



THE ASSAM
ROYAL GLOBAL UNIVERSITY
— GUAHATI —

CRITERION 1

CURRICULAR ASPECTS

METRIC NO.
1.3.3

B.Sc. (H) Physics

Field Work / Research Project / Internship



A study on
Electromagnetically Induced Transparency Effect in Terahertz Waveguide Structure
A report submitted in partial fulfilment of the requirements for the degree of Bachelors of
science



Submitted By

Name: Kaustav Basumatary

School: Royal School of Applied and Pure Sciences

Department: Physics

Programme: Bachelor of Science

Registration No: 1190034

Roll No: 192012002

Under the supervision of

Dr. Maidul Islam

Assistant Professor



DEPARTMENT OF PHYSICS
CERTIFICATE OF APPROVAL

I hereby recommend that the project report prepared under my supervision by **Dr. Maidul Islam** titled **“Electromagnetically induced transparency effect in terahertz waveguide structure”** Be accepted in a partial fulfillment of the requirements for the degree of Bachelor of Science.

Date :05-08-2022

Place: Guwahati

Dr. Maidul Islam

Assistant Professor

Department of Physics

RSAPS, RGU



THE ASSAM

ROYAL GLOBAL UNIVERSITY

Study of Mueller Polarimetry

A Report submitted in partial fulfilment of the requirements for the degree of

Bachelor of Science

Offered by

Royal School of Applied and Pure Sciences

Submitted by:

Name: Rohini Gupta

School: Royal School of Applied and Pure Sciences

Department: Physics

Programme: Bachelor of science

Registration no: 1193007

Roll No: 192012005

Under The Supervision of

Dr. Gitanjal deka

Assistant Professor,

Department of Physics.

Royal School of Applied and Pure Sciences

The Assam Royal Global University



ROYAL GLOBAL UNIVERSITY
GUWAHATI

Royal School of Applied & Pure Sciences
Royal Global University, Guwahati

CERTIFICATE OF APPROVAL

I hereby recommend that the Project report prepared under my supervision and guidance by “Miss Rohini Gupta” titled “*A study of Mueller Polarimetry*” be accepted in partial fulfilment of the requirements for the degree of Bachelor of Science in Physics as major subject, under Royal School of Applied and Pure Sciences of The Assam Royal Global University.

Date: 5/8/2022

Place: Guwahati

Dr. Gitanjal Deka
Assistant Professor
Department of Physics
(RSAPS)



THE ASSAM

ROYAL GLOBAL UNIVERSITY

“Dark Energy from relativistic Newtonian gravity”

A report submitted in partial fulfillment of the requirements for the degree of

Bachelor of Science in Physics

Offered by

ROYAL SCHOOL OF APPLIED & PURE SCIENCES

Submitted by:

Krit Khemka

Registration No.: **1200098**

Roll No.: **202012001**

Under the supervision of

Dr. Gitanjal Deka

Assistant Professor,

Department of Physics.

Royal School of Applied and Pure Sciences

The Assam Royal Global University



THE ASSAM

ROYAL GLOBAL UNIVERSITY

DEPARTMENT OF PHYSICS
ROYAL GLOBAL UNIVERSITY, GUWAHATI

CERTIFICATE OF APPROVAL

I hereby certify that the Project entitled "Dark Energy from Relativistic Newtonian Gravity" has been prepared by "Krit Khemka" under my guidance and supervision, be accepted in partial fulfillment of the requirements for the degree of Bachelor of Science in Physics.

Date: 19/06/23

Place: Guwahati

Dr. Gitanjal Deka
Assistant Professor
Department of Physics
(RSAPS)



ROYAL GLOBAL UNIVERSITY
GUWAHATI

A study on

“MASS RADIUS RELATION OF WHITE DWARF STARS”

A report submitted in partial fulfilment of the requirements for the degree of

Bachelor of Science in Physics

Offered by

ROYAL SCHOOL OF APPLIED & PURE SCIENCES

Submitted by:

NIBEDAN MALAKAR

Registration No.: 1200099

Roll No.: 202012002

Under the supervision

Dr. BORNALI CHETIA

Assistant Professor,

Department of Physics

Royal School of Applied and Pure Sciences

The Assam Royal Global University.



CERTIFICATE OF SUBMISSION.

I hereby recommend that the Project entitled “**MASS RADIUS RELATION OF WHITE DWARF STARS**” has been prepared by “**NIBEDAN MALAKAR**” the guidance and supervision of **Dr. Bornali Chetia**, be accepted in partial fulfilment of the requirements for the degree of Bachelor of Science in Physics.

Date: 19/06/2023

Place: Guwahati.

Dr. DEVIKA PHUKAN,

Associate professor & HOD

Department of physics, RSAPS

Dy. Dean
Royal School of Applied & Pure Sciences
The Assam Royal Global University
Betkuchi, NH 37, Guwahati 781035



ROYAL GLOBAL UNIVERSITY
GUWAHATI

A study on
**TERAHERTZ PROPAGATION IN A WAVEGUIDE BASED ON
PERIODIC LONG GROOVES STRUCTURES.**

A report submitted in partial fulfilment of the requirements for the degree of
Bachelor of Science in Physics

Offered by

**DEPARTMENT OF PHYSICS
ROYAL SCHOOL OF APPLIED & PURE SCIENCES**

Submitted by:

NIKITA DASGUPTA

Registration No.: 1200100

Roll No.: 202012003

Under the supervision

**Dr. Maidul Islam
Assistant Professor,
Department of Physics.**

**Royal School of Applied and Pure Sciences
The Assam Royal Global University.**

June 2023



CERTIFICATE OF APPROVAL

I hereby certify that the Project entitled “**TERAHERTZ PROPAGATION IN A WAVEGUIDE BASED ON PERIODIC LONG GROOVES STRUCTURE**” has been prepared by “**Miss Nikita Dasgupta**” my guidance and supervision, be accepted in partial fulfillment of the requirements for the degree of Bachelor of Science in Physics.

Date: 19-06-2023

Place: Guwahati

Maidul Islam

Dr. Maidul Islam 19.06.23

Assistant Professor

Department of Physics

Royal Global University

PROJECT REPORT ON
**“TERAHERTZ WAVE PROPERTIES IN A PLANAR WAVEGUIDE
COMPRISED OF 1-DIMENSIONAL GROOVES”**

A report submitted in partial fulfilment of the requirements for the degree of
Bachelor of Science in Physics



ROYAL GLOBAL UNIVERSITY
— GUWAHATI —

Submitted by:

Name: Sarah Varghese

School: Royal School of Applied and Pure Sciences

Department: Physics

Programme: Bachelor of Science

Registration No.: 1200104

Roll No.: 202012007

Under the supervision of

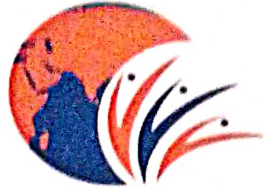
Dr. Maidul Islam

Assistant Professor

Department of Physics.

The Assam Royal Global University

JUNE, 2023



ROYAL GLOBAL UNIVERSITY
GUWAHATI

CERTIFICATE OF APPROVAL

I hereby certify that the Project entitled “**TERAHERTZ WAVE PROPERTIES IN A PLANAR WAVEGUIDE COMPRISED OF 1-DIMENSIONAL GROOVES**” has been prepared by “**Miss Sarah Varghese**” under my guidance and supervision, be accepted in partial fulfilment of the requirements for the degree of Bachelor of Science in Physics.

Date: 19.06.23

Place: Guwahati

Maidul Islam
Dr. Maidul Islam

Assistant Professor

Department of Physics

(RSAPS)