

This is certifying that Ms. Irfana Althaf Khan (Employee ID: 120868) student of Thiagarajar College of Engineering, Madurai is undergoing her internship for a span of 6 months in ATMEL CAE group of Microchip Technology, Chennai from December 11, 2017.

The title of her Project is "Smart Traffic Control System using Microchip Devices".

The project on evaluation fulfills all stated criteria and your findings are your original work.

In the duration of internship, her candidature was found sincere and hardworking.

We congratulate her and wish her bright future.

Sincerely,

For Microchip Technology (India) Pvt. Ltd.

Sam Wilson Human Resources

Date: April 19, 2018

Reference:

Date: 2018-04-25

N

To Whomsoever It May Concern

This is to certify that **Ms.** Angeline Poorani Therese B (14D05), B.E.(ECE), Thiagarajar College of Engineering has worked as an Project Intern with Ericsson India Global Services Private Limited from Dec 18, 2017 to Apr 25, 2018 in the project titled "Enhancement to Communication Barring Roaming Use Case" has completed the project successfully. Her contribution to the above project was commendable and her sincerity at work is much appreciated.

She has been sincere, and has shown very good learning & understanding abilities form joining till date.

Thanking you,

For ERICSSON INDIA GLOBAL SERVICES PRIVATE LIMITED

Ramané Murthy M V Director R&D Operations

R&D India



25th April 2018

CERTIFICATE BY EXTERNAL GUIDE

This is to Certify that the project report entitled "Content Delivery Network" submitted by M Ramesh Babu (14D73) to Thiyagarajar College of Engineering in partial fulfillment of the requirement for the award of the degree of B.E (ECE) is a record of bonafide work carried out by him under my guidance. The project fulfils the requirement as per the regulations of this Institute and in my opinion, meets the necessary standards for submission. The content of this report have not been submitted and will not be submitted either in part or in full, for the award of any other degree or diploma in this institution or any other Institute or University.

Alcatel-Lucent India Limited (A Nokia Corporation Company) Office Address: 14th & 15th Floor, Tower C, DLF Cyber Greens, DLF City, Phase - III, Gurgaon – 122 002, Haryana, India.

Regd. Office:
Alcatel-Lucent India Limited
(A Nokia Corporation Company)
202-206,
Tolstoy House,
15 Tolstoy Marg,
New Delhi -- 110 001,
India
Corporate Identity Number:
U72200DL1992PLC047870

Signature of External supervisor

Prasanth Namboodiri

Video Support Center Manager



ZOHO Corporation Private Limited

Estancia IT Park, Plot No. 140, 151,
Vallanchery Village, Chengalpet Taluk,
Kancheepuram District - 603 202 Tamilnadu.
Ph: +91- 44 - 6744 7070, Fax: +91 - 44 - 2270 7172
www.zohocorp.com

Dated: 26-Apr-2018

PROJECT COMPLETION CERTIFICATE

This is to certify that Mr/Ms. Sre Vishnuram K PT-1731/18 final year ECE of Thiagarajar ngineering College has successfully completed his/her final year project titled INVENTORY 1ANAGEMENT in Zoho Corporation Pvt Ltd, from 13-Dec-2017 to 26-Apr-2018. During the bove period, his/her performance and conduct were found to be Good.

alamurugan N

oject Manager

Kancheepuram District 603 202

Kumari Ganeshmurthy

Senior Associate - HR

ಕೆ GENESYS

Genesys Telecom Labs India Pvt.Ltd SP Infocity, 4th floor, Block C, Plot No.40, MGR Salai, Kandanchavadi, Perungudi, Chennai – 600 096. CIN: 72400TN2011FTC102576 T+91 44 4019400

www.genesys.com

pril 26, 2018

To Whom It May Concern

his is to certify that Ms. Shiny Ponmani (University Reg. No -16N016), M.E Communication Systems), Thiagarajar College of Engineering, Madurai has een undergoing Internship at Genesys Telecommunication Labs, Chennai for 12 period of Six months starting from November 20, 2017 to May 18, 2018.

lease feel free to contact us if you require any further information.

hanking you, ours sincerely,

or Genesys Telecom Labs India Private Limited (India)

ivya Sathyan ead-HR, India

none: +91 44 40193496

mail ID: divya.sathyan@genesys.com



TEMENOS INDIA PVT LTD

No 146 Sterling Road Nungambakkam Chennai 600 034 India

T:+91 (0) 44 7133 1000 F:+91 (0) 44 7133 1099

www.temenos.com CIN - U30006TN1995PTC032883

21st April 2017

TO WHOM IT MAY CONCERN

This is to certify that Ms. Vaishnavi K K D/O Mr. Kumaresan K N, a student of B.E (Major in Electronics and Communication Engineering), from Thiagarajar College of Engineering, Madurai, Tamil Nadu, is doing her internship project titled "Autamation Testing using Selenium and SEAT tool in Islamic and Retail Banking", is a bonafide work done under supervision of Archana Krishnan, Senior Consultant, Testing-Retail Banking at our Perungudi Branch from January 2017. The internship programme will end on April 2017

For Temenos India Pvt Ltd.

Sethu Rathinam T

Manager - Human Resources

-Jasmin Infotech Pvt. Ltd.-



April 25, 2017 Chennai 600100

To whom it may concern

his is to certify that . S. Pazhaneeswari, Reg. No. 15N012, studying M.E. (Communications Systems) t Thiagarajar College of Engineering, Madurai has successfully completed project in our organization as per details below.

Duration: Dec 13, 2016 till April 25, 2017

Project Title: Implementation of Low Complexity Maximal Ratio Combining Technique to improve the Reliability of DAB Reception in Mobile Environment.

Project Guide: Jebasangeetha B, Assistant Consultant.

We wish all the best in her future endeavors.

For JASMIN INFOTECH PVT. LTD.,

Karunanidhi E

Manager – Human Resources

Eut 25/04/2017

& Admin Office: Plot No.119, Survey No. 56/2C/2, Velachery Tambaram Road, Pallikaranai, Chennai - 600 100.

Tel : 91 - 44 - 3061 9600 / 6604 9600 | Web : www.jasmin-infotech.com

33740962264 768853 TNGST: 0962264 PAN No.: AAACJ7415K CIN No.: U72300TN1998PTC040985

Service Tax No.: AAACJ7415KST001



(A Govt. Aided Autonomous Institution Affiliated to Anna University)

MADURAI-625015

To

Additional General Manager(HR),

Pricol (P)ltd,

Coimbatore.

Sir,

SUB: Permission for in-plant training for my Student- Request- Reg.

Thiagarajar College of Engineering, Madurai is a 60 year old autonomous institution aided by State and Central Government, accredited and approved by AICTE and affiliated to Anna University. The college offers 7 Under Graduated Programs, 13 Post Graduate Programs and research Program leading to Ph.D, in all engineering and science disciplines.

As a part of curriculum the following student belonging to 2^{nd} year of communication Engineering is interested in undergoing in plant training in your organization for a period of two weeks (1/06/17 to 14/06/17).

During the course of the training she will follow the rules and regulations of your esteemed organization. So I request you to kindly permit her in your esteemed organization for the necessary in plant training.

Name of the Student: G.SWATHI-15D103

Regards

Date: 23/05/17

(HOD- ECE Deptt./TCE)



(A Govt.Aided Autonomous Institution Affiliated to Anna University)

MADURAI -625015

To

The Manager,

Mega Tech/Maas Tech,

7, KannanAvenue, TambaramWest (near hero showroom)

Chennai-63.

Dear Sir,

Sub: Permission for In - Plant Training for my student - requested - Reg.

Thiagarajar College of Engineering, Madurai is a 60 year old autonomous institution

Aided by State and Central Government, accredited and approved by AICTE and affiliated to

Anna University. The college offers 7 Under – Graduated programs, 13 Post – Graduate

Programs and research program leading to Ph.D., in all engineering and science disciplines.

As a part of curriculum, the following student belonging to 1^{st} Year of Electronics & Communication Engineering are interested in undergoing In – Plant Training in your Organization for a period of (19/06/17 to 25/06/17).

During the course of the training, he will follow the rules and regulations of your Organization. So I request you to kindly permit my student in your organization for the training.

Name of the Student: K.Vignesh, 16D111/59498

Thanking You,

Dr. N.B. BALAMURUGA Associate Profes

Department of E

Thiagarajar College of E Madurai-625 0 ?h.D.,



(A Govt. Aided Autonomous Institution Affiliated to Anna University)

MADURAI-625015

TO

The General Manager,

Telecom,

0\o GMT, BSNL

Vannerapettai,

Tirunelveli-627003.

Dear Sir,

Sub: Permission for in - plant Training for my student-Request -Reg.

Thiagarajar college of Engineering, Madurai is a 60 year old autonomous institution Aided by state and central Government, accredited and approved by AICTE and affiliated to Anna University. The college offers 7 under – Graduated programs, 13 post – Graduate programs and research program leading to ph.D, in all engineering and science disciplines.

As a part of curriculum, the following student belonging to 1^{st} Year of communication Engineering are interested in undergoing In-plant training in your organization for a period of (19/06/17 to 25/06/17)

During the course of the training, he will follow the rules and regulations of your organization. So I requested you to kindly permit her my student in your organization for the training

Name of the student: V.Susila,16D0100,59794.

Thanking you,

Dr. N.B. BALAMURUGAN, M.E.,Ph.D.,
Associate Professor
Department of ECE
Thiaganajur Col., so of Engineering

Marin Transfer



(A Govt.Aided Autonomous Institution Affiliated to Anna University) MADURAI -625015

To

The Manager,

Mega Tech/Maas Tech,

7, KannanAvenue, TambaramWest (near hero showroom)

Chennai-63.

Dear Sir,

Sub: Permission for In - Plant Training for my student - requested - Reg.

Thiagarajar College of Engineering, Madurai is a 60 year old autonomous institution

Aided by State and Central Government, accredited and approved by AICTE and affiliated to

Anna University. The college offers 7 Under – Graduated programs, 13 Post – Graduate

Programs and research program leading to Ph.D., in all engineering and science disciplines.

As a part of curriculum, the following student belonging to 1^{st} Year of Electronics & Communication Engineering are interested in undergoing In – Plant Training in your Organization for a period of (19/06/17 to 25/06/17).

During the course of the training, he will follow the rules and regulations of your Organization. So I request you to kindly permit my student in your organization for the training.

Name of the Student: V.N.Ashiq, 16D015/59123

Thanking You,

Associate Professor
Department of ECE
Thiagarajar College of Engineer;
Madurai-625 015



(A Govt. Aided Autonomous Institution Affiliated to Anna University) MADURAI-625015

TO

The General Manager,

All india radio,

LDC road, chokkikulam,

Madurai.

Dear Sir,

Sub: Permission for in - plant Training for my student-Request -Reg.

Thiagarajar college of Engineering, Madurai is a 60 year old autonomous institution Aided by state and central Government, accredited and approved by AICTE and affiliated to Anna University. The college offers 7 under - Graduated programs, 13 post - Graduate programs and research program leading to ph.D,in all engineering and science disciplines.

As a part of curriculum, the following student belonging to 1st Year of communication Engineering are interested in undergoing In-plant training in your organization for a period of (19/06/17 to 25/06/17)

During the course of the training, she will follow the rules and regulations of your organization. So I requested you to kindly permit her my student in your organization for the training

Name of the student: M. Agalyarani 16D004

Thanking you,

HOD (Signature)

Dr. N.B. BALAMURUGAN, M.E., Ph.D.,
Associate Professor
Department of ECE



(A Govt. Aided Autonomous Institution Affiliated to Anna University)

MADURAI-625015

TO

The General Manager,

GM office,

W.G.C, Road,

Thoothukudi-1.

Dear Sir,

Sub: Permission for in - plant Training for my student-Request –Reg.

Thiagarajar college of Engineering, Madurai is a 60 year old autonomous institution Aided by state and central Government, accredited and approved by AICTE and affiliated to Anna University. The college offers 7 under – Graduated programs, 13 post – Graduate programs and research program leading to ph.D, in all engineering and science disciplines.

As a part of curriculum, the following student belonging to 1^{st} Year of communication Engineering are interested in undergoing In-plant training in your organization for a period of (19/06/17 to 25/06/17)

During the course of the training, he will follow the rules and regulations of your organization. So I requested you to kindly permit her my student in your organization for the training.

Name of the student: M.Adline Rini, 16D003, 59648.

Thanking you,

Dr. N.B. BALANTURUGAN, M.E.,Ph.D.,
As the Professor

Department of ECC
Thiagarajar C. Age of Enganeering
Madurai-625 015



(A Govt.Aided Autonomous Institution Affiliated to Anna University)

MADURAI -625015

To

The Manager,

Mega Tech/Maas Tech,

7, Kannan Avenue, Tambaram West (near hero showroom)

Chennai-63.

Dear Sir,

Sub: Permission for In - Plant Training for my student – requested – Reg.

Thiagarajar College of Engineering, Madurai is a 60 year old autonomous institution Aided by State and Central Government, accredited and approved by AICTE and affiliated to Anna University. The college offers 7 Under – Graduated programs, 13 Post – Graduate Programs and research program leading to Ph.D., in all engineering and science disciplines.

As a part of curriculum, the following student belonging to 1^{st} Year of Electronics & Communication Engineering are interested in undergoing In – Plant Training in your Organization for a period of (19/06/17 to 25/06/17).

During the course of the training, he will follow the rules and regulations of your Organization. So I request you to kindly permit my student in your organization for the training.

Name of the Student: R.Hariharan, 16D037/59151

Thanking You,

Or. N.B. BALAMURUGAN, M Associate Professor Department of ECE Thiagarajar College of Engine Madurai-625 015



(A Govt.Aided Autonomous Institution Affiliated to Anna University)

MADURAI -625015

To

The Manager,

Mega Tech/Maas Tech,

7, Kannan Avenue, Tambaram West (Near Hero Showroom),

Chennai - 600 063

Dear Sir,

Sub: Permission for In - Plant Training for my student - requested - Reg.

Thiagarajar College of Engineering, Madurai is a 60 year old Autonomous Institution Aided by State and Central Government, accredited and approved by AICTE and affiliated to Anna University. The college offers 7 Under – Graduated programs, 13 Post – Graduate Programs and research program leading to Ph.D., in all engineering and science disciplines.

As a part of curriculum, the following student belonging to 1st Year of Electronics & Communication Engineering are interested in undergoing In – Plant Training in your Organization for a period of one week (19/06/17 to 25/06/17).

During the course of the training, he will follow the rules and regulations of your Organization. So I request you to kindly permit my student in your organization for the Training.

Thanking You,

Name of the Student:

P.V.Gokul Deva,

16D031/59425

HOD (Signature)

Dr. N.B. BALAMURUGAN, M.E.,Ph.D.,
Associate Professor
Department of ECE
Thiagarajar College of Engineering
Madurai-625-015



(A Govt. Aided Autonomous Institution Affiliated to Anna University)

MADURAI-625015

TO

The General Manager,

BSNL Office,

Gowtham Nagar,

Manjakuppam,

Cuddalore-607001.

Dear Sir,

Sub: Permission for in - plant Training for my student-Request -Reg.

Thiagarajar college of Engineering, Madurai is a 60 year old autonomous institution Aided by state and central Government, accredited and approved by AICTE and affiliated to Anna University. The college offers 7 under – Graduated programs, 13 post – Graduate programs and research program leading to ph.D., in all engineering and science disciplines.

As a part of curriculum, the following student belonging to 1^{st} Year of communication Engineering are interested in undergoing In-plant training in your organization for a period of (19/06/17 to 25/06/17)

During the course of the training, he will follow the rules and regulations of your organization. So I requested you to kindly permit her my student in your organization for the training

Name of the student: R.Dhivya, 16D022, 59441.

Thanking you,

HOD (Signature)

Dr. N.B. BALAMURUGAN, M.E., Ph.D.,
Associate Professor
Department of ECE
Thiagarajar College of Engineering
Madural 625 015



(A Govt. Aided Autonomous Institution Affiliated to Anna University)

MADURAI-625015

TO

The General Manager,

All india radio,

LDC road, chokkikulam,

Madurai.

Dear Sir,

Sub: Permission for in - plant Training for my student-Request –Reg.

Thiagarajar college of Engineering, Madurai is a 60 year old autonomous institution Aided by state and central Government, accredited and approved by AICTE and affiliated to Anna University. The college offers 7 under – Graduated programs, 13 post – Graduate programs and research program leading to ph.D, in all engineering and science disciplines.

As a part of curriculum, the following student belonging to $\mathbf{1}^{st}$ Year of communication Engineering are interested in undergoing In-plant training in your organization for a period of (19/06/17) to 25/06/17)

During the course of the training, she will follow the rules and regulations of your organization. So I requested you to kindly permit her my student in your organization for the training

Name of the student: S. Malavika 16D060

Thanking you,

12. N.B. MALATIVE CFF, M.E.Ph D.
Associate Professor
Department of ECE
Thiagarajar College of Engineering
Madurai-625 015



(A Govt.Aided Autonomous Institution Affiliated to Anna University)

MADURAI -625015

То

The Manager,

Mega Tech/Maas Tech,

7, Kannan Avenue, Tambaram West (near hero showroom)

Chennai-63.

Dear Sir,

Sub: Permission for In - Plant Training for my student - requested - Reg.

Thiagarajar College of Engineering, Madurai is a 60 year old autonomous institution Aided by State and Central Government, accredited and approved by AICTE and affiliated to Anna University. The college offers 7 Under – Graduated programs, 13 Post – Graduate Programs and research program leading to Ph.D., in all engineering and science disciplines.

As a part of curriculum, the following student belonging to 1^{st} Year of Electronics & Communication Engineering are interested in undergoing In – Plant Training in your Organization for a period of (19/06/17 to 25/06/17).

During the course of the training, he will follow the rules and regulations of your Organization. So I request you to kindly permit my student in your organization for the training.

Name of the Student: S.A.Hariharan, 16D038/59570

Thanking You,

Associate Professor
Department of ECE
Thiagarajar College of Engine
Madurai-625 015

Scanned by CamScanner



(A Govt. Aided Autonomous Institution Affiliated to Anna University)

MADURAI-625015

TO

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The General Manager,

All india radio,

LDC road, chokkikulam,

Madurai.

Dear Sir,

Sub: Permission for in - plant Training for my student-Request -Reg.

Thiagarajar college of Engineering, Madurai is a 60 year old autonomous institution Aided by state and central Government, accredited and approved by AICTE and affiliated to Anna University. The college offers 7 under - Graduated programs, 13 post - Graduate programs and research program leading to ph.D,in all engineering and science disciplines.

As a part of curriculum, the following student belonging to 1st Year of communication Engineering are interested in undergoing In-plant training in your organization for a period of (19/06/17 to 25/06/17)

During the course of the training, she will follow the rules and regulations of your organization. So I requested you to kindly permit her my student in your organization for the training

Name of the student: B.Keerthana 16D052

Thanking you,

(HOD (Signature)

Dr. N.B. BALAMURUGAN, M.E., Ph.D.,
Associate Professor
Department of ECE
Thiagarajar College of Engineering
Madurai-625 015



(A Govt. Aided Autonomous Institution Affiliated to Anna University)

MADURAI-625015

TO

The Manager,

GM Office,

W.G.C, Road,

Thoothukudi-1.

Dear Sir,

Sub: Permission for in - plant Training for my student-Request –Reg.

Thiagarajar college of Engineering, Madurai is a 60 year old autonomous institution Aided by state and central Government, accredited and approved by AICTE and affiliated to Anna University. The college offers 7 under – Graduated programs, 13 post – Graduate programs and research program leading to ph.D, in all engineering and science disciplines.

As a part of curriculum, the following student belonging to 1^{st} Year of communication Engineering are interested in undergoing In-plant training in your organization for a period of (01/06/17 to 07/06/17) at ariyalur.

During the course of the training, he will follow the rules and regulations of your organization. So I requested you to kindly permit her my student in your organization for the training.

Name of the student: M.Karthiga, 16D048, 59197.

Thanking you,

Dr. N.B. BALAMURUGAN, M.E.,Ph.D.
Associate Professor
Department of ECE
Thiagarajar Coolege of Engineering

Madural-625 015



(A Govt.Aided Autonomous Institution Affiliated to Anna University) MADURAI -625015

To

The Manager,

Mega Tech/Maas Tech,

7, Kannan Avenue, Tambaram West (near hero showroom)

Chennai-63.

Dear Sir,

Sub: Permission for In - Plant Training for my student – requested – Reg.

Thiagarajar College of Engineering, Madurai is a 60 year old autonomous institution Aided by State and Central Government, accredited and approved by AICTE and affiliated to Anna University. The college offers 7 Under – Graduated programs, 13 Post – Graduate Programs and research program leading to Ph.D., in all engineering and science disciplines.

As a part of curriculum, the following student belonging to 1st Year of Electronics & Communication Engineering are interested in undergoing In – Plant Training in your Organization for a period of (19/06/17 to 25/06/17).

During the course of the training, he will follow the rules and regulations of your Organization. So I request you to kindly permit my student in your organization for the training.

Name of the Student: S.Karthick Raja, 16D047/59500

Thanking You,

Dr. N.B. BALAMURUGAN, M.E., P. D. Associate Professor Department of ECE Thiagarajar College of Engineeric

Madurai-625 015



(A Govt. Aided Autonomous Institution Affiliated to Anna University)

MADURAI-625015

TO

The General Manager,

All india radio,

LDC road, chokkikulam,

Madurai.

Dear Sir,

Sub: Permission for in - plant Training for my student-Request -Reg.

Thiagarajar college of Engineering, Madurai is a 60 year old autonomous institution Aided by state and central Government, accredited and approved by AICTE and affiliated to Anna University. The college offers 7 under - Graduated programs, 13 post - Graduate programs and research program leading to ph.D,in all engineering and science disciplines.

As a part of curriculum, the following student belonging to 1st Year of communication Engineering are interested in undergoing In-plant training in your organization for a period of (19/06/17 to 25/06/17)

During the course of the training, she will follow the rules and regulations of your organization. So I requested you to kindly permit her my student in your organization for the training

Name of the student: V.Karpagajothi 16D046

Thanking you,

MOD (Signature)

Dr. N.B. BALANCER GAN, MELPE D.

Associate Figure 1.

Deports 1.10° E7F.

Thiograph a Commission g. 1.11



(A Govt. Aided Autonomous Institution Affiliated to Anna University) MADURAI -625015

To

The Manager,

Mega Tech/Maas Tech,

7, KannanAvenue, TambaramWest (near hero showroom)

Chennai-63.

Dear Sir,

Sub: Permission for In - Plant Training for my student - requested - Reg.

Thiagarajar College of Engineering, Madurai is a 60 year old autonomous institution Aided by State and Central Government, accredited and approved by AICTE and affiliated to Anna University. The college offers 7 Under - Graduated programs, 13 Post - Graduate Programs and research program leading to Ph.D., in all engineering and science disciplines.

As a part of curriculum, the following student belonging to 1st Year of Electronics & Communication Engineering are interested in undergoing In - Plant Training in your Organization for a period of (19/06/17 to 25/06/17).

During the course of the training, he will follow the rules and regulations of your Organization. So I request you to kindly permit my student in your organization for the training.

Name of the Student: A.Nandhakumar, 16D070/59647

Thanking You,

Dr. N.B. EALAMURUGAN, M.E Associate Professor Department of ECE Thiagarajar College of Engineer Madurai-625 015



(A Govt. Aided Autonomous Institution Affiliated to Anna University) MADURAI-625015

TO

The General Manager,

All india radio,

LDC road, chokkikulam,

Madurai.

Dear Sir,

Sub: Permission for in - plant Training for my student-Request -Reg.

Thiagarajar college of Engineering, Madurai is a 60 year old autonomous institution Aided by state and central Government, accredited and approved by AICTE and affiliated to Anna University. The college offers 7 under - Graduated programs, 13 post - Graduate programs and research program leading to ph.D,in all engineering and science disciplines.

As a part of curriculum, the following student belonging to 1st Year of communication Engineering are interested in undergoing In-plant training in your organization for a period of (19/06/17 to 25/06/17)

During the course of the training, she will follow the rules and regulations of your organization. So I requested you to kindly permit her my student in your organization for the training

Name of the student: K.Mutharasi 16D066

Thanking you,

Dr. N.D. EALAMUNUGAN, M.E..Ph.D Associate Professor Department of ECE Thiagarajar College of Engineering 17 Juniore 5 015



(A Govt. Aided Autonomous Institution Affiliated to Anna University)

MADURAI-625015

TO

The General Manager,

All india radio,

LDC road, chokkikulam,

Madurai.

Dear Sir,

Sub: Permission for in - plant Training for my student-Request -- Reg.

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As a part of curriculum, the following student belonging to 1^{st} Year of communication Engineering are interested in undergoing In-plant training in your organization for a period of (19/06/17 to 25/06/17)

During the course of the training, she will follow the rules and regulations of your organization. So I requested you to kindly permit her my student in your organization for the training

Name of the student: S.Manonmani -16D062

Thanking you,

Associate Professor

Department of ECE

Thiagarajar College of Engineering

Madural-625 015



(A Govt.Aided Autonomous Institution Affiliated to Anna University)

MADURAI -625015

To

The Manager,

Mega Tech/Maas Tech,

7, KannanAvenue, TambaramWest (near hero showroom)

Chennai-63.

Dear Sir,

Sub: Permission for In - Plant Training for my student - requested - Reg.

Thiagarajar College of Engineering, Madurai is a 60 year old autonomous institution

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Anna University. The college offers 7 Under – Graduated programs, 13 Post – Graduate

Programs and research program leading to Ph.D., in all engineering and science disciplines.

As a part of curriculum, the following student belonging to 1st Year of Electronics & Communication Engineering are interested in undergoing In – Plant Training in your Organization for a period of (19/06/17 to 25/06/17).

During the course of the training, he will follow the rules and regulations of your Organization. So I request you to kindly permit my student in your organization for the training.

Name of the Student: S.Manoj, 16D061/59199

Thanking You,

Dr. L



(A Govt. Aided Autonomous Institution Affiliated to Anna University)

MADURAI-625015

TO

The ASST-General manager,

BSNL,

O/o PGM,

Thiruchirapalli.

Dear Sir,

Sub: Permission for in - plant Training for my student-Request -Reg.

Thiagarajar college of Engineering, Madurai is a 60 year old autonomous institution Aided by state and central Government, accredited and approved by AICTE and affiliated to Anna University. The college offers 7 under - Graduated programs, 13 post - Graduate programs and research program leading to ph.D,in all engineering and science disciplines.

As a part of curriculum, the following student belonging to 1st Year of communication Engineering are interested in undergoing In-plant training in your organization for a period of (19/06/17 to 25/06/17)

During the course of the training, she will follow the rules and regulations of your organization. So I requested you to kindly permit her my student in your organization for the training.

Name of the student: S.Priyadharshini 16D078

Thanking you,

Or. M.B. BALAN WOLC - W. M.E. Fn Associate Professor Department of ECE Thiagarajus College of Engineering

Magural-628 015



(A Govt. Aided Autonomous Institution Affiliated to Anna University)

MADURAI-625015

TO

The General Manager,

Telecom,

0\o GMT, BSNL

Vannerapettai,

Tirunelveli-627003.

Dear Sir,

Sub: Permission for in - plant Training for my student-Request -Reg.

Thiagarajar college of Engineering, Madurai is a 60 year old autonomous institution Aided by state and central Government, accredited and approved by AICTE and affiliated to Anna University. The college offers 7 under – Graduated programs, 13 post – Graduate programs and research program leading to ph.D, in all engineering and science disciplines.

As a part of curriculum, the following student belonging to 1^{st} Year of communication Engineering are interested in undergoing In-plant training in your organization for a period of (19/06/17 to 25/06/17)

During the course of the training, he will follow the rules and regulations of your organization. So I requested you to kindly permit her my student in your organization for the training

Name of the student: S. Mymoon, 16D076, 59646.

Thanking you,

Dr. N.B. BALAMURUGAN, M.E., Ph.D., Associate Professor Department of ECE

Thiagarajar College of Engineering Madurai-625 015



(A Govt.Aided Autonomous Institution Affiliated to Anna University)

MADURAI -625015

To

The Manager,

Mega Tech/Maas Tech,

.7, KannanAvenue, TambaramWest (near hero showroom)

Chennai-63.

Dear Sir,

Sub: Permission for In - Plant Training for my student - requested - Reg.

Thiagarajar College of Engineering, Madurai is a 60 year old autonomous institution Aided by State and Central Government, accredited and approved by AICTE and affiliated to Anna University. The college offers 7 Under – Graduated programs, 13 Post – Graduate Programs and research program leading to Ph.D., in all engineering and science disciplines.

As a part of curriculum, the following student belonging to 1st Year of Electronics & Communication Engineering are interested in undergoing In – Plant Training in your Organization for a period of (19/06/17 to 25/06/17).

During the course of the training, he will follow the rules and regulations of your Organization. So I request you to kindly permit my student in your organization for the training.

Name of the Student: B.P.Sivakumar, 16D095/59649

Thanking You,

Or. N.B. BALAMURUGAN, M. Ph.D.,
Associate Professor
Department of ECE
Thiagarajar College of Enginee
Madurai-625 015

HOD (Signature)



(A Govt. Aided Autonomous Institution Affiliated to Anna University)

MADURAI-625015

TO

The General Manager,

All india radio,

LDC road, chokkikulam,

Madurai.

Dear Sir,

Sub: Permission for in - plant Training for my student-Request –Reg.

Thiagarajar college of Engineering, Madurai is a 60 year old autonomous institution Aided by state and central Government, accredited and approved by AICTE and affiliated to Anna University. The college offers 7 under – Graduated programs, 13 post – Graduate programs and research program leading to ph.D,in all engineering and science disciplines.

As a part of curriculum, the following student belonging to $\mathbf{1}^{st}$ Year of communication Engineering are interested in undergoing In-plant training in your organization for a period of (19/06/17 to 25/06/17)

During the course of the training, she will follow the rules and regulations of your organization. So I requested you to kindly permit her my student in your organization for the training

Name of the student: R.Swetha-16D101 (Roll no:59270)

Thanking you,

Da. N. P. BELLING BULL N. ME Faib.
Associate Professor
Department of ECE
Thiagarajar College of Engineering



(A Govt. Aided Autonomous Institution Affiliated to Anna University)

MADURAI-625015

TO

The General Manager,

All india radio,

LDC road, chokkikulam,

Madurai.

Dear Sir,

Sub: Permission for in - plant Training for my student-Request -Reg.

Thiagarajar college of Engineering, Madurai is a 60 year old autonomous institution Aided by state and central Government, accredited and approved by AICTE and affiliated to Anna University. The college offers 7 under - Graduated programs, 13 post - Graduate programs and research program leading to ph.D,in all engineering and science disciplines.

As a part of curriculum, the following student belonging to 1st Year of communication Engineering are interested in undergoing In-plant training in your organization for a period of (19/06/17 to 25/06/17)

During the course of the training, she will follow the rules and regulations of your organization. So I requested you to kindly permit her my student in your organization for the training

Name of the student: B.Subhiksha 16D099

Thanking you,

HOD (Signature)

Dr. N.B. BALAKURUGAN, M.E.,Ph.D.,
Associate Professor
Department of EGE
Thiagarajar College of Engineering
Madurai-865 015



(A Govt. Aided Autonomous Institution Affiliated to Anna University)

MADURAI-625015

To

Additional General Manager(HR),

NTECL Limited,

Vallur,

Chennai.

Sir,

SUB: Permission for in-plant training for my Student- Request- Reg.

Thiagarajar College of Engineering, Madurai is a 60 year old autonomous institution aided by State and Central Government, accredited and approved by AICTE and affiliated to Anna University. The college offers 7 Under Graduated Programs, 13 Post Graduate Programs and research Program leading to Ph.D, in all engineering and science disciplines.

As a part of curriculum the following student belonging to 2^{nd} year of communication Engineering is interested in undergoing in plant training in your organization for a period of two weeks (1/06/17 to 14/06/17).

During the course of the training she will follow the rules and regulations of your esteemed organization. So I request you to kindly permit her in your esteemed organization for the necessary in plant training.

Name of the Student: S.RANI AISHWARYA, 15D073.

Regards

Date: 22/05/17

(HOD- ECE Deptt./TCE)

Dr. N.B. BALAMUKUGAN, AT FOLD.,
Associate Plafes for
Department of ECE
Thiagarajar College of Ingulastic
Madural 600 015



(A Govt. Aided Autonomous Institution Affiliated to Anna University)

MADURAI-625015

TO

The General Manager.

All india radio,

LDC road, chokkikulam,

Madurai.

Dear Sir,

Sub: Permission for in - plant Training for my student-Request –Reg.

Thiagarajar college of Engineering, Madurai is a 60 year old autonomous institution Aided by state and central Government, accredited and approved by AICTE and affiliated to Anna University. The college offers 7 under – Graduated programs, 13 post – Graduate programs and research program leading to ph.D, in all engineering and science disciplines.

As a part of curriculum, the following student belonging to 1st Year of communication Engineering are interested in undergoing In-plant training in your organization for a period of (19/06/17 to 25/06/17)

During the course of the training, she will follow the rules and regulations of your organization. So I requested you to kindly permit her my student in your organization for the training

Name of the student: V.Subhaashini 16D098

Thanking you,

Department of ECE Thiagarajor Coffest of Engineering Madurai-625 015



(A Govt. Aided Autonomous Institution Affiliated to Anna University) MADURAI-625015

TO

The General Manager,

All india radio,

LDC road, chokkikulam,

Madurai.

Dear Sir,

Sub: Permission for in - plant Training for my student-Request -Reg.

Thiagarajar college of Engineering, Madurai is a 60 year old autonomous institution Aided by state and central Government, accredited and approved by AICTE and affiliated to Anna University. The college offers 7 under - Graduated programs, 13 post - Graduate programs and research program leading to ph.D,in all engineering and science disciplines.

As a part of curriculum, the following student belonging to 1st Year of communication Engineering are interested in undergoing In-plant training in your organization for a period of (19/06/17 to 25/06/17)

During the course of the training, she will follow the rules and regulations of your organization. So I requested you to kindly permit her my student in your organization for the training

Name of the student: R. Vaishnavi 16D106

Thanking you,

Thragarajar College of Engineering



(A Govt. Aided Autonomous Institution Affiliated to Anna University)

MADURAI-625015

TO

The General Manager,

GM office,

W.G.C, Road,

Thoothukudi-1.

Dear Sir,

Sub: Permission for in - plant Training for my student-Request –Reg.

Thiagarajar college of Engineering, Madurai is a 60 year old autonomous institution Aided by state and central Government, accredited and approved by AICTE and affiliated to Anna University. The college offers 7 under – Graduated programs, 13 post – Graduate programs and research program leading to ph.D, in all engineering and science disciplines.

As a part of curriculum, the following student belonging to 1^{st} Year of communication Engineering are interested in undergoing In-plant training in your organization for a period of (19/06/17 to 25/06/17)

During the course of the training, he will follow the rules and regulations of your organization. So I requested you to kindly permit her my student in your organization for the training

Name of the student: J.Sneka, 16D096,59723.

Thanking you,

MANIDECAN REPORT

Dr. N.B. BALAMURUGAN, M.E.Ph.I Associate Professor Departs = 1.0f ECE

Thiagarajar College of Engineering
Madatai-625 010



(A Govt. Aided Autonomous Institution Affiliated to Anna University)

MADURAI-625015

TO

The General Manager,

Telecom,

0\o GMT, BSNL

Vannerapettai,

Tirunelveli-627003.

Dear Sir,

Sub: Permission for in - plant Training for my student-Request -Reg.

Thiagarajar college of Engineering, Madurai is a 60 year old autonomous institution Aided by state and central Government, accredited and approved by AICTE and affiliated to Anna University. The college offers 7 under – Graduated programs, 13 post – Graduate programs and research program leading to ph.D, in all engineering and science disciplines.

As a part of curriculum, the following student belonging to 1^{st} Year of communication Engineering are interested in undergoing In-plant training in your organization for a period of (19/06/17 to 25/06/17)

During the course of the training, he will follow the rules and regulations of your organization. So I requested you to kindly permit her my student in your organization for the training

Name of the student: M.Vandana, 16D109, 59045.

Thanking you,

Dr. N.B. BALAMAGE COMM, M. & Ph.D.

Austrian Petrusian

Department of TE

Thiagarajar Cominge of departmenting

Madura,-625 015

(A Govt. Aided Autonomous Institution Affiliated to Anna University)

MADURAI-625015

10
The General manager,
Bsnl office,
BBkulam,
Madurai- 625008
Sir,
SUB: Permission for in-plant training for my Student- Request- Reg.
The state of the s

Thiagarajar College of Engineering, Madurai is a 60 year old autonomous institution aided by State and Central Governments, accredited & approved by AICTE and affiliated to Anna University. The College offers 7 Under Graduated Programs, 13 Post Graduate Programs and research program leading to Ph.D., in all engineering and science disciplines.

As a part of curriculum, the following student belonging to 3rd year of Electronics and Communication Engineering is interested in undergoing in-plant training in your organization for a period of one week (from 11/17) to 08/11/17).

During the course of the training, he will follow the rules and regulations of your esteemed organization. So, I request you to kindly permit him in your esteemed organization for the necessary in-plant training.

Name of the Student: P.SUBITHA-Reg No.15D095

Date:

Regards.

Principal

Thiagarajar College of Engineering

Madurai

(A Govt. Aided Autonomous Institution Affiliated to Anna University) MADURAI-625015

То
The General manager,
Bsnl office,
BBkulam,
Madurai- 625008
Sir,
SUB: Permission for in-plant training for my Student- Request- Reg.
Thiagarajar College of Engineering, Madurai is a 60 year old autonomous institution aided by State and Central Governments, accredited & approved by AICTE and affiliated to Anna University. The College offers 7 Under Graduated Programs, 13 Post Graduate Programs and research program leading to Ph.D., in all engineering and science disciplines.
As a part of curriculum, the following student belonging to 3 rd year of Electronics and Communication Engineering is interested in undergoing in-plant training in your organization for a period of one week (from \$27/12/17 to \$20/12/17).
During the course of the training, he will follow the rules and regulations of your esteemed organization. So, I request you to kindly permit him in your esteemed organization for the necessary in-plant training.

Name of the Student: S.H.NAGANANDHINI-Reg No.15D060

Regards.

Date:

Principal Thiagarajar College of Engineering Madurai

(A Govt. Aided Autonomous Institution Affiliated to Anna University)

MADURAI-625015

То
The General manager,
Bsnl office,
BBkulam,
Madurai- 625008
Sir,
SUB: Permission for in-plant training for my Student- Request- Reg.
Thiagarajar College of Engineering, Madurai is a 60 year old autonomous institution aided by State and Central Governments, accredited & approved by AICTE and affiliated to Anna University. The College offers 7 Under Graduated Programs, 13 Post Graduate Programs and research program leading to Ph.D., in all engineering and science disciplines.
As a part of curriculum, the following student belonging to 3^{rd} year of Electronics and Communication Engineering is interested in undergoing in-plant training in your organization for a period of one week (from $94/12/17$ to $99/12/17$).
During the course of the training, he will follow the rules and regulations of your esteemed organization. So, I request you to kindly permit him in your esteemed organization for the necessary in-plant training.
Name of the Student: V.B.THANGABACKYA-Reg No.15D104
Regards.
Date : Principal
Thiagarajar College of Engineering
Madurai

(A Govt. Aided Autonomous Institution Affiliated to Anna University)

MADURAI-625015

(A Govt. Aided Autonomous Institution Affiliated to Anna University) **MADURAI-625015**

To

The Manager, HRD Office, ISTRAC-ISRO, Peenya, Bangalore- 560058.

Sir,

SUB: Permission for in-plant training for my Student- Request- Reg.

Thiagarajar College of Engineering, Madurai is a 60 year old autonomous institution aided by State and Central Governments, accredited & approved by AICTE and affiliated to Anna University. The College offers 7 Under Graduated Programs, 13 Post Graduate Programs and research program leading to Ph.D., in all engineering and science disciplines.

As a part of curriculum, the following student belonging to 3rd year of Electronics and Communication Engineering is interested in undergoing in-plant training in your organization for a period of two weeks (from 27/11/17 to 08/12/17).

During the course of the training, he will follow the rules and regulations of your esteemed organization. So, I request you to kindly permit him in your esteemed organization for the necessary in-plant training.

Name of the Student: V.MUKUND - Reg No.15D055

Regards.

Date: 10/11/17

Dean - Industry Interface Thiagarajar College of Engineering Madurai

(A Govt. Aided Autonomous Institution Affiliated to Anna University)

MADURAI-625015

To

The Manager, HRD Office, ISTRAC-ISRO, Peenya, Bangalore- 560058.

Sir,

SUB: Permission for in-plant training for my Student- Request- Reg.

Thiagarajar College of Engineering, Madurai is a 60 year old autonomous institution aided by State and Central Governments, accredited & approved by AICTE and affiliated to Anna University. The College offers 7 Under Graduated Programs, 13 Post Graduate Programs and research program leading to Ph.D., in all engineering and science disciplines.

As a part of curriculum, the following student belonging to 3rd year of Electronics and Communication Engineering is interested in undergoing in-plant training in your organization for a period of two weeks (from 27/11/17 to 08/12/17).

During the course of the training, he will follow the rules and regulations of your esteemed organization. So, I request you to kindly permit him in your esteemed organization for the necessary in-plant training.

Name of the Student: R.NEERAJ - Reg No.15D061

Regards.

Date: 10/11/17

Dean – Industry Interface Thiagarajar College of Engineering

Madurai

(B. Salhyakama)
(B. Salhyakama)
(B. Salhyakama)

Dept por

(A Govt. Aided Autonomous Institution Affiliated to Anna University)

MADURAI-625015

То
The General manager,
Bsnl office,
BBkulam,
Madurai- 625008
Sir,
SUB: Permission for in-plant training for my Student- Request- Reg.
Thiagarajar College of Engineering, Madurai is a 60 year old autonomous institution aided by State and Central Governments, accredited & approved by AICTE and affiliated to Anna University. The College offers 7 Under Graduated Programs, 13 Post Graduate Programs and research program leading to Ph.D., in all engineering and science disciplines.
As a part of curriculum, the following student belonging to 3 rd year of Electronics and Communication Engineering is interested in undergoing in-plant training in your organization for a period of one week (from \$\frac{9}{4}\$/12/17 to 09/12/17).
During the course of the training, he will follow the rules and regulations of your esteemed organization. So, I request you to kindly permit him in your esteemed organization for the necessary in-plant training.
Name of the Student: M.SUBALAKSHMI–Reg No.15D094
Regards.
Date :
Principal
Thiagarajar College of Engineering Madurai



(A Govt. Aided Autonomous Institution Affiliated to Anna University)
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
Fax:0452-2483427

Ph.:04522482430(Extn.301/302)

Request letter for In-Plant Training

Date:22.11.2017

To

The Director
IGCAR
Indhra Gandhi College for Atomic Reasearch
Kalpakam

Sir,

Sub: Permission for In-Plant Training -- Requested -- Reg.

Thiagarajar college of Engineering is a 60 years old Autonomous Institution aided by State and Central Governments, accredited and approved by AICTE and affiliated to Anna University. The college offers 8 undergraduate programs, 13 postgraduate programs and research programs leading to Ph.D., in all Engineering and Science disciplines.

As a part of curriculum, the following student belonging to B.E., V semester of Electronics and Communication Engineering are interested in undergoing In-Plant Training in your organization for a period of ONE week preferably from 27/11/2017 to 04/12/2017. During the course of the training, our student will follow the rules and regulations of your organization. Kindly intimate to us the status of permitting our students in your organization during the above period.

S.NO.	REG. NO.	NAME
1.	15D137	S.PRIYADARSHINI

Thanking you,

Yours faithfully,

Dr. N.B. BALAMURUGAN, M.E.,Ph.D.,

Associate Professor Department of ECE

Thiagarajar College of Engineering

Martera -822 015

(A Govt. Aided Autonomous Institution Affiliated to Anna University)

MADURAI-625015

The General manager,
Bsnl office,
BBkulam,
Madurai- 625008
Sir,
SUB: Permission for in-plant training for my Student- Request- Reg.
Thiagarajar College of Engineering, Madurai is a 60 year old autonomous institution aided by State and Central Governments, accredited & approved by AICTE and affiliated to Anna University. The College offers 7 Under Graduated Programs, 13 Post Graduate Programs and research program leading to Ph.D., in all engineering and science disciplines.
As a part of curriculum, the following student belonging to 3 rd year of Electronics and Communication Engineering is interested in undergoing in-plant training in your organization for a period of one week (from 24/12/17 to 09/12/17).
During the course of the training, he will follow the rules and regulations of your esteemed organization. So, I request you to kindly permit him in your esteemed organization for the

Date:

Regards.

necessary in-plant training.

Name of the Student: MAHALAKSHMI.S-Reg No.15D130

To

Principal

Thiagarajar College of Engineering

Madurai

To
The Manager,
BSNL Office,
HRD,
Virudhunagar,
626001.

Sir,

Sub: permission for implant training for my student request reg.

THIAGARAJAR COLLEGE OF ENGINEERING, Madurai is a 60 year old autonomous institution aided by state and central government, accredited and approved by AICTE and affiliated to Anna University. The college offers 7 under graduated programs, 13 post graduated programs, and research program leading to Ph.D., in all engineering and science disciplines.

As a part of curriculum, the following student belonging to 2nd year of Electronics and Communication Engineering is interested in undergoing in-plant training in your organization for a period of one week(from 11/12/2017 to 15/12/2017).

During the course of the training ,she will follow the rules and regulations of your esteemed organization. So, I request you to kindly permit her in your esteemed organization for the necessary in plant training.

Name of the student :Thangamari, reg. No. 16D102

Regards.

Date :06/12/17

ASSOCIATE Professor

ASSOCIATE Professor

The Department of ECE

Hagarajan College of Engineering

Madurai 625 01

(A Govt. Aided Autonomous Institution Affiliated to Anna University)

MADURAI-625015

Τo

The Airport Authority of India,

<u>Madurai</u>

Sir,

SUB: Permission for in-plant training for my Student- Request- Reg.

Thiagarajar College of Engineering, Madurai is a 60 year old autonomous institution aided by State and Central Governments, accredited & approved by AICTE and affiliated to Anna University. The College offers 7 Under Graduated Programs, 13 Post Graduate Programs and research program leading to Ph.D., in all engineering and science disciplines.

As a part of curriculum, the following student belonging to 3rd year of Electronics and Communication Engineering is interested in undergoing in-plant training in your organization for a period of one week.

During the course of the training, he will follow the rules and regulations of your esteemed organization. So, I request you to kindly permit him in your esteemed organization for the necessary in-plant training.

Name of the Student: S.MADHURA - Reg No.15D048

Regards.

Date: 20/11/17

Thiagarajar College of Engineering Madurai

r. N.B. BALAMURUGAN, M.E., Ph.D.,
Acsociate Professor
Pagintimas of ACE

- direct ng

(A Govt. Aided Autonomous Institution Affiliated to Anna University) **MADURAI-625015**

To

The Airport Authority of India,

Madurai.

Sir,

SUB: Permission for in-plant training for my Student- Request- Reg.

Thiagarajar College of Engineering, Madurai is a 60 year old autonomous institution aided by State and Central Governments, accredited & approved by AICTE and affiliated to Anna University. The College offers 7 Under Graduated Programs, 13 Post Graduate Programs and research program leading to Ph.D., in all engineering and science disciplines.

As a part of curriculum, the following student belonging to 3rd year of Electronics and Communication Engineering is interested in undergoing in-plant training in your organization for a period of one week

During the course of the training, he will follow the rules and regulations of your esteemed organization. So, I request you to kindly permit her in your esteemed organization for the necessary in-plant training.

Name of the Student: ASHWIN KUMAR T

Reg. No.: 15D011

Regards.

Date: 6-12, 17

Thiagarajar College of Engineering Madurai - 625 015.

Dr. N.B. BALAMURUGAN, M.E., Ph.D., Associate Professor Department of ECE Thiagarajar College of Engineering Madurai-625 015

(A Govt. Aided Autonomous Institution Affiliated to Anna University)

MADURAI-625015

To

The Airport Authority of India,

Madurai.

Sir,

SUB: Permission for in-plant training for my Student- Request- Reg.

Thiagarajar College of Engineering, Madurai is a 60 year old autonomous institution aided by State and Central Governments, accredited & approved by AICTE and affiliated to Anna University. The College offers 7 Under Graduated Programs, 13 Post Graduate Programs and research program leading to Ph.D., in all engineering and science disciplines.

As a part of curriculum, the following student belonging to 3rd year of Electronics and Communication Engineering is interested in undergoing in-plant training in your organization for a period of one week

During the course of the training, he will follow the rules and regulations of your esteemed organization. So, I request you to kindly permit her in your esteemed organization for the necessary in-plant training.

Name of the Student: ASHOK KUMAR S

Reg. No.: 15D118

Regards.

Date: 6,12,17

Thiagarajar College of Engineering
Madurai – 625 015.

Dr. N.B. BALAMURUGAN, M.E., Ph.D.,
Associate Professor
Department of ECE
Thiagarajar College of Engineering
Madurai-825 015

(A Govt. Aided Autonomous Institution Affiliated to Anna University)

MADURAI-625015

To

The Airport Authority of India,

Madurai.

Sir,

SUB: Permission for in-plant training for my Student- Request- Reg.

Thiagarajar College of Engineering, Madurai is a 60 year old autonomous institution aided by State and Central Governments, accredited & State and AlCTE and Affiliated to Anna University. The College offers 7 Under Graduated Programs, 13 Post Graduate Programs and research program leading to Ph.D., in all engineering and science disciplines.

As a part of curriculum, the following student belonging to 3rd year of Electronics and Communication Engineering is interested in undergoing in-plant training in your organization for a period of one week

During the course of the training, he will follow the rules and regulations of your esteemed organization. So, I request you to kindly permit her in your esteemed organization for the necessary in-plant training.

Name of the Student: VIVEK RAJ T

Reg. No.: 15D150

Regards.

Date: 6.12.17

Thiagarajar College of Engineering Madurai – 625 015.

Dr. N.B. BALAMURUGAN, M.E.,Ph.D.,
Associate Professor
Department of ECE
Thiagarajar College of Engineering
Madurai-625 015

(An Autonomous Institution Affiliated to Anna University, Chennai)

MADURAI – 625015.



BONAFIDE CERTIFICATE

This is to certify that the 14EC880 Project entitled "DESIGN AND IMPLEMENTATION OF BEAMFORMING NETWORK FOR SEE THROUGH WALL APPLICATION", being submitted by **S.MUTHIAH** (Register Number 14D51) in partial fulfillment for the requirement of Bachelor of Engineering Degree in Electronics and Communication Engineering, is a record of bonafide work done by him during the year 2017-2018 under my supervision. The results embodied in this report have not been submitted to any other university or institute for the award of any degree or diploma.

Dr. Mrs .A.Thenmozhi M.F., Ph.D

Associate Professor,

Department of ECE,

Station: Madurai

Dr.Mrs.R.Sukanesh, M.E., Ph.D

Muscanul

Professor and Head,

Department of ECE,

Date: 2/5/18

INTERNAL EXAMINER

EXTERNAL EXAMINER

(An Autonomous Institution Affiliated to Anna University, Chennai)

MADURAI – 625 015



BONAFIDE CERTIFICATE

This is to certify that the 14EC880 Project entitled "RF ENERGY HARVESTING SYSTEM FOR MOBILE APPLICATION", being submitted by SATHISH.S (Register Number 14D143), in partial fulfillment for the requirement of Bachelor of Engineering Degree in Electronics and Communication Engineering, is a record of bonafide work done by him during the year 2017-2018 under my supervision. The results embodied in this report have not been submitted to any other university or institute for the award of any degree or diploma.

Dr.Mrs A. Thenmozhi M.E., Ph.D

Associate Professor,

Department of ECE,

Dr.Mrs.R.Sukanesh, M.E.,Ph.D

Professor and Head,

Department of ECE,

Station: Madurai

Date: $\approx 15/18$

Certified that the Candidate was examined in the Viva-Voce Examination held at Thiagarajar College of Engineering, Madurai on

INTERNAL EXAMMER

EXTERNAL EXAMINER

(An Autonomous Institution Affiliated to Anna University, Chennai)

MADURAI – 625 015



BONAFIDE CERTIFICATE

This is to certify that the 14EC880 Project entitled "DESIGN A **CUBSAT** FOR **ANTENNA ARRAY** PATCH S-BAND APPLICATION", being submitted by ANAND.S (Register Number NANTHALAL.M.K Number 14D137) (Register VIGNESH.R (Register Number 14D115) in partial fulfillment for the requirement of Bachelor of Engineering Degree in Electronics and Communication Engineering, is a record of bonafide work done by them during the year 2017-2018 under my supervision. The results embodied in this report have not been submitted to any other university or institute for the award of any degree or diploma.

Dr.Mrs.A.Thenmozhi M.E.,Ph.D

Associate Professor.

Department of ECE,

Dr.Mrs.R.Sukanesh, M.E.,Ph.D

Professor and Head,

Department of ECE,

Station: Madurai

Date: 2/5/18

INTERNAL EXAMPLER

Ωις· μη, EXTERNAL EXAMINER

(An Autonomous Institution Affiliated to Anna University, Chennai)

$MADURAI - 625\ 015.$



BONAFIDE CERTIFICATE

This is to certify that the 14C880 Project entitled "SHARED APERTURE ANTENNA FOR MULTIBAND WIRELESS APPLICATION", being submitted by P.M.HARINEE(Register Number 14D21) and P.JHANANI PRADHAKSNA (Register Number 14D34) in partial fulfillment for the requirement of Bachelor of Engineering Degree in Electronics and Communication, is a record of bonafide work done by them during the year 2017-2018 under my supervision. The results embodied in this report have not been submitted to any other university or institute for the award of any degree or diploma.

report have not been submitted to any ot	her university or institute for the award	
of any degree or diploma. Dr.(Mrs).B.Manimegalai .,M.E.,Ph.D Assistant professor,	Dr.(Mrs).R.Sukanesh.,M.E.,Ph.D Professor and Head,	
Department of ECE, (Guide)	Department of ECE,	
Station: Madurai	Date: 0.2/5/18	
Certified that the Candidate was examine at Thiagarajar College of Engineering, MINTERNAL EXAMINER EXTERN		

(An Autonomous Institution Affiliated to Anna University, Chennai)

MADURAI – 625 015.



BONAFIDE CERTIFICATE

This is to certify that the 14EC880 Project entitled "WEARABLE TEXTILE ANTENNA FOR WIRELESS BODY AREA NETWORK COMMUNICATION", being submitted by J.NAVEEN (Register Number 14D55), T.T.SABARIS KUMAR (Register Number 14D80) and P.JANAKIRAMAN (Register Number 14D29) in partial fulfillment for the requirement of Bachelor of Engineering Degree in Electronics and Communication Engineering, is a record of bonafide work done by them during the year 2017-2018 under my supervision. The results embodied in this report have not been submitted to any other university or institute for the award of any degree or diploma.

report have not been submitted to any oth	mitted to any other university or institute for the aw	
of any degree or diploma.	Rhelanul	
Dr.(Mrs).B.Manimegalai.,M.E.,Ph.D	Dr.(Mrs).R.Sukanesh.,M.E.,Ph.D	
Assistant professor,	Professor and Head,	
Department of ECE,	Department of ECE,	
(Guide) Station: Madurai	Date: 02/05/18	
Certified that the Candidate was examined		
at Thiagarajar College of Engineering, Ma	adurai on	
MI NI DIL	3R	

EXTERNAL EXAMINER

ii

(An Autonomous Institution Affiliated to Anna University, Chennai)

MADURAI – 625 015



BONAFIDE CERTIFICATE

This is to certify that the 14EC880 Project entitled "OBJECT ORIENTED RECOGNITION OF RELIGIOUS IDOLS", being submitted by *R.R.A.JEEMA* (Register Number 14D72) and *T.S.SUREKHA* (Register Number 14D102) in partial fulfillment for the requirement of Bachelor of Engineering Degree in Electronics and Communication Engineering, is a record of bonafide work done by them during the year 2017-2018 under my supervision. The results embodied in this report have not been submitted to any other university or institute for the award of any degree or diploma.

Dr.Mrs.R.Sukanesh, M.E.,Ph.D

Misscanus

Professor and Head,

Department of ECE,

Station: Madurai

(Guide)

Date: 27/4/18

Certified that the Candidate was examined in the Viva-Voce Examination held at Thiagarajar College of Engineering, Madurai on 9/5/08

B. Goganem INTERNAL EXAMINER

EXTERNAL EXAMINER

HDECE

ii

(An Autonomous Institution Affiliated to Anna University)

MADURAI – 625 015.



BONAFIDE CERTIFICATE

This is to certify that the 14EC880 Project entitled "A Deep Facial Feature based Person Re-Identification for Surveillance Applications", being submitted by A.SANGEETHA (Register Number 14D85) and S.SARAVANA SRI (Register Number 14D87) in partial fulfillment for the requirement of Bachelor of Engineering Degree in Electronics and Communication Engineering, is a record of bonafide work done by them during the year 2017-2018 under my supervision. The results embodied in this report have not been submitted to any other university or institute for the award of any degree or diploma.

B. Hogameens	Klusca
Dr. Mrs.B.YOGAMEENA, M.E., Ph.D	Dr.Mrs.R.SUKANES

Associate Professor,

Department of ECE

(Guide)

Station: Madurai

Dr.Mrs.R.SUKANESH, M.E., Ph.D

Professor and Head,

Department of ECE

Date: 0265 /18

Certified that the Candidate was examined in the Viva-Voce Examination held at Thiagarajar College of Engineering, Madurai on 2/5/18.

B. Hoganiena INTERNAL EXAMINER

EXTERNAL EXAMINER ()

(An Autonomous Institution Affiliated to Anna University, Chennai)

MADURAI - 625 015



BONAFIDE CERTIFICATE

This is to certify that the 14EC880 Project entitled "DESIGN OF CMOS INTEGRATED BIOSENSOR FOR IMPLANTABLE MEDICAL DEVICE", being submitted by R.ARCHANA (Register Number: 14D09) and K.NIFASATH FARHANA (Register Number: 14D57) in partial fulfillment for the requirement of Bachelor of Engineering Degree in Electronics and Communication Engineering, is a record of bonafide work done by them during the year 2017-2018 under my supervision. The results embodied in this report have not been submitted to any other university or institute for the award of any degree or diploma.

Dr.(Mrs).D.Gracia Nirmala Rani,M.E.,Ph.D,

Assistant Professor,

Department of ECE

Dr.(Mrs).R.Sukanesh,M.E.,Ph.D,

Professor and Head,

Department of ECE

Station: Madurai

Date: 02/05/18.

Certified that the Candidate was examined in the Viva-Voce Examination held at Thiagarajar College of Engineering, Madurai on $\frac{2\sqrt{5}}{6}$.

INTERIVAL EXAMINER

EXTERNAL EXAMPLES (4

HODECE

ii

(An Autonomous Institution Affiliated to Anna University, Chennai)

MADURAI — 625 015.



BONAFIDE CERTIFICATE

This is to certify that the 14EC880 Project entitled "DESIGN AND ANALYSIS OF CMOS BASED DUAL BAND LC OSCILLATOR FOR DTH RECEIVER", being submitted by G.KOWSHIK NARAYANAN (Register Number 14D43) and J.MOHAMED ASHFAQ HUSSAIN (Register Number 14D49) in partial fulfillment for the requirement of Bachelor of Engineering Degree in Electronics and Communication Engineering, is a record of bonafide work done by them during the year 2017-2018 under my supervision. The results embodied in this report have not been submitted to any other university or institute for the award of any degree or diploma.

Dr.D.GRAGIA NIRMALA RANI, M.E.,Ph.D

Assistant Professor,

Department of ECE,

(Guide)

Station: Madurai

Dr.Mrs. R.SUKANESH M.E.,Ph.D

Professor and Head,

Department of ECE,

Date: 02/5/18

Certified that the Candidate was examined in the Viva-Voce Examination held at Thiagarajar College of Engineering, Madurai on 2/5/18.

INTERNAL EXAMINER

EXTERNAL EXAMINER

HOD

ii

(An Autonomous Institution Affiliated to Anna University)

MADURAI - 625 015.



BONAFIDE CERTIFICATE

This is to certify that the 14EC880 Project entitled "Mitigation Of Black Hole Attack In VANET Using Hybrid Approach -Genetic Algorithm And Fuzzy Logic", being submitted by K.Brindha(Register Number: 14D12), A.Elakkiya(Register Number: 14D17) in partial fulfilment for the requirement of Bachelor of Engineering Degree in Electronics and Communication Engineering, is a record of bonafide work done by them during the year 2017-2018 under my supervision. The results embodied in this report have not been submitted to any other university or institute for the award of any degree or diploma.

Luli

Dr.Mrs.E.Murugavalli M.E.,Ph.D

Assistant Professor,

Department of ECE,

Station: Madurai

Dr.Mrs.R.Sukanesh M.E.,Ph.D

Professor and Head,

Department of ECE,

Date: a2/5/18

Certified that the Candidate was examined in the Viva-Voce Examination held at Thiagarajar College of Engineering, Madurai on 7/5/18

INTERNAL EXAMINER

EXTERNAL EXAMINER

(An Autonomous Institution Affiliated to Anna University, Chennai)

MADURAI - 625 015



BONAFIDE CERTIFICATE

This is to certify that the 14EC880 Project entitled "COMPARATIVE ANALYSIS ON CLUSTERING ALGORITHMS IN WIRELESS SENSOR NETWORKS", being submitted by R.JANANI (Register Number 14D31) and B.JAYARANJANI (Register Number 14D32) in partial fulfillment for the requirement of Bachelor of Engineering Degree in Electronics and Communication Engineering, is a record of bonafide work done by them during the year 2017-2018 under my supervision. The results embodied in this report have not been submitted to any other university or institute for the award of any degree or diploma.

Lul. Dr.E.Murugavalli,

Dr.Mrs.R.Sukanesh,M.E.,Ph.D

Assistant Professor,

Professor and Head,

Department of ECE,

Department of ECE,

Station: Madurai

Date: 02/05/18

Certified that the Candidate was examined in the Viva-Voce Examination

held at Thiagarajar College of Engineering, Madurai on 7.5. 2019

Lilia INTERNAL EXAMINER

EXTERNAL EXAMINER

ii

(An Autonomous Institution Affiliated to Anna University, Chennai) MADURAI – 625 015.



BONAFIDE CERTIFICATE

entitled **Project** This 14EC880 is certify that the "PERFORMANCE ANALYSIS OF INTRUSION DETECTION IN CYBER PHYSICAL SYSTEM", being submitted by P.ANNAPOORANI (Register Number 14D06), S.ELASWARI (Register Number 14D18), and G.MOHANA (Register Number 14D134) in partial fulfillment for the requirement of Bachelor of Engineering Degree in Electronics and Communication Engineering, is a record of bonafide work done by them during the year 2017-2018 under my supervision. The results embodied in this report have not been submitted to any other university or institute for the award of any degree or diploma.

Assistant Professor

Department of ECE,

Station: Madurai

Dr.Mrs.R.Sukanesh M.E.,Ph.D

Professor and Head,

Department of ECE,

Date: 02/05/18

Certified that the Candidate was examined in the Viva-Voce Examination held at Thiagarajar College of Engineering, Madurai on $\frac{2/5/\sqrt{2}}{2}$.

INTERNAL EXAMINER EXTERNAL EXAMINER OF THE CE

ii

(An Autonomous Institution Affiliated to Anna University, Chennai) $MADURAI - 625\ 015$



BONAFIDE CERTIFICATE

This is to certify that the 14EC880 Project entitled "FPGA **IMPLEMENTATION** OF ARTIFICIAL NEURON FOR HANDWRITTEN DIGIT RECOGNITION SYSTEM", being submitted by G.NEPOLEAN (Register Number 14D56), M.PANDIYARAJAN (Register Number 14D60), K.DIVYA BHARATHI (Register Number 14D16) in partial fulfillment for the requirement of Bachelor of Engineering Degree in Electronics and Communication Engineering, is a record of bonafide work done by them during the year 2017-2018 under my supervision. The results embodied in this report have not been submitted to any other university or institute for the award of any degree or diploma.

O. S. ...
Dr.K.Kalyani, M.E.,Ph.D

Assistant Professor

Department of ECE,

THE STATE OF THE STATE OF

Professor and Head.

Department of ECE,

Dr.Mrs.R.Sukanesh, M.E.,Ph.D

Station: Madurai

Date: 2/5/18

Certified that the Candidate was examined in the Viva-Voce Examination held at Thiagarajar College of Engineering, Madurai on 3/5/18

O.O...'
INTERNAL EXAMINER

EXTERNAL EXAMINER

(An Autonomous Institution Affiliated to Anna University)

MADURAI – 625 015.



BONAFIDE CERTIFICATE

This is to certify that the 14EC880 Project entitled "LOW SNR UPLINK CFO ESTIMATION FOR NARROW BAND IoT IN LTE", being submitted by R.RATHNAVAISHALI (Register Number 14D076), S.VARSHA (Register Number 14D109) and C.VINOTHINI (Register Number 14D120) in partial fulfillment for the requirement of Bachelor of Engineering Degree in Communication Systems, is a record of bonafide work done by them during the year 2017-2018 under my supervision. The results embodied in this report have not been submitted to any other university or institute for the award of any degree or diploma.

Dr.Mrs.K.RAJESWARI,M.E.,Ph.D

Assistant Professor,

Department of E.C.E.

Dr.Mrs.R.Sukanesh M.E.,Ph.D

Professor and Head,

Department of E.C.E.

Station: Madurai

Date: 27/4/18

Certified that the Candidate was examined in the Viva-Voce Examination held at Thiagarajar College of Engineering, Madurai on 2/5/18

Kley --INTERNAL EXAMINER

EXTERNAL EXAMINERLY

(An Autonomous Institution Affiliated to Anna University, Chennai)

MADURAI – 625 015



BONAFIDE CERTIFICATE

This is to certify that the 14EC880 Project entitled "Enhancement of Banking functionalities using Componentisation", being submitted by R.SUDHA (Register Number 14D99) in partial fulfillment for the requirement of Bachelor of Engineering Degree in Electronics and Communication Engineering, is a record of bonafide work done by her during the year 2017-2018 under my supervision. The results embodied in this report have not been submitted to any other university or institute for the award of any degree or diploma. Rhekanul

Klajl Dr.K.Rajeswari	
Assistant Professor,	

Department of ECE,

Dr.R.Sukanesh, M.E., Ph.D

Professor and Head,

Department of ECE,

Station: Madurai

Date: 27/4/18

Certified that the Candidate was examined in the Viva-Voce Examination held at

INTERNAL EXAMINER

(An Autonomous Institution Affiliated to Anna University, Chennai)

MADURAI – 625 015



BONAFIDE CERTIFICATE

This is to certify that the 14EC880 Project entitled "DEFECTED GROUND STRUCTURE (DGS) BASED COMMON MODE FILTER FOR HIGH SPEED submitted by being APPLICATIONS", **CIRCUITS DIGITAL** M.VIKNESHWARAN V.NITHIYANANDHAM(Register Number 14D59)and (Register Number 14D119) in partial fulfillment for the requirement of Bachelor of Engineering Degree in Electronics and Communication Engineering, is a record of bonafide work done by them during the year 2017-2018 under my supervision. The results embodied in this report have not been submitted to any other university or institute for the Rhestanus award of any degree or diploma.

Dr.Mr.K.Vasudevan M.E,Ph.D	Dr.Mrs.R.Sukanesh M.E.,Ph.D
Associate Professor	Professor and Head,

Associate Professor,

Department of ECE,

Station: Madurai

Department of ECE,

Date: 03/5/18

Certified that the Candidate was examined in the Viva-Voce Examination held at		
Thiagarajar College of Engineering, Madurai on		
INTERNAL EXAMINER	EXTERNAL EXAMINER HDECE	

(An Autonomous Institution Affiliated to Anna University, Chennai)

MADURAI – 625 015



BONAFIDE CERTIFICATE

This is to certify that the 14EC880 Project entitled "Dual L-Slot EBG Structure to mitigate Simultaneous Switching Noise for Mixed Signal System Applications", being submitted by R.RANJITH (Reg.no:14D75) and R.TAMILVENDAN(Reg.no:14D145) in partial fulfillment for the requirement of Bachelor of Engineering Degree in Electronics and Communication Engineering, is a record of bonafide work done by them during the year 2017-2018 under my supervision. The results embodied in this report have not been submitted to any other university or institute for the award of any degree or diploma. Cluscanus_

Dr.K.Vasudevan, M.E., Ph.D.

Assistant Professor,

Department of ECE,

Station: Madurai

Date: 3/5/18

Dr.Mrs.R.Sukanesh, M.E., Ph.D

Professor and Head,

Department of ECE,

Certified that the Candidate was examined in the Viva-Voce Examination held at Thiagarajar College of Engineering, Madurai on 7/5/18.

INTERNAL EXAMINER

EXTERNAL EXAMINER

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(An Autonomous Institution Affiliated to Anna University, Chennai)

MADURAI - 625 015



BONAFIDE CERTIFICATE

This is to certify that the 14EC880 Project entitled "SPEECH AND MUSIC CLASSIFICATION USING MEL FREQUENCY CEPSTRAL COEFFICIENTS", being submitted by *B.MAHALAKSHMI* (14D46), *M.NISHA HARINI* (14D58) and *K.KARTHIGA* (14D132) in partial fulfillment for the requirement of Bachelor of Engineering Degree in Electronics and Communication Engineering, is a record of bonafide work done by them during the year 2017-2018 under my supervision. The results embodied in this report have not been submitted to any other university or institute for the award of any degree or diploma.

M.N. duning

Dr.M.N.Suresh, M.E., Ph.D

Assistant Professor

Department of ECE

Station: Madurai

Dr.Mrs.R.Sukanesh, M.E.,Ph.D

Rlukanul

Professor and Head

Department of ECE

Date: 02/5/18

Certified that the Candidate was examined in the Viva-Voce Examination held at Thiagarajar College of Engineering, Madurai on $\frac{9/\sqrt{3}}{18}$.

M.N. Luy INTERNAL EXAMINER EXTERNAL EXAMINAR'S

(An Autonomous Institution Affiliated to Anna University, Chennai)



MADURAI - 625 015.

BONAFIDE CERTIFICATE

This is to certify that the 14EC880 Project entitled "DRIVER'S INTENTION IDENTIFICATION AND RISK EVALUATION AT **VEHICLES**" OF **INTERNET** INTERSECTIONS IN THE being submitted by P.ARCHANA(Register Number **14D124**) and K.G.DIVYA(Register Number 14D125) in partial fulfillment for the requirement of Bachelor of Engineering Degree in Electronics and Communication Systems, is a record of bonafide work done by them during the year 2017-2018 under my supervision. The results embodied in this report have not been submitted to any other university or institute for the award of any degree or diploma.

Dr.Mr.M.S.K.Manikandan, M.E.,Ph.D,

Dr.Mrs.R.Sukanesh, M.E., Ph.D,

Associate Professor,

Professor and Head,

Department of ECE,

Department of ECE,

Station: Madurai

Date: 2/5/18

Certified that the Candidate was examined in the Viva-Voce Examination held at Thiagarajar College of Engineering, Madurai on on to start the Candidate was examined in the Viva-Voce Examination held at Thiagarajar College of Engineering, Madurai on on the Viva-Voce Examination.

INTERNAL EXAMINER

EXTERNAL EXAMINER

(An Autonomous Institution Affiliated to Anna University, Chennai)

MADURAI – 625 015.



BONAFIDE CERTIFICATE

This is to certify that the 14EC880 Project entitled "Prevention mechanism for denial of service attack over software defined network" being submitted by M.CHITHRA(Register Number 14D14) V.ISHWARYA (Register Number 14D28) in partial fulfillment for the requirement of Bachelor of Engineering Degree in Electronics and Communication Systems, is a record of bonafide work done by them during the year 2017-2018 under my supervision. The results embodied in this report have not been submitted to any other university or institute for the award of any degree or diploma.

Dr.(Mr).M.S.K.Manikandan M. E. Ph. D,

Associate Professor.

Department of ECE,

(Guide)

Station: Madurai

Dr.Mrs.R.Sukanesh M. E. Ph. D,

Professor and Head,

Department of ECE,

Date: 02/5/13

INTERNAL EXAMINER

EXTERNAL EXAMINER

SR HDECE F

(An Autonomous Institution Affiliated to Anna University, Chennai)

MADURAI – 625 015



BONAFIDE CERTIFICATE

This is to certify that the 14EC880 Project entitled "MODELLING OF DRAIN CURRENT IN DUAL MATERIAL GATE HEMT USING FDM FOR DEFENCE APPLICATIONS", being submitted by R.ROJANA (14D79), K.SWATHIKA (14D105) and A.VASANTHA PRIYA (14D112) in partial fulfillment for the requirement of Bachelor of Engineering Degree in Electronics and Communication Engineering, is a record of bonafide work done by them during the year 2017-2018 under my supervision. The results embodied in this report have not been submitted to any other university or institute for the award of any degree or diploma.

Dr.N.B.Balamurugan M.E.,Ph.D

Associate Professor,

Department of ECE,

(Guide)

Dr.Mrs.R.Sukanesh, M.E.,Ph.D Associate Professor and Head,

Department of ECE,

Station: Madurai

Date: 24/18

Certified that the Candidate was examined in the Viva-Voce Examination held at Thiagarajar College of Engineering, Madurai on $\frac{215/18}{15}$.

INTERNAL EXAMINER

EXTERNAL EXAMINER

(An Autonomous Institution Affiliated to Anna University, Chennai)

MADURAI – 625 015



BONAFIDE CERTIFICATE

entitled Project This 14EC880 certify that the "INTERFERENCE ALIGNMENT AND ENERGY HARVESTING IN CELLULAR NETWORKS WITH ADVERSARIAL JAMMERS AND EAVESDROPPERS", being submitted by K.SWARNAMUKI (Register Number 14D104) and M.YUVARANI (Register Number 14D122) in partial fulfillment for the requirement of Bachelor of Engineering Degree in Electronics and Communication Engineering, is a record of bonafide work done by them during the year 2017-2018 under my supervision. The results embodied in this report have not been submitted to any other university or institute for the award of any degree or diploma. Ciscanus

Dr.P.G.S. Velmurugan, M.E., Ph.D

Assistant Professor,

Department of ECE,

Dr.Mrs.R.Sukanesh, M.E.,Ph.D

Professor and Head,

Department of ECE,

Station: Madurai

Date: 27/4/18

Certified that the Candidate was examined in the Viva-Voce Examination held at Thiagarajar College of Engineering, Madurai on 9/1/18

INTERNAL EXAMINER

EXTERNAL E

(An Autonomous Institution Affiliated to Anna University, Chennai)

MADURAI – 625 015



BONAFIDE CERTIFICATE

This is to certify that the 14EC880 Project entitled "INDOOR LOCALIZATION USING Wi-Fi RSSI VALUES", being submitted by S.PRIYALAKSHMI (Register Number 14D70), and RM.SUBASHRI (Register Number 14D97) in partial fulfillment for the requirement of Bachelor of Engineering Degree in Electronics and Communication Engineering, is a record of bonafide work done by them during the year 2017-2018 under my supervision. The results embodied in this report have not been submitted to any other university or institute for the award of any

degree or diploma.

Dr.P.G.S.Velmurugan, M.E.,Ph.D

Assistant Professor,

Department of ECE,

Station: Madurai

Dr.Mrs.R.Sukanesh, M.E.,Ph.D

Professor and Head,

Department of ECE,

Date: 27/4/18

Certified that the Candidate was examined in the Viva-Voce Examination

held at Thiagarajar College of Engineering, Madurai on 2/5/8

INTERNAL EXAMINER

EXTERNAL EXAMINER

(An Autonomous Institution Affiliated to Anna University, Chennai)

MADURAI – 625 015.



BONAFIDE CERTIFICATE

This is to certify that the 14EC880 Project entitled "SPATIO-SPECTRAL FEATURE BASED POST CLASSIFICATION CHANGE DETECTION FOR URBAN SPRAWL MONITORING" being submitted by *J. CHARLES* (Register Number 14D13) in partial fulfillment for the requirement of Bachelor of Engineering Degree in Electronics and Communication Engineering, is a record of bonafide work done by him during the year 2017-2018 under my supervision. The results embodied in this report have not been submitted to any other university or institute for the award of any degree or diploma.

Dr.R.A.ALAGURAJA

Assistant Professor

Department of ECE,

(Guide)

Station: Madurai

Dr.Mrs.R.Sukanesh M.E.,Ph.D

Professor and Head,

Department of ECE,

Date: 27/4/18

Certified that the Candidate was examined in the Viva-Voce Examination held at Thiagarajar College of Engineering, Madurai on 2/5/18

INTERNAL EXAMINER

EXTERNAL EXAMINER

(An Autonomous Institution Affiliated to Anna University, Chennai)

MADURAI – 625 015.



BONAFIDE CERTIFICATE

This is to certify that the 14EC880 Project entitled "WATER BODY ENCROACHMENT MONITORING USING REMOTE SENSING" being submitted by R.NANDHAKUMRAN (Register number:14D53), M.VISHNUVARTHAN (Register number:14D146) in partial fulfillment for the requirement of Bachelor of Engineering Degree in Electronics and Communication Engineering, is a record of bonafide work done by them during the year 2017-2018 under my supervision. The results embodied in this report have not been submitted to any other university or institute for the award of any degree or diploma.

Dr.R.A.ALAGURAJA

Assistant Professor

Department of ECE,

(Guide)

Station: Madurai

Dr.Mrs.R.Sukanesh M.E.,Ph.D

Professor and Head,

Department of ECE,

Date: 42/5/18

Certified that the Candidate was examined in the Viva-Voce Examination held at Thiagarajar College of Engineering, Madurai on 2/5/8

INTERNAL EXAMINER

EXTERNAL EXAMINENT HOECE

(An Autonomous Institution Affiliated to Anna University, Chennai)

MADURAI - 625 015



BONAFIDE CERTIFICATE

This is to certify that the 14EC880 Project entitled "A Multivariate Gaussian Modeling for Counting Bananas", being submitted by *T.M.NAVARASY* (Register Number 14D54)in partial fulfillment for the requirement of Bachelor of Engineering Degree in Electronics and Communication Engineering, is a record of bonafide work done by her during the year 2017-2018 under my supervision. The results embodied in this report have not been submitted to any other university or institute for the award of any degree or diploma.

Or `	
Dr.S.Md.Mansoor	Roomi, M.E., Ph.D

Assistant Professor,

Department of ECE,

(Guide)

Dr.Mrs.R.Sukanesh,M.E.,Ph.D

Professor and Head,

Department of ECE.

Station: Madurai

Date: 2/5/18

Certified that the Candidate was examined in the Viva-Voce Examination held at Thiagarajar College of Engineering, Madurai on $\frac{2}{\sqrt{5}} \frac{1}{\sqrt{8}}$

INTERNAL EXAMINER

EXTERNAL EXAMINER.

(An Autonomous Institution Affiliated to Anna University, Chennai)

MADURAI - 625 015



BONAFIDE CERTIFICATE

This is to certify that the 14EC880 Project entitled "Automation Of Private Regression Testing", being submitted by M.JANANI (Register Number 14D30), in partial fulfillment for the requirement of Bachelor of Engineering Degree in Electronics and Communication Engineering, is a record of bonafide work done by her during the year 2017-2018 under my supervision. The results embodied in this report have not been submitted to any other university or institute for the award of any degree or diploma.

Dr. S.Md.Mansoor Roomi, M.E.,Ph.D

Assistant Professor,

Department of ECE,

Station: Madurai

Dr. Mrs. R. Sukanesh, M.E., Ph.D

Professor and Head,

Department of ECE,

Date: 27/4/18

Certified that the Candidate was examined in the Viva-Voce Examination

held at Thiagarajar College of Engineering, Madurai on 7/5/8

INTERNAL EXAMINER

EXTERNAL EXAMINER

ii

(An Autonomous Institution Affiliated to Anna University, Chennai)

MADURAI – 625 015



BONAFIDE CERTIFICATE

This is to certify that the 14EC880 Project entitled "AUTOMATION OF SYSTEM INTEGRATION TESTING IN CONTENT DELIVERY NETWORK", being submitted by K.S.SHOBIKA (Register Number 14D91), in partial fulfillment for the requirement of Bachelor of Engineering Degree in Electronics and Communication Engineering, is a record of bonafide work done by her during the year 2017-2018 under my supervision. The results embodied in this report have not been submitted to any other university or institute for the award of any degree or diploma.

Dr.Mr.S.Md.Mansoor Roomi, M.E, Ph.D

Dr.Mrs.R.Sukanesh, M.E.,Ph.D

Mahun

Assistant Professor,

Professor and Head,

Department of ECE,

Department of ECE.

(Guide)

Station: Madurai

Date: 02/5/18

Certified that the Candidate was examined in the Viva-Voce Examination held at Thiagarajar College of Engineering, Madurai on 7/8/18

INTERNAL EXAMINER

EXTERNAL EXAMINER

(An Autonomous Institution Affiliated to Anna University, Chennai)

MADURAI – 625 015.



BONAFIDE CERTIFICATE

This is to certify that the 14CN410 Project II entitled "INTELLIGENT SURVEILLANCE SYSTEM FOR ATM", being submitted by *M.KAVITHA* (Register Number 16N008) in partial fulfillment for the requirement of Master of Engineering Degree in Communication Systems, is a record of bonafide work done by her during the year 2017-2018 under my supervision. The results embodied in this report have not been submitted to any other university or institute for the award of any degree or diploma.

Dr.S.Md.Mansoor Roomi M.E.,M.E.,Ph.D Assistant Professor, Department of ECE,

Station: Madurai

Dr.Mrs.R.Sukanesh M.E.,Ph.D Professor and Head,

Rhiscanul

Department of ECE,

Date: 02/5/18-

Certified that the Candidate was examined in the Viva-Voce Examination held at Thiagarajar College of Engineering, Madurai on

INTERNAL EXAMINER

XTERNAL EXAMINER

(An Autonomous Institution Affiliated to Anna University, Chennai)

MADURAI – 625 015.



BONAFIDE CERTIFICATE

This is to certify that the 14EC880 Project entitled "A NON-INVASIVE BLOOD GLUCOSE MONITORING DEVICE USING RED LASER LIGHT", being submitted by P.MUHAMADUYASIC (Register Number 14D135) and K.M.GOPINATH (Register Number 14D126) in partial fulfillment for the requirement of Bachelor of Engineering Degree in Electronics and Communication Engineering, is a record of bonafide work done by them during the year 2017-2018 under my supervision. The results embodied in this report have not been submitted to any other university or institute for the award of any degree or diploma.

embodied in this report have	not been submitted to any	other university of
institute for the award of any d	legree or diploma.	
Dr.(Mrs).R.SUKANESH	n in production and progress the form	r.(Mrs).R.SUKANESH
Head of Department,	Н	ead of Department,
ECE,	E	CE, 2
(Guide)		1-118.
Station: Madurai	D	ate: 2/5/18 ·
Certified that the Candidate was at Thiagarajar College of Engi		
Minternal examiner	(). ((. ;). EXTERNAL EXAMINER	SK.

(An Autonomous Institution Affiliated to Anna University, Chennai)

MADURAI – 625 015



BONAFIDE CERTIFICATE

This is to certify that the 14EC880 Project entitled "A Multivariate Gaussian Modeling for Counting Bananas", being submitted by *T.M.NAVARASY* (Register Number 14D54)in partial fulfillment for the requirement of Bachelor of Engineering Degree in Electronics and Communication Engineering, is a record of bonafide work done by her during the year 2017-2018 under my supervision. The results embodied in this report have not been submitted to any other university or institute for the award of any degree or diploma.

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Dr S	Md.Manso	or Roomi	,M.E.,Ph.D

Assistant Professor,

Department of ECE,

(Guide)

Dr.Mrs.R.Sukanesh,M.E.,Ph.D

Professor and Head,

Department of ECE.

Station: Madurai

Date: 2/5/18

Certified that the Candidate was examined in the Viva-Voce Examination held at Thiagarajar College of Engineering, Madurai on $\frac{2}{\sqrt{5}} \sqrt{8}$

INTERNAL EXAMINER

EXTERNAL EXAMINER

(An Autonomous Institution Affiliated to Anna University, Chennai)

MADURAI – 625 015



BONAFIDE CERTIFICATE

This is to certify that the 14EC880 Project entitled "Effective Resource Assignment Strategy in Optical Networks Integrated With Quantum Key Distribution", being submitted by A.SELVASUNDAR(14D88), K.SUGEERTHA(14D101) and P.VANIYOGESH(14D108) in partial fulfillment for the requirement of Bachelor of Engineering Degree in Electronics and Communication Engineering, is a record of bonafide work done by them during the year 2017-2018 under my supervision. The results embodied in this report have not been submitted to any other university or institute for the award of any degree or diploma.

l Promale	Rlukanul
Dr.S. Ponmalar, M.E., Ph.D	Dr.Mrs.R.Sukanesh,M.E.,Ph.D
Assistant Professor	Professor and Head,
Department of ECE,	Department of ECE,
Station: Madurai	Date: 27/4/18
Certified that the Candidate was of held at Thiagarajar College of En	examined in the Viva-Voce Examination gineering, Madurai on

INTERNAL EXAMINER

EXTERNAL EXAMINER

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(An Autonomous Institution Affiliated to Anna University, Chennai)

MADURAI - 625 015



BONAFIDE CERTIFICATE

This is to certify that the 14EC880 Project entitled "DESIGN AND IMPLEMENTATION OF GMSK-DEMODULATOR ARCHITECHTURE FOR LOW POWER APPLICATION", being submitted by S.R.HARSINI (Register Number 14D26). G.LAVANYA (Register Number 14D44) and M.MADHUBHARATHI (Register Number 14D45) in partial fulfillment for the requirement of Bachelor of Engineering Degree in Electronics and Communication Engineering, is a record of bonafide work done by them during the year 2017-2018 under my supervision. The results embodied in this report have not been submitted to any other university or institute for the award of any degree or diploma.

Dr.S.RAJARAM, M.E., Ph.D

Associate Professor,

Department of ECE,

Station: Madurai

Dr.Mrs.R.Sukanesh, M.E.,Ph.D

Professor and Head.

Department of ECE,

Date: 27/4/8

Certified that the Candidate was examined in the Viva-Voce Examination held at Thiagarajar College of Engineering, Madurai on $\frac{2}{5}$

INTERNAL EXAMINER

EXTERNAL EXAMBNER

(An Autonomous Institution Affiliated To Anna University, Chennai)

MADURAI-625015



BONAFIDE CERTIFICATE

This is to certify that the 14EC880 Project entitled "ROBUST SECURITY FOR INTERNET OF THINGS IN SMART HEALTHCARE APPLICATIONS", being submitted by S.GAYATHRI (REGNO: 14D19),T.HARINI (REGNO: 14D22),S.KHARTHEHA (REGNO: 14D40) in partial fulfillment for the requirement of Bachelor of Engineering Degree in Electronics and Communication Engineering, is a record of bonafide work done by them during the year 2017-2018 under my supervision. The results embodied in this report have not been submitted to any other university or institute for the award of any degree or diploma.

by them during the year 2017-2018 under my supe	ervision. The results embodied
in this report have not been submitted to any other	r university or institute for the
award of any degree or diploma.	Rlyscanul
Dr.T.ARUNA	Dr.Mrs.R.Sukanesh,M.E.,Ph.D
Assistant Professor,	Professor and Head,
Department of ECE,	Department of ECE,
	/
Station:Madurai	Date: 02/5/18

Certified that the Candidate was examined in the Viva-Voce Examination held at Thiagarajar College of Engineering, Madurai on _________.

INTERNAL EXAMINER

O ((.)). EXTERNAL EXAMINER

(An Autonomous Institution Affiliated to Anna University, Chennai)

MADURAI – 625 015



BONAFIDE CERTIFICATE

This is to certify that the 14EC880 Project entitled "Throughput Analysis of Wireless Sensor Network for the Internet of Marine Things", being submitted by *K.C.Salini*(14D82), *M.S.Jeya Ashwini*(14D129) in partial fulfillment for the requirement of Bachelor of Engineering Degree in Electronics and Communication Engineering, is a record of bonafide work done by them during the year 2017-2018 under my supervision. The results embodied in this report have not been submitted to any other university or institute for the award of any degree or diploma.

T. de	Ruscanul
Dr.T.Aruna, M.E., Ph.D	Dr.Mrs.R.Sukanesh, M.E., Ph.D
Assistant Professor	Professor and Head,
Department of ECE,	Department of ECE,
Station: Madurai	Date:
Certified that the Candidate was e	examined in the Viva-Voce Examination
held at Thiagarajar College of En	gineering, Madurai on
	_

EXTERNAL EXAMINER

(An Autonomous Institution Affiliated to Anna University, Chennai)

MADURAI - 625 015



BONAFIDE CERTIFICATE

This is to certify that the 14EC880 Project entitled "An Area-Time Efficient Modular Reduction and Squaring Algorithm in FPGA Platform", being submitted by *A. VIGNESHWARAN* (Register Number 14D116) and *V. VIJAY* (Register Number 14D117) in partial fulfillment for the requirement of Bachelor of Engineering Degree in Electronics and Communication Engineering, is a record of bonafide work done by them during the year 2017-2018 under my supervision. The results embodied in this report have not been submitted to any other university or institute for the

award of any degree or diploma.

Dr. V.R. Venkatasubramani, A.M.I.E., M.E., Ph.D

Assistant Professor,

Department of ECE,

(Guide)

Station: Madurai

Dr.Mrs.R. Sukanesh, M.E., Ph.D

Professor and Head,

Department of ECE,

Date: 3/5/18

Certified that the Candidate was examined in the Viva-Voce Examination

held at Thiagarajar College of Engineering, Madurai on

INTERNAL EXAMINER

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(An Autonomous Institution Affiliated to Anna University, Chennai)

MADURAI - 625 015.



BONAFIDE CERTIFICATE

This is to certify that the 14EC880 Project entitled "FPGA Implementation of Transient Effect Ring Oscillator Physically Unclonable Function for IoT Applications", being submitted by S. RAMESH (Register Number 14D140) and P. SARAVANA KUMAR (Register Number 14D141) in partial fulfillment for the requirement of Bachelor of Engineering Degree in Electronics and Communication Engineering, is a record of bonafide work done by them during the year 2017-2018 under my supervision. The results embodied in this report have not been submitted to any other university or institute for the award of any degree or diploma.

Dr. V.R. Venkatasubramani A.M.I.E., M.E., Ph.D	Ruscanul
Dr. V.R. Venkatasubramani A.M.I.E., M.E., Ph.D	Dr.(Mrs).R.SUKANESH M.E.,Ph.D
Assistant Professor	Professor and Head,
Department of ECE,	Department of ECE,
(Guide)	
Station: Madurai	Data: / /

Certified that the Candidate was examined in the Viva-Voce Examination held

at Thiagarajar College of Engineering, Madurai on 26/8

INTERNAL EXAMINER

EXTERNAL EXAMINER

Date: 03/5/18

(An Autonomous Institution Affiliated to Anna University, Chennai)

MADURAI - 625 015



BONAFIDE CERTIFICATE

This is to certify that the 14EC880 Project entitled "FPGA IMPLEMENTATION OF IMAGE FEATURE EXTRACTION USING GLCM ALGORITHM", being submitted by J.JOYLIN (Register Number 14D35) and V.KAMALI (Register Number 14D36) in partial fulfillment for the requirement of Bachelor of Engineering Degree in Electronics and Communication, is a record of bonafide work done by them during the year 2017-2018 under my supervision. The results embodied in this report have not been submitted to any other university or institute for the award of any degree or diploma.

Dr. V.Vinoth Thyagarajan, M.E.,Ph.D

Assistant Professor,

Department of ECE.

Station: Madurai

Dr. R.Sukanesh, M.E., Ph.D

Head of the Department,

Department of ECE.

Date: 02/5/18

Certified that the Candidate was examined in the Viva-Voce Examination held at Thiagarajar College of Engineering, Madurai on _______.

INTERNAL EXAMINER

EXTERNAL EXAMINER

(An Autonomous Institution Affiliated to Anna University, Chennai)

MADURAI – 625 015



BONAFIDE CERTIFICATE

This is to certify that the 14EC880 Project entitled "POWER ANALYSIS FOR IMAGE FEATURE EXTRACTION ALGORITHM USING CADENCE TOOL", being submitted by J.ARTHI (Register Number 14D10), R.PRASANTHI (Register Number 14D65) in partial fulfillment for the requirement of Bachelor of Engineering Degree in Electronics and Communication, is a record of bonafide work done by them during the year 2017-2018 under my supervision. The results embodied in this report have not been submitted to any other university or institute for the award of any degree or diploma.

Dr. V. Vinoth Thyagarajan M.E., Ph.D

Assistant Professor,

Department of ECE.

Station: Madurai

Dr. R.Sukanesh, M.E., Ph.D

Head of the Department,

Department of ECE.

Date: 02/5/18

Certified that the Candidate was examined in the Viva-Voce Examination held at Thiagarajar College of Engineering, Madurai on 7/5/18.

INTERNAL EXAMINER

EXTERNAL EXAMINER

(An Autonomous Institution Affiliated to Anna University, Chennai) MADURAI – 625 015.



BONAFIDE CERTIFICATE

This is to certify that the 14WT410 Project II entitled "Performance analysis of millimeter wave SWIPT system using Ginibre Point Process", being submitted by R.JAYAVANI (Register Number 16WT007) in partial fulfillment for the requirement of Master of Engineering Degree in Wireless Technologies, is a record of bonafide work done by her during the year 2017-2018 under my supervision. The results embodied in this report have not been submitted to any other university or institute for the award of any degree or diploma.

Dr.(Mrs).G.Ananthi M.E.,Ph.D	Rlukanust
Dr.(Mrs).G.Ananthi M.E.,Ph.D	Dr.(Mrs),R.Sukanesh M.E.,Ph.D
Assistant Professor,	Professor and Head,
Department of ECE.	Department of ECE.

Station: Madurai

Certified that the Candidate was examined in the Viva-Voce Examination 08/05/18 held at Thiagarajar College of Engineering, Madurai on

EXTERNAL EXAMINER

Date:

(An Autonomous Institution Affiliated to Anna University, Chennai)

MADURAI - 625 015.



BONAFIDE CERTIFICATE

This is to certify that the 14CN410 Project II entitled "DESIGN OF CASCADED LOW NOISE AMPLIFIER FOR SEE THROUGH WALL APPLICATION", being submitted by A.SANKAVI (Register Number 16N014) in partial fulfillment for the requirement of Master of Engineering Degree in Communication Systems, is a record of bonafide work done by her during the year 2017-2018 under my supervision. The results embodied in this report have not been submitted to any other university or institute for the award of any degree or diploma.

Dr.A. Thenmozhi M.E. Ph. D

Associate Professor,

Department of ECE,

Dr.Mrs.R.Sukanesh M.E.,Ph.D

Professor and Head,

Department of ECE,

Station: Madurai

Date: 26/4/18

Certified that the Candidate was examined in the Viva-Voce Examination held at Thiagarajar College of Engineering, Madurai on

INTERNAL EXAMINER

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MADURAI – 625 015.



BONAFIDE CERTIFICATE

This is to certify that the 14CN410 Project II entitled "DEVELOPMENT OF SHARED APERTURE ANTENNA FOR MULTIBAND WIRELESS APPLICATIONS", being submitted by **R.VISHALAKSHI**(Register Number 16N022) in partial fulfillment for the requirement of Master of Engineering Degree in Communication Systems, is a record of bonafide work done by her during the year 2017-2018 under my supervision. The results embodied in this report have not been submitted to any other university or institute for the award of any degree or diploma.

Dr.(Mrs).B.Manimegala, .,M.E.,Rh.D

Assistant professor

Department of ECE

Dr.(Mrs).R.Sukanesh.,M.E.,Ph.D

Professor and Head

Department of ECE

Station: Madurai

Date: 02/05/18

Certified that the Candidate was examined in the Viva-Voce Examination held

at Thiagarajar College of Engineering, Madurai on

NTERNAL EXAMINER

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MADURAI – 625 015.



BONAFIDE CERTIFICATE

This is to certify that the 14CN410 Project II entitled " **Development Of** Wearable E-Textile Antenna for WBAN Communication", being submitted by P.SELVA PRAKASH (Register Number 16N015) in partial fulfillment for the requirement of Master of Engineering Degree in Communication Systems, is a record of bonafide work done by him during the year 2017-2018 under my supervision. The results embodied in this report have not been submitted to any other university or institute for the award of any degree or diploma.

Dr.(Mrs).B.Manimegalai.,M.E.,Ph.D

Assistant professor

Department of ECE

Station: Madurai

Dr.(Mrs).R.Sukanesh.,M.E.,Ph.D

Professor and Head

Department of ECE

Date: 02/5/18

alle

Certified that the Candidate was examined in the Viva-Voce Examination held at Thiagarajar College of Engineering, Madurai on State

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(An Autonomous Institution Affiliated to Anna University, Chennai) MADURAI-625~015.



BONAFIDE CERTIFICATE

This is to certify that the 14CN410 Project II entitled * DESIGN AND ANALYSIS OF CMOS LOW NOISE AMPLIFIER FOR V-BAND APPLICATIONS", being submitted by M.DIVYA(Register Number 16N005) in partial fulfillment for the requirement of Master of Engineering Degree in Communication Systems, is a record of bonafide work done by her during the year 2017-2018 under my supervision. The results embodied in this report have not been submitted to any other university or institute for the award of any degree or diploma.

Dr.Mrs.D.Gracia Nirmala Rani M.E.,Ph.D

Assistant Professor

Department of ECE,

Dr.Mrs.R.Sukanesh M.E.,Ph.D

Professor and Head,

Department of ECE,

Station: Madurai

Date: 2 5 18

Certified that the Candidate was examined in the Viva-Voce Examination held at Thiagarajar College of Engineering, Madurai on

INTERNAL EXAMINER

EXTERNAL EXAMINER

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(An Autonomous Institution Affiliated to Anna University, Chennai)

MADURAI – 625 015.



BONAFIDE CERTIFICATE

This is to certify that the 14CN410 Project II entitled "TIME EFFICENT SECURE COMMUNICATION USING DNA CRYPTOGRAPHY FOR CLOUD COMPUTING ENVIRONMENT", being submitted by S. KARTHIGA (Register Number 16N007) in partial fulfillment for the requirement of Master of Engineering Degree in Communication Systems, is a record of bonafide work done by her during the year 2017-2018 under my supervision. The results embodied in this report have not been submitted to any other university or institute for the award of any degree or diploma.

Dr.E.Murugavalli

Assistant Professor

Department of ECE,

Station: Madurai

Dr.Mrs.R.SukaneshM.E.,Ph.D.

Professor and Head,

Department of ECE,

Date: 27/4/13

Certified that the Candidate was examined in the Viva-Voce Examination held at Thiagarajar College of Engineering, Madurai on 17.05.18

INTERNAL EXAMINER

EXTERNAL EXAMINER

(An Autonomous Institution Affiliated to Anna University, Chennai)

MADURAI – 625 015.



BONAFIDE CERTIFICATE

This is to certify that the 14CN410 Project II entitled "FPGA Implementation of Low Density Parity Check Decoder using Parity Check Matrix For Wi-Fi Application" being submitted by H.PRAVEENA (Register Number 16N013) in partial fulfillment for the requirement of Master of Engineering Degree in Communication Systems, is a record of bonafide work done by her during the year 2017-2018 under my supervision. The results embodied in this report have not been submitted to any other university or institute for the award of any degree or diploma.

aa.

Dr.(Mrs).K.Kalyani M. E. Ph. D

Assistant Professor

Department of ECE,

(Guide)

Station: Madurai

Dr.Mrs.R.Sukanesh M.E.,Ph.D

Professor and Head,

Department of ECE,

Date: 27/4/18

Certified that the Candidate was examined in the Viva-Voce Examination held at Thiagarajar College of Engineering, Madurai on 86.

E.C.'
INTERNAL EXAMINER

EXTERNAL EXAMINER

(An Autonomous Institution Affiliated to Anna University)

MADURAI - 625 015.



BONAFIDE CERTIFICATE

This is to certify that the 14CN410 Project II entitled "IMPROVED ENERGY HARVESTING EFFICIENCY AND SPECTRAL EFFICIENCY WITH MULTIPLE ANTENNA COOPERATIVE RELAY NETWORKS", being submitted by K.LOGA RAJESHWARAN (Register Number 16N010) in partial fulfillment for the requirement of Master of Engineering Degree in Communication Systems, is a record of bonafide work done by him during the year 2017-2018 under my supervision. The results embodied in this report have not been submitted to any other university or institute for the award of any degree or diploma.

Dr.Mrs.K.Rajeswari,M.E.,Ph.D

Assistant Professor,

Department of E.C.E.

Dr.Mrs.R.Sukanesh M.E.,Ph.D

Rlukanid >

Professor and Head.

Department of E.C.E.

Station: Madurai

Date: 27/4/18

NTERNAL EXAMINER

EXTERNAL EXAMINER

PERFORMANCE ANALYSIS OF PHYSICAL LAYER SECURITY IN A BIDIRECTIONAL RELAY NETWORK WITH SOURCE RELAY PAIR SELECTION AND JAMMER SIGNALS

14CN410 Project II

Submitted in partial fulfillment for the requirement of M.E. degree in Communication Systems of Anna University

Submitted by

J.KIRUBA GOLDA (Reg. No: 16N009)

Guided by **Dr.P.G.S.VELMURUGAN**



Department of Electronics and Communication Engineering

THIAGARAJARCOLLEGE OF ENGINEERING

(An Autonomous Institution Affiliated To Anna University, Chennai)

MADURAI - 625 015

April 2018

(An Autonomous Institution Affiliated to Anna University, Chennai)

 $MADURAI - 625\ 015.$



BONAFIDE CERTIFICATE

This is to certify that the 14WT410 Project II entitled "Pedestrian Detection using FMCW waveform based Automotive Radar", being submitted by *PRABAVATHY.T* (Register Number 16WT011) in partial fulfillment for the requirement of Master of Engineering Degree in Wireless Technologies, is a record of bonafide work done by her during the year 2017-2018 under my supervision. The results embodied in this report have not been submitted to any other university or institute for the

award of any degree or diploma.

Dr. S.J.Thiruvengadam M.E., Ph.D

Professor,

Department of ECE.

Station: Madurai

Dr.(Mrs.).R.Sukanesh M.E., Ph.D

Professor and Head,

Department of ECE.

Date: 27/4/18.

Certified that the Candidate was examined in the Viva-Voce Examination

held at Thiagarajar College of Engineering, Madurai on 8/5/18

NTERNAL EXAMINER

EXTERNAL EXAMINER

(An Autonomous Institution Affiliated to Anna University, Chennai)

MADURAI — 625 015.



BONAFIDE CERTIFICATE

This is to certify that the 14CN410 Project II entitled "INTELLIGENT SURVEILLANCE SYSTEM FOR ATM", being submitted by *M.KAVITHA* (Register Number 16N008) in partial fulfillment for the requirement of Master of Engineering Degree in Communication Systems, is a record of bonafide work done by her during the year 2017-2018 under my supervision. The results embodied in this report have not been submitted to any other university or institute for the award of any degree or diploma.

Dr.S.Md.Mansoor Roomi M.E.,M.E.,Ph.D Assistant Professor,
Department of ECE,

Station: Madurai

Dr.Mrs.R.Sukanesh M.E.,Ph.D Professor and Head, Department of ECE,

Physicanul

Date: 02/5/18-

INTERNAL EXAMINER

EXTERNAL EXAMINER

WIN SILL

(An Autonomous Institution Affiliated to Anna University, Chennai)

MADURAI - 625 015



BONAFIDE CERTIFICATE

This is to certify that the 14CN410 Project II entitled "PERFORMANCE SYSTEM", being submitted by R.HARISARAVANAN (Register Number 16N006) in partial fulfillment for the requirement of Master of Engineering Degree in Communication Systems, is a record of bonafide work done by him during the year 2017-2018 under my supervision. The results embodied in this report have not been submitted to any other university or institute for the award of any degree or IMPROVEMENT IN MIMO VISIBLE LIGHT COMMUNICATION diploma.

Dr.S.Ponmalar

Assistant Professor

Department of ECE,

Station: Madurai

Ruhann

Dr.Mrs.R.SukaneshM.E.,Ph.D.

Professor and Head,

Department of ECE,

Date: 27 OchTP

Certified that the Candidate was examined in the Viva-Voce Examination held at Thiagarajar College of Engineering, Madurai on Ol of R

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EXTERNAL EXAMINER

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THIAGARAJAR COLLEGE OF ENGINEERING (An Autonomous Institution Affiliated to Anna University, Chennai)

MADURAI - 625 015.



BONAFIDE CERTIFICATE

This is to certify that the 14CN410 Project II entitled "LAYOUT DESIGN AND ANALYSIS OF X-BAND LOW NOISE AMPLIFIER FOR RADAR APPLICATIONS", being submitted by I.STEFIGRAF (Register Number 16N018) in partial fulfillment for the requirement of Master of Engineering Degree in Communication Systems, is a record of bonafide work done by her during the year 2017-2018 under my supervision. The results embodied in this report have not been submitted to any other university or institute for the award of any degree or diploma.

Dr.S.Rajaram M.E.,Ph.D

Associate Professor,

Department of ECE,

Dr.Mrs.R.Sukanesh M.E..Ph.D

Professor and Head,

Department of ECE,

Station: Madurai

Date: 26 /4/18

Certified that the Candidate was examined in the Viva-Voce Examination

(An Autonomous Institution Affiliated to Anna University, Chennai)

MADURAI – 625 015.



BONAFIDE CERTIFICATE

This is to certify that the 14WT410 Project II entitled "Design, Analysis and Implementation Of Enhanced Transconductance Amplifier For Bio – Medical Applications", being submitted by *B.KOWSALYA* (Register Number 16WT010) in partial fulfillment for the requirement of Master of Engineering Degree in Wireless Technologies, is a record of bonafide work done by her during the year 2017-2018 under my supervision. The results embodied in this report have not been submitted to any other university or institute for the award of any degree or diploma.

S 25/4/18
Dr.S.Rajaram ME.,PhD
Associate Professor,

Department of ECE,

Station: Madurai

Dr.Mrs.R.Sukanesh ME.,PhD

Professor and Head,

Department of ECE,

Date: 25/4/18

Certified that the Candidate was examined in the Viva-Voce Examination held at Thiagarajar College of Engineering, Madurai on __ ৪০১১৪

INTERNAL EXAMINER

EXTERNAL EXAMINER

S.J. Thirmless HDECE

PERFORMANCE ANALYSIS OF PHYSICAL LAYER NETWORKING USING CONSTANT ENVELOPE OF DM

14WT410 Project II

Submitted in partial fulfillment for the requirement of M.E. degree in Wireless Technologies of Anna University

Submitted by

K.SABHARI HASANA SOPHIA (Reg. No: 16WT015)

Guided by

Dr.V.N.SENTHIL KUMARAN



Department of Electronics and Communication Engineering

THIAGARAJAR COLLEGE OF ENGINEERING

(An Autonomous Institution Affiliated To Anna University, Chennai)

MADURAI - 625 015

April 2018

(An Autonomous Institution Affiliated to Anna University, Chennai)

MADURAI - 625 015.



BONAFIDE CERTIFICATE

This is to certify that the 14WT410 Project II entitled "A MODIFIED QUAD ITOH-TSUJII INVERSION ARCHITECTURE OVER GF(2^m) FOR FPGA PLATFORMS", being submitted by **P.DHIVYA LAKSHMI** (Register Number **16WT004**) in partial fulfillment for the requirement of Master of Engineering Degree in Wireless Technologies, is a record of bonafide work done by her during the year 2017-2018 under my supervision. The results embodied in this report have not been submitted to any other university or institute for the award of any degree or diploma.

Dr.V.R. Venkatasubramani M.E., Ph.D

Assistant Professor

Department of ECE,

(Guide)

Station: Madurai

Dr.(Mrs).R.SUKANESH M.E.,Ph.D

Professor and Head,

Department of ECE,

Date: 27/4/18

Certified that the Candidate was examined in the Viva-Voce Examination held at Thiagarajar College of Engineering, Madurai on

INTERNAL EXAMINER

EXTERNAL EXAMINER

(An Autonomous Institution Affiliated to Anna University)

MADURAI - 625 015.



BONAFIDE CERTIFICATE

Implementation Of Texture Feature Extraction For Multispectral Satellite Communication Systems, is a record of bonafide work done by her during the year 2017-2018 under my supervision. The results embodied in this report have Image", being submitted by P.STEFFI SHAKILA (Register Number 16N017) in partial fulfillment for the requirement of Master of Engineering Degree in not been submitted to any other university or institute for the award of any This is to certify that the 14CN410 Project II entitled degree or diploma.

Dr.V.Vinoth Thyagarajan M.E.,Ph.D

Department of ECE.

Station: Madurai

Assistant Professor,

Rukanin

Dr.(Mrs).R.Sukanesh,M.E.,Ph.D Head of the Department, Department of ECE.

Date: 27/4/18

Certified that the Candidate was examined in the Viva-Voce Examination held at Thiagarajar College of Engineering, Madurai on O& O E O E O

INTERNAL EXAMINER

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L'I PLANTE