

CONVERGENCE AND CONTRACTION MAPPING

Project report submitted to

St.Mary's College (Autonomous), Thoothukudi.

Affiliated to

MANONMANIAM SUNDARANAR UNIVERSITY, TIRUNELVELI.

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

Bachelor of Science in Mathematics

Submitted by

NAMES
AGNEL BETZI .R
ANGEL .R
HARI NACHIYAR .S
SARADHA .P
SREEVARSHA .M

REG.NO.
16AUMT01
16AUMT04
16AUMT13
16AUMT37
16AUMT44

Under the Guidance of

Dr.V.L.Stella Arputha Mary M.sc.,M.Phil.,Ph.D.

Assistant Professor in Mathematics

St.Mary's College(Autonomous),Thoothukudi.



Department of Mathematics

ST.MARY'S COLLEGE (AUTONOMOUS)

Thoothukudi.

(2018-2019)

CERTIFICATE

We hereby declare that the project report entitled “**CONVERGENCE AND CONTRACTION MAPPING**” being submitted to St.Mary’s College(Autonomous) , Thoothukudi affiliated to Manonmaniam Sundaranar University , Tirunelveli , in partial fulfillment for the award of degree of Bachelor of Science in Mathematics and it is a record of work done during the year 2018-2019 by the following students.

AGNEL BETZI .R

16AUMT01

ANGEL .R

16AUMT04

HARI NACHIYAR.S

16AUMT13

SARADHA .P

16AUMT37

SREEVARSHA .M

16AUMT44

Signature of the Guide

U.P.-10 22

Signature of the HOD

Dr. A. PRATHAPATHARAN, M.Sc., M.Phil., Ph.D.,
HOD & Associate Professor
Department of Mathematics
St. Mary's College (Autonomous)
Thoothukudi - 628001.

Signature of the Examiner

Lucia Rose

Signature of the Principal

St. Mary's College (Autonomous)
Thoothukudi - 628 001.

DECLARATION

We hereby declare that the project report entitled “**CONVERGENCE AND CONTRACTION MAPPING**” is our original work. It has not been submitted to any University for any degree or diploma.

R. Agnel Betzi.

(AGNEL BETZI .R)

R. Angel

(ANGEL .R)

S. Hari Nachiyar

(HARI NACHIYAR .S)

P. Saradha

(SARADHA .P)

M. Sreevarsha/

(SREEVARSHA .M)

LABELING IN GRAPH THEORY

Project report submitted to

ST.MARY'S COLLEGE (AUTONOMOUS), THOOTHUKUDI

Affiliated to

MANONMANIAM SUNDARANAR UNIVERSITY, TIRUNELVELI

in partial fulfillment of the requirement for the award of

Bachelor of Science in Mathematics

submitted by

NAME

REGISTER NUMBER

S.ANGEL KIRUBA

16AUMT03

P.CHRISTINA CAROLIN

16AUMT10

S.GAYATHRI DEVI

16AUMT12

S.PRATIKSHA

16AUMT30

R.SNOWY RASHMILA

16AUMT42

Under the Guidance of

Dr.A.Punitha Tharani , M.Sc. , M. Phil, Ph.D.

Head of the Department of Mathematics

St.Mary's college (Autonomous), Thoothukudi.



Department of Mathematics

ST.MARY'S COLLEGE (AUTONOMOUS)

Thoothukudi

(2018-2019)

CERTIFICATE

We hereby declare that the project report entitled "Labeling in Graph Theory" being submitted to St.Mary's college (Autonomous), Thoothukudi affiliated to Manonmaniam Sundaranar University, Tirunelveli ,in partial fulfillment for the award of degree Bachelor of Sciences in Mathematics and is a record of work done during the year 2018-2019 by the following students.

NAME	REGISTER NUMBER
S.ANGEL KIRUBA	16AUMT03
P.CHRISTINA CAROLIN	16AUMT10
S.GAYATHRI DEVI	16AUMT12
S.PRATIKSHA	16AUMT30
R.SNOWY RASHMILA	16AUMT42

A-P-80 OL

GUIDE

Dr. A. PUNITHA THARANI, M.Sc., M.Phil., Ph.D.,
HOD & Associate Professor
Department of Mathematics
St. Mary's College (Autonomous)
Thoothukudi - 628001.

R. S. S. S. S.
EXAMINER 9/11/19

A-P-80 OL

HEAD OF THE DEPARTMENT

Dr. A. PUNITHA THARANI, M.Sc., M.Phil., Ph.D.,
HOD & Associate Professor
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St. Mary's College (Autonomous)
Thoothukudi - 628001.

Lucia Rose

PRINCIPAL

St. Mary's College (Autonomous)
Thoothukudi - 628 001.

DECLARATION

We hereby declare that the project report entitled "LABELING IN GRAPH THEORY" is our original work. It has not been submitted to any University for any degree or diploma.

S. Angel Kiruba
(S.ANGEL KIRUBA)

P. Christina Carolin.
(P.CHRISTINA CAROLIN)

S. Gayathri Devi
(S.GAYATHRI DEVI)

S. Pratiksha
(S.PRATIKSHA)

R. Snowy Rashmila
(R.SNOWY RASHMILA)

FUZZY SETS AND FUZZY LOGIC

Project report submitted to

St. Mary's College (Autonomous), Thoothukudi.

Affiliated to

MANONMANIAM SUNDARANAR UNIVERSITY, TIRUNELVELI.

in partial fulfillment of the requirement for the award of degree of

Bachelor of Science in Mathematics

Submitted by

NAMES

REG. NO.

AROCKIA SHEGALI. N

16AUMT05

INFANTA JASMINE RUSHMITHA . T

16AUMT14

MARIA INFANT MOUNISHA . W

16AUMT23

NAGALAKSHMI . S

16AUMT27

POOVINSHAL . P

16AUMT29

Under the Guidance of

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Associate Professor in Mathematics

St. Mary's College (Autonomous), Thoothukudi



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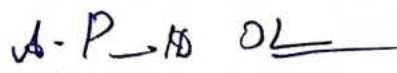
(2018 - 2019)

CERTIFICATE

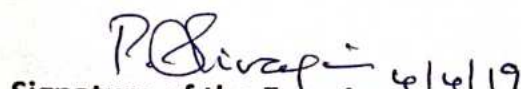
We hereby declare that the project report entitled "**FUZZY SETS AND FUZZY LOGIC**" being submitted to St. Mary's College (Autonomous), Thoothukudi, affiliated to Manonmaniam Sundaranar University, Tirunelveli, in partial fulfillment for the award of degree of Bachelor of Science in Mathematics and it is a record of work done during the year 2018 – 2019 by the following students


AROCKIA SHEGALI . N	16AUMT05
INFANTA JASMINE RUSHMITHA . T	16AUMT14
MARIA INFANT MOUNISHA . W	16AUMT23
NAGALAKSHMI . S	16AUMT27
POOVINSHAL . P	16AUMT29


Signature of the Guide


Signature of the HOD

Dr. A. PUNITA THARANI, M.Sc., M.Phil., Ph.D.,
HOD & Associate Professor
Department of Mathematics
St. Mary's College (Autonomous)
Thoothukudi - 628001.


Signature of the Examiner 4/4/19


Signature of the Principal
St. Mary's College (Autonomous)
Thoothukudi - 628 001.

DECLARATION

We hereby declare that the project report entitled "**FUZZY SETS AND FUZZY LOGIC**" is our original work. It has not been submitted to any University for any degree or diploma.

Arockia Shegali . N
(AROCKIA SHEGALI . N)

Infanta Jasmine Rushmitha . T
(INFANTA JASMINE RUSHMITHA . T)

Maria Infant Mounisha . W
(MARIA INFANT MOUNISHA . W)

Nagalakshmi . S
(NAGALAKSHMI . S)

P. Poovinshal
(POOVINSHAL . P)

FUZZY MATRIX

Project report submitted to

St. Mary's College (Autonomous), Thoothukudi.

Affiliated to

MANONMANIAM SUNDARANAR UNIVERSITY, TIRUNELVELI.

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

Bachelor of Science in Mathematics

Submitted by

NAMES	REG.NO.
ARUL VICI RACHEL .L	16AUMT06
MALATHI .U	16AUMT21
PUSPAVALLI HINDUJA .A	16AUMT32
SHANMUGADURKA .A	16AUMT38
SHUNMUGA PRIYA .S	16AUMT41

Under the guidance of

Sr. S. Kulandai Therese Msc., B.Ed., M.phil.,

Assistant Professor in Mathematics

St. Mary's College (Autonomous), Thoothukudi.



Department of Mathematics

ST.MARY'S COLLEGE (AUTONOMOUS)

Thoothukudi.

(2018-2019)


CERTIFICATE

We hereby declare that the project report entitled "FUZZY MATRIX" being submitted to St. Mary's College (Autonomous), Thoothukudi, affiliated to Manonmaniam Sundaranar University, Tirunelveli, in partial fulfillment for the award of degree of Bachelor of Science in Mathematics and it is a record of work done during the year 2018-2019 by the following students

NAMES	REG.NO.
ARUL VICI RACHEL .L	16AUMT06
MALATHI .U	16AUMT21
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SHANMUGADURKA .A	16AUMT38
SHUNMUGA PRIYA .S	16AUMT41

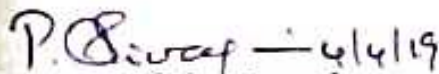


Signature of the Guide



Signature of the HOD

Dr. A. PRATYAKSHARANI, M.Sc., M.Phil., Ph.D.
HOD & Associate Professor
Department of Mathematics
St. Mary's College (Autonomous)
Thoothukudi - 628001.



Signature of the Examiner



Signature of the Principal

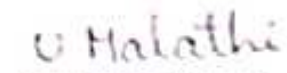
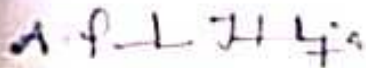
St. Mary's College (Autonomous)
Thoothukudi - 628 001.

DECLARATION


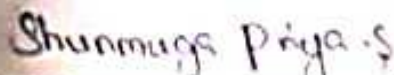
We hereby declare that the project report entitled "FUZZY MATRIX" is our original work. It has not been submitted to any University for any degree or diploma.



(ARUL VICI RACHEL .L)


(MALATHI .U)

(PUSPAVALLI HINDUJA .A)


(SHANMUGADURKA .A)

(SHUNMUGA PRIYA .S)

A STUDY ON NETS AND FILTERS IN TOPOLOGICAL SPACES

Project report submitted to

St. Mary's College (Autonomous), Thoothukudi.

Affiliated to

MANONMANIAM SUNDARANAR UNIVERSITY, TIRUNELVELI

in partial fulfillment of the requirement for the award of degree of

Bachelor of Science in Mathematics

Submitted by

NAMES

REG. NO.

BANUMATHI.E

16AUMT07

CHRISTY LIZY.S

16AUMT11

SHEEBA.S

16AUMT40

VENNILA.J

16AUMT46

YAAMINI.K.S

16AUMT48

Under the Guidance of

Dr. J. Arul Jesti M.Sc., B.Ed., M.Phil., Ph.D.

Assistant Professor in Mathematics

St. Mary's College (Autonomous), Thoothukudi.



Department of Mathematics

ST. MARY'S COLLEGE (AUTONOMOUS),

Thoothukudi.


(2018 – 2019)

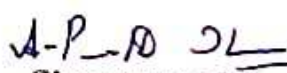
CERTIFICATE

We hereby declare that the project report entitled "A STUDY ON NETS AND FILTERS IN TOPOLOGICAL SPACES" being submitted to St. Mary's College (Autonomous), Thoothukudi, affiliated to Manonmaniam Sundaranar University, Tirunelveli, in partial fulfillment for the award of degree of Bachelor of Science in Mathematics and it is a record of work done during the year 2018-2019 by the following students


BANUMATHLE
CHRISTY LIZY.S
SHEEBA.S
VENNILAJ
YAAMINI.K.S

16AUMT07
16AUMT11
16AUMT40
16AUMT46
16AUMT48


Signature of the Guide


Signature of the HOD
Dr. A. PUNITA THARANI, M.Sc., M.Phil, Ph.D.,
HOD & Associate Professor
Department of Mathematics
St. Mary's College (Autonomous)
Thoothukudi - 628001.


Signature of the Examiner


Signature of the Principal
St. Mary's College (Autonomous)
Thoothukudi - 628001.

DECLARATION

We hereby declare that the project report entitled “A STUDY ON NI FILTERS IN TOPOLOGICAL SPACES” is our original work. It is submitted to any University for any degree or diploma.

E. Banumathi

(BANUMATHI.E)

S. Christy Lizy

(CHRISTY LIZY.S)

S. Sheeba

(SHEEBA.S)

J. Vennila

(VENNILA.J)

Yaamini

(YAAMINI.K.S)

MATRICES IN GRAPHS AND ENERGY OF A GRAPH

Project report submitted to

St. Mary's College (Autonomous), Thoothukudi.

Affiliated to

MANONMANIAM SUNDARANAR UNIVERSITY, TIRUNELVELI.

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

Bachelor of Science in Mathematics

Submitted by

NAMES	REG. NO.
BINOSHINI.J	16AUMT08
JENCY.J	16AUMT15
JENIFER JANANY.T	16AUMT17
JENIFER.S	16AUMT18
SANTRA.S	16AUMT36

Under the Guidance of

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BINOSHINI.J

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JENCY.J

16AUMT15

JENIFER JANANY.T

16AUMT17

JENIFER.S

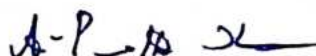
16AUMT18

SANTRA.S

16AUMT36

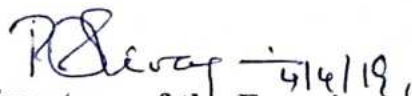


Signature of the Guide



Signature of the HOD

Dr. A. PUNITHA THARANI, M.Sc., M.Phil., Ph.D.,
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Department of Mathematics
St. Mary's College (Autonomous)
Thoothukudi - 628001.



Signature of the Examiner



Signature of the Principal
St. Mary's College (Autonomous)
Thoothukudi - 628 001.

DECLARATION

We hereby declare that the project report entitled "**MATRICES IN GRAPHS AND ENERGY OF A GRAPH**" is our original work. It has not been submitted to any University for any degree or diploma.

J. Binoshini
(BINOSHINI.J)

J. Jency
(JENCY.J)

T. Jennifer Janany
(JENIFER JANANY.T)

S. Jenifer
(JENIFER.S)

S. Santra
(SANTRA.S)

A STUDY ON TOPOLOGY AND SOFT TOPOLOGY

Project report submitted to

St. Mary's College (Autonomous), Thoothukudi.

Affiliated to

MANONMANIAM SUNDARANAR UNIVERSITY, TIRUNELVELI.

in partial fulfillment of the requirement for the award of degree of

Bachelor of Science in Mathematics

Submitted by

NAMES

REG.NO.

CHITHRA .S

16AUMT09

MARIA JOEL .P

16AUMT24

SANDRA .N

16AUMT35

SORNA SUNDHARI .T

16AUMT43

VISVAPRIYA .R

16AUMT47

Under the Guidance of

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Assistant Professor in Mathematics

St. Mary's College (Autonomous), Thoothukudi.



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ST. MARY'S COLLEGE (AUTONOMOUS)

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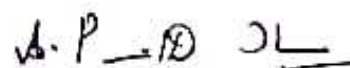
(2018-2019)

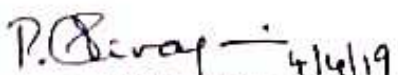
CERTIFICATE


I hereby declare that the project report entitled "A STUDY ON TOPOLOGY AND SOFT TOPOLOGY" being submitted to St. Mary's College (Autonomous), Thoothukudi, affiliated to Manonmaniam Sundaranar University, Tirunelveli, in partial fulfillment for the award of degree of Bachelor of Science in Mathematics and it is a record of work done during the year 2018-2019 by the following students

THITHIRA .S	16AUMT09
ARIYA JOEL .P	16AUMT24
ANDRA .N	16AUMT35
ORNA SUNDHARI .T	16AUMT43
ISVAPRIYA .R	16AUMT47


Signature of the Guide


Signature of the HOD
Dr. A. KUMITHA THARANI, M.Sc., M.Phil., Ph.D.,
HOD & Associate Professor
Department of Mathematics
St. Mary's College (Autonomous)
Thoothukudi - 628001


Signature of the Examiner


Signature of the Principal
St. Mary's College (Autonomous)
Thoothukudi - 628001.

DECLARATION

We hereby declare that the project report entitled "A STUDY ON TOPOLOGY AND SOFT TOPOLOGY" is our original work. It has not been submitted to any university for any degree or diploma.

S. Chithra
(CHITHRA .S)

P. Maria Joel
(MARIA JOEL .P)

N. Sandra
(SANDRA .N)

T. Sorna Sundhari
(SORNA SUNDHARI .T)

R. Visvapriya
(VISVAPRIYA .R)

DECISION MAKING ANALYSIS

Project report submitted to

St. Mary's College (Autonomous), Thoothukudi.

Affiliated to

MANONMANIAM SUNDARANAR UNIVERSITY, TIRUNELVELI.

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

Bachelor of Science in Mathematics

Submitted by

NAMES	REG. NO.
JEROMA RENICOLA .J	16AUMT19
MARIA ANTONEY SIYAMINI .J	16AUMT22
MUHIDEEN SYEDALI SHARA .S	16AUMT26
SAHAYA JOSEPHIN MARY .M	16AUMT34
SHARMILA .M	16AUMT39

Under the Guidance of

Dr. V.L. Stella Arputha Mary, M.Sc., M.Phil., Ph.D.,

Assistant Professor in Mathematics

St. Mary's College (Autonomous), Thoothukudi.



Department of Mathematics

ST. MARY'S COLLEGE (AUTONOMOUS),

Thoothukudi

(2018 – 2019)

CERTIFICATE

We hereby declare that the project report entitled "**DECISION MAKING ANALYSIS**" being submitted to St. Mary's College (Autonomous), Thoothukudi, affiliated to Manonmaniam Sundaranar University, Tirunelveli, in partial fulfillment for the award of degree of Bachelor of Science in Mathematics and it is a record of work done during the year 2018 - 2019 by the following students.

JEROMA RENICOLA .J

16AUMT19

MARIA ANTONEY SIYAMINI .J

16AUMT22

MUHIDEEN SYEDALI SHARA .S

16AUMT26

SAHAYA JOSEPHIN MARY.M

16AUMT34

SHARMILA .M

16AUMT39

V. S. S. Arputha Mary
Signature of the Guide

A. P. Tharani
Signature of the HOD

Dr. A. PUNITHA THARANI, M.Sc., M.Phil., Ph.D.,
HOD & Associate Professor
Department of Mathematics
St. Mary's College (Autonomous)
Thoothukudi - 628001.

P. S. S. Arputha Mary
Signature of the Examiner

Lucia Rose
Signature of the Principal
St. Mary's College (Autonomous)
Thoothukudi - 628 001.

DECLARATION

We hereby declare that the project report entitled "DECISION MAKING ANALYSIS" is our original work. It has not been submitted to any University for any degree or diploma.

J. Jeroma Renicola

(JEROMA RENICOLA.J)

J. Maria Antony Siyamini

(MARIA ANTONEY SIYAMINI.J)

S. Shara

(MUHIDEEN SYEDALI SHARA.S)

M. Sahaya Josephin Mary

(SAHAYA JOSEPHIN MARY.M)

M. Sharmila

(SHARMILA.M)

VARIANTS OF DOMINATION

Project report submitted to

St. Mary's College (Autonomous), Thoothukudi.

Affiliated to

MANONMANIAM SUNDARANAR UNIVERSITY, TIRUNELVELI.

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Submitted by

NAMES	REG.NO.
JULIET PONSELVI .J	16AUMT20
MARY THANGAM .A	16AUMT25
PIRAMMA SAKTHI .J	16AUMT28
PRIYADHARSHINI .R	16AUMT31
ROSITA SAHAYA MARY .G	16AUMT33
USHA .M	16AUMT45

Under the Guidance of

Sr. S. Kulandai Therese M.Sc.,B.Ed.,M.Phil

Assistant professor in mathematics

St. Mary's College (Autonomous), Thoothukudi.



Department of Mathematics

ST. MARY'S COLLEGE (AUTONOMOUS)

Thoothukudi.

(2018-2019)

CERTIFICATE

We hereby declare that the project report entitled "**VARIANTS OF DOMINATION**" being submitted to St. Mary's College (Autonomous), Thoothukudi, affiliated to Manonmaniam Sundaranar University, Tirunelveli, in partial fulfilment for the award of degree of Bachelor of Science in Mathematics and it is a record of work done during the year 2018-2019 by the following students

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PIRAMMA SAKTHI .J	16AUMT28
PRIYADHARSHINI . R	16AUMT31
ROSITA SAHAYA MARY .G	16AUMT33
USHA .M	16AUMT45



Signature of the Guide



Signature of the HOD

Dr. A. PUNITHA THARAN, M.Sc., M.Phil., Ph.D.,
HOD & Associate Professor
Department of Mathematics
St. Mary's College (Autonomous)
Thoothukudi - 628001.



Signature of the Examiner 4/4/19



Signature of the Principal
St. Mary's College (Autonomous)
Thoothukudi - 628 001.

DECLARATION

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J. Juliet Ponselvi

JULIET PONSELVI .J

A. Mary Thangam.

MARY THANGAM .A

J. Piramma Sakthi

PIRAMMA SAKTHI .J

R. Priyadharshini

PRIYADHARSHINI .R

G. Rosita Sahaya Mary

ROSITA SAHAYA MARY .G

M. Usha.

USHA .M