

Introduction to Identity-Based Encryption

Dissertation report submitted in partial fulfillment of the requirements for the degree of Master of Science in Department of Mathematics

by

Ashutosh Maharana
(Roll No:23MATH050)

Under the guidance of

Sri Bishnu Charan Behera
Assistant Professor
Department of Mathematics
Government Science College, Chatrapur,
Odisha 761020, India.



DECLARATION

I hereby declare that the project on "**Introduction to Identity Based Encryption**" has been taken by me under the guidance of **Sri Bishnu Charan Behera**, Assistant professor of Mathematics Department at Govt. Science College, Chatrapur, Ganjam in partial fulfilment of the requirement for the PG 2nd year 4th semester Science Mathematics Honours examination for the academics session 2023-2025.

Ashutosh Maharana
Signature of the Student

BERHAMPUR UNIVERSITY



Project submitted in partial fulfillment

for the degree of

MASTER OF SCIENCE

By

BAISHNABI PATRA

Exam Roll No: 23MATH051

Class Roll No: MATH-23-011

A PROJECT ON TILTED BIANCHI-I COSMOLOGICAL MODEL

Under the Supervision of

SRI SURAJ KUMAR GARADA

Assistant Professor of Mathematics

POST GRADUATE DEPARTMENT OF MATHEMATICS

GOVERNMENT SCIENCE COLLEGE, CHATRAPUR

GANJAM, ODISHA-761020

2023-2025

DECLARATION

I hereby declare that the project work entitled "Tilted Bianchi Type -I Cosmological Models" has been carried out by me under the supervision of Sri. Suraj Kumar Garada, Assistant Professor of Mathematics, Govt. Science College, Chatarpur, Ganjam in order to partial fulfilment of the requirement for the PG, 4th semester examination for the academics session 2023-2025.

Baishnabi patra

Baishnabi Patra

M.Sc (Mathematics), 2nd Year

BERHAMPUR UNIVERSITY



Project submitted in partial fulfillment

for the degree of

MASTER OF SCIENCE

By

DURGAMADHAB SWAIN

Exam Roll No: 23MATH052

Class Roll No: MATH-23-012

**A PROJECT ON
COSMOLOGICAL PARAMETERS
AND DARK ENERGY IN LYRA MANIFOLD**

Under the Supervision of

DR. AJIT KUMAR SETHI

Assistant Professor of Mathematics

POST GRADUATE DEPARTMENT OF MATHEMATICS

GOVERNMENT SCIENCE COLLEGE, CHATRAPUR

GANJAM, ODISHA-761020

2023-2025

DECLARATION

I hereby declare that the project on "**Effect of Dark Energy on Cosmological Parameters with LVDP in Lyra Manifold**" has been taken by me under the supervision of **Dr. A.K. Sethi**, Assistant Professor, Dept. of Mathematics, Govt. Science College, Chatarpur, Ganjam in order to partial fulfilment of the requirement of the **PG 4th** semester examination for the academic session 2023-2025.

Durgamadhhab Swain

Durgamadhhab Swain

M.Sc.(Mathematics) 2nd year

BERHAMPUR UNIVERSITY



Project submitted in partial fulfillment

for the degree of

MASTER OF SCIENCE

By

JAGADISH BISOYI

Exam Roll No: 23MATH053

Class Roll No: MATH-23-017

A PROJECT ON BIANCHI TYPE-III BULK VISCOUS COSMOLOGICAL MODELS

Under the Supervision of

Dr. AJIT KUMAR SETHI

Assistant professor of Mathematics

POST GRADUATE DEPARTMENT OF MATHEMATICS

GOVERNMENT SCIENCE COLLEGE, CHATRAPUR

GANJAM, ODISHA-761020

2023-2025

DECLARATION

I hereby declare that the project on "**Blanchi Type -III bulk viscous cosmological models**" has been taken by me under the supervision of **Dr. A. K. Sethi**, Assistant Professor, Dept. of Mathematics, Govt. Science College, Chatrapur, Ganjam in order to partial fulfilment of the requirement for the PG 4th semester examination for the academic session 2023-2025.

Jagadish Bisoyi

Jagadish Bisoyi

M.Sc. (Mathematics) 2nd year

BERHAMPUR UNIVERSITY



Project submitted in partial fulfillment

for the degree of

MASTER OF SCIENCE

By

PRABHATI DAS

Exam Roll No: 23MATH054

Class Roll No: MATH-23-009

A PROJECT ON ORTHONORMAL SETS AND ITS APPLICATION

Under the Supervision of

Sri BADAL SAHOO

Asst.Prof. of Mathematics

POST GRADUATE DEPARTMENT OF MATHEMATICS

GOVERNMENT SCIENCE COLLEGE, CHATRAPUR

GANJAM, ODISHA-761020

2023-2025

DECLARATION

I do hereby declare that the project on “**APPLICATION OF ORTHONORMAL SETS**” has been taken by me under the guidance of **SRI BADAL SAHOO**, Assistant Professor of Mathematics Department in Government Science College, Chatrapur, Ganjam in partial fulfilment of the requirement for the PG 2nd year 4th semester Science Mathematics Honours examination for the academic session 2023-2025.



Signature of the Student

BERHAMPUR UNIVERSITY



Project submitted in partial fulfillment

for the degree of

MASTER OF SCIENCE

By

S.RAJLAXMI PRUSTY

Exam Roll No: 23MATH055

Class Roll No: MATH-23-005

**A PROJECT ON TILTED BIANCHI TYPE-I
COSMOLOGICAL MODELS WITH PERFECT FLUID**

Under the Supervision of

Sri. SURAJ KUMAR GARADA

Assistant professor of Mathematics

POST GRADUATE DEPARTMENT OF MATHEMATICS

GOVERNMENT SCIENCE COLLEGE, CHATRAPUR

GANJAM, ODISHA-761020

2023-2025

DECLARATION

I hereby declare that the project work on "**Tilted Bianchi Type -I Cosmological Models with Perfect fluid**" has been taken by me under the guidance of **Sri. Suraj Kumar Garada**, Assistant Professor, Dept. of Mathematics, Govt. Science College, Chatarpur, Ganjam for partial fulfilment of the requirement for the PG 4th semester examination for the academic session 2023-2025.

S. Rajlaxmi Prusty
Signature of the Student

Introduction to Identity-Based Encryption

Dissertation report submitted in partial fulfillment of the requirements for the degree of Master of Science in Department of Mathematics

by

Smitarani Pradhan
(Roll No:23MATH056)

Under the guidance of

Sri Bishnu Charan Behera
Assistant Professor
Department of Mathematics
Government Science College, Chatrapur,
Odisha 761020, India.



DECLARATION

I hereby declare that the project on "**Introduction to Identity Based Encryption**" has been taken by me under the guidance of **Sri Bishnu Charan Behera**, Assistant professor of Mathematics Department at Govt. Science College, Chatrapur, Ganjam in partial fulfilment of the requirement for the PG 2nd year 4th semester Science Mathematics Honours examination for the academics session 2023-2025.

Smitarani pradhan
Signature of the Student

BERHAMPUR UNIVERSITY



Project submitted in partial fulfillment

for the degree of

MASTER OF SCIENCE

By

RAJIB SATRUSALYA

Exam Roll No: 23MATH092

Class Roll No: MATH-23-007

A PROJECT ON ORTHONORMAL SETS AND ITS APPLICATION

Under the Supervision of

Sri BADAL SAHOO

Asst.Prof. of Mathematics

POST GRADUATE DEPARTMENT OF MATHEMATICS

GOVERNMENT SCIENCE COLLEGE, CHATRAPUR

GANJAM, ODISHA-761020

2023-2025

DECLARATION

I, Rajib Satrusalya, hereby declare that the work "**Orthonormal sets and its applications**" submitted by me to Government Science College, Chatrapur for the award of degree of M. Sc., has not been submitted previously in this college or in any other college for the degree of M.Sc.

Place: GSC Chatrapur
Date: 05/05/2025

Rajib Satrusalya
(Rajib Satrusalya)