoothukudi - 628 001.

*B. Serena Margaret*  
IQAC Coordinator  
IQAC Co-ordinator  
St. Mary's College (Autonomous)  
Thoothukudi

*Lucia Ross*  
Principal  
St. Mary's College (Autonomous)  
Thoothukudi-628 001.