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DEPARTMENT OF PHYSICS GOVERNMENT COLLEGE KASARAGOD

VIDYANAGAR, KASARAGOD-671123

PROJECT REPORT

ON

NUMERICALLY SOLVING SCHRODINGER EQUATION USING SCILAB

Project report submitted for the Bachelor of Science in Physics of

Kannur University

Submitted by

NAVANEETH SHETTY B (GK20CPHR20) VISMAYA K (GK20CPHR35)

> Name and Signature of the Principal Dr.Ananthapadmanabha.A.L

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This is to certify that this project report entitled "Numerically solving Schrodinger equation using Scilab" is the bonafide work of **Navaneeth Shetty B**, Reg. No: GK20CPHR20, **Vismaya K**, Reg no: GK20CPHR35, Department of Physics, Government College Kasaragod, who carried out the project work under my supervision

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VIDYANAGAR , KASARAGOD- 671123

"EXOPLANET DETECTION AND CHARACTERIZATION USING LIGHTKURVE"

Project Report Submitted for the Degree of Bachelor of Science in Physics of Kannur University

SUBMITTED BY :

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This is to certify that, Mrs. Nandana .K. I reg.GK20CPHR37 has satisfactorily completed that project report entitled **"EXOPLANET DETECTION AND CHARACTERIZATION USING LIGHTKURVE"** is the original work carried out by her under the guidance of **Dr. JIJO P ULAHANNAN** and the original work submitted in the partial fulfillment of the required for the award of Degree of Bachelor of Science in Physics of the Kannur University Kerala.

Dr. JIJO P ULAHANNAN Head, Dept. of Physics Head of the department of physics Vidyonagar - 671123 Govt. college Kasaragod in

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DEPARTEMENT OF PHYSICS

GOVERNMENT COLLEGE KASARAGOD

VIDYANAGAR, KASARAGOD- 671123

"EXOPLANET DETECTION AND CHARACTERIZATION USING LIGHTKURVE"

Project Report Submitted for the Degree of Bachelor of Science in Physics of Kannur University

SUBMITTED BY :

SNEHA SATHEESH K

GK20CPHR17



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OVERNMENT COLLEGE KASARAGOT



SYNTHESIS AND CHARACTERIZATION OF NICKEL FERRITE (NIFe₂O₄) NANOPARTICLES USING SOL-GEL AUTO-COMBUSTION METHOD

A PROJECT REPORT

Submitted to Kannur University

In partial fulfillment of the award of the degree of

MASTER OF SCIENCE IN PHYSICS

SUBMITTED BY

AKHILA SANEESH

Reg.No:COPSCN1002

UNDER THE GUIDANCE OF

Dr. SUBHA A.

Assistant Professor

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This is to certify that this project report entitled 'SYNTHESIS AND CHARACTERIZATION OF NICKEL FERRITE NANOPARTICLES USING SOL-GEL AUTO-COMBUSTION METHOD' is the bonafide work of AKHILA SANEESH, Reg. No: COPSCN1002, Department of Physics, Government College, Kasaragod who carried out the project work under my supervision.

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Submitted at the viva-voce examination held on 22/11/2022

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Name and Signature of the Principal Dr.Ananthapadmanabha.A.L

PRINCIPAN MENT COLL KASARAGOT

A QUANTITATIVE ANALYSIS OF SEDIMENT SAMPLES FOR THE INVESTIGATION OF THE PRESENCE OF HEAVY METALS: A CASE STUDY AT VALAPATTANAM RIVER, KERALA, INDIA

A PROJECT REPORT

Submitted to Kannur University

in partial fulfillment of the award of the degree of

MASTER OF SCIENCE IN PHYSICS

(Computational & Nanoscience)

SUBMITTED BY

ATHIRA V.

Reg. No.: C0PSCN1004

UNDER THE GUIDANCE OF

Dr. VINEETHKUMAR V.

Assistant Professor Department of Physics, Government College Kasaragod



DEPARTMENT OF PHYSICS,

GOVERNMENT COLLEGE KASARAGOD, VIDYANAGAR

NOVEMBER, 2022



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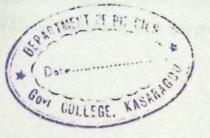
EOVERNMENT COLLEGE KASARAGOT

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This is to certify that this project report entitled 'A QUANTITATIVE ANALYSIS OF SEDIMENT SAMPLES FOR THE INVESTIGATION OF THE PRESENCE OF HEAVY METALS: A CASE STUDY AT VALAPATTANAM RIVER, KERALA, INDIA' is the bonafide work of ATHIRA V., Reg. No.: COPSCN1004, Department of Physics, Government College Kasaragod who carried out the project work under my supervision.

Dr. Vineethkumar

(Project Supervisor)



Dr. Jijo P. U. Associate Professor & Head Department of Physics Government College Kasaragod

Kasaragod 18.11.2022

Submitted at viva-voce examination held on/..../2022

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> COVERNMENT COLLEGE KASARAGOT

RATE EQUATION MODELLING OF NON-LINEAR DYNAMICS IN DIRECTLY MODULATED MULTIPLE QUANTUM WELL LASER

Project report submitted to the University of Kannur In partial fulfillment of the requirements of the Degree of Master of Science in Physics with Computational and Nano Science Program

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This is to certify that the dissertation work on "Rate Equation Modelling of Nonlinear Dynamics in Directly Modulated Multiple Quantum Well Laser" is bonafide piece of project work done by DRISYA P (Reg.No: COPSCN1005) under the guidance of Dr. Jijo P.U, Government College Kasaragod, in partial fulfillment of the Award of the Degree of Master of Science in Physics with Computational and Nano Science Program the academic year 2020-2022.



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Submitted at the viva-voce examination held on ---/--/2022

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SYNTHESIS, MAGNETIC STUDIES AND STRUCTURAL CHARACTERIZATION OF NICKEL FERRITE NANOPARTICLES

A PROJECT REPORT

Submitted to Kannur University in partial fulfillment of the award of the degree of

MASTER OF SCIENCE IN PHYSICS

SUBMITTED BY

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DECLARATION

I, hereby declare that this dissertation in my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person nor material which has been accepted for the award of any other degree or diploma of the university of other institute of higher learning except where due acknowledgement has been made in the text.

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Date: 22-11-2022

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2nd Msc Physics Government College Kasaragod

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This is to certify that this project report entitled "SYNTHESIS, MAGNETIC STUDIES AND STRUCTURAL CHARACTERIZATION OF NICKEL FERRITE NANOPARTICLES" is a bonafide work carried out by Kavya M.V., Reg.No:COPSCN1006, Department of Physics, Government College Kasaragod in partial fullfilment of the requirement for the award of the degree of Master of Science in Physics under my guidence.

(Signature) Project Supervisor **Dr.SUBHA A.** Assistant Professor Department of Physics Government College Kasaragod

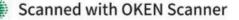
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Submitted for the Viva-voice examination held on/2022

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A STUDY OF THE DYNAMICAL FEATURES OF GRAPHENE USING DENSITY FUNCTIONAL THEORY

Project report submitted to the University of Kannur In partial fulfillment of the requirments of the Degree of

Master of Science in Physics with Computational and Nano Science Programme

KHADEEJATH NUJAIMA E K COPSCN1007



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November 2022

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This is to certify that project entitled "A STUDY OF THE DYNAMICAL FEATURES OF GRAPHENE USING DENSITY FUNCTIONAL THEORY " is bonafide piece of project work done by KHADEEJATH NUJAIMA E K (Reg.NoCOPSCN1007) during the period of study 2020-2022 as partial fulfillment of the requirement for the award of degree of Master of Science in Physics with Computational and Nano Science Programme under my supervision and guidance.

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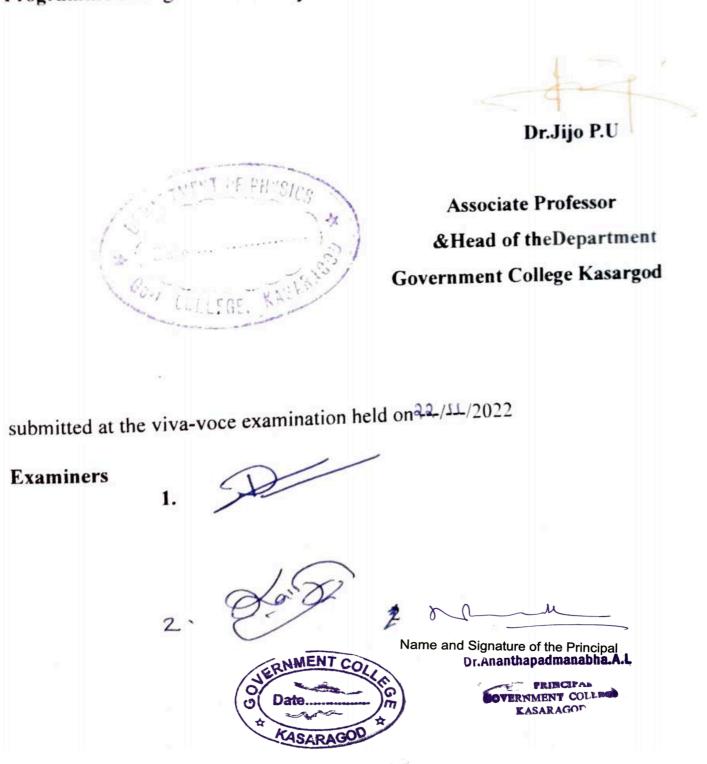
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SYNTHESIS AND STRUCTURAL STUDY OF NICKEL FERRITE (NiFe₂O₄) NANOPARTICLES BY SOL-GEL AUTO-COMBUSTION METHOD A PROJECT REPORT

Submitted to Kannur University in partial fulfillment of the award of the degree of

MASTER OF SCIENCE IN PHYSICS SUBMITTED BY NIMISHA K. V. Reg.No:C0PSCN1008

UNDER THE GUIDANCE OF Dr. SUBHAA.

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This is to certify that this dissertation titled "SYNTHESIS AND STRUCTURAL STUDY OF NICKEL FERRITE NANOPARTICLES" is a bonafide work carried out by NIMISHA K.V.,Reg. No: COPSCN1008, Department of Physics, Government College, Kasaragod in partial fulfilment of the requirement for the award of the degree of Master of Science in Physics under my guidance.

(Signature) Project Supervisor Dr. SUBHA A. Assistant Professor Department of Physics Government College, Kasaragod

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Name and Signature of the Principal Dr.Ananthapadmanabha.A.L

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COEXISTENCE PHASE IN VAN DER WAALS FLUID

PROJECT REPORT

submitted to Kannur University In practical fulfillment of the requirements for the award of the Degree of

> MASTER OF SCIENCE IN PHYSICS

> > submitted by

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Certified that work incorporated in the project entitled 'COEXISTENCE PHASE IN VAN DER WAALS FLUID' is the bonafide work done by NIMISHA M (Reg. no :COPSCN1009)under the guidance of Dr. AHMED RIZWAN C.L., Department of physics, Government college Kasaragod,towards the partial fulfillment of the requirement for the award of the Master of Science in Physics during the period 2020-2022

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DEPARTMENT OF PHYSICS GOVERNMENT COLLEGE KASARAGOD VIDYANAGAR, KASARAGOD-671123

PROJECT REPORT ON SWALLOW TAIL BEHAVIOUR OF GIBBS FREE ENERGY

Project report submitted for the Master of science in physics of Kannur University

Submitted by

PRITHVI P B (C0PSCN1010)





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FRINCIPAL COVERNMENT COLLEGE KASARAGOT

ANALYSIS OF HEAVY METAL DISTRIBUTION AND PHYSICO-CHEMICAL PARAMETERS IN GROUNDWATER SOURCES OF PAYYANUR MUNCIPALITY, KANNUR DISTRICT, KERALA

A PROJECT REPORT

Submitted to Kannur University

in partial fulfillment of the award of the degree of

MASTER OF SCIENCE IN PHYSICS

(Computational & Nanoscience)

SUBMITTED BY

SAPNA K. V.

Reg. No.: C0PSCN1011

UNDER THE GUIDANCE OF

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NOVEMBER, 2022

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This is to certify that this project report entitled 'ANALYSIS OF HEAVY METAL DISTRIBUTION AND PHYSICO-CHEMICAL PARAMETERS IN GROUNDWATER SOURCES OF PAYYANUR MUNCIPALITY, KANNUR DISTRICT, KERALA' is the bonafide work of SAPNA K. V., Reg. No: C0PSCN1011, Department of Physics, Government College Kasaragod who carried out the project work under my supervision.

Dr. Vineethkumar V. (Project Supervisor)

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Dr. Jijo P. U.

Associate Professor & Head Department of Physics Government College Kasaragod

Submitted at viva-voce examination held on/..../2022

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PREPARATION AND CHARACTERIZATION OF NICKEL FERRITE NANOPARTICLES USING **SOL-GEL AUTO-COMBUSTION METHOD**

PROJECT REPORT

Submitted to Kannur University In partial fulfilment of the award of the degree of

MASTER OF SCIENCE IN PHYSICS

SUBMITTED BY

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This is to certify that this dissertation titled "PREPARATION AND CHARACTERIZATION OF NICKEL FERRITE NANOPARTICLES USING SOL-GEL AUTO-COMBUSTION METHOD" is a bonfide work carried out by SREYA K., Reg. No: COPSCN1012, Department of Physics, Government College, Kasaragod in partial fulfilment of the requirement for the award of the degree of Master of Science in physics under my guidance.

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Place: Kasaragod Date: 22/11/2022

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> FRINCIPAN COVERNMENT COLLEGE KASARAGOT

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ASARAG

ASSESSMENT OF EXCESS LIFETIME CANCER RISK DUE TO NATURAL RADIOACTIVITY IN THE COASTAL ENVIRONMENT OF AZHITHALA, KASARAGOD DISTRICT, KERALA

A PROJECT REPORT

Submitted to Kannur University in partial fulfillment of the award of the degree of

MASTER OF SCIENCE IN PHYSICS

(Computational & Nanoscience)

SUBMITTED BY

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NOVEMBER, 2022



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This is to certify that this project report entitled 'ASSESSMENT OF EXCESS LIFETIME CANCER RISK DUE TO NATURAL RADIOACTIVITY IN THE COASTAL ENVIRONMENT OF AZHITHALA, KASARAGOD DISTRICT, KERALA' is the bonafide work of ROHITH K., Reg. No.: COPSCN1001, Department of Physics, Government College, Kasaragod who carried out the project work under my supervision.

Dr. Vineethkumar V. (Project Supervisor)

Kasaragod 18.11.2022

Dr. Jijo P. U.

Associate Professor & Head Department of Physics Government College Kasaragod

Submitted at viva-voce examination held on/2022

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