



DEPARTMENT OF PHYSICS
M.E. S ASMABI COLLEGE
P. VEMBALLUR, KODUNGALLUR
KERALA INDIA
CERTIFICATE

This is to certify that the project report entitled “**Synthesis and Characterization of MXene and MXene/Nickel Vanadium Layered Double Hydroxide Composite for Electrochemical Sensing of Glucose**” submitted to the Department of Physics, MES Asmabi College, Kodungallur in partial fulfilment of the requirement for the award of the Degree of “**MASTER OF SCIENCE**”, is a record of original research work done by **Anjali Sudheer**, MES ASMABI COLLEGE and Department of Nanoscience and Technology, Bharathiar University, Coimbatore during April 2023 to May 2023. The project work has not formed the basis for the award for any Degree/ Fellowship/ other similar title to any candidate to any College/ University.

SIGNATURE OF THE GUIDE

HEAD OF THE DEPARTMENT

PRINCIPAL

SUBMITTED FOR VIVA - VOICE EXAMINATION HELD ON:

EXTERNAL EXAMINER

- 1) Kavitha M V
- 2) Preetha.k.c



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MES ASMABI COLLEGE
P. VEMBALLUR - 680671
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This is to certify that the dissertation entitled **QUANTUM TRANSPORT IN A FANO-ANDERSON CHAIN** is a record of work done by **ANNAMARY DAVIS** (Reg. No. **AIAVMPH002**) at Christ College, Irinjalakuda under the guidance of Dr Ajith R, in partial fulfilment of the requirements for the award of Master of Science in Physics of Department of Physics, M.E.S Asmabi College, Calicut University during the period of March (2022) - July (2023).

Head of Department

Dr. Sheena P A

Associate Professor

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P. Vemballur

Internal Examiner

Certified that the candidate, **ANNAMARY DAVIS** (Reg. No. **AIAVMPH002**) was examined in the project viva examination held on 07/02/23 ' .

External Examiners:

1. Kavitha M V Sheela
2. Praetha. K C Preetha





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CERTIFICATE

This is to certify that the dissertation entitled **Solvothermal Synthesis of ZnS and Mnzns Nanoparticles** is a bonafide record work done by **Ashwini K Uthaman** (AIAVMPH003) at KKTU Govt. College, Pullut under the guidance of **Ms. Sabitha P V** in partial fulfilment of the requirements for the award of Master of Science in Physics of Department of Physics, M.E.S Asmabi College), Calicut University during the period of March (2021) – July (2022).

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This is to certify that the project entitled "STRUCTURAL AND OPTICAL PROFILING OF Sn AND Mo CO DOPED Nb₂O₅" is a bona fide record of the research of the research work done by FATHIMA ABBAS VK (Reg No: ALAVMPH004) has been carried out under the supervision of Dr. JAYARAM P (Assistant professor of MES Ponnani College) during the academic year 2021-2023 towards the partial fulfilment of the requirements for the award of the degree of the master of science of the university of Calicut



Head of the department

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2. Preetha K C *Preetha*





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CERTIFICATE

This is to certify that the dissertation entitled "GREEN SYNTHESIS OF SILVER NANOPARTICLES USING BROWNEA GRANDICEPS FLOWER EXTRACT AND THEIR NONLINEAR OPTICAL STUDIES" is a bonafide record of work done by FATHIMA YOUSAF(AIAVMPH005) at St. Joseph's college Irinjalakuda under the guidance of Dr. Binoy Anand partial fulfilment of the requirement for the award of Master of Science in Physics from University of Calicut during the period of March 2022 to July 2023.

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This is to certify that the dissertation entitled "EFFECT OF CALCINATION AND CERIUM DOPING ON THE PROPERTIES OF TiO_2 NANOPARTICLES" is a bonafide record of work done by HARITHA PP (AIAVMPH006) at M.E.S Asmabi College, P.Vemballur under the guidance of Dr Sheena PA in partial fulfillment of the requirements for the award of Master of Science in Physics of Department of Physics, M.E.S Asmabi College, Calicut University during the period of March (2022) – August (2023).

Head of Department

Dr. Sheena P A



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This is to certify that the dissertation entitled " FABRICATION OF HIGH SURFACE AREA AMORPHOUS CARBON BASED ELECTRODES FOR EDLC APPLICATIONS " is a bonafide record work done by MAIMUNATH P.S(AIAVMPH007) at Christ college, Irinjalakkuda. Under the guidance of Dr. Dijo Damien in partial fulfilment of the requirements for the award of Master of science in Physics of Department Physics, MES Asmabi college , Calicut University during the period of March (2021) – July (2022).

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This is to certify that the dissertation entitled "GREEN SYNTHESIS AND CHARACTERIZATION OF Ag-rGO WITH IMPROVED DYE REMOVAL EFFEICENCY" is a bonafide record of work done by NUBLA. P. R (AIAVMPH008) at M.E. S Asmabi College, P.Vemballur under the guidance of Dr N.K. Deepak, in partial fulfilment of the requirements for the award of Master of Science in Physics of Department of Physics, M.E.S Asmabi College), Calicut University during the period of March (2022) – July (2023).

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CERTIFICATE

This is to certify that the dissertation entitled "GREEN SYNTHESIS OF SILVER NANOPARTICLES USING SCLECHERA OLEOSA PLANT EXTRACT AND THEIR NONLINEAR OPTICAL STUDIES" is a bonafide record of work done by **PARVATHY A M (AIAVMPH010)** at St. Joseph's college Irinjalakuda under the guidance of **Dr. BENOY ANAND** in partial fulfilment of the requirement for the award of Master of Science in Physics from University of Calicut during the period of March 2022 to July 2023.

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- 2) Preetha K C *Preetha*



CERTIFICATE

This is to certify that the project report entitled "SYNTHESIS OF NATURAL DYES AND CARBON DOT VIA GREEN PROTOCOL" Submitted to the Calicut University, in partial fulfillment of the requirement for the award of the degree of Master of Science in Physics is a record of the original work by RISANA AZEEM.S (AIAVMPH011) under the guidance of Dr. RAJITA RAMANARAYANAN, Associate professor, Department of Physics, Government Victoria College, Palakkad, Kerala, during the year 2021-2023.

Place:

Examiners:

Date:

1. Kavitha M V *Kavitha*
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CERTIFICATE

This is to certify that the dissertation entitled "**Synthesis and Characterization of ZnO Nano Particles**" is a bonafide record work done by **Simiya T M (AIAVMPH012)** at **KKTM Govt. College, Pullut** under the guidance of **Dr. Dhanya. N.P** in partial fulfilment of the requirements for the award of Master of Science in Physics of Department of Physics, M.E.S Asmabi College), Calicut University during the period of March (2021) – July (2022).

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This is to certify that the dissertation entitled "EFFECT OF LANTHANUM DOPING ON THE PROPERTIES OF TiO_2 NANOPARTICLES" is a bonafide record of work done by SNEHA.V (AIAVMPPH013) at M.E.S Asmabi College, P.Vemballur under the guidance of Dr Sheena PA in partial fulfillment of the requirements for the award of Master of Science in Physics of Department of Physics, M.E.S Asmabi College, Calicut University during the period of March (2022) – August (2023).

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This is to certify that the dissertation entitled "Effect of tin doping on the structural and optical properties of beta gallium oxide" is a bonafide record of work done by THWAYYIBA FARSANA K A (AIAVMPH014) at MG University Campus under the guidance of Dr. Saritha A C in partial fulfilment of the requirement for the award of Master of Science in Physics from University of Calicut during the period of April 2023 to May 2023.

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