

Mangalore



University

## DEPARTMENT OF MATERIALS SCIENCE


Mangalore University (Accredited by NAAC)

Mangalagangothri, Konaje-574199

### CERTIFICATE

Certified that the Project work entitled "PREPARATION AND CHARACTERIZATION OF POLYIMIDE FILM" is a bonafide work carried out by Mr.Arun John under the guidance of Dr. Vishwanath T., Assistant Professor of Materials Science, Mangalore University, Mangalagangothri. The report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the course.

Date: 30.09.2022.

  
Dr.Vishwanath T  
Project Guide

  
Dr.Manjunatha Pattabi

Chairman

Chairman  
Department of Materials Science  
Mangalore University  
MANGALAGANGOTRI-574199



**MANGALORE UNIVERSITY**

**Dr. Thirumaleshwara N Bhat**  
**DST-Inspire Faculty**  
**Department of Materials Science,**  
**Mangalore University**  
**Mangalagangothri-574199**

**CERTIFICATE**

This is to certify that the review work presented in the dissertation entitled **“POLYMER BASED TiO<sub>2</sub> HYBRID LAYERS FOR PEROVSKITE SOLAR CELLS”** by Glaston sushanth Fernandes and Deeksha R, submitted as thereport of the mini project for the degree, Master of Science in Materials Science was carried out under my guidance. The present work or any part thereof has not been submitted to any other university for the award of anyother degree or diploma.

Place: Mangalagangothri  
Date:

*Thiru Bhat*  
**Dr. Thirumaleshwara N Bhat**  
**(Supervising Guide)**

**Dr. Manjunatha Pattabi**  
**Chairman**  
**Department of Materials Science**



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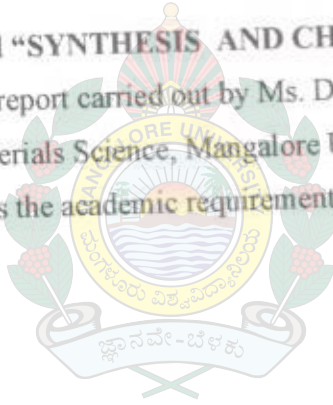
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Mangalagangothri, Dakshina Kannada-574199

**CERTIFICATE**

Certified that the Project work entitled "**SYNTHESIS AND CHARACTERIZATION OF ZnO THIN FILMS**" is a literature review report carried out by Ms. Deepthi A under the guidance of Prof. Manjunatha Pattabi, Chairman of Materials Science, Mangalore University, Mangalagangothri. The report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the course.

Date 26/10/22



  
Prof. Manjunatha Pattabi  
Project Guide



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Mangalagangothri, Dakshina Kannada-574199

**CERTIFICATE**

Certified that the Project work entitled "**SYNTHESIS AND CHARACTERIZATION OF ZnO THIN FILMS**" is a literature review report carried out by Ms. Farzeena Shareen under the guidance of Prof. Manjunatha Pattabi, Chairman of Materials Science, Mangalore University, Mangalagangothri. The report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the course.

Date 08-10-22

Prof. Manjunatha Pattabi  
Project Guide

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Mangalagangothri, Konaje-574199

**CERTIFICATE**

Certified that the Project work entitled "PREPARATION AND CHARACTERIZATION OF POLYIMIDE FILM" is a bonafide work carried out by Mr.Jagannatha K.V under the guidance of Dr. Vishwanath T., Assistant Professor of Materials Science, Mangalore University, Mangalagangothri. The report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the course.

Date: 30.09.2022

  
Dr.Vishwanath T

Project Guide

  
Dr.Manjunatha Pattabi

Chairman

Chairman  
Department of Materials Science  
Mangalore University  
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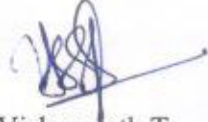
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**CERTIFICATE**

Certified that the Project work entitled “**PREPARATION AND CHARACTERIZATION OF POLYIMIDE FILM**” is a bona fide work carried out by Ms. Shreedevi under the guidance of Dr. Vishwanath T., Assistant Professor of Materials Science, Mangalore University, Mangalagangothri. The report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the course.

Date:

  
Dr. Vishwanath T

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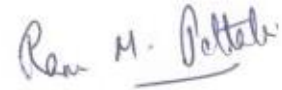
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### CERTIFICATE

This is to certify that the Project work entitled "SYNTHESIS AND CHARACTERISATION OF CdS AND CdS/ZnS CORE-SHELL NANOPARTICLES AND ITS APPLICATION ON PHOTODEGRADATION OF DYE" by VAISHNAVI B AND SREELAKSHMI T submitted as the report of the mini project for the degree, Master of Science in Materials Science. The report has been approved as it satisfies the academic requirements in respect of the Project work prescribed for the course.

Date: 30-09-2022

Place: Mangalagangothri



Dr. Rani M Pattabi

Assistant Professor

Department of Materials Science

  
Prof. Manjanatha Pattabi

Chairman

Department of Materials science