



Indra Ganesan

COLLEGE OF ENGINEERING

Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai
Accredited by NAAC with 'B+' Grade, 2(f) & 12B Status Institution by UGC

IG Valley, Madurai Main Road, Manikandam, Tiruchirappalli - 620012

NAAC DOCUMENTS

QUALITY INDICATOR FRAME WORK

CRITERION – 2

TEACHING-LEARNING AND EVALUATION

SUBMITTED BY

IQAC

INTERNAL QUALITY ASSURANCE CELL

INDRA GANESAN COLLEGE OF ENGINEERING





Indra Ganesan
COLLEGE OF ENGINEERING

Madurai Main Road (NH-45B), Manikandam, Tiruchirappalli - 620 012
Approved by AICTE, NewDelhi & Affiliated to Anna University, Chennai
NAAC Accredited, 2(F) Status Institution by UGC



2019-2020

Criteria 2

Teaching-Learning and Evaluation

350

Key Indicator-Experiential Learning Method (90)

**DEPARTMENT OF ELECTRICAL AND
ELECTRONICS ENGINEERING**



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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

S.No	Project Title	No Students
1	CLOSED LOOP POWER CONVERSION EFFICIENCY IMPROVEMENT OF AC-DC BOOST CONVERTER USING 1:1 TRANSFORMER	04
2	AN IMPROVED CUK CONVERTER WITH OPTIMIZED PSO TYPE-III CONTROLLER	03
3	DESIGN AND PERFORMANCE ANALYSIS OF A FIVE LEVEL ASYMMETRIC CASCADE H BRIDGE	04
4	MITIGATION OF HARMONICS USING SHUNT-SERIES ACTIVE POWER FILTER FOR POWER QUALITY ENHANCEMENT	04
5	PARTIAL POWER DC-DC CONVERTER FOR FAST BATTERY CHARGING WITH REDUCED LOSS	03
6	AN ENERGY CONSERVATION USING 360 DEGREE PIR SENSOR BY ARDUINO MICROCONTROLLER	04

**CLOSED LOOP POWER CONVERSION EFFICIENCY
IMPROVEMENT OF AC-DC BOOST CONVERTER
USING 1:1 TRANSFORMER**

A PROJECT REPORT



Submitted by

ASHOKRAJ.V (811215105003)
GAYATHRI.R (811215105009)
MANIKANDAN.M (811215105016)
SATHEESWARI.P (811215105027)

in partial fulfillment for the award of the degree

of

BACHELOR OF ENGINEERING

in

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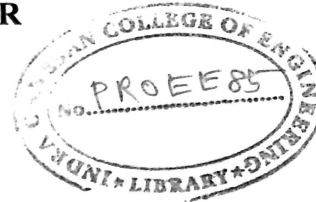
INDRA GANESAN COLLEGE OF ENGINEERING, TRICHY

ANNA UNIVERSITY : CHENNAI 600 025

MARCH 2019

**CLOSED LOOP POWER CONVERSION EFFICIENCY
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USING 1:1 TRANSFORMER**

A PROJECT REPORT



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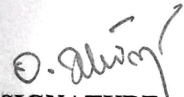
ANNA UNIVERSITY : CHENNAI 600 025

MARCH 2019

ANNA UNIVERSITY: CHENNAI 600 025

BONAFIDE CERTIFICATE

Certified that this project report "CLOSED LOOP POWER CONVERSION EFFICIENCY IMPROVEMENT OF AN AC-DC BOOST CONVERTER USING 1:1 TRANSFORMER" is the Bonafide work of "V.ASHOKRAJ, R.GAYATHRI, M.MANIKANDAN, P.SATHEESWARI" who carried out the project work under my supervision.



SIGNATURE

Mr.O.KARTHIKEYAN B.Tech., M.E

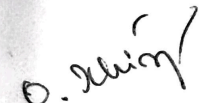
HEAD OF THE DEPARTMENT

Associate Professor,

Department of EEE,

Indra Ganesan College of Engineering,

Trichy-12.



INTERNAL EXAMINER



SIGNATURE

Mr.P.NIRMALKUMAR B.E., M.E

SUPERVISOR

Assistant Professor,

Department of EEE,

Indra Ganesan College of Engineering,

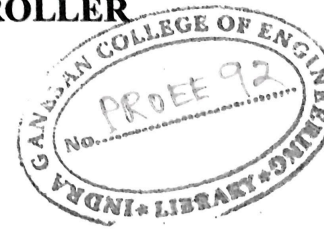
Trichy-12.



EXTERNAL EXAMINER

**AN IMPROVED CUK CONVERTER WITH
OPTIMIZED PSO TYPE-III CONTROLLER**

A PROJECT REPORT



Submitted by

GAJALAKSHMI.B (811215105008)

MEENAKSHI.P (811215105018)

VANITHA.S (811215105039)

VIGNESHWARAN.N (811215105041)

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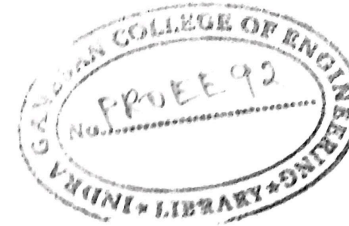
INDRA GANESAN COLLEGE OF ENGINEERING, TRICHY

ANNA UNIVERSITY : CHENNAI 600 025

MARCH 2019

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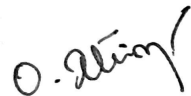
ANNA UNIVERSITY : CHENNAI 600 025

MARCH 2019

ANNA UNIVERSITY : CHENNAI 600 025

BONAFIDE CERTIFICATE

Certified that this project report “AN IMPROVED CUK CONVERTER WITH OPTIMIZED PSO TYPE-III CONTROLLER” is the bonafide work of “GAJALAKSHMI.B, MEENAKSHI.P, VANITHA.S, VIGNESHWARAN.N” who carried out the project work under my supervision.



SIGNATURE

Mr.O.Karthikeyan B.Tech.,ME.,

Head of the Department

Associate professor

Electrical and Electronics Engineering

Indra Ganesan College of Engineering

Trichy 620 012.



SIGNATURE

Mr.A.Richards Rethinasamy BE., ME.,

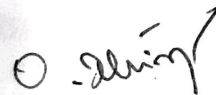
Supervisor

Assistant professor

Electrical and Electronics Engineering

Indra Ganesan College of Engineering

Trichy 620 012.



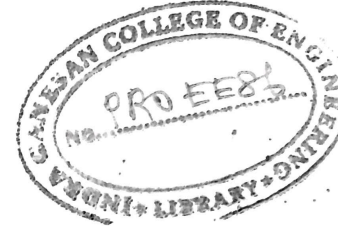
INTERNAL EXAMINER



EXTERNAL EXAMINER

**DESIGN AND PERFORMANCE ANALYSIS OF A FIVE
LEVEL ASYMMETRIC CASCADE H BRIDGE
INVERTER**

A PROJECT REPORT



Submitted by

GOMATHY.M (811215105011)
JERALD FELIX.A (811215105014)
MEENA.S (811215105017)
PRASANTH.R (811215105022)

in partial fulfillment for the award of degree

Of

BACHELOR OF ENGINEERING

in

ELECTRICAL AND ELECTRONICS ENGINEERING

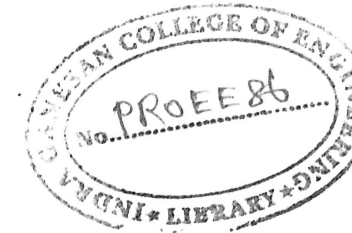
INDRA GANESAN COLLEGE OF ENGINEERING, TRICHY

ANNA UNIVERSITY : CHENNAI 600 025

MARCH 2019

**DESIGN AND PERFORMANCE ANALYSIS OF A FIVE
LEVEL ASYMMETRIC CASCADED H BRIDGE
INVERTER**

A PROJECT REPORT



Submitted by

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JERALD FELIX.A	(811215105014)
MEENA.S	(811215105017)
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INDRA GANESAN COLLEGE OF ENGINEERING, TRICHY

ANNA UNIVERSITY: CHENNAI 600 025

MARCH 2019

BONAFIDE CERTIFICATE

Certified that this project report title **“DESIGN AND PERFORMANCE ANALYSIS OF A FIVE LEVEL ASYMMETRIC CASCADE H BRIDGE INVERTER ”** is the bonafide work of **“GOMATHY.M, JERALD FELIX.A, MEENA.S, PRASANTH.R”** Who carried out the project work under my supervision.



SIGNATURE

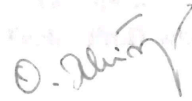
Mr.A.Thangaraju M.E

Assistant professor,

Electrical and Electronics Engineering

Indra Ganesan College of Engineering

Trichy 620 012



SIGNATURE

Mr.O.Karthikeyan B.Tech.,M.E

Assistant professor,

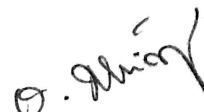
Electrical and Electronics Engineering

Indra Ganesan College of Engineering

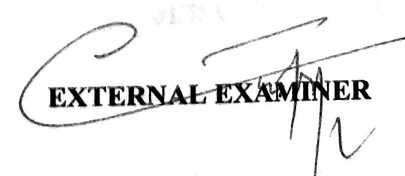
Trichy 620 012

You are hereby certified that the project work was carried out by the students and technicians for their respective marks and project a successful one.

From the date this certificate is issued our responsibility is limited to the project work only and we do not accept any liability for the success or failure of the project work of the students.



INTERNAL EXAMINER



EXTERNAL EXAMINER

**MITIGATION OF HARMONICS USING SHUNT-SERIES
ACTIVE POWER FILTER FOR POWER QUALITY
ENHANCEMENT**

A PROJECT REPORT



Submitted by

C.FATHIMASELVI	(811215105007)
M.SATHYAPRIYA	(811215105030)
R.VIJAYALAKSHMI	(811215105342)

In partial fulfillment for the award of degree

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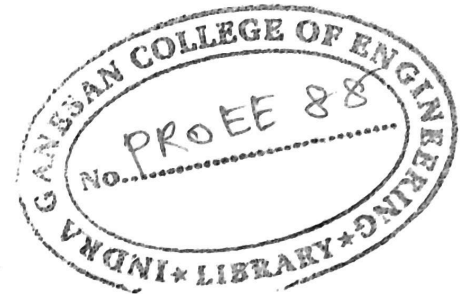
INDRA GANESAN COLLEGE OF ENGINEERING, TRICHY

ANNA UNIVERSITY : CHENNAI 600 025

MARCH 2019

**MITIGATION OF HARMONICS USING SHUNT-SERIES
ACTIVE POWER FILTER FOR POWER QUALITY
ENHANCEMENT**

A PROJECT REPORT



Submitted by

C.FATHIMASELVI	(811215105007)
M.SATHYAPRIYA	(811215105030)
R.VIJAYALAKSHMI	(811215105042)

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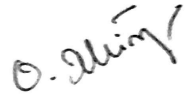
INDRA GANESAN COLLEGE OF ENGINEERING, TRICHY

ANNA UNIVERSITY : CHENNAI 600 025

MARCH 2019

BONAFIDE CERTIFICATE

Certified that this project report title “MITIGATION OF HARMONICS USING SHUNT - SERIES ACTIVE POWER FILTER FOR POWER QUALITY ENHANCEMENT” is the bonafide work of “FATHIMASELVI.C, SATHYAPRIYA.M, VIJAYALAKSHMI.R” who carried out the project work under my supervision.



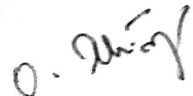
SIGNATURE

Mr.O.Karthikeyan B.Tech.,ME.,
Head of the Department,
Electrical and Electronics Engineering,
Indra Ganesan College of Engineering,
Trichy 620 012.



SIGNATURE

Dr.G. Malathi ME., Ph.D.,
Professor,
Electrical and Electronics Engineering,
Indra Ganesan College of Engineering,
Trichy 620 012.



INTERNAL EXAMINER



EXTERNAL EXAMINER

MARCH 2019

ANNA UNIVERSITY : CHENNAI 600 025

INDRA GANESAN COLLEGE OF ENGINEERING, TRICHY

ELECTRICAL AND ELECTRONICS ENGINEERING

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in partial fulfillment for the award of the degree

M.VARATHARAJU (811215105301)

A.SIVASAKTHI (811215105034)

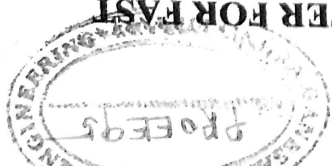
M.GUNASEELAN (811215105013)

V.ANAND (811215105002)

Submitted by

A PROJECT REPORT

PARTIAL POWER DC-DC CONVERTER FOR FAST
BATTERY CHARGING WITH REDUCED LOSS

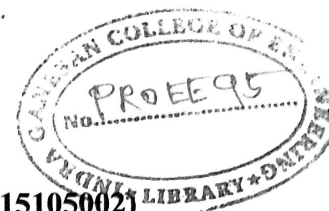


**PARTIAL POWER DC-DC CONVERTER FOR FAST
BATTERY CHARGING WITH REDUCED LOSS**

A PROJECT REPORT

Submitted by

V.ANAND	(811215105002)
M.GUNASEELAN	(811215105013)
A.SIVASAKTHI	(811215105034)
M.VARATHARAJU	(811215105301)



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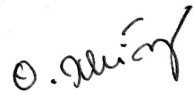
ANNA UNIVERSITY : CHENNAI 600 025

MARCH 2019

ANNA UNIVERSITY : CHENNAI 600 025

BONAFIDE CERTIFICATE

Certified that this project report "PARTIAL POWER DC-DC CONVERTER FOR FAST BATTERY CHARGING WITH REDUCED LOSS" is the bonafide work of V.ANAND,M.GUNASEELAN,A.SIVASAKTHI,M.VARATHARAJU who carried out the project work under my supervision.



SIGNATURE

Mr.O.Karthikeyan B.Tech.M.E.,

HEAD OF THE DEPARTMENT

Associate Professor,

Department of EEE,

Indra Ganesan College of Engg,

Trichy- 620 012.



SIGNATURE

Mr.D.Praveen Sangeeth Kumar M.Tech.,

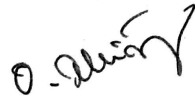
SUPERVISOR

Assistant Professor,

Department of EEE,

Indra Ganesan College of Engg,

Trichy- 620 012.



INTERNAL EXAMINER



EXTERNAL EXAMINER

**AN ENERGY CONSERVATION USING 360 DEGREE
PIR SENSOR BY ARDUINO MICROCONTROLLER**

A PROJECT REPORT

Submitted by

BALACHANDRAN. M (811215102004)
BHUVANESWARI .A (811215105005)
DEEPARAGAVI.M (811215105006)
NIVETHA. B (811215105021)

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A PROJECT REPORT

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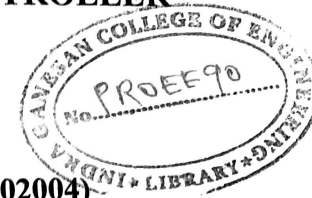
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MARCH 2019



ACKNOWLEDGEMENT

ANNA UNIVERSITY: CHENNAI 600 025

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SIGNATURE

Mr.O.Karthikeyan B.Tech., M.E.,
Head of the Department
Associate Professor,
Electrical and Electronics Engineering,
Indra Ganesan College of Engineering,
Tiruchirappalli - 620 012.


SIGNATURE

Mr.S. Vijai B.E., M.E.,
Supervisor
Assistant Professor,
Electrical and Electronics Engineering,
Indra Ganesan College of Engineering,
Tiruchirappalli - 620 012.


INTERNAL EXAMINER


EXTERNAL EXAMINER