



**ST. THOMAS COLLEGE**

Ranni, Pathanamthitta, Kerala – 689673

ACCREDITED BY NAAC WITH 'B' GRADE

### **1.3.2 : Students projects for the academic year 2021-22**

#### **Projects of B.Sc Physics**

**CRITERION : 1**

**CURRICULAR ASPECTS**



# St. Thomas College, Ranni

## CERTIFICATE

This is to certify that the project entitled "**FIRE SENSING ALARM**" is a bona fide record of work done by **ABHIRAJ T R (190021041030)** at St. Thomas College, Ranni under Mahatma Gandhi University, Kottayam during the year 2021-2022 in partial fulfillment of requirement for the award of graduate degree in Physics.

*Soumya*  
**Ms. Soumyamol K.S.**  
Department of Physics

*Anju*  
**Mrs. Anju Joseph**  
(Head of the Department)



Internal Examiner

*Margaretty James*  
*Soumyamol k.s* *Soumya*

External Examiner

Date: *17/05/2022*

## CERTIFICATE

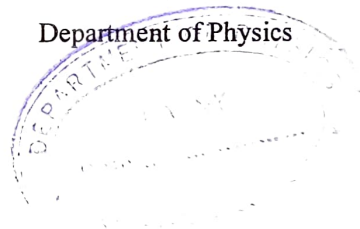
This is to certify that the project entitled '**Simple Two-Way Intercom System**' is a bonafide record of work done by **Abhirami Jayaraj** (Reg. No.: 190021041031) at Department of Physics, St. Thomas College, Ranni under Mahatma Gandhi University, Kottayam during the year 2019-2022 in partial fulfillment of requirement for the award of Bachelor Degree in Physics.



**Dr. Suresh M. K.**  
Asst. Professor  
(Project Guide)



**Mrs. Anju Joseph**  
Head of Department  
Department of Physics



Examiners:

*Marycenty James Tabbala*  
*Soumya K.S. Soumya*

Date:

*17/5/22*

## CERTIFICATE

This is to certify that the dissertation entitled “ **MOTION DETECTOR ALARM** “ was carried by **Ms.ANJANA P (190021021041032)** at **St.Thomas College,Ranni** under the guidance of **Ms. JISS VARGHESE**, Department of Physics, St. Thomas College, Ranni in partial fulfillment for the degree of **Bachelor of Science** during the year 2019-2022 of **Mahatma Gandhi University, Kottayam**.

Project Guide

  
**Ms. JISS VARGHESE**

**Department of Physics**

**St.Thomas College , Ranni**

Place : *Ranni*

Date : *17/5/22*

Internal Examiner

*Marykathy James Tadeo*

External Examiner

*Soumya md ks Soumya*

Date : *17/5/22*

## CERTIFICATE

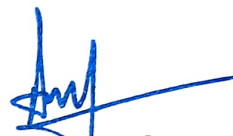
This is to certify that the project entitled 'Simple Two-Way Intercom System' is a bonafide record of work done by **Anson K.S.** (Reg. No.: 190021041033) at Department of Physics, St. Thomas College, Ranni under Mahatma Gandhi University, Kottayam during the year 2019-2022 in partial fulfillment of requirement for the award of Bachelor Degree in Physics.



**Dr. Suresh M. K.**

Asst. Professor

(Project Guide)



**Mrs. Anju Joseph**

Head of Department

Department of Physics

Examiners:

Mazykutty James Taseeb  
Soumyam k Soumya

Date:

17/5/22



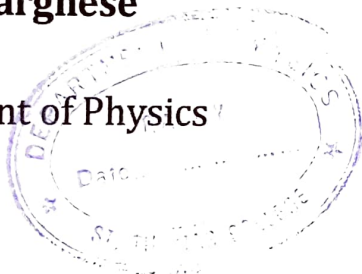
# St. Thomas College, Ranni

## CERTIFICATE

This is to certify that the project entitled "**SOLAR AUTOMATIC STREET LIGHT SYSTEM**" is a bona fide record of work done by **ARUN MOHAN (190021041034)** at St. Thomas College, Ranni under Mahatma Gandhi University, Kottayam during the year 2019-2022 in partial fulfillment of requirement for the award of graduate degree in Physics.


  
**Ms. Jiss Varghese**

Department of Physics



  
**Mrs. Anju Joseph**  
(Head of the Department)

Internal Examiner

  
Guided by  
**Ms. Jiss Varghese**

*Soumyamul K.S. Soumya*

External Examiner

*Marykelly James Tada*  
Date: *17/05/2022*



# ST THOMAS COLLEGE ,RANNY



## CERTIFICATE

This is to certify that the project entitled "RAIN DETECTION ALARM" is a bonafide record of work done by **GAYATHIRI RAJAGOPAL (190021041035)** at St. Thomas college, Ranny under Mahatma Gandhi University, Kottayam during the year 2019-2022 in partial fulfillment of requirement for the award of graduate degree in Physics.

Department of Physics

Mrs. Anju Joseph  
(Head of the department)

Internal Examiner

Guided by : *Greevalsa K*

*Marykitty James Tadas*  
*Sourya mei* *bs* *Sourya*  
External Examiner:

Date: 17-05-2022

## CERTIFICATE

This is to certify that the dissertation entitled "**WATER LEVEL INDICATOR USING TRANSISTER**" was carried by **Ms, JEENA P K (190021041037)** at St. Thomas College, Ranni under the guidance of Ms. **MARYKUTTY JAMES**, Department of Physics, St. Thomas College, Ranni in partial fulfillment for the degree of Bachelor of Science during the year 2019-2022 of Mahatma Gandhi University, Kottayam.

Project Guide

Taseeb  
**Ms. MARYKUTTY JAMES**

Department of Physics

St. Thomas College, Ranni

Place : Ranni

Date : 9/5/22

Internal Examiner

Marykutty James Taseeb  
Soumya ml ks Soumya

External Examiner

Date : 17/5/22



## CERTIFICATE

This is to certify that the project entitled '**Synthesis and Characterization of Bismuth Oxyiodide Nanostructures for Efficient Visible Light Active Photocatalytic Removal of Organic Dyes from Waste Water**' is a bona fide record of work done by **NANDHU S NAIR** (Reg. No: 190021041038) at St. Thomas College, Ranni under Mahatma Gandhi University, Kottayam during the year 2019-2022 in partial fulfillment of requirement for the award of graduate degree in physics.



*Mrs. Anju Joseph*

Head of Department

(Teacher in charge)



*Mrs. Anju Joseph*

Head of Department

Department of Physics

Internal Examiner

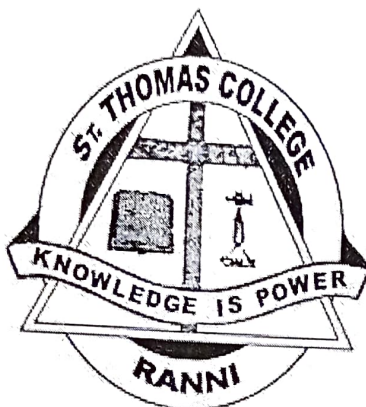
Marylcent, James ~~T~~  
Saimya mull k.s Saimya

Guided by

Mrs. Anju Joseph

# ST THOMAS COLLEGE

## RANNI



## PROJECT REPORT

### A STUDY OF WAVELENGTH DEPENDENT CHARACTERISTICS OF A PHOTODIODE

Submitted in the partial fulfillment of the requirement of Bachelors degree in Physics

SUBMITTED BY

SARANYA P KUMAR

Reg No : 190021041040

EXAMINERS

1. *Dr. Marykutty James* *Tash*
2. *Sourya mal* *K-S* *Sourya*

PROFESSOR IN CHARGE

JOBIN JOSE MATHEW

## CERTIFICATE

This is to certify that the dissertation entitled “ **MOTION DETECTOR ALARM** “ was carried by **Ms.SHIJI MOL S(190021021041041)** at **St.Thomas College,Ranni** under the guidance of **Ms. JISS VARGHESE**, Department of Physics, St. Thomas College, Ranni in partial fulfillment for the degree of **Bachelor of Science** during the year 2019-2022 of **Mahatma Gandhi University, Kottayam**.

Project Guide

  
**Ms. JISS VARGHESE**

**Department of Physics**

**St.Thomas College , Ranni**

Place : Ranni

Date : 9/5/22

Internal Examiner

Marykitty James Taseb  
Sounya ml k.s Sounya

External Examiner

Date : 17/5/22

# ST THOMAS COLLEGE ,RANNY



## CERTIFICATE

This is to certify that the project entitled "RAIN DETECTION ALARM" is a bonafide record of work done by **AKHIL KRISHNAN S (190021041042)** at St. Thomas college, Ranny under Mahatma Gandhi University, Kottayam during the year 2019-2022 in partial fulfillment of requirement for the award of graduate degree in Physics.

Department of Physics

Mrs. Anju Joseph  
(Head of the department)

Internal Examiner

Guided by : Sreevalsak

Dr. Maryjudy James  
Sreevalsak  
External Examiner: Sreevalsak

Date: 17-05-2022

## CERTIFICATE

This is to certify that the project entitled '**Synthesis and Characterization of Bismuth Oxyiodide Nanostructures for Efficient Visible Light Active Photocatalytic Removal of Organic Dyes from Waste Water**' is a bona fide record of work done by **ARAVINDKRISHNA G** (Reg. No: 190021041043) at St. Thomas College, Ranni under Mahatma Gandhi University, Kottayam during the year 2019-2022 in partial fulfillment of requirement for the award of graduate degree in physics.



*Mrs. Anju Joseph*

Head of Department

(Teacher in charge)



*Mrs. Anju Joseph*

Head of Department

Department of Physics

Internal Examiner

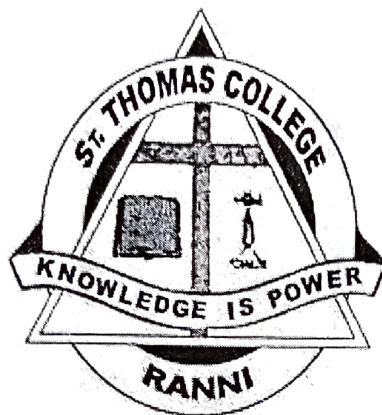
Marykatty James Tally  
Sourya ml k's Sourya

Guided by

Mrs. Anju Joseph

# ST THOMAS COLLEGE

## RANNI



## PROJECT REPORT

### A STUDY OF WAVELENGTH DEPENDENT CHARACTERISTICS OF A PHOTODIODE

Submitted in the partial fulfillment of the requirement of Bachelors  
degree in Physics

SUBMITTED BY

GAYATHRI B

Reg No : 190021041044

EXAMINERS

1. Marykethy James Tadef
2. Sanyas mol 123 Sanyas

PROFESSOR IN CHARGE

JOBIN JOSE MATHEW





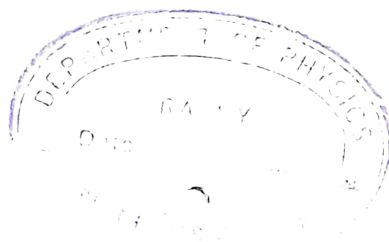
# St. Thomas College, Ranni

## CERTIFICATE

This is to certify that the project entitled "**SOLAR AUTOMATIC STREET LIGHT SYSTEM**" is a bona fide record of work done by **JOBIN J JOHN (190021041045)** at St. Thomas College, Ranni under Mahatma Gandhi University, Kottayam during the year 2019-2022 in partial fulfillment of requirement for the award of graduate degree in Physics.

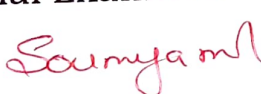
  
**Ms. Jiss Varghese**

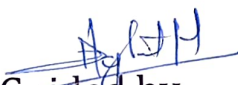
Department of Physics



  
**Mrs. Anju Joseph**  
(Head of the Department)

Internal Examiner

 **Soumya M. K. S.**

  
Guided by

**Ms. Jiss Varghese**

External Examiner

 **Marylucy James**

Date:

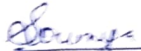
 **17/5/22**



# St. Thomas College, Ranni



## CERTIFICATE

This is to certify that the project entitled "**FIRE SENSING ALARM**" is a bona fide record of work done by **KRISHNA PRABHA S (190021041046)** at St. Thomas College, Ranni under Mahatma Gandhi University, Kottayam during the year 2021-2022 in partial fulfillment of requirement for the award of graduate degree in Physics.

  
**Ms. Soumyamol K.S.**  
Department of Physics

  
**Mrs. Anju Joseph**  
(Head of the Department)

Internal Examiner

  
  
External Examiner

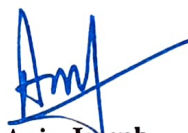
Date: 

## CERTIFICATE

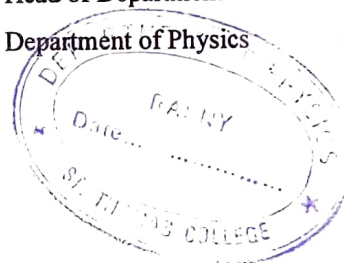
This is to certify that the project entitled 'Simple Two-Way Intercom System' is a bonafide record of work done by **MEGHA** (Reg. No: 190021041047) at Department of Physics, St. Thomas College, Ranni under Mahatma Gandhi University, Kottayam during the year 2019-2022 in partial fulfillment of requirement for the award of Bachelor Degree in Physics.



**Dr. Suresh M. K.**  
Asst. Professor  
(Project Guide)



**Mrs. Anju Joseph**  
Head of Department  
Department of Physics



Examiners:

Margherita James Trebb  
Soumyam k s Soumya

Date:

17/5/22

## CERTIFICATE

This is to certify that the project entitled '**Synthesis and Characterization of Bismuth Oxyiodide Nanostructures for Efficient Visible Light Active Photocatalytic Removal of Organic Dyes from Waste Water**' is a bona fide record of work done by **NANDANA MURALEEDHARAN** (Reg. No: 190021041048) at St. Thomas College, Ranni under Mahatma Gandhi University, Kottayam during the year 2019-2022 in partial fulfillment of requirement for the award of graduate degree in physics.



*Mrs. Anju Joseph*

Head of Department

(Teacher in charge)



*Mrs. Anju Joseph*

Head of Department

Department of Physics

Internal Examiner

Guided by

Mrs. Anju Joseph

Marylcenty James ~~Teacher~~  
Souryaal ml k.s. ~~Teacher~~



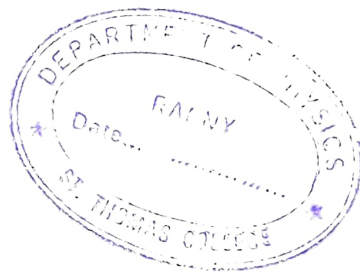
# St. Thomas College, Ranni

## CERTIFICATE

This is to certify that the project entitled "**FIRE SENSING ALARM**" is a bona fide record of work done by **SHARU JOSEPH (190021041049)** at St. Thomas College, Ranni under Mahatma Gandhi University, Kottayam during the year 2021-2022 in partial fulfillment of requirement for the award of graduate degree in Physics.

*Soumya*  
**Ms. Soumyamol K.S.**  
Department of Physics

*Anju*  
**Mrs. Anju Joseph**  
(Head of the Department)



Internal Examiner

*Marykathy James*

*Soumyamol K.S. Soumya*  
External Examiner

Date: *17/5/22*



## CERTIFICATE

This is to certify that the dissertation entitled "**WATER LEVEL INDICATOR USING TRANSISTER**" was carried by **Mr. SREERAJ K J (190021041051)** at St. Thomas College, Ranni under the guidance of Ms. MARYKUTTY JAMES, Department of Physics, St. Thomas College, Ranni in partial fulfillment for the degree of Bachelor of Science during the year 2019-2022 of Mahatma Gandhi University, Kottayam.

Project Guide

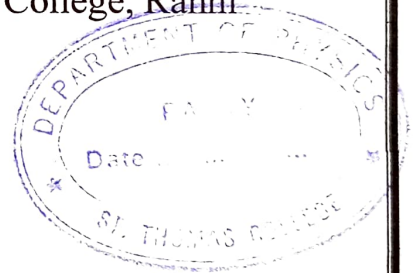
**Ms. MARYKUTTY JAMES**

Department of Physics

St. Thomas College, Ranni

Place : Ranni

Date : 10/5/22



Internal Examiner

Marykutty James Tadakk  
Sourya M K-S Sourya

External Examiner

Date : 17/5/22



# CERTIFICATE

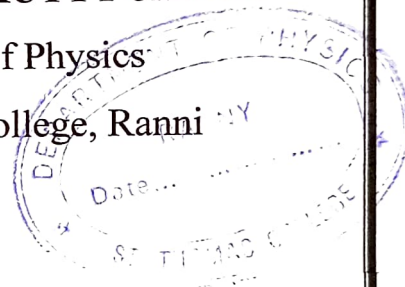
This is to certify that the dissertation entitled "**WATER LEVEL INDICATOR USING TRANSISTER**" was carried by **Ms, SURYA S T (190021041052)** at St. Thomas College, Ranni under the guidance of Ms. **MARYKUTTY JAMES**, Department of Physics, St. Thomas College, Ranni in partial fulfillment for the degree of Bachelor of Science during the year 2019-2022 of Mahatma Gandhi University, Kottayam.

Project Guide

  
**Ms. MARYKUTTY JAMES**

Department of Physics

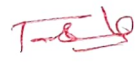
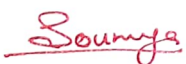
St. Thomas College, Ranni



Place : Ranni

Date : 10/5/22

Internal Examiner

Marykutty James   
Soumya mal k s 

External Examiner

Date : 17/5/22


# ST THOMAS COLLEGE ,RANNY



## CERTIFICATE

This is to certify that the project entitled "RAIN DETECTION ALARM" is a bonafide record of work done by **THARESH M (190021041053)** at St. Thomas college, Ranny under Mahatma Gandhi University, Kottayam during the year 2019-2022 in partial fulfillment of requirement for the award of graduate degree in Physics.

Department of Physics

Mrs. Anju Joseph   
(Head of the department)

Internal Examiner

*Marykitty James Taseley*

Guided by: *Sreevalsak* 

External Examiner:

*Sorenya mol K S*

*Sorenya*

Date: 17-05-2022