

THIAGARAJAR COLLEGE OF ENGINEERING

(A Govt. Aided, ISO9001:2008 Certified, Autonomous Institution Affiliated to Anna University)

MADURAI-625015



BONAFIDE CERTIFICATE

Certified that this report titled “**ENERGY DISSIPATION IN END PLATE CONNECTION USING SCALE DOWN MODEL**” is the bonafide work of **MUTHU KUMARAN R (16J009)** who carried out the work under my supervision. Certified further that to the best of my knowledge the work reported herein does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion on this or any other candidate.

Dr. B. Sivagurunathan
Head of the Department
Department of Civil Engineering
Thiagarajar College of Engineering
Madurai-625 015
Place: Madurai

Mrs. G. Celine Reena
Assistant Professor
Department of Civil Engineering
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Madurai-625 015
Date: _____

Submitted for the VIVA VOCE Examination of 15SE340 Project –I held at Thiagarajar College of Engineering, Madurai-625 015 on 08/05/2018

INTERNAL EXAMINER

EXTERNAL EXAMINER

THIAGARAJAR COLLEGE OF ENGINEERING


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Certified that this Report titled “**OPTIMIZATION OF NONLINEAR ELASTIC SYSTEMS FOR DYNAMIC LOADING**” is the bonafide work of **SIDDARTH S (16J017)** who carried out the work under my supervision. Certified further that to the best of my knowledge the work reported herein does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion on this or any other candidate.


Dr. B. Sivagurunathan
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Submitted for the VIVA VOCE Examination of 15SE410 Project –I held at
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INTERNAL EXAMINER


H.D.C.E.


EXTERNAL EXAMINER

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MADURAI – 625015



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Certified that this Report titled “**MICROSTRUCTURE ANALYSIS OF ULTRA HIGH STRENGTH CONCRETE**” is the bonafide work of **R.SRIVIDHYALAKSHMI (16J018)** who carried out the work under my supervision. Certified further that to the best of my knowledge the work reported herein does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion on this or any other candidate.

Dr.B. Sivagurunathan

Professor and Head
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Submitted for VIVA-VOCE examination of 15SE410 Project II held at
Thiagarajar College of Engineering, Madurai-625015, on 8 - 5 - 2018.

INTERNAL EXAMINER

EXTERNAL EXAMINER

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THIAGARAJAR COLLEGE OF ENGINEERING

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MADURAI – 625015



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Certified that this Report titled “ANALYTICAL STUDY ON STATIC AND DYNAMIC RESPONSE OF LATTICE TOWERS” is the bonafide work of **KEERTHANA B (Reg No.16J006)** who carried out the work under my supervision. Certified further that to the best of my knowledge the work reported herein does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion on this or any other candidate.

Dr.B. Sivagurunathan
Associate Professor and Head
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Dr.K.Sudalaimani
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Date: 08.05.2018

Place: Madurai

Submitted for VIVA-VOCE examination of 15SE410 Project II held at Thiagarajar College of Engineering, Madurai-625015, on 08.05.2018

INTERNAL EXAMINER

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HDCE

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Certified that this Report titled “**PREQUALIFYING CRITERIA FOR TUBULAR CONNECTIONS**” is the bonafide work of **T.RAMA SINDHIA (Reg.No: 16J014)** who carried out the work under my supervision. Certified further that to the best of my knowledge the work reported herein does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion on this or any other candidate.

Dr.B. Sivagurunathan
Associate Professor and Head
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Dr.S.Arul Mary
Associate Professor
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Place: Madurai

Submitted for VIVA-VOCE examination of 15SE410 Project II held at Thiagarajar College of Engineering, Madurai-625015, on 08.05.2018.

INTERNAL EXAMINER

EXTERNAL EXAMINER

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Certified that this Report titled “AN EXPERIMENTAL STUDY ON FRP STRENGTHENED COLD FORMED STEEL BUILT-UP CHANNEL SECTION” is the bonafide work of SANGAVI. G (Reg. No.16J015) who carried out the work under my supervision. Certified further that to the best of my knowledge the work reported herein does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion on this or any other candidate.


Dr.B. Sivagurunathan
Associate Professor and Head
Department of Civil Engineering
Date: 07.05.2018


Dr.M.C.Sundarraja
Assistant Professor
Department of Civil Engineering
Place: Madurai

Submitted for VIVA-VOCE examination of 15SE410 Project II held at Thiagarajar College of Engineering, Madurai-625015, on _____

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THIAGARAJAR COLLEGE OF ENGINEERING
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MADURAI – 625 015



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Certified that this Report titled “ANALYTICAL STUDY ON STRUCTURAL BEHAVIOR OF RECYCLED AGGREGATE CONCRETE” is the bonafide work of MANJU.S (Reg. No: 16J007) who carried out the work under my supervision. Certified further that to the best of my knowledge the work reported herein does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion on this or any other candidate.

[Signature]
Dr. B. Sivagurunathan
Associate Professor and Head
Department of Civil Engineering
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Date:

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Submitted for VIVA-VOCE examination of 15SE410 Project II held at Thiagarajar College of Engineering, Madurai-625 015, on 08.05.2018.

[Signature]
INTERNAL EXAMINER

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Certified that this Report title "INFLUENCE OF CONNECTION STIFFNESS IN PERFORMANCE OF STEEL STRUCTURES" is the bonafide work of SEKAR LEONI S (16J016) who carried out the project work under my supervision. Certified further that to the best of my knowledge the work reported herein does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion on this or any other candidate.

Dr. B. SIVAGURUNATHAN

Associate Professor and Head

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Date: 07/05/2018

Mrs. G. CELINE REENA

Assistant Professor

Department of Civil Engineering

Place: Madurai.

Submitted for the VIVA VOCE Examination of 15SE410 Project -II held at Thiagarajar College of Engineering, Madurai-625 015 on8/5.....

INTERNAL EXAMINER

EXTERNAL EXAMINER

THIAGARAJAR COLLEGE OF ENGINEERING
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MADURAI – 625 015



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Certified that this Report titled "ANALYTICAL STUDY ON RICE HUSK ASH BASED GEOPOLYMER CONCRETE" is the bonafide work of B.PONMANI (Reg. No: 16J012) who carried out the work under my supervision. Certified further that to the best of my knowledge the work reported herein does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion on this or any other candidate.

B. Sivagurunathan

Dr. B. Sivagurunathan
Associate Professor and Head
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R. Indrajith Krishnan

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Submitted for VIVA-VOCE examination of 15SE410 Project II held at Thiagarajar College of Engineering, Madurai-625 015, on 08.05.2018.

R. Indrajith Krishnan
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EXTERNAL EXAMINER

[Signature]
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Certified that this Report titled “EFFECT OF SHEAR LAG IN SINGLE ANGLES UNDER TENSION” is the bonafide work of KARPAGAKANNAN.B (Reg.No: 16J005) who carried out the work under my supervision. Certified further that to the best of my knowledge the work reported herein does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion on this or any other candidate.

Dr.B. Sivagurunathan
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Place: Madurai

Submitted for VIVA-VOCE examination of 15SE410-Project II held at Thiagarajar College of Engineering, Madurai-625015, on 08.05.2018.

INTERNAL EXAMINER

EXTERNAL EXAMINER

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Certified that this Report titled “AN EXPERIMENTAL INVESTIGATION OF FRACTURE PARAMETERS ON POLYURETHANE SHEET USING JONES CALCULUS” is the bonafide work of **G.PRASANTH (Reg. No: 16J013)** who carried out the work under my supervision. Certified further that to the best of my knowledge the work reported herein does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion on this or any other candidate.

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Associate Professor and Head
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Submitted for VIVA-VOCE examination of 15SE410 Project II held at Thiagarajar College of Engineering, Madurai-625015, on 8/5/2018.

INTERNAL EXAMINER
EXTERNAL EXAMINER

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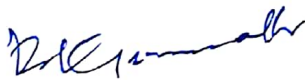
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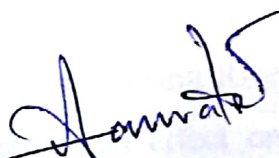
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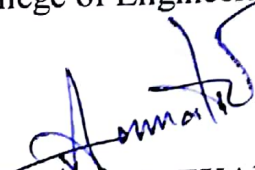
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Certified that this Report titled “**DURABILITY AND STRUCTURAL BEHAVIOUR OF REACTIVE POWDER CONCRETE UTILIZING RICE HUSK ASH**” is the bonafide work of **VANITHA. M (Reg. No. 16J022)** who carried out the work under my supervision. Certified further that to the best of my knowledge the work reported herein does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion on this or any other candidate.


Dr.B. Sivagurunathan
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Submitted for VIVA-VOCE examination of 15SE410 Project II held at Thiagarajar College of Engineering, Madurai-625015, on 8/5


INTERNAL EXAMINER


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Certified that this Report titled “INFLUENCE OF RICE-HUSK ASH ON MECHANICAL PROPERTIES OF GEOPOLYMER CONCRETE” is the bonafide work of S.SURYA PRABU (16J019) who carried out the work under my supervision. Certified further that to the best of my knowledge the work reported herein does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion on this or any other candidate.

Dr. B. SIVAGURUNATHAN
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Date: 08/05/2018

Submitted for the VIVA VOCE Examination of 15SE410 Project-II held at Thiagarajar College of Engineering, Madurai on 08/05/2018

INTERNAL EXAMINER 8/5/18
EXTERNAL EXAMINER 8/5
HDCE

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MADURAI-625015

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Certified that this report titled "INVESTIGATION OF RADIATION SHIELDING EFFICIENCY OF ULTRA-HIGH STRENGTH CONCRETE" is the bonafide work of VAISHNAVI D (16J021) who carried out the work under my supervision. Certified further that to the best of my knowledge the work reported herein does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion on this or any other candidate.



Dr.B.Sivagurunathan

Head of the Department

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A.Rajasekar

Assistant Professor

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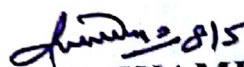
Thiagarajar College of Engineering

Madurai-625 015

Submitted for the VIVA VOCE Examination of 15SE410 Project –II held at
Thiagarajar College of Engineering, Madurai-625 015 on 08.05.2018



INTERNAL EXAMINER



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MADURAI – 625 015



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Dr. B. Sivagurunathan
Associate Professor and Head
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Date: 08.05.18

Mr. R. Sankaranarayanan
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Place: Madurai

Submitted for VIVA-VOCE examination of 15SE410 Project II held at Thiagarajar College of Engineering, Madurai-625015, on 08.05.18.

INTERNAL EXAMINER
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H.D.C.E

THIAGARAJAR COLLEGE OF ENGINEERING

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MADURAI – 625015



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Certified that this Report titled “STUDY ON BEHAVIOUR OF GEOPOLYMER CONCRETE USING MSAND AND DMS UNDER AMBIENT CURING CONDITIONS” is the bonafide work of **R.CHINTHIKA (Reg. No: 16J001)** who carried out the work under my supervision. Certified further that to the best of my knowledge the work reported herein does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion on this or any other candidate.

Dr.B. Sivagurunathan
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Dr.S.Nagan
Associate Professor
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Date:

Place: Madurai

Submitted for VIVA-VOCE examination of 15SE410 Project II held at Thiagarajar College of Engineering, Madurai-625015, on 08.05.2018.

R. Sankaranarayanan
INTERNAL EXAMINER

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EXTERNAL EXAMINER

THIAGARAJAR COLLEGE OF ENGINEERING


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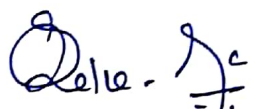
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BONAFIDE CERTIFICATE

Certified that this Report titled “AN EXPERIMENTAL INVESTIGATION ON DAMAGE ASSESSMENT OF FLY-ASH BASED GEOPOLYMER CONCRETE BY PIEZOELECTRIC SENSORS” is the bonafide work of K.NIROSH KUMAR (16J011) who carried out the work under my supervision. Certified further that to the best of my knowledge the work reported herein does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion on this or any other candidate.


Dr. B. SIVAGURUNATHAN
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Dr. M.C. SUNDARRAJA
Assistant professor
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Date: _____

Submitted for the VIVA VOCE Examination of 15SE410 Project-II held at Thiagarajar College of Engineering, Madurai on...08.05.2018

INTERNAL EXAMINER

EXTERNAL EXAMINER

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THIAGARAJAR COLLEGE OF ENGINEERING

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MADURAI – 625 015



BONAFIDE CERTIFICATE

Certified that this Report titled “STUDY ON FIBRE REINFORCED GEOPOLYME FERROCEMENT PANELS” is the bonafide work of GOKULA KRISHNAN M (Reg. No: 16J004) who carried out the work under my supervision. Certified further that to the best of my knowledge the work reported herein does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion on this or any other candidate.

Dr. B. Sivagurunathan
Associate Professor and Head
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Assistant Professor
Department of Civil

Place: Madurai

Submitted for VIVA-VOCE examination of 15SE410 Project II held at Thiagarajar College of Engineering, Madurai-625015, on 08.05.18.

INTERNAL EXAMINER

EXTERNAL EXAMINER

H.D.C.E.