



## **Nallamuthu Gounder Mahalingam College**

(An Autonomous Institution, Affiliated to Bharathiar University)

90, Palghat Road, Pollachi - 642001, Coimbatore, Tamil Nadu, India.

95<sup>th</sup> Rank in NIRF –2023 - Among Colleges in India.




# **PROBLEM SOLVING**

**NUMBER OF STUDENTS UNDERTAKING PROJECTS (PG)**

Name of the Department : Mathematics

Name of the Course and Course Code : 21PM54P1 & Project

S. No	Roll No.	Name of the Student	Project Guide
1.	21-PM-01	E. GURUPRASATH	Dr. V. INTHUMATHI
2.	21-PM-02	M. MOHAMMED THARIK	Dr. J.JAYASUDHA
3.	21-PM-03	K. PONRAJ	Dr. R. SANTHI
4.	21-PM-06	S. SIVANANDHAN	Dr. V. CHITRA
5.	21-PM-07	M. TAMILARASAN	Dr. S.SIVASANKAR
6.	21-PM-09	S. AKILA	Dr. S. KALEESWARI
7.	21-PM-10	M. ANUDHARUNYA	Mrs. A. GNANASOUNDARI
8.	21-PM-11	P. ANUPRIYA	Dr. N. SELVANAYAKI
9.	21-PM-13	R. DEVI MANOHARI	Dr. M. MAHESWARI
10.	21-PM-15	C. D. DHARSINI	Dr. V. INTHUMATHI
11.	21-PM-16	G. DHARUNYA	Dr. J.JAYASUDHA
12.	21-PM-17	M. GEETHANJALI	Dr. R. SANTHI
13.	21-PM-19	N. KARTHIKA	Dr. V. CHITRA
14.	21-PM-20	K. KIRUTHIKA	Dr. S.SIVASANKAR
15.	21-PM-21	M. LAVANYA	Dr. S. KALEESWARI
16.	21-PM-22	M. NIRMALA	Mrs. A. GNANASOUNDARI
17.	21-PM-25	P. RAGAVI	Dr. N. SELVANAYAKI
18.	21-PM-27	B. SIDHUJA	Dr. M. MAHESWARI
19.	21-PM-28	S. SUNISHA	Dr. V. INTHUMATHI
20.	21-PM-29	T. VIVETHA	Dr. J.JAYASUDHA

  
**PRINCIPAL**  
**Dr. R. MUTHUKUMARAN,**  
M.A., M.Phil., B.Ed., Ph.D.,  
**PRINCIPAL**  
N.G.M. College, Pollachi - 642 001  
Coimbatore District

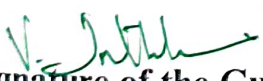
  
**HOD**


**Dr. V. Inthumathi, Ph.D.,**  
Associate Professor & Head  
Department of Mathematics  
N.G.M College, Pollachi - 642 001.

## CERTIFICATE

This is to certify that the project entitled, "A STUDY ON SOFT REGULAR GENERALIZED OPEN (CLOSED) SETS IN SOFT TOPOLOGICAL SPACES" submitted to Department of Mathematics, Nallamuthu Gounder Mahalingam College (Autonomous) Pollachi, affiliated to Bharathiar University in partial fulfilment of the requirements for the award of the Degree of MASTER OF SCIENCE IN MATHEMATICS is a record of original work done by Mr. E. GURUPRASATH (Reg. No. 21-PM-01) during the period (2021 - 2023) of his study in the DEPARTMENT OF MATHEMATICS at NALLAMUTHU GOUNDER MAHALINGAM COLLEGE (AUTONOMOUS), POLLACHI, under my supervision and guidance and the project has not formed the basis for the award of any Degree / Diploma / Associateship / Fellowship or other similar title to any candidate of any University.

### Countersigned

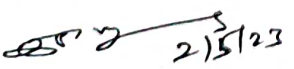

  
Signature of the Guide  
Dr. V. Inthumathi, Ph.D.,  
Associate Professor & Head  
Department of Mathematics  
N.G.M College, Pollachi - 642 001.

  
Head of the Department,  
Dr. V. Inthumathi, Ph.D.,  
Associate Professor & Head  
Department of Mathematics  
N.G.M College, Pollachi - 642 001.

Submitted for the Viva-Voce Examination held on 02.05.2023 at

Nallamuthu Gounder Mahalingam College (Autonomous), Pollachi.

### Examiners:

-  2/5/23 (Ext)
-  2/5/23 (Internal)



## CERTIFICATE

This is to certify that the project entitled, "A STUDY ON SOFT  $\alpha$ -OPEN SETS AND SOFT  $\alpha$ -CONTINUOUS FUNCTIONS IN SOFT TOPOLOGICAL SPACES" submitted to Department of Mathematics, Nallamuthu Gounder Mahalingam College (Autonomous) Pollachi, affiliated to Bharathiar University in partial fulfilment of the requirements for the award of the Degree of MASTER OF SCIENCE IN MATHEMATICS is a record of original work done by Mr. M. MOHAMMED THARIK (Reg. No. 21-PM-02) during the period (2021 - 2023) of his study in the DEPARTMENT OF MATHEMATICS at NALLAMUTHU GOUNDER MAHALINGAM COLLEGE (AUTONOMOUS), POLLACHI, under my supervision and guidance and the project has not formed the basis for the award of any Degree / Diploma / Associateship / Fellowship or other similar title to any candidate of any University.

Countersigned

  
Signature of the Guide

  
Head of the Department


**Dr. J. JAYASUDHA, M.Sc., M.Phil., Ph.D.,**  
Associate Professor  
Department of Mathematics


**N.G.M. College, Pollachi - 642 001.**  
Tamil Nadu, India.

Submitted for the Viva-Voce Examination held on \_\_\_\_\_ at

Nallamuthu Gounder Mahalingam College (Autonomous), Pollachi.

Examiners:

1. 

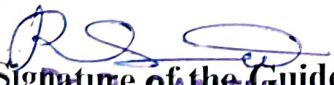
2. 



## CERTIFICATE

This is to certify that the project entitled, "A STUDY ON GENERALIZED b - CLOSED SETS IN MULTISSET TOPOLOGICAL SPACES" submitted to Department of Mathematics, Nallamuthu Gounder Mahalingam College (Autonomous), affiliated to Bharathiar University in partial fulfilment of the requirements for the award of the Degree of MASTER OF SCIENCE IN MATHEMATICS is a record of original work done by Mr. K. PONRAJ (Reg.No. 21-PM-03) during the period (2021 - 2023) of his study in the DEPARTMENT OF MATHEMATICS at NALLAMUTHU GOUNDER MAHALINGAM COLLEGE (AUTONOMOUS), POLLACHI, under my supervision and guidance and the project has not formed the basis for the award of any Degree / Diploma / Associateship / Fellowship or other similar title to any candidate of any University.

Countersigned

  
Signature of the Guide  
Dr. R. SANTI, Ph.D.,  
Assistant Professor  
Department of Mathematics  
N.G.M. College, Pollachi - 642 001.


  
Head of the Department  
29/04/2023


Dr. V. Inthumathi, Ph.D.,  
Associate Professor & Head  
Department of Mathematics  
N.G.M College, Pollachi - 642 001.

Submitted for the Viva-Voce Examination held on \_\_\_\_\_ at

Nallamuthu Gounder Mahalingam College (Autonomous), Pollachi.

Examiners:


1.  2/5/23

2.  2/5/23

## CERTIFICATE

This is to certify that the project entitled, "A STUDY ON THE INTERSECTION OF TWO SCIENCES - MATHEMATICS & ASTRONOMY" submitted to Department of Mathematics, Nallamuthu Gounder Mahalingam College (Autonomous) Pollachi, affiliated to Bharathiar University in partial fulfilment of the requirements for the award of the Degree of MASTER OF SCIENCE IN MATHEMATICS is a record of original work done by Mr. S. SIVANANDHAN (21-PM-06) during the period (2021-2023) of his study in the DEPARTMENT OF MATHEMATICS at NALLAMUTHU GOUNDER MAHALINGAM COLLEGE (AUTONOMOUS), POLLACHI, under my supervision and guidance and the project has not formed the basis for the award of any Degree / Diploma / Associateship / Fellowship or other similar title to any candidate of any University.

### Countersigned



  
Signature of the Guide

  
Head of the Department

**Dr. V. CHITRA, M.Sc., M.Phil., B.Ed., Ph.D.**  
Associate Professor  
Department of Mathematics  
NGM College (Govt. Aided)  
Pollachi - 642 001 India

Submitted for the Viva-Voce Examination held on 02.05.2023 at  
Nallamuthu Gounder Mahalingam College (Autonomous), Pollachi.


### Examiners:


1.  2/5/23
2.  2/5/23

## CERTIFICATE

This is to certify that the project entitled, "A STUDY ON BONDAGE NUMBER AND TOTAL BONDAGE NUMBER OF A GRAPH" submitted to Department of Mathematics, Nallamuthu Gounder Mahalingam College (Autonomous), Pollachi affiliated to Bharathiar University in partial fulfilment of the requirements for the award of the Degree of MASTER OF SCIENCE IN MATHEMATICS is a record of ~~original~~ research study done by Mr. M. TAMILARASAN (21-PM-07) during the period (2021 - 2023) of his study in the DEPARTMENT OF MATHEMATICS at NALLAMUTHU GOUNDER MAHALINGAM COLLEGE (AUTONOMOUS), POLLACHI, under my supervision and guidance and the dissertation has not formed the basis for the award of any Degree / Diploma / Associateship / Fellowship or other similar title to any candidate of any University.

### Countersigned



  
Signature of the Guide  
Dr. S. SIVASANKAR, M.Sc., M.Phil., Ph.D.  
Department of Mathematics  
N.G.M. College (Govt. Aided)  
Pollachi - 642001, Tamil Nadu, India

  
Head of the Department  
Dr. V. Inthumathi, Ph.D.,  
Associate Professor & Head  
Department of Mathematics  
N.G.M. College, Pollachi - 642 001.

Submitted for the Viva-Voce Examination held on 02.05.2023 at

Nallamuthu Gounder Mahalingam College (Autonomous), Pollachi.

### Examiners:

1. 
2. 



## CERTIFICATE

This is to certify that the project entitled, "A STUDY ON DELAY DIFFERENTIAL EQUATIONS" submitted to Department of Mathematics, Nallamuthu Gounder Mahalingam College (Autonomous) Pollachi Affiliated to Bharathiar University in partial fulfilment of the requirements for the award of the Degree of MASTER OF SCIENCE IN MATHEMATICS is a record of original work done by Ms. S. AKILA (Reg. No. 21-PM-09) during the period (2021 - 2023) of her study in the DEPARTMENT OF MATHEMATICS at NALLAMUTHU GOUNDER MAHALINGAM COLLEGE (AUTONOMOUS), POLLACHI under my supervision and project has not formed the basis for the award of any Degree / Diploma / Associateship / Fellowship or other similar title to any candidate of any University.

Countersigned



Signature of the Guide

**Dr. S. KALEESWARI**, M.Sc., M.Phil., Ph.D., SET,  
Assistant Professor  
Department of Mathematics  
N.G.M. College, Pollachi - 642 001.

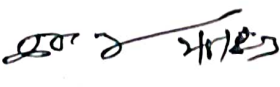


Head of the Department  
**Dr. V. Inthumathi**, Ph.D.,  
Associate Professor & Head  
Department of Mathematics  
N.G.M College, Pollachi - 642 001.

Submitted for the Viva-Voce Examination held on 02/05/23 at

Nallamuthu Gounder Mahalingam College (Autonomous), Pollachi.

Examiners:

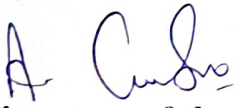
1. 


2. 

## CERTIFICATE

This is to certify that the project entitled, "A STUDY ON SOFT  $b$ -OPEN SETS AND SOFT  $b$ -CONTINUITY" submitted to Department of Mathematics, Nallamuthu Gounder Mahalingam College (Autonomous), Affiliated to Bharathiar University in partial fulfilment of the requirements for the award of the Degree of **MASTER OF SCIENCE IN MATHEMATICS** is a record of original work done by **Ms. M. ANUDHARUNYA (Reg. No.21-PM-10)** during the period (2021 - 2023) of her study in the **DEPARTMENT OF MATHEMATICS** at **NALLAMUTHU GOUNDER MAHALINGAM COLLEGE (AUTONOMOUS), POLLACHI**, under my supervision and guidance and the project has not formed the basis for the award of any Degree / Diploma / Associateship / Fellowship or other similar title to any candidate of any University.

### Countersigned

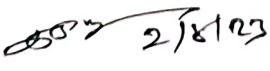

  
Signature of the Guide

  
Head of the Department  
Dr. V. Inthumathi, Ph.D.,  
Associate Professor & Head  
Department of Mathematics  
N.G.M College, Pollachi - 642 001.

Submitted for the Viva-Voce Examination held on 2/5/23 at

Nallamuthu Gounder Mahalingam College (Autonomous), Pollachi.

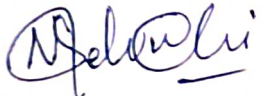
### Examiners:


1.   
2/5/23
2.   
2/5/23

## CERTIFICATE

This is to certify that the project entitled, "A STUDY ON SOFT PREOPEN SETS AND SOFT PRE SEPARATION AXIOMS" submitted to Department of Mathematics, Nallamuthu Gounder Mahalingam College (Autonomous) Pollachi, affiliated to Bharathiar University in partial fulfilment of the requirements for the award of the Degree of MASTER OF SCIENCE IN MATHEMATICS is a record of original work done by Ms. P. ANUPRIYA (21-PM-11) during the period (2022 - 2023) of her study in the DEPARTMENT OF MATHEMATICS at NALLAMUTHU GOUNDER MAHALINGAM COLLEGE (AUTONOMOUS), POLLACHI, under my supervision and guidance and the project has not formed the basis for the award of any Degree / Diploma / Associateship / Fellowship or other similar title to any candidate of any University.


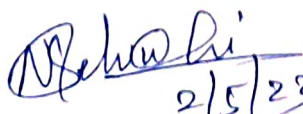
### Countersigned

  
Signature of the Guide

  
Head of the Department  
Dr. V. Inthumathi, Ph.D.,  
Associate Professor & Head  
Department of Mathematics  
N.G.M College, Pollachi - 642 001.

Submitted for the Viva-Voce Examination held on 02.05.2023 at  
Nallamuthu Gounder Mahalingam College (Autonomous), Pollachi.

### Examiners:


-   
2/5/23
-   
2/5/23




## CERTIFICATE

This is to certify that the project entitled, "A STUDY ON GOAL PROGRAMMING" submitted to Department of Mathematics, Nallamuthu Gounder Mahalingam College (Autonomous), Affiliated to Bharathiar University in partial fulfilment of the requirements for the award of the Degree of **MASTER OF SCIENCE IN MATHEMATICS** is a record of original work done by **Ms. R. DEVI MANOHARI (21-PM-13)** during the period (2022 - 2023) of her study in the **DEPARTMENT OF MATHEMATICS** at **NALLAMUTHU GOUNDER MAHALINGAM COLLEGE (AUTONOMOUS), POLLACHI**, under my supervision and guidance and the project has not formed the basis for the award of any Degree / Diploma / Associateship / Fellowship or other similar title to any candidate of any University.


### Countersigned

  
Signature of the Guide

  
Head of the Department  
Dr. V. Inthumathi, Ph.D.,  
Associate Professor & Head  
Department of Mathematics  
N.G.M College, Pollachi - 642 001.

Submitted for the Viva-Voce Examination held on 21/5/23 at Nallamuthu Gounder Mahalingam College (Autonomous), Pollachi.

### Examiners:

1.  21/8/23

2.  21/8/23

## CERTIFICATE

This is to certify that the project entitled, "A STUDY ON TOPOLOGICAL INDICES IN CHEMICAL GRAPH THEORY " submitted to Department of Mathematics, Nallamuthu Gounder Mahalingam College (Autonomous)Pollachi, affiliated to Bharathiar University) in partial fulfilment of the requirements for the award of the Degree of MASTER OF SCIENCE IN MATHEMATICS is a record of original work done by Ms. C. D .DHARSINI (Reg.No 21-PM-15) during the period (2021 - 2023) of her study in the DEPARTMENT OF MATHEMATICS at NALLAMUTHU GOUNDER MAHALINGAM COLLEGE (AUTONOMOUS), POLLACHI, under my supervision and guidance and the dissertation has not formed the basis for the award of any Degree / Diploma / Associateship / Fellowship or other similar title to any candidate of any University.

### Countersigned

  
Signature of the Guide



Dr. V. Inthumathi, Ph.D.,  
Associate Professor & Head  
Department of Mathematics  
N.G.M College, Pollachi - 642 001.

  
Head of the Department

Dr. V. Inthumathi, Ph.D.,  
Associate Professor & Head  
Department of Mathematics  
N.G.M College, Pollachi - 642 001.

Submitted for the Viva-Voce Examination held on 02.05.2023 at  
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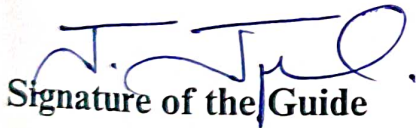
### Examiners:

1.  (Internal)  
2/5/2023
2.  (ETC)  
2/5/23

## CERTIFICATE

This is to certify that the project entitled, "A STUDY ON NEUTROSOPHIC SOFT GROUPS" submitted to Department of Mathematics, Nallamuthu Gounder Mahalingam College (Autonomous), Affiliated to Bharathiar University, in partial fulfilment of the requirements for the award of the Degree of MASTER OF SCIENCE IN MATHEMATICS is a record of original research work done by Ms. G. DHARUNYA (Reg. No. 21-PM-16) during the period (2021 - 2023) of her study in the DEPARTMENT OF MATHEMATICS at NALLAMUTHU GOUNDER MAHALINGAM COLLEGE (AUTONOMOUS), POLLACHI, under my supervision and guidance and the project has not formed the basis for the award of any Degree / Diploma / Associateship / Fellowship or other similar title to any candidate of any University.

Countersigned

  
Signature of the Guide


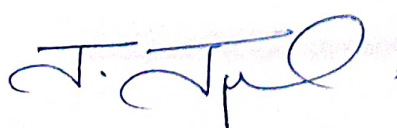
**Dr. J. JAYASUDHA, M.Sc., M.Phil., Ph.D.**  
Associate Professor  
Department of Mathematics  
N.G.M. College, Pollachi - 642 001.  
Tamil Nadu, India.

  
Head of the Department

**Dr. V. Inthumathi, Ph.D.,**  
Associate Professor & Head  
Department of Mathematics  
N.G.M College, Pollachi - 642 001.

Submitted for the Viva-Voce Examination held on 02/5/23 at  
Nallamuthu Gounder Mahalingam College (Autonomous), Pollachi.

Examiners:

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1.
-   
2.

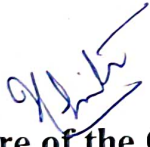


## CERTIFICATE

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### Countersigned

Signature of the Guide



Head of the Department



**Dr. V. CHITRA, M.Sc., M.Phil., B.Ed., Ph.D.,**  
Associate Professor  
Department of Mathematics  
NGM College (Govt. Aided)  
Pollachi - 642 001, Tamil Nadu, India

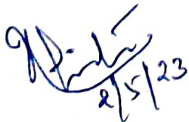
Submitted for the Viva-Voce Examination held on 02.05.2023 at  
Nallamuthu Gounder Mahalingam College (Autonomous), Pollachi.

Examiners:

1.



2.



## CERTIFICATE

This is to certify that the project entitled, "A STUDY ON ENERGY OF A GRAPH" submitted to Department of Mathematics, Nallamuthu Gounder Mahalingam College (Autonomous), Pollachi affiliated to Bharathiar University in partial fulfilment of the requirements for the award of the Degree of **MASTER OF SCIENCE IN MATHEMATICS** is a record of research study done by **Ms. K. KIRUTHIKA (Reg No: 21-PM-20)** during the period (2021 - 2023) of her study in the **DEPARTMENT OF MATHEMATICS** at **NALLAMUTHU GOUNDER MAHALINGAM COLLEGE (AUTONOMOUS), POLLACHI**, under my supervision and guidance and the dissertation has not formed the basis for the award of any Degree / Diploma / Associateship / Fellowship or other similar title to any candidate of any University.

  
Signature of the Guide 28/04/2023

**Dr. S. SIVASANKAR, M.Sc., M.Phil., Ph.D.**  
Associate Professor  
Department of Mathematics  
N.G.M. College (Govt. Aided)  
Pollachi - 642001, Tamil Nadu, India



Countersigned

  
Head of the Department 27/04/2023

**Dr. V. Inthumathi, Ph.D.,**  
Associate Professor & Head  
Department of Mathematics  
N.G.M College, Pollachi - 642 001.

Submitted for the Viva-Voce Examination held on 02.05.2023 at  
Nallamuthu Gounder Mahalingam College (Autonomous), Pollachi.

Examiners:

1.   
21/5/23
2.   
02/05/2023

## CERTIFICATE

This is to certify that the project entitled, "APPLICATIONS OF GREEN'S FUNCTION" submitted to Department of Mathematics, Nallamuthu Gounder Mahalingam College (Autonomous), Affiliated to Bharathiar University, Pollachi in partial fulfilment of the requirements for the award of the Degree of MASTER OF SCIENCE IN MATHEMATICS is a record of original work done by Ms. M. LAVANYA (Reg. No: 21-PM-21) during the period (2021 - 2023) of her study in the DEPARTMENT OF MATHEMATICS at NALLAMUTHU GOUNDER MAHALINGAM COLLEGE (AUTONOMOUS), POLLACHI under my supervision and the project has not formed the basis for the award of any Degree / Diploma / Associateship / Fellowship or other similar title to any candidate of any University.

### Countersigned

  
Signature of the Guide

Dr. S. KALEESWARI, M.Sc., M.Phil., Ph.D., SET,  
Assistant Professor  
Department of Mathematics  
N.G.M. College, Pollachi - 642 001.

  
Head of the Department

Dr. V. Inthumathi, Ph.D.,  
Associate Professor & Head  
Department of Mathematics  
N.G.M College, Pollachi - 642 001.

Submitted for the Viva-Voce Examination held on 21/5/23 at

Nallamuthu Gounder Mahalingam College (Autonomous), Pollachi.

### Examiners:

1.   
21/5/23

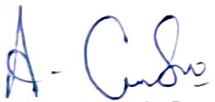
2.   
21/5/23




## CERTIFICATE

This is to certify that the project entitled, "A STUDY ON  $\beta_c$ -OPEN SETS AND SOFT  $\beta_c$ -CONTINUITY" submitted to Department of Mathematics, Nallamuthu Gounder Mahalingam College (Autonomous), Affiliated to Bharathiar University in partial fulfilment of the requirements for the award of the Degree of MASTER OF SCIENCE IN MATHEMATICS is a record of original work done by Ms. M. NIRMALA (Reg. No: 21-PM-22) during the period (2021 - 2023) of her study in the DEPARTMENT OF MATHEMATICS at NALLAMUTHU GOUNDER MAHALINGAM COLLEGE (AUTONOMOUS), POLLACHI, under my supervision and guidance and the project has not formed the basis for the award of any Degree / Diploma / Associateship / Fellowship or other similar title to any candidate of any University.



### Countersigned

  
Signature of the Guide

  
29/04/2023  
Head of the Department  
Dr. V. Inthumathi, Ph.D.,  
Associate Professor & Head  
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### Examiners:


-   
2/5/23
-   
2/5/23

## CERTIFICATE

This is to certify that the project entitled, "A STUDY ON SIGNATURE AUTHENTICATION USING FUZZY SET" submitted to Department of Mathematics, Nallamuthu Gounder Mahalingam College (Autonomous), Pollachi, affiliated to Bharathiar University in partial fulfilment of the requirements for the award of the Degree of MASTER OF SCIENCE IN MATHEMATICS is a record of original work done by Ms. P. RAGAVI ( 21-PM-25) during the period (2021 - 2023) of her study in the DEPARTMENT OF MATHEMATICS at NALLAMUTHU GOUNDER MAHALINGAM COLLEGE (AUTONOMOUS), POLLACHI, under my supervision and guidance and the project has not formed the basis for the award of any Degree / Diploma / Associateship / Fellowship or other similar title to any candidate of any University.



### Countersigned

  
Signature of the Guide

  
Head of the Department  
Dr. V. Inthumathi, Ph.D.,  
Associate Professor & Head  
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### Examiners:

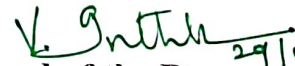
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21/5/23
-   
21/5/23

## CERTIFICATE

This is to certify that the project entitled, "A STUDY ON SIMULATION IN OPERATION RESEARCH" submitted to Department of Mathematics, Nallamuthu Gounder Mahalingam College (Autonomous) Pollachi, affiliated to Bharathiar University in partial fulfilment of the requirements for the award of the Degree of MASTER OF SCIENCE IN MATHEMATICS is a record of original work done by Ms. B. SINDHUJA (21-PM-27) during the period (2021 - 2023) of her study in the DEPARTMENT OF MATHEMATICS at NALLAMUTHU GOUNDER MAHALINGAM COLLEGE (AUTONOMOUS), POLLACHI, under my supervision and guidance and the project has not formed the basis for the award of any Degree / Diploma / Associateship / Fellowship or other similar title to any candidate of any University.


### Countersigned

  
Signature of the Guide

  
Head of the Department  
Dr. V. Inthumathi, Ph.D.,  
Associate Professor & Head  
Department of Mathematics  
N.G.M College, Pollachi - 642 001.

Submitted for the Viva-Voce Examination held on 21/01/23 at  
Nallamuthu Gounder Mahalingam College (Autonomous), Pollachi.

### Examiners:

-   
21/01/23
- M. Malli  
21/01/23




## CERTIFICATE

This is to certify that the project entitled, "APPLICATIONS OF GRAPH THEORY IN COMPUTER SCIENCE" submitted to Department of Mathematics, Nallamuthu Gounder Mahalingam College (Autonomous) Pollachi, affiliated to Bharathiar University in partial fulfilment of the requirements for the award of the Degree of MASTER OF SCIENCE IN MATHEMATICS is a record of original work done by Ms. SUNISHA S. (21-PM-28) during the period (2021 - 2023) of her study in the DEPARTMENT OF MATHEMATICS at NALLAMUTHU GOUNDER MAHALINGAM COLLEGE (AUTONOMOUS), POLLACHI, under my supervision and guidance and the project has not formed the basis for the award of any Degree / Diploma / Associateship / Fellowship or other similar title to any candidate of any University.

### Countersigned

  
Signature of the Guide

Dr. V. Inthumathi, Ph.D.,  
Associate Professor & Head  
Department of Mathematics  
N.G.M College, Pollachi - 642 001.

  
Head of the Department  
Dr. V. Inthumathi, Ph.D.,  
Associate Professor & Head  
Department of Mathematics  
N.G.M College, Pollachi - 642 001.

Submitted for the Viva-Voce Examination held on 02.05.2023 at  
Nallamuthu Gounder Mahalingam College (Autonomous), Pollachi.

### Examiners:

1.

2. 

## CERTIFICATE

This is to certify that the project entitled, "A STUDY ON NEUTROSOPHIC SOFT RINGS" submitted to Department of Mathematics, Nallamuthu Gounder Mahalingam College (Autonomous), Affiliated to Bharathiar University in partial fulfilment of the requirements for the award of the Degree of MASTER OF SCIENCE IN MATHEMATICS is a record of original work done by Ms. T. VIVETHA (21-PM-29) during the period (2021 - 2023) of her study in the DEPARTMENT OF MATHEMATICS at NALLAMUTHU GOUNDER MAHALINGAM COLLEGE (AUTONOMOUS), POLLACHI, under my supervision and guidance and the project has not formed the basis for the award of any Degree / Diploma / Associateship / Fellowship or other similar title to any candidate of any University.

### Countersigned

  
Signature of the Guide



**Dr. J. JAYASUDHA, M.Sc., M.Phil., Ph.D.**  
Associate Professor  
Department of Mathematics  
N.G.M. College, Pollachi - 642 001.  
Tamil Nadu, India.

  
Head of the Department

**Dr. V. Inthumathi, Ph.D.,**  
Associate Professor & Head  
Department of Mathematics  
N.G.M College, Pollachi - 642 001.

Submitted for the Viva-Voce Examination held on 21/5/23 at Nallamuthu Gounder Mahalingam College (Autonomous), Pollachi.

### Examiners:

- 
- 

## CERTIFICATE

This is to certify that the project entitled, "A STUDY ON  $\beta$  GENERALIZED CLOSED SETS IN MULTISSET TOPOLOGICAL SPACES" submitted to Department of Mathematics, Nallamuthu Gounder Mahalingam College (Autonomous), affiliated to Bharathiar University in partial fulfilment of the requirements for the award of the Degree of MASTER OF SCIENCE IN MATHEMATICS is a record of original work done by Ms. M. GEETHANJALI (Reg.No. 21-PM-17) during the period (2021 - 2023) of her study in the DEPARTMENT OF MATHEMATICS at NALLAMUTHU GOUNDER MAHALINGAM COLLEGE (AUTONOMOUS), POLLACHI, under my supervision and guidance and the project has not formed the basis for the award of any Degree / Diploma / Associateship / Fellowship or other similar title to any candidate of any University.

Countersigned

  
Signature of the Guide

Dr. R. SANTHI, Ph.D.,  
Assistant Professor  
Department of Mathematics  
N.G.M. College, Pollachi - 642 001.


  
Head of the Department


Dr. V. Inthumathi, Ph.D.,  
Associate Professor & Head  
Department of Mathematics  
N.G.M College, Pollachi - 642 001.

Submitted for the Viva-Voce Examination held on 02/05/23 at

Nallamuthu Gounder Mahalingam College (Autonomous), Pollachi.

Examiners:

1.  2/5/23

2.  2/5/23



**NUMBER OF STUDENTS UNDERTAKING PROJECTS (PG)**

Name of the Department : Mathematics  
Name of the Course and Course Code : 20PMS4P1 & Project  
Name of in-charge : -


S. No	Roll No.	Name of the Student
1	19-PM-31	THARANI S.
2	20-PM-01	ARUN VIGNESH M.
3	20-PM-02	DANIEL Y.
4	20-PM-04	SUBAGURU J.
5	20-PM-06	ANUSRI A.
6	20-PM-07	ARCHANA SAI S.
7	20-PM-08	BALASOWNDARI K.
8	20-PM-09	DHIVYADHARSINI R.
9	20-PM-10	DIVYA S.
10	20-PM-11	KARTHIKA J.
11	20-PM-14	KIRETHIKA M.
12	20-PM-15	KIRUBAVATHI V.
13	20-PM-16	LAVANYA G.
14	20-PM-17	LOGAPRIYA V.
15	20-PM-18	MANEESHA N.
16	20-PM-20	MANJUESWARI G.
17	20-PM-21	MANJULA N.
18	20-PM-22	MOHANARAMYA M.

S. No	Roll No.	Name of the Student
19	20-PM-23	NATHIBRAMI M.
20	20-PM-27	SANGEETHA M.
21	20-PM-30	TAMILSELVI S.
22	20-PM-31	DESIYAA M.S.
23	20-PM-32	SUMITHARA N.
24	20-PM-33	UMAMAHESHWARI T.
25	20-PM-34	KANCHIYARASI Y.



PRINCIPAL

Dr. R. MUTHUKUMARAN MA, M.Phil, B.Ed, Ph.D.,  
Principal  
Nallamuthu Gounder Mahalingam College,  
Pollachi - 642 001.



HOD

Dr. V. Inthumathi, Ph.D.,  
Associate Professor & Head  
Department of Mathematics  
N.G.M College, Pollachi - 642 001.







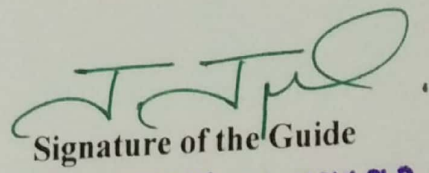




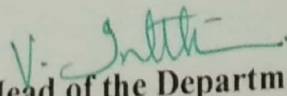
## CERTIFICATE

This is to certify that the project entitled, "A STUDY ON SOME FUZZY GENERALIZED CLOSED SETS" submitted to the Nallamuthu Gounder Mahalingam College (Autonomous, Affiliated to the Bharathiar University) in partial fulfillment of the requirements for the award of the degree of **Master of science in Mathematics** is a record of original research work done by **Mr. Y. DANIEL (20-PM-02)** during the period 2021 – 2022 of his study in the **Department of Mathematics, Nallamuthu Gounder Mahalingam College, Pollachi** under my supervision and the project work has not formed the basis for the award of any Degree / Diploma / Associate ship / Fellowship or other similar title to any candidate of any University.

Countersigned

  
Signature of the Guide

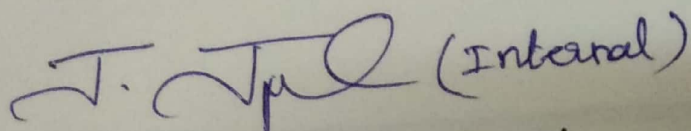
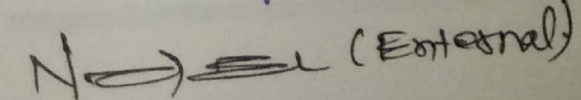
**Dr. J. JAYASUDHA, M.Sc., M.Phil., Ph.D.,**  
Assistant Professor,  
Department of Mathematics,  
NGM College, Pollachi - 642 001.

  
Head of the Department

**Dr. V. Inthumathi, Ph.D.,**  
Associate Professor & Head  
Department of Mathematics  
N.G.M College, Pollachi - 642 001,

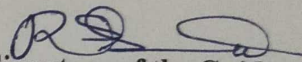
Submitted for the Viva -voce examination held on... 13.06.2022  
Gounder Mahalingam College, Pollachi.

Examiners:

1.  (Internal)
2.  (External)

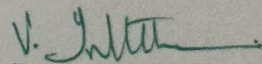
## CERTIFICATE

This is to certify that the project entitled, "**A STUDY ON SOFT SET THEORY AND ITS APPLICATIONS**" submitted to the Nallamuthu Gounder Mahalingam College(Autonomous, Affiliated to the Bharathiar University) in partial fulfillment of the requirements for the award of the degree of **Master of Science in Mathematics** is a record of study research work done by **Mr. J. SUBAGURU (20-PM-04)** during the period (2021 - 2022) of his study in the **Department of Mathematics, Nallamuthu Gounder Mahalingam College, Pollachi** under my supervision and the project work has not formed the basis for the award of any Degree / Diploma / Associateship /Fellowship or other similar title to any candidate of any University.

  
Signature of the Guide

**Dr. R. SANTHI, Ph.D.,**  
Assistant Professor  
Department of Mathematics  
N.G.M. College, Pollachi - 642 001.

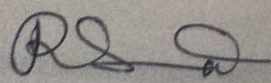
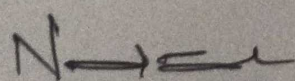
Countersigned

  
Head of the Department

Submitted for the Viva -Voce examination held on .....  
Gounder Mahalingam College, Pollachi.

13.06.2022 **Dr. V. Inthumathi, Ph.D.,**  
Asst. Nallamuthu & Head  
Department of Mathematics  
N.G.M College, Pollachi - 642 001.

Examiners:

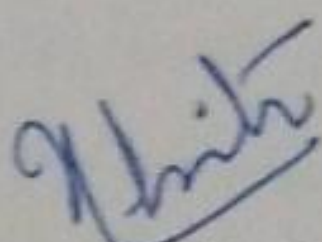
1.  (Internal)
2.  (External)

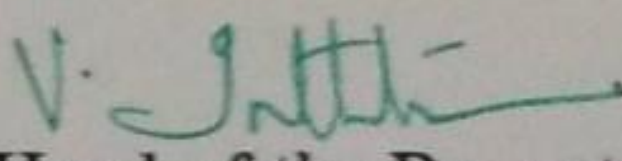


## CERTIFICATE

This is to certify that the project entitled, "A STUDY ON SOFT  $\alpha$ -OPEN SETS AND SOFT  $\alpha$ -CONTINUOUS FUNCTIONS IN SOFT TOPOLOGICAL SPACES" submitted to the Department of Mathematics, Nallamuthu Gounder Mahalingam College (Autonomous, Affiliated to the Bharathiar University) in partial fulfilment of the requirements for the award of the degree of Master of Science in Mathematics is a record of original research work done by Ms. A. ANUSRI (20-PM-06) during the period (2021 - 2022) of her study in the Department of Mathematics, Nallamuthu Gounder Mahalingam College, Pollachi under my supervision and the project work has not formed the basis for the award of any Degree / Diploma / Associate ship / Fellowship or other similar title to any candidate of any University.

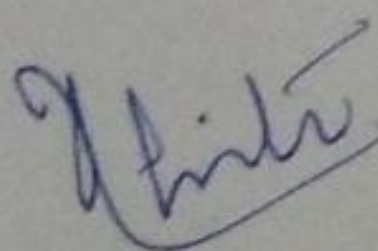
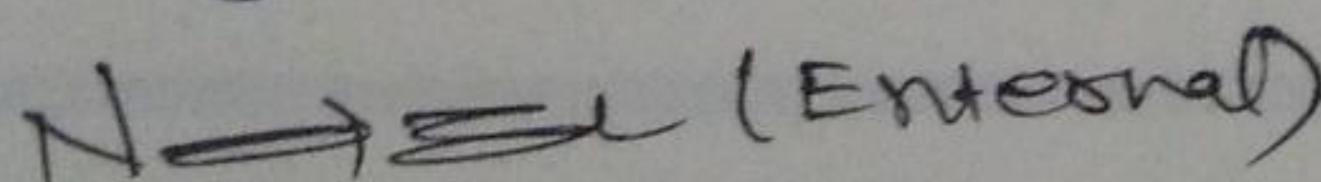
Countersigned

  
Signature of the Guide  
**Dr. V. CHITRA, Ph.D.,**  
Assistant Professor,  
Department of Mathematics,  
N.G.M. College, Pollachi - 642 001.

  
Head of the Department  
**Dr. V. Inthumathi, Ph.D.,**  
Assistant Professor,  
Department of Mathematics,  
N.G.M. College, Pollachi - 642 001.

Submitted for the Viva-Voce examination held on 13.6.22 at Nallamuthu Gounder Mahalingam College (Autonomous), Pollachi.

Examiners:

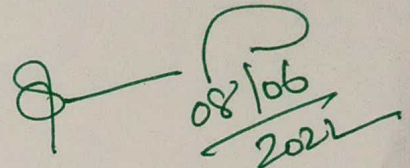
1.  (Internal)
2.  (External)

Declaration



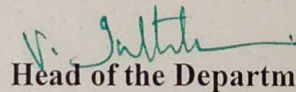
## CERTIFICATE

This is to certify that the project entitled, " **THE BONDAGE NUMBER OF A GRAPH** " submitted to the Nallamuthu Gounder Mahalingam College (Autonomous, Affiliated to the Bharathiar University) in partial fulfillment of the requirements for the award of the degree of **Master of Science in Mathematics** is a record of study research work done by **Ms. ARCHANA SAI. S (20-PM-07)** during the period (2021 - 2022) of her study in the **Department of Mathematics, Nallamuthu Gounder Mahalingam College, Pollachi**, under my supervision and the project work has not formed the basis for the award of any Degree / Diploma / Associateship / Fellowship or other similar title to any candidate of any University.



Signature of the Guide  
**Dr. S. SIVASANKAR**  
Assistant Professor  
Department of Mathematics  
N. G. M. College, Pollachi - 642 001

Countersigned



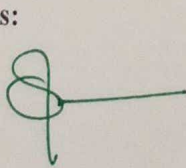
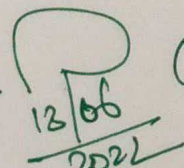
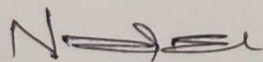
Head of the Department  
**Dr. V. Inthumathi**, Ph.D.,  
Associate Professor & Head  
Department of Mathematics  
N.G.M College, Pollachi - 642 001.

Submitted for the Viva -Voce examination held on 13.6.2022

at Nallamuthu

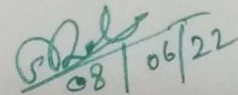
Gounder Mahalingam College, Pollachi.

Examiners:

1.   (External).
2.  (External)

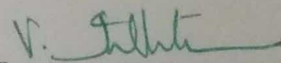
## CERTIFICATE

This is to certify that the project entitled, "A STUDY ON HERMITIAN MATRICES AND THEIR APPLICATIONS" submitted to the Department of Mathematics Nallamuthu Gounder Mahalingam College (Autonomous, Affiliated to the Bharathiar University), Pollachi in partial fulfillment of the requirements for the award of the degree of **Master of Science in Mathematics** is a record of original research work done by **Ms. K. BALASOWNDARI (20-PM-08)** during the period (2021 - 2022) of her study in the Department of Mathematics, Nallamuthu Gounder Mahalingam College, Pollachi under my supervision and the project work has not formed the basis for the award of any Degree / Diploma / Associate ship / Fellowship or other similar title to any candidate of any University.

  
08/06/22

**D. S. KALLESWARI** M.Sc., M.Phil., Ph.D.,  
Assistant Professor,  
Department of Mathematics,  
N.G.M. College, Pollachi - 642 001.

Countersigned


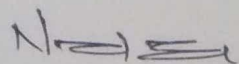


**Head of the Department**  
**Dr. V. Inthumathi, Ph.D.,**  
Associate Professor & Head  
Department of Mathematics  
N.G.M College, Pollachi - 642 001.  
at Nallamuthu

Submitted for the Viva-Voce examination held on 13.6.2022 at N.G.M College, Pollachi - 642 001.

Gounder Mahalingam College, Pollachi.

Examiners:

1. 
2.  (External).





## CERTIFICATE

This is to certify that the project entitled, "A STUDY ON RHOTRIX THEORY" submitted to the Department of Mathematics, Nallamuthu Gounder Mahalingam College (Autonomous, Affiliated to the Bharathiar University), Pollachi, in partial fulfillment of the requirements for the award of the degree of Master of science in Mathematics is a record of original research work done by Ms. S. DIVYA (20-PM-10) during the period (2021 - 2022) of her study in the Department of Mathematics, Nallamuthu Gounder Mahalingam College, Pollachi under my supervision and the project work has not formed the basis for the award of any Degree / Diploma / Associate ship / Fellowship or other similar title to any candidate of any University.

*M. Malli*  
Signature of the Guide

Countersigned

*V. Inthumathi*  
Head of the Department  
Dr. V. Inthumathi, Ph.D.,  
Associate Professor & Head  
Department of Mathematics  
N.G.M College, Pollachi - 642 001

Submitted for the Viva -voce examination held on 13.6.2022 at Nallamuthu Gounder Mahalingam College, Pollachi.

Examiners:

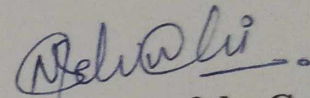
1. *M. Malli*
2. *N. S. (Emotional)*

*Declaration*



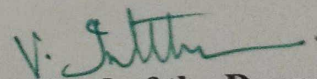
## CERTIFICATE

This is to certify that the project entitled, "A STUDY ON SOFT GENERALIZED  $\alpha$ b-CLOSED SETS IN SOFT TOPOLOGICAL SPACES" submitted to the Nallamuthu Gounder Mahalingam College (Autonomous, Affiliated to the Bharathiar University) Pollachi in partial fulfillment of the requirements for the award of the degree of **Master of science in Mathematics** is a record of original research work done by **Ms. J. KARTHIKA (20-PM-11)** during the period (2021 - 2022) of her study in the **Department of Mathematics, Nallamuthu Gounder Mahalingam College, Pollachi** under my supervision and guidance the project work has not formed the basis for the award of any Degree / Diploma / Associate ship / Fellowship or other similar title to any candidate of any University.



Signature of the Guide

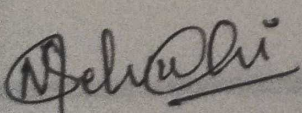
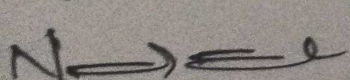
Countersigned



Head of the Department  
**Dr. V. Inthumathi, Ph.D.,**  
Associate Professor & Head  
Department of Mathematics  
N.G.M College, Pollachi - 642 001.

Submitted for the Viva -Voce examination held on 13.6.2022 at  
Gounder Mahalingam College, Pollachi.

Examiners:

1.  [Internal]
2.  (External)

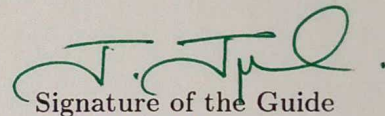


## CERTIFICATE

This is to certify that the project, entitled " A STUDY ON FUZZY b-METRIC SPACES" submitted to the Department of Mathematics, Nallamuthu Gounder Mahalingam College(Autonomous, Affiliated to the Bharathiar University), Pollachi, in partial fulfilment of the requirements for the award of the Degree of Master of science in Mathematics is a record of original reasearch work done by KIRTHIKA.M during the period (2021-2022) of her study in the Department of Mathematics, Nallamuthu Gounder Mahalingam College (Autonomous), Pollachi, under my supervision and the guidance and that the project has not formed the basis for the award of any Degree/Diploma/ Associateship/Fellowship or other similar title to any candidate of any University.

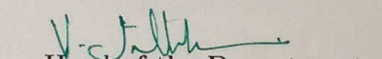
Place: POLLACHI

Date: 10.06.2022



Signature of the Guide  
**Dr. J. JAYASUDHA, M.Sc., M.Phil., Ph.D.**  
Assistant Professor,  
Department of Mathematics,  
NGM College, Pollachi - 642 001.

Countersigned

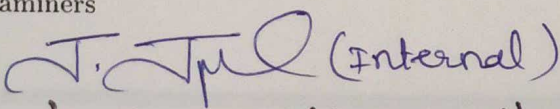
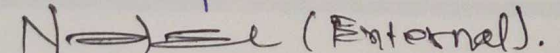


Head of the Department .  
**Dr. V. Inthumathi, Ph.D.,**  
Associate Professor & Head  
Department of Mathematics  
N.G.M College, Pollachi - 642 001

Submitted for the Viva voice Examination held on 13.06.2022 at Nallamuthu Gounder

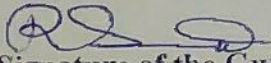
Mahalingam College(Autonomous), Pollachi.

Examiners

1.  (Internal)
2.  (External).

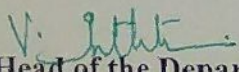
## CERTIFICATE

This is to certify that the project entitled, "A STUDY ON A NEW SOLUTION TO THE MATRIX EQUATION  $X - A\bar{X}B = C$ " submitted to the Department of Mathematics, Nallamuthu Gounder Mahalingam College, (Autonomous, Affiliated to the Bharathiar University) Pollachi in partial fulfillment of the requirements for the award of the degree of **Master of Science in Mathematics** is a record of original research work done by **Ms. V. KIRUBAVATHI (20-PM-15)** during the period (2021 - 2022) of her study in the **Department of Mathematics, Nallamuthu Gounder Mahalingam College, Pollachi** under my supervision and the project work has not formed the basis for the award of any Degree / Diploma / Associateship / Fellowship or other similar title to any candidate of any University.

  
Signature of the Guide

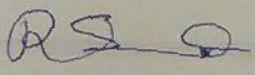

Dr. R. SANTHI, Ph.D.,  
Assistant Professor  
Department of Mathematics  
N.G.M. College, Pollachi - 642 001.

Countersigned

  
Head of the Department  
Dr. V. Induramathi, Ph.D.,  
Department of Mathematics  
N.G.M. College, Pollachi - 642 001.

Submitted for the Viva -voce examination held on 13.06.2022 at Nallamuthu Gounder Mahalingam College, Pollachi.

Examiners:

1.  (Internal)
2.  (External)

Declaration

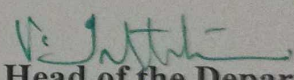


## CERTIFICATE

This is to certify that the project entitled, "A STUDY ON GRAPH LABELING" submitted to the Nallamuthu Gounder Mahalingam College(Autonomous, Affiliated to the Bharathiar University) in partial fulfillment of the requirements for the award of the degree of **Master of Science in Mathematics** is a record of study research work done by **Ms. G. LAVANYA (20-PM-16)** during the period ( **2021 - 2022** ) of her study in the **Department of Mathematics, Nallamuthu Gounder Mahalingam College, Pollachi** under my supervision and the project work has not formed the basis for the award of any Degree / Diploma / Associateship / Fellowship or other similar title to any candidate of any University.

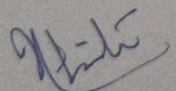

Countersigned

  
Signature of the Guide  
**Dr. V. CHITRA, Ph.D.,**  
Assistant Professor,  
Department of Mathematics,  
N.G.M. College, Pollachi - 642 001.

  
Head of the Department  
**Dr. V. Inthumathi, Ph.D.,**  
Associate Professor & Head  
Department of Mathematics  
N.G.M College, Pollachi - 642 001.

Submitted for the Viva –Voce examination held on 16.03.2022 at Nallamuthu Gounder Mahalingam College, Pollachi.

Examiners:

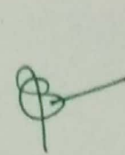
1.  (Internal)
2.  (External)

Declaration



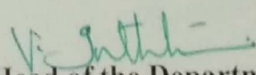
## CERTIFICATE

This is to certify that the project entitled, " A STUDY ON THE TOTAL k-DOMINATION IN GRAPHS " submitted to the Department of Mathematics, Nallamuthu Gounder Mahalingam College (Autonomous, Affiliated to the Bharathiar University) in partial fulfillment of the requirements for the award of the degree of **Master of Science in Mathematics** is a record of study research work done by **Ms. N. MANEESHA (20-PM-18)** during the period (2021-2022) of her study in the **Department of Mathematics, Nallamuthu Gounder Mahalingam College, Pollachi** under my supervision and the project work has not formed the basis for the award of any Degree / Diploma / Associateship / Fellowship or other similar title to any candidate of any University.

  
08/06  
2022

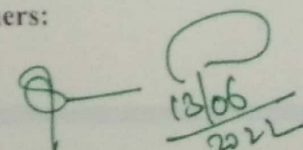
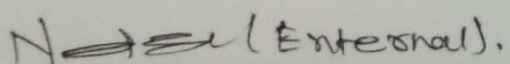
Signature of the Guide  
**Dr. S. SIVASANKAR**  
Assistant Professor  
Department of Mathematics  
N. G. M. College, Pollachi - 642 001

Countersigned

  
Head of the Department  
**Dr. V. Inthumathi, Ph D.,**  
Associate Professor & Head  
Department of Mathematics  
N.G.M College, Pollachi - 642 001.

Submitted for the Viva -Voce examination held on 13.06.2022 at Nallamuthu Gounder Mahalingam College, Pollachi.

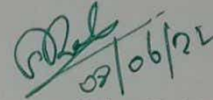
Examiners:

1.  (Internal)
2.  (Internal).

Declaration

## CERTIFICATE

This is to certify that the project entitled, "A STUDY ON PERTURBATION THEORY" submitted to the Nallamuthu Gounder Mahalingam College (Autonomous, Affiliated to the Bharathiar University), Pollachi in partial fulfillment of the requirements for the award of the degree of **Master of Science in Mathematics** is a record of original research work done by **Ms. G. MANJUESWARI (20-PM-20)** during the period (2021 - 2022) of her study in the Department of Mathematics, Nallamuthu Gounder Mahalingam College, Pollachi under my supervision and the project work has not formed the basis for the award of any Degree / Diploma / Associate ship / Fellowship or other similar title to any candidate of any University.

  
09/06/22

Signature of the Guide

**Dr. S. KALEESWARI, M.Sc., M.Phil., Ph.D.,**

Assistant Professor,

Department of Mathematics,

N.G.M. College, Pollachi - 642 001.

Counter signed

  
V. Inthumathi

Head of the Department

**Dr. V. Inthumathi, Ph.D.,**

Associate Professor & Head

Department of Mathematics

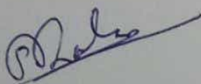
N.G.M. College, Pollachi - 642 001.

Submitted for the Viva-Voce examination held on..... 13.6.2022

Gounder Mahalingam College, Pollachi.

Examiners:

1.



2.

N. S. S. (Internal)

Declaration



## CERTIFICATE

This is to certify that the project entitled, "A STUDY ON SPECTRAL PROPERTIES OF UNITARY AND NORMAL BIMATRICES" submitted to the Department of Mathematics, Nallamuthu Gounder Mahalingam College (Autonomous, Affiliated to the Bharathiar University), Pollachi, in partial fulfillment of the requirements for the award of the degree of Master of Science in Mathematics is a record of original research work done by Ms. N. MANJULA (20-PM-21) during the period (2021- 2022) of her study in the Department of Mathematics, Nallamuthu Gounder Mahalingam College, Pollachi under my supervision and the project work has not formed the basis for the award of any Degree / Diploma / Associate ship / Fellowship or other similar title to any candidate of any University.

*M. Malli*  
Signature of the Guide

Counter signed

*V. Inthumathi*  
Head of the Department

Dr. V. Inthumathi, Ph.D.,  
Associate Professor & Head  
Department of Mathematics  
N.G.M College, Pollachi - 642 001.

Submitted for the Viva-Voce examination held on 13.6.2022 at Nallamuthu

Gounder Mahalingam College, Pollachi.

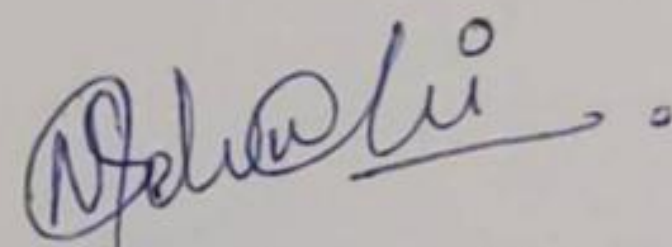
Examiners:

1. *M. Malli* (INTERNAL)
2. *N. Manjula* (External).



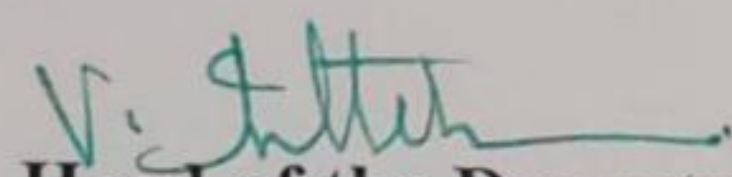
## CERTIFICATE

This is to certify that the project entitled, "A STUDY ON NEUTROSOPHIC GENERALIZED CONTINUOUS FUNCTIONS" submitted to the Department of Mathematics, Nallamuthu Gounder Mahalingam College (Autonomous, Affiliated to the Bharathiar University), Pollachi in partial fulfillment of the requirements for the award of the degree of **MASTER OF SCIENCE IN MATHEMATICS** is a record of original research work done by **Ms. M. MOHANARAMYA (20-PM-22)** during the period (2021 - 2022) of her study in the **Department of Mathematics, Nallamuthu Gounder Mahalingam College, Pollachi** under my supervision and the project work has not formed the basis for the award of any Degree / Diploma / Associateship / Fellowship or other similar title to any candidate of any University.



Signature of the Guide

Countersigned



Head of the Department

Dr. V. Inthumathi, Ph.D.,

Associate Professor & Head

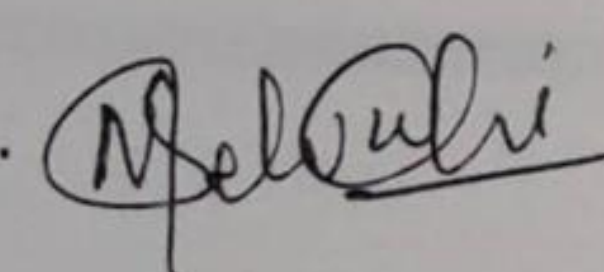
Department of Mathematics

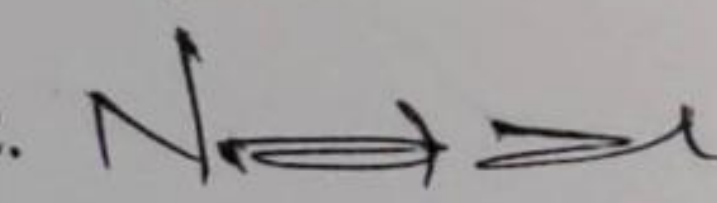
N.G.M. College, Pollachi - 642 001.

Submitted for the Viva -voce examination held on 13.6.2022 at Nallamuthu

Gounder Mahalingam College, Pollachi.

Examiners:

1.  [Internal].

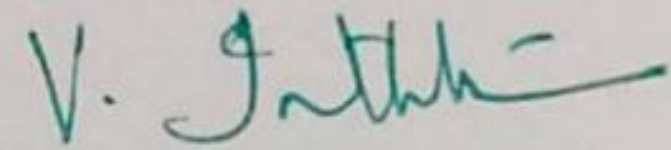
2.  (External).

Declaration



## CERTIFICATE

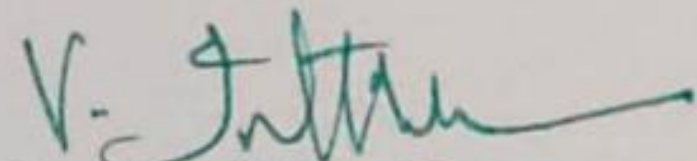
This is to certify that the project entitled, "A STUDY ON HYPERSOFT SEMI-OPEN SETS IN HYPERSOFT TOPOLOGICAL SPACES" submitted to the Department of Mathematics, Nallamuthu Gounder Mahalingam College (Autonomous, Affiliated to the Bharathiar University) in partial fulfillment of the requirements for the award of the degree of **Master of Science in Mathematics** is a record of original research work done by **Ms. NATHIBRAMI . M (20-PM-23)** during the period (2021 - 2022) of her study in the **Department of Mathematics, Nallamuthu Gounder Mahalingam College, Pollachi** under my supervision and the project work has not formed the basis for the award of any Degree / Diploma / Associateship / Fellowship or other similar title to any candidate of any University.



Signature of the Guide

**Dr. V. Inthumathi, Ph.D.,**  
Associate Professor & Head  
Department of Mathematics  
N.G.M College, Pollachi - 642 001.

Countersigned



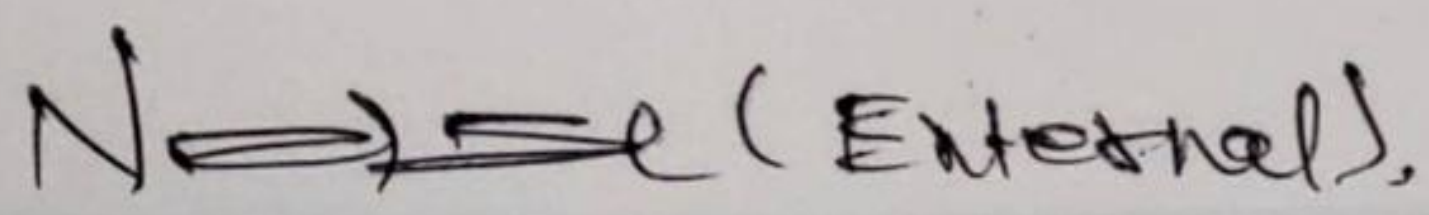
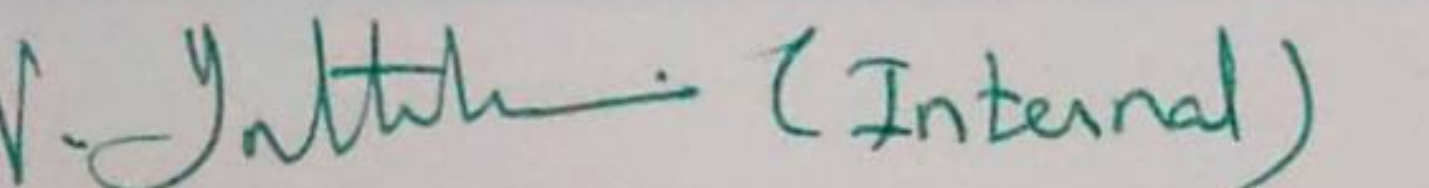
Head of the Department

**Dr. V. Inthumathi, Ph.D.,**  
Associate Professor & Head  
Department of Mathematics  
N.G.M College, Pollachi - 642 001.

Submitted for the Viva -voce examination held on 13.6.2022 at Nallamuthu

Gounder Mahalingam College, Pollachi.

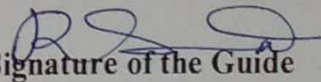
Examiners:

1.  (External).
2.  (Internal)



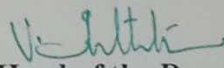
## CERTIFICATE

This is to certify that the project entitled, "A STUDY ON GENERALIZED FUZZY GRAPH STRUCTURES" submitted to the Department of Mathematics, Nallamuthu Gounder Mahalingam College (Autonomous, Affiliated to the Bharathiar University) in partial fulfillment of the requirements for the award of the degree of **Master of Science in Mathematics** is a record of study research work done by **Ms. M. SANGEETHA (20-PM-27)** during the period (2021-2022) of her study in the Department of Mathematics, Nallamuthu Gounder Mahalingam College, Pollachi under my supervision and the project work has not formed the basis for the award of any Degree / Diploma / Associateship / Fellowship or other similar title to any candidate of any University.

  
Signature of the Guide

Dr. R. SANTHI, Ph.D.,  
Assistant Professor  
Department of Mathematics  
N.G.M. College, Pollachi - 642 001.


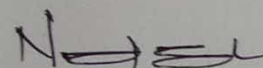
Countersigned

  
Head of the Department

Dr. V. Inthumathi, Ph.D.,  
Associate Professor & Head  
Department of Mathematics  
N.G.M College, Pollachi - 642 001.

Submitted for the Viva -Voce examination held on... 13.6.2022 .....at Nallamuthu Gounder Mahalingam College, Pollachi.

Examiners:

1.  (Internal)
2.  (External).



## CERTIFICATE

This is to certify that the project entitled, "A STUDY ON NUMERICAL METHODS FOR SOLVING SYSTEMS OF NONLINEAR EQUATIONS" submitted to the Department of Mathematics, Nallamuthu Gounder Mahalingam College (Autonomous, Affiliated to the Bharathiar University), Pollachi in partial fulfillment of the requirements for the award of the degree of **Master of Science in Mathematics** is a record of original research work done by **Ms. S. TAMIL SELVI (20-PM-30)** during the period (2021 - 2022) of her study in the **Department of Mathematics, Nallamuthu Gounder Mahalingam College, Pollachi** under my supervision and the project work has not formed the basis for the award of any Degree / Diploma / Associateship / Fellowship or other similar title to any candidate of any University.

Signature of the Guide  
**Dr. V. CHITRA, Ph.D.,**  
Assistant Professor,  
Department of Mathematics,  
N.G.M. College, Pollachi - 642 001

Countersigned

Head of the Department  
**Dr. V. Inthumathi, Ph.D.,**  
Associate Professor & Head  
Department of Mathematics  
N.G.M College, Pollachi - 642 001.

Submitted for the Viva -Voce examination held on <sup>13</sup> ~~15~~ .8. 2022  
Gounder Mahalingam College, Pollachi.

Examiners:


1. (Internal)
2. (Internal).

Declaration




## CERTIFICATE

This is to certify that the project entitled, "A STUDY ON THE ENERGY OF GRAPH" submitted to the Department of Mathematics, Nallamuthu Gounder Mahalingam College (Autonomous, Affiliated to the Bharathiar University) in partial fulfillment of the requirements for the award of the degree of Master of Science in Mathematics is a record of study research work done by Ms. M. S. DESIYAA (20-PM-31) during the period (2021-2022) of her study in the Department of Mathematics, Nallamuthu Gounder Mahalingam College, Pollachi under my supervision and the project work has not formed the basis for the award of any Degree / Diploma / Associateship / Fellowship or other similar title to any candidate of any University.

  
Signature of the Guide  
**Dr. S. SIVASANKAR**  
Assistant Professor  
Department of Mathematics  
N. G. M. College, Pollachi.

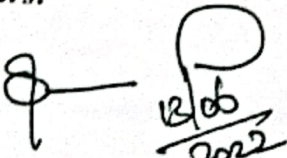
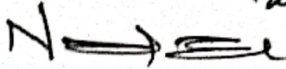
Countersigned

  
Head of the Department  
**Dr. V. Inthumathi, Ph.D.,**  
Assistant Professor & Head  
Department of Mathematics  
N.G.M College, Pollachi - 642 001.

Submitted for the Viva -Voce examination held on 13.06.2022 at Nallamuthu

Gounder Mahalingam College, Pollachi.

Examiners:

-  (Internal)
-  (External).

## CERTIFICATE

This is to certify that the project entitled, "A STUDY ON LOKTA-VOLTERRA EQUATIONS AND ITS APPLICATION" submitted to the Nallamuthu Gounder Mahalingam College (Autonomous, Affiliated to the Bharathiar University), Pollachi in partial fulfillment of the requirements for the award of the degree of **Master of Science in Mathematics** is a record of original research work done by Ms. N. SUMITHARA (20-PM-32) during the period (2021 - 2022) of her study in the Department of Mathematics, Nallamuthu Gounder Mahalingam College, Pollachi under my supervision and the project work has not formed the basis for the award of any Degree / Diploma / Associate ship / Fellowship or other similar title to any candidate of any University.

  
09/06/22

Signature of the Guide

**Dr. S. KALEESWARI, M.Sc., M.Phil., Ph.D.,**  
Assistant Professor,  
Department of Mathematics,  
N.G.M. College, Pollachi - 642 001.


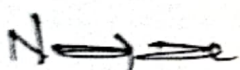
Counter signed

  
Head of the Department

**Dr. V. Inthumathi, Ph.D.,**  
Associate Professor & Head  
Department of Mathematics  
N.G.M. College, Pollachi - 642 001.

Submitted for the Viva-Voce examination held on 13.6.22  
Gounder Mahalingam College, Pollachi.

Examiners:

1. 
2.  (Internal)



## CERTIFICATE

This is to certify that the project entitled, "A STUDY ON THE FUNDAMENTALS OF SOFT SET THEORY" submitted to the Nallamuthu Gounder Mahalingam College(Autonomous, Affiliated to the Bharathiar University) in partial fulfillment of the requirements for the award of the degree of **Master of science in Mathematics** is a record of original research work done by **Ms. T. UMAMAHESHWARI (20-PM-33)** during the period (2021 - 2022) of her study in the **Department of Mathematics, Nallamuthu Gounder Mahalingam College, Pollachi** under my supervision and the project work has not formed the basis for the award of any Degree / Diploma / Associate ship / Fellowship or other similar title to any candidate of any University.

*M. Malli*  
Signature of the Guide

Countersigned

*V. Inthumathi*  
Head of the Department  
Dr. V. Inthumathi, Ph.D.,  
Associate Professor & Head  
Department of Mathematics  
N.G.M College, Pollachi - 642 001.

Submitted for the Viva -voce examination held on *13.6.22* .....  
Gounder Mahalingam College, Pollachi.

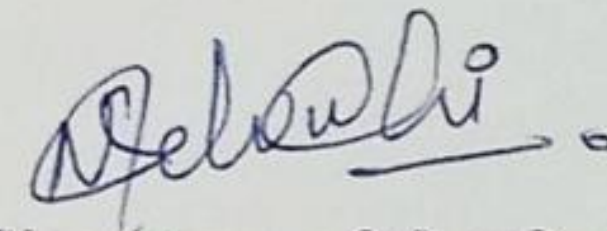
Examiners:

1. *M. Malli* (INTERNAL)
2. *N. S. S.* (External)



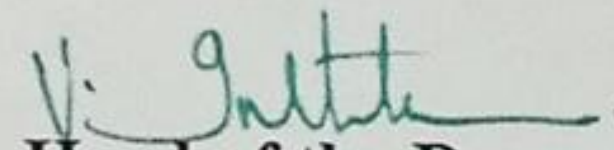
## CERTIFICATE

This is to certify that the project entitled, "A STUDY ON  $\omega$ -CLOSED SETS IN SOFT TOPOLOGICAL SPACES" submitted to the Department of Mathematics, Nallamuthu Gounder Mahalingam College (Autonomous, Affiliated to the Bharathiar University), Pollachi in partial fulfillment of the requirements for the award of the degree of Master of Science in Mathematics is a record of original research work done by Ms. Y. KANCHIYARASI (20-PM-34) during the period (2021 - 2022) of her study in the Department of Mathematics, Nallamuthu Gounder Mahalingam College, Pollachi under my supervision and the project work has not formed the basis for the award of any Degree / Diploma / Associateship / Fellowship or other similar title to any candidate of any University.



Signature of the Guide

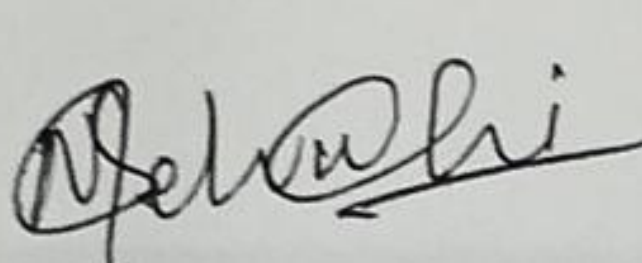
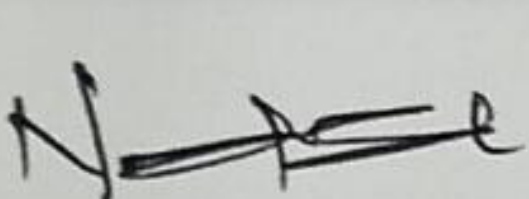
Countersigned



Head of the Department

Submitted for the Viva –Voce examination held on <sup>13.6.2022</sup> ..... Dr. V. Inthumathi, Ph.D.,  
Gounder Mahalingam College, Pollachi. <sup>at Nallamuthu</sup> Associate Professor & Head  
Department of Mathematics  
N.G.M College, Pollachi - 642 001.

Examiners:

1.  [Internal]
2.  (Internal)



**NUMBER OF STUDENTS UNDERTAKING PROJECTS (PG)**

Name of the Department : Mathematics

Name of the Course and Course Code : 19PMS4P1 & Project

S. No	Roll No.	Name of the Student	Project Guide
1	19-PM-01	ARUN BOOPATHI S.M.	Dr.V.INTHUMATHI
2	19-PM-02	VIGNESHWARAN M.	Dr.J.JAYASUDHA
3	19-PM-03	AFRIEN BANU H.	Dr.V.CHITRA
4	19-PM-04	ANNALAKSHMI R.	Dr.S.SIVASANKAR
5	19-PM-05	AYSHABEGAM F.	Dr.S,KALEESWARI
6	19-PM-06	CHARUMATHI P.	Mrs.A.GNANASOUNDARI
7	19-PM-07	DHARANI K.	Dr.N.SELVANAYAKI
8	19-PM-08	GOKILA S.	Dr,M.MAHESWARI
9	19-PM-09	GOKULA PRIYA M.	Dr. V.INTHUMATHI
10	19-PM-10	GOWTHAMI M.	Dr.J.JAYASUDHA
11	19-PM-11	HARITHA H.	Dr. V.CHITRA
12	19-PM-12	HEMAMALINI S.	Dr.S.SIVASANKAR
13	19-PM-13	JAYARAGAVI N.	Dr.S,KALEESWARI
14	19-PM-14	JENITTARAJ N.	Dr.S.SIVASANKAR
15	19-PM-15	KEERTHANA D.	Dr.N.SELVANAYAKI
16	19-PM-17	KOWSALYAHARISHANTHI C.	Dr,M.MAHESWARI
17	19-PM-18	LAKSHMI S.	Dr. V.INTHUMATHI
18	19-PM-19	LAVANYA S.	Dr.J.JAYASUDHA
19	19-PM-20	LISHAMARY A.	Dr. V.CHITRA
20	19-PM-21	LOGAPRIYA A.	Dr.S.SIVASANKAR
21	19-PM-23	MALINI R.	Dr.S,KALEESWARI
22	19-PM-24	MOHANA GAYATHIRI G.	Mrs.A.GNANASOUNDARI
23	19-PM-25	MOHANA SUNDARI S.	Dr.N.SELVANAYAKI

S. No	Roll No.	Name of the Student	Project Guide
24	19-PM-26	PAVITHRA R.	Dr,M.MAHESWARI
25	19-PM-27	SAUMIYA V.	Dr.V.INTHUMATHI
26	19-PM-28	SAVITHA P.	Dr.J.JAYASUDHA
27	19-PM-29	SOWMIYA R.	Dr.V.CHITRA
28	19-PM-30	SUBEKSHA R.	Mrs.M.AMSAVENI

**HEAD OF THE DEPARTMENT**

**Dr. V. Inthumathi, Ph.D.,**  
Associate Professor & Head  
Department of Mathematics  
N.G.M College, Pollachi - 642 001.

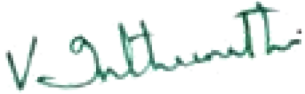
**PRINCIPAL**

**PRINCIPAL**  
**N. G. M. COLLEGE, POLLACHI**



## CERTIFICATE

This is to certify that the Project, entitled “**A STUDY ON NANO ALPHA OPEN SETS IN NANO TOPOLOGICAL SPACES**” submitted to the Bharathiar University, in partial fulfilment of the requirements for the award of the Degree of **MASTER OF SCIENCE IN MATHEMATICS** is a record of original research **S.M.ARUN BOOPATHI (Reg. No. 19-PM-01)** during the period 2019-2020 of his study in the **DEPARTMENT OF MATHEMATICS** at **NALLAMUTHU GOUNDER MAHALINGAM COLLEGE (AUTONOMOUS), POLLACHI**, under my supervision and the Project work has not formed the basis for the award of any Degree / Diploma / Associate ship / Fellowship or other similar title to any candidate of any University.



**Signature of the Guide**

**Countersigned**



**Head of the Department**

Submitted for the Viva-voce Examination held on \_\_\_\_\_ at Nallamuthu Gounder Mahalingam College (Autonomous), Pollachi.

Examiners:

- 1.
- 2.

## CERTIFICATE

This is to certify that the project, entitled “**A STUDY ON  $\alpha$  GENERALIZED PRE-CLOSED SETS IN TOPOLOGICAL SPACES AND SOFT TOPOLOGICAL SPACES**” submitted to the Bharathiar University, in partial fulfillment of the requirements for the award of the Degree of **MASTER OF SCIENCE IN MATHEMATICS** is a record of original research work done by **VIGNESHWARAN.M (19-PM-02)** during the period **(2019 - 2021)** of her study in the **DEPARTMENT OF MATHEMATICS at NALLAMUTHU GOUNDER MAHALINGAM COLLEGE (AUTONOMOUS), POLLACHI**, under my supervision and guidance and the dissertation has not formed the basis for the award of any Degree / Diploma / Associate ship / Fellowship or other similar title to any candidate of any University.



**Signature of the Guide**

**Countersigned**



**Head of the Department**

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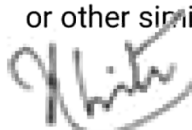
**Examiners:**

- 1.
- 2.



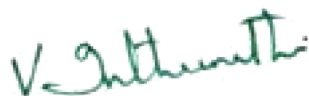
## CERTIFICATE

This is to certify that the dissertation, entitled "A STUDY ON SOFT  $\hat{g}$ -CLOSED SETS IN SOFT TOPOLOGICAL SPACES" submitted to the Bharathiar University, in partial fulfillment of the requirements for the award of the Degree of MASTER OF SCIENCE IN MATHEMATICS is a record of original research work done by H.AFRIEN BANU (19-PM-03) during the period 2019-2020 of her study in the DEPARTMENT OF MATHEMATICS at NALLAMUTHU GOUNDER MAHALINGAM COLLEGE (AUTONOMOUS), POLLACHI, under my supervision and the Project work has not formed the basis for the award of any Degree / Diploma / Associate ship / Fellowship or other similar title to any candidate of any University.



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This is to certify that the dissertation, entitled “**A STUDY ON PRIME CORDIAL LABELLING**” submitted to the Bharathiar University, in partial fulfillment of the requirements for the award of the Degree of **MASTER OF SCIENCE IN MATHEMATICS** is a record of original research work done by **ANNALAKSHMI. R (19-PM-04)** during the period **(2019-2021)** of her study in the **DEPARTMENT OF MATHEMATICS** at **NALLAMUTHU GOUNDER MAHALINGAM COLLEGE (AUTONOMOUS), POLLACHI**, under my supervision and guidance and the dissertation has not formed the basis for the award of any Degree /Diploma /Associate ship /Fellowship or other similar title to any candidate of my University .



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**Head of the Department**

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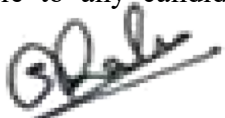
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## CERTIFICATE

This is to certify that the dissertation, entitled “**A STUDY ON STOCHASTIC DIFFERENTIAL EQUATIONS** ” submitted to the Bharathiar University, in partial fulfillment of the requirements for the award of the Degree of **MASTER OF SCIENCE IN MATHEMATICS** is a record of original research work done by **AYSHABEGAM. F (19-PM-05)** during the period **(2020-2021)** of her study in the **DEPARTMENT OF MATHEMATICS** at **NALLAMUTHU GOUNDER MAHALINGAM COLLEGE (AUTONOMOUS), POLLACHI**, under my supervision and the Project work has not formed the basis for the award of any Degree / Diploma / Associate ship / Fellowship or other similar title to any candidate of any University.



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**Examiners:**

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## CERTIFICATE

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**Countersigned**



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**Examiners:**

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## CERTIFICATE

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Head of the Department

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Examiners:

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2.

## CERTIFICATE

This is to certify that the dissertation, entitled “**A STUDY ON SOME WEAKER FORMS OF SOFT OPEN SETS IN SOFT TOPOLOGICAL SPACES**” submitted to the Bharathiar University, in partial fulfillment of the requirements for the award of the Degree of **MASTER OF SCIENCE IN MATHEMATICS** is a record of original research work done by **GOKULAPRIYA. M (19-PM-09)** during the period 2019-2021 of her study in the **DEPARTMENT OF MATHEMATICS at NALLAMUTHU GOUNDER MAHALINGAM COLLEGE (AUTONOMOUS), POLLACHI**, under my supervision and the Project work has not formed the basis for the award of any Degree / Diploma / Associate ship / Fellowship or other similar title to any candidate of any University.



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**Head of the Department**

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**Examiners:**

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- 2.



## CERTIFICATE

This is to certify that the project, entitled “A STUDY ON  $\alpha$ -g-CLOSED SETS IN TOPOLOGICAL SPACES SOFT TOPOLOGICAL SPACES ” submitted to the Bharathiar University, in partial fulfillment of the requirements for the award of the Degree of **MASTER OF SCIENCE IN MATHEMATICS** is a record of original research work done by **M. GOWTHAMI (19-PM-10)** during the period (2019 - 2021) of her study in the **DEPARTMENT OF MATHEMATICS** at **NALLAMUTHU GOUNDER MAHALINGAM COLLEGE (AUTONOMOUS), POLLACHI**, under my supervision and guidance and the dissertation has not formed the basis for the award of any Degree / Diploma / Associate ship / Fellowship or other similar title to any candidate of any University.



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**Countersigned**



**Head of the Department**

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**Examiners:**

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## CERTIFICATE

This is to certify that the project, entitled “**A STUDY ON  $\rho$ -I-CLOSED SETS IN IDEAL TOPOLOGICAL SPACES**” submitted to the Bharathiar University, in partial fulfillment of the requirements for the award of the Degree of **MASTER OF SCIENCE IN MATHEMATICS** is a record of original research work done by **HARITHA.H (19-PM-11)** during the period **(2019 - 2021)** of her study in the **DEPARTMENT OF MATHEMATICS** at **NALLAMUTHU GOUNDER MAHALINGAM COLLEGE (AUTONOMOUS), POLLACHI**, under my supervision and guidance and the dissertation has not formed the basis for the award of any Degree / Diploma / Associate ship / Fellowship or other similar title to any candidate of any University.



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- 2.



## CERTIFICATE

This is to certify that the project, entitled “**A STUDY ON GEODETIC NUMBERS OF GRAPHS AND DIGRAPHS**” submitted to the Bharathiar University, in partial fulfillment of the requirements for the award of the Degree of **MASTER OF SCIENCE IN MATHEMATICS** is a record of original research work done by **HEMAMALINI.S (19-PM-12)** during the period **(2019 - 2021)** of her study in the **DEPARTMENT OF MATHEMATICS at NALLAMUTHU GOUNDER MAHALINGAM COLLEGE (AUTONOMOUS), POLLACHI**, under my supervision and guidance and the dissertation has not formed the basis for the award of any Degree / Diploma / Associate ship / Fellowship or other similar title to any candidate of any University.

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**Countersigned**

**Head of the Department**

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**Examiners:**

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## CERTIFICATE

This is to certify that the dissertation, entitled “**RUNGE – KUTTA METHOD FOR DELAY DIFFERENTIAL EQUATIONS** ” submitted to the Bharathiar University, in partial fulfillment of the requirements for the award of the Degree of **MASTER OF SCIENCE IN MATHEMATICS** is a record of original research work done by **JAYARAGAVI. N (19-PM-13)** during the period **(2020-2021)** of her study in the **DEPARTMENT OF MATHEMATICS** at **NALLAMUTHU GOUNDER MAHALINGAM COLLEGE (AUTONOMOUS), POLLACHI**, under my supervision and guidance and the dissertation has not formed the basis for the award of any Degree / Diploma / Associate ship / Fellowship or other similar title to any candidate of any University.



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**Countersigned**



**Head of the Department**

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Mahalingam College, Pollachi.

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## **CERTIFICATE**

This is to certify that the dissertation, entitled “**A STUDY ON HAMILTONIAN CIRCUITS IN A COMPLETE GRAPH**” submitted to the Bharathiar University, in partial fulfillment of the requirements for the award of the Degree of **MASTER OF SCIENCE IN MATHEMATICS** is a record of original research work done by **JENITTARAJ. N (19-PM-14)** during the period **(2019-2021)** of her study in the **DEPARTMENT OF MATHEMATICS** at **NALLAMUTHU GOUNDER MAHALINGAM COLLEGE (AUTONOMOUS), POLLACHI**, under my supervision and guidance and the dissertation has not formed the basis for the award of any Degree / Diploma / Associateship / Fellowship or other similar title to any candidate of any University.

*A - P*

**Signature of the Guide**

*V. Senthil Kumar*

**Countersigned**

**Head of the Department**

Submitted for the Viva-Voce examination held on.....at  
Nallamuthu Gounder Mahalingam College, Pollachi.

**Examiners:**

- 1.
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## CERTIFICATE

This is to certify that the project, entitled “**A STUDY ON GENERALIZED\*-  
CLOSED SETS IN MULTISSET TOPOLOGICAL SPACES**” submitted to the Bharathiar University, in partial fulfillment of the requirements for the award of the Degree of **MASTER OF SCIENCE IN MATHEMATICS** is a record of original research work done by **KEERTHANA. D (19-PM-15)** during the period **(2019 - 2021)** of her study in the **DEPARTMENT OF MATHEMATICS at NALLAMUTHU GOUNDER MAHALINGAM COLLEGE (AUTONOMOUS), POLLACHI**, under my supervision and guidance and the dissertation has not formed the basis for the award of any Degree / Diploma / Associate ship / Fellowship or other similar title to any candidate of any University.



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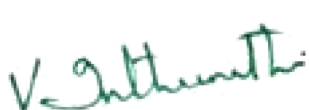


## CERTIFICATE

This is to certify that the dissertation, entitled "A STUDY ON GENERALIZED SEMI CLOSED AND OPEN SETS IN MULTISET TOPOLOGICAL SPACES" submitted to the Bharathiar University, in partial fulfillment of the requirements for the award of the Degree of MASTER OF SCIENCE IN MATHEMATICS is a record of original research work done by KOWSALYAHARISHANTHI C. (19-PM-17) during the period (2019 - 2021) of her study in the DEPARTMENT OF MATHEMATICS at NALLAMUTHU GOUNDER MAHALINGAM COLLEGE (AUTONOMOUS), POLLACHI, under my supervision and guidance and the dissertation has not formed the basis for the award of any Degree / Diploma / Associate ship [Fellowship or other similar title to any candidate of any University.



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Head of the Department

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Examiners:

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## CERTIFICATE

This is to certify that the project, entitled “ON NANO SEMI  $\alpha$ -I OPEN SETS ” submitted to the Bharathiar University, in partial fulfillment of the requirements for the award of the Degree of **MASTER OF SCIENCE IN MATHEMATICS** is a record of original research work done by **LAKSHMI. S (19-PM-18)** during the period **(2019 - 2021)** of her study in the **DEPARTMENT OF MATHEMATICS** at **NALLAMUTHU GOUNDER MAHALINGAM COLLEGE (AUTONOMOUS), POLLACHI**, under my supervision and guidance and the dissertation has not formed the basis for the award of any Degree / Diploma / Associate ship / Fellowship or other similar title to any candidate of any University.



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**Countersigned**

**Head of the Department**

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## CERTIFICATE

This is to certify that the dissertation, entitled “A STUDY ON ~~goc~~-CLOSED SETS IN TOPOLOGICAL SPACES AND SOFT TOPOLOGICAL SPACES ” submitted to the Bharathiar University, in partial fulfillment of the requirements for the award of the Degree of **MASTER OF SCIENCE IN MATHEMATICS** is a record of original research work done by **S.LAVANYA (19-PM-19)** during the period 2019-2020 of her study in the **DEPARTMENT OF MATHEMATICS AT NALLAMUTHU GOUNDER MAHALINGAM COLLEGE (AUTONOMOUS), POLLACHI**, under my supervision and the Project work has not formed the basis for the award of any Degree / Diploma / Associate ship / Fellowship or other similar title to any candidate of any University.



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## CERTIFICATE

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## CERTIFICATE

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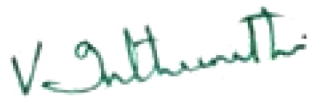
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**Head of the Department**

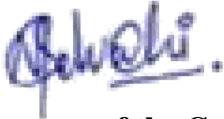
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PRE CLOSED SETS IN MULTISSET TOPOLOGICAL SPACES**” submitted to the  
Bharathiar University, in partial fulfillment of the requirements for the award of the Degree  
of **MASTER OF SCIENCE IN MATHEMATICS** is a record of original research work done  
by **MOHANASUNDARI S. (19-PM-25)** during the period 2019-2021 of her study in the  
**DEPARTMENT OF MATHEMATICS at NALLAMUTHU GOUNDER MAHALINGAM  
COLLEGE (AUTONOMOUS), POLLACHI**, under my supervision and the Project work has  
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**Examiners:**

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## CERTIFICATE

This is to certify that the project, entitled “**A STUDY ON ii-OPEN SETS IN NANO TOPOLOGICAL SPACES**” submitted to the Bharathiar University, in partial fulfillment of the requirements for the award of the Degree of **MASTER OF SCIENCE IN MATHEMATICS** is a record of original research work done by **PAVITHRA R. (19-PM-26)** during the period **(2019 - 2021)** of her study in the **DEPARTMENT OF MATHEMATICS** at **NALLAMUTHU GOUNDER MAHALINGAM COLLEGE (AUTONOMOUS), POLLACHI**, under my supervision and guidance and the dissertation has not formed the basis for the award of any Degree / Diploma / Associate ship / Fellowship or other similar title to any candidate of any University.



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**Examiners:**

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**Countersigned**



**Head of the Department**

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**Examiners:**

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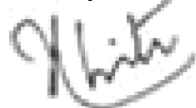
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**Countersigned**

**Head of the Department**

Submitted for the Viva-voce Examination held on \_\_\_\_\_ at Nallamuthu Gounder Mahalingam College (Autonomous), Pollachi.



**Examiners:**

- 1.
- 2.

**CERTIFICATE**

This is to certify that the project entitled “ **EXTENSION OF SOFT MATRICES TO HYPERSOFT MATRICES**” submitted to the Nallamuthu Gounder Mahalingam College (Autonomous, Affiliated to the Bharathiar University) in partial fulfillment of the requirements for the award of the degree of **Master of science in Mathematics** during the period 2019 - 2021 of her study in the **Department of Mathematics** at **Nallamuthu Gounder Mahalingam College (Autonomous), Pollachi**, under my supervision and the projectwork has not formed the basis for the award of any Degree / Diploma / /Assosiatehip / Fellowship or other similar title to any candidate University.



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**Head of the Department**

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Examiners:

- 1.
- 2.

**NUMBER OF STUDENTS UNDERTAKING PROJECTS (PG)**

Name of the Department : Mathematics

Name of the Course and Course Code : 18PMS4P1 &amp; Project

S. No	Roll No.	Name of the Student	Project Guide
1	18-PM-01	MAHALINGAM S.	Dr. S. SIVASANKAR
2	18-PM-02	SELVAKARTHIKAYEN P.	Dr. V. INTHUMATHI
3	18-PM-03	ABINAYA L.	Dr. J. JAYASUDHA
4	18-PM-04	AKSHAYA K.	Dr. R. SANTHI
5	18-PM-05	ANGUPARAMESWARI G.	Dr. V. CHITRA
6	18-PM-06	DIVYA P.	Dr. S. SIVASANKAR
7	18-PM-07	GAYATHRI P.	Dr. S. KALEESWARI
8	18-PM-08	GOKILA N.	Ms. M. AMSAVENI
9	18-PM-09	GOWRIKAMATCHI D.	Ms. A. GNANASOUNDARI
10	18-PM-10	GOWSALYA V.	Dr. V. CHITRA
11	18-PM-11	HEMALATHA P.	Dr. J. JAYASUDHA
12	18-PM-12	HEMAMBIGAI S.	Dr. V. INTHUMATHI
13	18-PM-13	JAYASUDHA S.	Dr. J. JAYASUDHA
14	18-PM-14	JEEVAROHINI N.	Dr. S. KALEESWARI
15	18-PM-15	KALAIMATHI T.	Dr. V. CHITRA
16	18-PM-16	KARTHIYA M.V.	Dr. S. SIVASANKAR
17	18-PM-17	KARUNYA S.	Dr. S. KALEESWARI
18	18-PM-18	KAVIMATHI R.	Dr. V. CHITRA
19	18-PM-19	KAVYA A.	Dr. V. INTHUMATHI
20	18-PM-20	MAHALAKSHMI P.	Dr. J. JAYASUDHA
21	18-PM-21	MAHALAKSHMI S.	Dr. V. INTHUMATHI
22	18-PM-22	MALINIPRIYA S.	Dr. V. CHITRA
23	18-PM-23	MENAGAPRIYA T.	Dr. S. SIVASANKAR



S. No	Roll No.	Name of the Student	Project Guide
24	18-PM-24	NITHYA K.	Dr. S.KALEESWARI
25	18-PM-25	PRIYA A.	Dr. S.KALEESWARI
26	18-PM-26	PRIYADHARSHINI D.	Dr. V. INTHUMATHI
27	18-PM-27	RAGAVI S.	Dr. J. JAYASUDHA
28	18-PM-28	RAMYA E.	Dr. V. INTHUMATHI
29	18-PM-29	SANGAVI E.M.	Dr. V. CHITRA
30	18-PM-30	SELVA RANI S.	Dr. S. SIVASANKAR
31	18-PM-31	SHOBIKA K.	Dr. S. KALEESWARI
32	18-PM-32	SINDHIYA M.	Ms. A.GNANASOUNDARI
33	18-PM-33	SIVASANKARI R.	Dr. V. INTHUMATHI
34	18-PM-34	SOWNDHARYA J.	Dr. J. JAYASUDHA
35	18-PM-35	SRINITHI S.	Dr. J. JAYASUDHA
36	18-PM-36	SUBALAKSHMI G.	Dr. V. CHITRA

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**PRINCIPAL**

**PRINCIPAL**  
**G. M. COLLEGE, POLLACHI**

# **A STUDY ON THEORETIC ALGORITHMS IN GRAPH THEORY**

Project work submitted to  
Nallamuthu Gounder Mahalingam College (Autonomous), Pollachi, in partial  
fulfilment of the requirements for the award of the Degree of

## **MASTER OF SCIENCE IN MATHEMATICS**

Submitted By

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**JULY-2020**

# **A STUDY ON GRAPH LABELLINGS**

Project work submitted to  
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## **MASTER OF SCIENCE IN MATHEMATICS**

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**JULY-2020**



**NUMERICAL MODELLING WITH C++  
PROJECT REPORT**

Submitted by

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In partial fulfillment of the requirement for the award of the Degree of

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**DEPARTMENT OF MATHEMATICS**

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**Pollachi – 642001**

**JULY-2020**

**A STUDY ON HAMILTONICITY OF CAYLEY GRAPHS AND ITS  
PRODUCTS**

Project work submitted to

Nallamuthu Gounder Mahalingam College, Pollachi,

In partial fulfillment of the requirement for the award of the Degree of

**MASTER OF SCIENCE IN MATHEMATICS**

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**DIVYA.P**

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**POLLACHI – 642001**

**AUGUST-2020**

**BASIC CONNECTIVITIES IN FUZZY LOGIC**

Submitted by

**GAYATHRI. D**

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**JULY-2020**



# **A STUDY ON FUZZY HYPERGRAPHS**

*Project work submitted to Nallamuthu Gounder Mahalingam College (Autonomous),  
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## **MASTER OF SCIENCE IN MATHEMATICS**

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JULY 2020

# **A STUDY ON SEPARATION AXIOMS IN BITOPOLOGICAL SPACES**

*Project work submitted to  
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## **MASTER OF SCIENCE IN MATHEMATICS**

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**JULY-2020**

# **A STUDY ON FREDHOLM OPERATORS**

Project work submitted to

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## **MASTER OF SCIENCE IN MATHEMATICS**

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**JULY-2020**



# **A STUDY ON IRRATIONAL NUMBERS AND FAREY SERIES**

*Project work submitted to  
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## **MASTER OF SCIENCE IN MATHEMATICS**

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**JULY-2020**

**A STUDY ON EGYPTIAN FRACTION  
PROJECT REPORT**

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# **A STUDY ON MARKOV ANALYSIS**

*Project work submitted to Nallamuthu Gounder Mahalingam College (Autonomous),  
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## **MASTER OF SCIENCE IN MATHEMATICS**

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**JULY-2020**



# **A STUDY ON FUZZY GRAPHS**

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**AUGUST-2020**

# **A STUDY ON RIEMANN SURFACES**

*Project work submitted to  
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**A STUDY ON SUM CORDIAL LABELING OF  
GRAPHS**

*Project work submitted to  
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**July 2020**



**A STUDY ON DETERMINANT AND ADJOINT OF  
FUZZY SQUARE MATRIX**

*Project work submitted to Nallamuthu Gounder Mahalingam College  
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**MASTER OF SCIENCE IN MATHEMATICS**

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**JUNE - 2020**

# **A STUDY ON HYPERGRAPH**

*Project work submitted to Nallamuthu Gounder Mahalingam College (Autonomous),  
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## **MASTER OF SCIENCE IN MATHEMATICS**

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**BEHAVIOUR OF MATRICES UNDER  
PERTURBATION THEORY**

Submitted by

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**JULY-2020**



# **A STUDY ON FUZZY SQUARE MATRIX AND ITS APPLICATION**

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**JUNE - 2020**

**A STUDY ON TURTLE GEOMETRY  
PROJECT REPORT**

Submitted by

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**JULY-2020**

# **A STUDY ON CRYPTOLOGY**

## **PROJECT REPORT**

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**JULY-2020**



**A STUDY ON UNIFORM SPACES  
PROJECT REPORT**

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**JULY-2020**

# **A STUDY ON DIFFERENT TYPES OF INTERPOLATION**

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**JULY-2020**

# **A STUDY ON DIOPHANTINE EQUATIONS**

*Project work submitted to  
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**JULY-2020**