



### CRITERIA-3

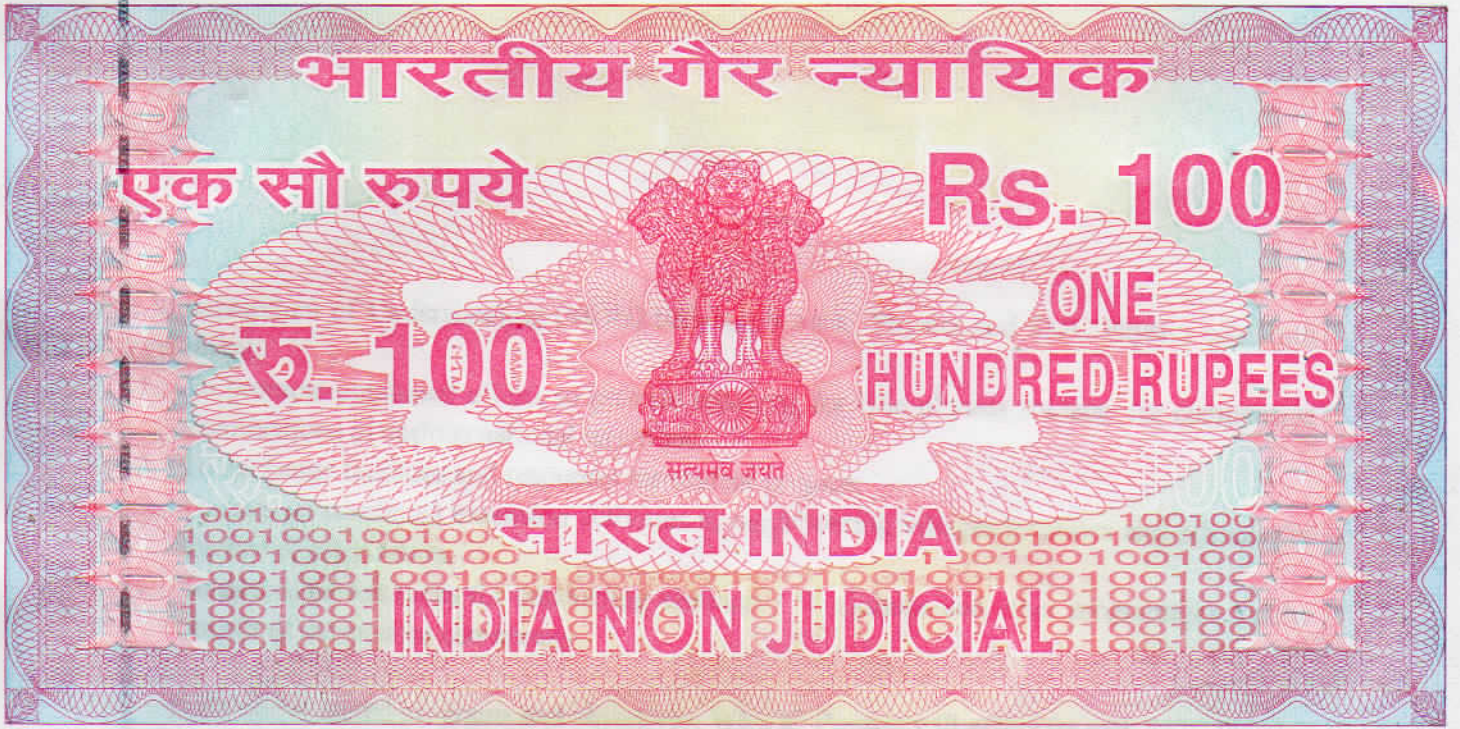
#### 3.5 Collaboration

#### 3.5.1: MoUs/Linkages/Collaboration 2021-22.

**MoU between Department of Physics, WMO Arts and  
Science College, Muttill vs. Department of Physics, St. Mary's  
College, Sulthan Bathery- Wayanad**

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MEMORANDAM OF UNDERSTANDING (MOU)

BETWEEN

Department of Physics, WMO Arts & Science College, Muttill & Department of Physics, St. Mary's college, Sulthan Bathery.

This MOU is entered on 21<sup>st</sup> August 2021 between Department of Physics, WMO Arts & Science College (here in after called WMO Physics) situated at Muttill, Kerala, India and Department of Physics, St. Mary's college (here in after called as SMC Physics), situated at Sulthan Bathery, Kerala, India do hereby agree to the followings:

- 1. Dr. T.P. Muhammad Farooq
- 2. John Mathai

Signature of Biju K.G. and Shibina T.

No. 5671 Date 6/08/2021 Issued to Principal

WMO Arts & Science College muan

DISTRICT TREASURY WAYANAD 28 JUL 2021 KALPETTA NOR 1H PIN: 673 122

SYAMALA.P. Ad-hoc Stamp Vendor Kalpetta

Signature of Syamala.P.

The Memorandum of Understanding (MOU) between WMOC Physics and SMC Physics sets forth an agreement:

1. To promote combined efforts to provide coaching for BSc physics students for competitive examinations of various national intuitions.
2. To exchange facilities and resources for student projects.
3. To take up combined extension activities in neighbouring villages/localities and schools for science popularisation.
4. To exchange resources for conducting seminars / Workshops and other programmes for the benefit of the student community.

Towards the above stated programs and objectives, WMOC Physics will associate with SMC Physics and assist each other.

Signed on 21<sup>st</sup> August 2021,

Dr. TP Muhammed Fareed  
Principal,  
WMO Arts & Science College, Muttill

Mr. John Mathai,  
Principal,  
St.Mary's College, Sulthan Bathery

Dr. Biju K G  
Head, Department of Physics,  
WMO Arts and Science College

Ms. Shibina T.,  
Head, Department of Physics,  
St.Mary's College, Sulthan Bathery





## Department of Physics WMO Arts & Science College, Muttil

### ACTIVITY REPORT

#### MOU with St. Mary's college, Sultan Bathery.

Link to MoU: [https://wmocollege.ac.in/uploads/WMO\\_SMC\\_PHYSICS\\_MOU0011.pdf](https://wmocollege.ac.in/uploads/WMO_SMC_PHYSICS_MOU0011.pdf)

Following collaborative activities have been conducted in connection with the Memorandum of Understanding (MOU) signed on 21-08-2021 between the Department of Physics, WMO Arts and Science College, Muttil, and this Department.

1. Mr. Sunil John (Assistant Professor of Physics, St. Mary's College, S. Bathery) Guided Ms. FASALUL FARISA KP (MSc Physics Student, WMO College, Muttil) in her MSc project on the topic "Durational analysis of plosive sound with the context of their position in Malayalam word", during 2021-22 Academic year.
2. Mr. Sunil John (Assistant Professor of Physics, St. Mary's College, S. Bathery) Guided Ms. HASNA K (MSc Physics Student, WMO College, Muttil) in her MSc project on the topic "An investigation into the world level relative time characteristics of Malayalam non-plosive sounds", during 2021-22 Academic year.
3. Dr. Pramodkumar KS (Assistant Professor of Physics, St. Mary's College, S. Bathery) Guided Ms. HARIPRIYA (MSc Physics Student, WMO College, Muttil) in her MSc project on the topic "Synthesis and characterisation of Fe<sub>3</sub>O<sub>4</sub> nanoparticles doped with CO<sub>2</sub><sup>+</sup> and Mg<sup>2+</sup>- A comparative study", during 2021-22 Academic year.
4. Mr. Sreejith CS (Assistant Professor of Physics, St. Mary's College, S. Bathery) Guided Ms. ASWATHY MR (MSc Physics Student, WMO College, Muttil) in her MSc project on the topic "Non-extensive statistical mechanics- A literature review", during 2021-22 Academic year.
5. Mr. Sreejith CS (Assistant Professor of Physics, St. Mary's College, S. Bathery) Guided Ms. KAVYA KJ (MSc Physics Student, WMO College, Muttil) in her MSc project on the topic "A study on quark-gluon plasma", during 2021-22 Academic year.
6. A group of I-semester UG and PG students visited our Department on 30-09-2022 and interacted with the students and faculty members.



**Certificate of Collaboration**

This is to certify that the following collaborative activities have been conducted in connection with the Memorandum of Understanding (MOU) signed on 21-08-2021 between the Department of Physics, WMO Arts and Science College, Muttill, and Department of Physics, St.Mary's College, Sulthan Bathery.

1. Mr. Sunil John (Assistant Professor of Physics, St. Mary's College, S. Bathery) Guided Ms. FASALUL FARISA KP (MSc Physics Student, WMO College, Muttill) in her MSc project on the topic "Durational analysis of plosive sound with the context of their position in Malayalam word", during 2021-22 Academic year.
2. Mr. Sunil John (Assistant Professor of Physics, St. Mary's College, S. Bathery) Guided Ms. HASNA K (MSc Physics Student, WMO College, Muttill) in her MSc project on the topic "An investigation into the world level relative time characteristics of Malayalam non-plosive sounds", during 2021-22 Academic year.
3. Dr.Pramod K S (Assistant Professor of Physics, St. Mary's College, S. Bathery) Guided Ms. HARIPRIYA (MSc Physics Student, WMO College, Muttill) in her MSc project on the topic "Synthesis and characterisation of Fe<sub>3</sub>O<sub>4</sub> nanoparticles doped with CO<sub>2</sub><sup>+</sup> and Mg<sup>2+</sup>- A comparative study", during 2021-22 Academic year.
4. Mr. Sreejith CS (Assistant Professor of Physics, St. Mary's College, S. Bathery) Guided Ms. ASWATHY MR (MSc Physics Student, WMO College, Muttill) in her MSc project on the topic "Non-extensive statistical mechanics- A literature review", during 2021-22 Academic year.
5. Mr. Sreejith CS (Assistant Professor of Physics, St. Mary's College, S. Bathery) Guided Ms. KAVYA KJ (MSc Physics Student, WMO College, Muttill) in her MSc project on the topic "A study on quark-gluon plasma", during 2021-22 Academic year.
6. A group of I-semester UG and PG students of WMO College Muttill visited Department of Physics, St.Mary's College, Sulthan Bathery on 30-09-2022 and interacted with the students and faculty members.

*SKP*  
7/16/23

Head of the Department  
P.G. Department of Physics  
St. Mary's College S. Bathery



PROFESSOR  
ST. MARY'S COLLEGE  
SULTHAN BATHERY  
WAYANAD - 673592



Department of Physics  
WMO Arts & Science College, Muttil

A PROJECT REPORT ON  
DURATION ANALYSIS OF PLOSIVE SOUNDS IN THE  
CONTEXT OF THEIR POSITION IN MALAYALAM  
WORDS

SUBMITTED TO THE UNIVERSITY OF CALICUT IN  
PARTIAL  
FULFILMENT OF REQUIREMENT FOR THE AWARD OF  
THE  
DEGREE OF  
MASTER OF SCIENCE IN PHYSICS



Submitted by  
FASALUL FARISA KP  
Register No: WMAUMPH006  
DEPARTMENT OF PHYSICS  
WMO ARTS AND SCIENCE COLLEGE, MUTTIL



Under The Guidance Of  
SUNIL JOHN  
Asst Professor, St. Mary's College, Sulthan Batheri



Department of Physics  
WMO Arts & Science College, Muttil

Mr. SUNIL JOHN  
Asst. Professor

Department of Physics  
St. Mary's College Sulthan Bathery


**CERTIFICATE**

This is to certify that the project report entitled "DURATION ANALYSIS OF PLOSIVE SOUNDS IN THE CONTEXT OF THEIR POSITION IN MALAYALAM WORDS", submitted by Ms FASALUL FARISA K P (Reg.No:WMAUMPH006), WMO Arts & Science College, Muttil is a bona fide record of research work done by her during the academic year 2021-22, under my guidance and that the thesis has not previously formed the basis for the award of any degree, diploma, associateship, fellowship or any other similar title to the candidate.

This is also to clarify that the thesis represents the independent work done by the candidate.

Place : Sulthan Bathery  
Date :



  
Mr. SUNIL JOHN  
SUNIL JOHN  
Asst. Professor  
P.G. Dept. of Physics  
St. Mary's College  
Sulthan Bathery Kerala



**A PROJECT REPORT ON**  
**AN INVESTIGATION INTO THE WORD-LEVEL RELATIVE TIME**  
**CHARACTERISTICS OF MALAYALAM NON-PLOSIVE SOUNDS**

SUBMITTED TO THE UNIVERSITY OF CALICUT IN PARTIAL FULFILMENT OF  
REQUIREMENT FOR THE AWARD OF THE DEGREE OF MASTER OF SCIENCE IN  
PHYSICS

Submitted by

**HASNA K**

**REGISTER NO: WMAUMPH010**

**DEPARTMENT OF PHYSICS**

**WMO ARTS AND SCIENCE COLLEGE MUTTIL**



UNDER THE GUIDANCE OF

**SUNIL JOHN**

**Asst Professor**

**St. Mary's College, Sulthan Batheri**





Department of Physics  
WMO Arts & Science College, Muttil

Mr. SUNIL JOHN  
Asst. Professor


Department of Physics  
St. Mary's College SulthanBathery

**CERTIFICATE**

This is to certify that the project report entitled "AN INVESTIGATION INTO THE WORD-LEVEL RELATIVE TIME CHARACTERISTICS OF MALAYALAM NON – PLOSIVE SOUNDS", submitted by Ms. HASNA K (Reg.No:WMAUMPH010), WMO Arts & Science College, Muttil is a bona fide record of research work done by her during the academic year 2021-22, under my guidance and that the thesis has not previously formed the basis for the award of any degree, diploma, associateship, fellowship or any other similar title to the candidate.

This is also to clarify that the thesis represents the independent work done by the candidate.

Place : Sulthan Bathery  
Date :

  
Mr. SUNIL JOHN  
SUNIL JOHN  
Asst. Professor  
P.G.Dept. of Physics  
St Mary's College  
Sulthan Bathery Kerala





Department of Physics  
WMO Arts & Science College, Muttil

**SYNTHESIS AND CHARACTERIZATION OF  $\text{Fe}_3\text{O}_4$   
NANOPARTICLES DOPED WITH  $\text{Co}^{2+}$  AND  $\text{Mg}^{2+}$   
-A COMPARATIVE STUDY**

Project report submitted to The University of Calicut in partial fulfilment of the requirement  
of the award of degree of **MASTER OF SCIENCE IN PHYSICS**

Submitted by

**HARIPRIYA B**

**WMAUMPH009**

Under the guidance of

**Dr. PRAMOD K.S**

Post Graduate and Research Department of Physics  
St. Mary's College, Sulthan Bathery



DEPARTMENT OF PHYSICS  
WMO ARTS AND SCIENCE COLLEGE  
- MUTTIL, WAYANAD  
2020-2022



Department of Physics  
WMO Arts & Science College, Muttill

Dr. PRAMOD K.S  
Asst. Professor and research guide

Department of Physics  
St. Mary's College Sulthan Bathery

**CERTIFICATE**


This is to certify that the project report entitled "SYNTHESIS AND CHARACTERIZATION OF  $\text{Fe}_3\text{O}_4$  NANOPARTICLES DOPED WITH  $\text{CO}^{2+}$  AND  $\text{Mg}^{2+}$  - A COMPARATIVE STUDY", submitted by Ms HARIPRIYA B (Reg.No:WMAUMPH009), WMO Arts & Science College, Muttill is a bona fide record of research work done by her during the academic year 2021-22, under my guidance and that the thesis has not previously formed the basis for the award of any degree, diploma, associateship, fellowship or any other similar title to the candidate.

This is also to clarify that the thesis represents the independent work done by the candidate.

Place : Sulthan Bathery

Date :



  
Dr. PRAMOD K.S  
DR. PRAMOD. K.S  
Asst. Professor  
Dept. of Physics  
St. Mary's College  
Sulthan Bathery - Kerala



Department of Physics  
WMO Arts & Science College, Muttil

**NON EXTENSIVE STATISTICAL MECHANICS**  
**(A LITERATURE REVIEW)**

Project report submitted to The University of Calicut in partial fulfillment of the requirement  
of the award of degree of **MASTER OF SCIENCE IN PHYSICS**

Submitted by

**ASWATHY M.R**

**WMAUMPH003**

Under the guidance of

**SREEJITH C.S**

Assistant Professor

Post Graduate and Research Department of Physics

St. Mary's College, Sulthan Bathery



DEPARTMENT OF PHYSICS  
WMO ARTS AND SCIENCE COLLEGE  
MUTTIL, WAYANAD

2020-2022



Department of Physics  
WMO Arts & Science College, Muttill

Mr. SREEJITH C S  
Asst. Professor

Department of Physics  
St. Mary's College SulthanBathery

**CERTIFICATE**

This is to certify that the project report entitled "NON EXTENSIVE STATISTICAL MECHANICS- A LITERATURE REVIEW", submitted by Ms ASWATHI M R (Reg.No:WMAUMPH003), WMO Arts & Science College, Muttill is a bona fide record of research work done by her during the is a bona fide record of research work done by her during the academic year 2021-22, under my guidance and that the thesis has not previously formed the basis for the award of any degree, diploma, associateship, fellowship or any other similar title to the candidate.

This is also to clarify that the thesis represents the independent work done by the candidate

Place : Sulthan Bathery

Date :

  
Mr. SREEJITH C S





**A STUDY ON QUARK GLUON PLASMA  
(A LITERATURE REVIEW)**

Project report submitted to The University of Calicut in partial fulfillment of the requirement  
of the award of degree of **MASTER OF SCIENCE IN PHYSICS**

Submitted by

**KAVIYA K J**

**REGISTER NO: WMAUMPH012**

Under the guidance of

**SREEJITH C S**

Post Graduate and Research Department of Physics

St. Mary's College, Sulthan Bathery





Department of Physics  
WMO Arts & Science College, Muttill

Mr. SREEJITH C S  
Asst. Professor

Department of Physics  
St. Mary's College Sulthan Bathery

**CERTIFICATE**

This is to certify that the project report entitled "A STUDY ON QUARK GLUON PLASMA", submitted by **KAVIYA K J (Reg.No:WMAUMPH012)**, WMO Arts & Science College, Muttill is a bona fide record of research work done by her during the academic year 2021-22, under my guidance and that the thesis has not previously formed the basis for the award of any degree, diploma, associateship, fellowship or any other similar title to the candidate.

This is also to clarify that the thesis represents the independent work done by the candidate.

Place : Sulthan Bathery  
Date :



  
Mr. SREEJITH C S



## Department of Physics WMO Arts & Science College, Muttil

### 7. Visit to St. Mary's College, S. Bathery.

22 Students and two faculty members visited the Department of Physics, St. Mary's college, sulthan bathery on 30-09-2022 and interacted with the faculty members and students.

