Jagadeesh Kumar

Persönliche Daten

Name	Jagadeesh Kumar
Anschrift	Zugspitzstrasse 80 85591 Vaterstetten
Tel.	0176 / 240 82328
E-Mail	jagadeesh.srmuniv@gmail.com
geb.	05.01.1994 in Chennai
Staatsangehörigkeit	Indian
Eltern	Mother: Krishnaveni Ashok, 49 Father: Ashok Kumar, 54, Materials Manager
Geschwister	Sister: Jaishree Ashok, 19

Berufliche Erfahrungen

August 2017 – heute	Technische Universität München Masterarbeit
August 2015 – Juli 2016	Skylark Drones Pvt. Ltd., Bengaluru, Indien Elektronik und Flugsteuerungsingenieur
Oktober 2016 – Februar 2017	Hochschule Ravensburg - Weingarten System on Chip Designer (Werkstudent)
Oktober 2016 – Juli 2017	Hochschule Ravensburg - Weingarten Embedded Computing Ingenieur
Oktober 2016 – Juli 2017	Hochschule Ravensburg - Weingarten Studentische Hilfskraft, Mitarbeit im Labor
November 2016 – Dezember 2016	Boehringer Ingelheim Pharma GmbH, Biberach, Deutschland Software Entwickler (Werkstudent)

Ausbildung

2016 – 2018	Hochschule Ravensburg - Weingarten, Deutschland Abschluss: Master of Engineering (Februar 2018)
2011 – 2015	SRM University, Chennai, Indien Abschluss: Bachelor of Technology

Kenntnisse und Fähigkeiten

Sprachkenntnisse	Englisch sicher in Wort und Schrift (TOEFL Test) Deutsch B1 Tamil, Hindi (Muttersprachen)
EDV-Kenntnisse	Microsoft Office (Word, Excel) 10-Finger-Computer-Schreiben Adobe Photoshop MATLAB/ Simulink C/C++ VHDL, EAGLE PCB Design LabVIEW, Python Windows, LINUX & MacOS
Organisatorische Fähigkeiten	Guter Teamplayer, kontaktfreudig, Leadership
Zertifizierungen	
Juni 2014	Teilnahmezertifikat im Annual CanSat Competition, 2014, organisiert von AIAA und NASA in Texas, USA
Mai – Juni 2017	Hochschule Ravensburg-Weingarten Certified LabVIEW Associate Developer (CLAD)
Hobbys	Sport – Cricket/Fußball/Badminton und schwimmen, deutsche Kultur, Lesen, Musik

JAGADEESH KUMAR. A

jagadeesh.srmuniv@gmail.com | 017624082328 | Zugspitzstraße 80, Vaterstetten, DE – 85591

ELECTRICAL AND EMBEDDED SYSTEMS ENGINEER

AREAS OF EXPERTISE

- Embedded Systems
- Hardware Development
- Electrical Engineering
- UAV Flight Control
- VHDL & SystemC
- Signal Processing
- Microcontrollers
- Telecommunication
- Circuit Design (EAGLE)
- Data Acquisition
- Instrumentation
- Matlab & LabVIEW

SELECTED CAREER HIGHLIGHTS

- Versatile Experience in technical aspects as well as behavioral conduct at **Skylark Drones Pvt. Ltd.** This includes: in-time product delivery, task management and meeting clients' requirements.
- With technical support and financial aid from my Bachelor University, I founded a student organization to develop and research on UAVs, namely, **Student Copters Research Organization (SCRO)**. I also lead the control and power systems domain and successfully developed a custom flight control system for a quadcopter.
- Attained significant exposure in electronic systems by designing a miniature satellite to measure various atmospheric parameters and transmit the data through live feed telemetry to the ground station, while participating at the **Annual CanSat Competition, 2014** held at **Abilene, Texas, USA**, conducted by the prestigious organizations, **AIAA and NASA.**

PROFESSIONAL EXPERIENCE

TECHNICAL UNIVERSITY OF MUNICH, Munich, Deutschland 08/2017 – present
Master's Thesis

- Delivering a hardware solution to measure the atmospheric Carbon dioxide concentration with high accuracy and a precision of 0.02 ppm using Tunable Diode Laser Absorption Spectroscopy.
- Develop and implement the TDLAS control circuit with Temperature controllers and Laser diode drivers.
- Simulate the results and compare with the current available technologies.
- Publish a paper on the results of this hardware and the other contemporary measurement technologies.

SKYLARK DRONES PVT. LTD., Bengaluru, India 08/2015 – 07/2016
Electronics and Flight Control Engineer

- Drove profitable operations, including successful project completions in Aerial surveillance using drones and UAVs.
- Key team member responsible for the electronics integration and monitoring the health of the drones.
- Managed the on-field operations and responsible for live data acquisition from in-flight drones.
- Offered skilled manual piloting of the drones and controlled autonomous navigation.
- Accolades received for actively involving in Research and Development.
- Directed and trained new intern students on handling drones and its electronics.

HS RAVENSBURG WEINGARTEN, Weingarten, Deutschland 10/2016 – 02/2017
System On Chip Designer (Work Student)

- Delivered an 8-bit Tester Chip and Port Expander Board, using development environments such as EAGLE PCB designer and ModelSim.
- Eliminated errors in the design and boosted the performance of the design by 30% with minimum internal memory.
- Created VHDL scripts and Testbench codes to support XILINX FPGA review.
- Simultaneously developed a SystemC program with a focus on the timing and RTL of certain blocks of 8051 Microcontroller and Synthesized the same using XILINX ISE design suit.

HS RAVENSBURG WEINGARTEN, Weingarten, Deutschland 10/2016 – 07/2017
Embedded Computing Engineer

- Developed a system for QR code tracking by image processing using OpenCV and Raspberry Pi.
- Also achieved detection of distance between the Camera and the QR code in all the 3 axis, with a given focal length of the camera.
- Successfully implemented the same for swarm robots, where slave carts would track and follow the master cart holding a QR code.

HS RAVENSBURG WEINGARTEN, Weingarten, Deutschland 10/2016 – 07/2017
Student Assistant

- Designed various Higher Order Filters and implemented them using the Arduino Due Microcontroller.
- Realized various complicated Signal Processing circuits using PicoScope and Matlab.
- Assisted the Research and Development department by testing various DSPs and Communication Systems.

BOEHRINGER INGELHEIM PHARMA GmbH, Biberach, Deutschland 11/2016 – 12/2016
Software Developer (Work Student)

- Successfully presented our team's idea and secured a place at the Boehringer eHealth Hackathon.
- Developed a Raspberry Pi based eHealth monitoring system to record and simultaneously upload the feed values from different health sensors such as Blood Pressure, Temperature, Sugar level sensor, etc. to the cloud.

EDUCATION AND AFFILIATIONS

Qualification ***Master of Engineering in Electrical Engineering and Embedded Systems.***
Duration 09/2016 – 03/2018 (Expected).
Organization Hochschule Ravensburg Weingarten, 88250, Weingarten, Deutschland.

Principal Subjects	**Core Competencies**
▪ Advanced Mathematics	MATLAB, GNU OCTAVE
▪ Signal Processing	MATLAB and Picoscope
▪ Telecommunication Technology	Cadence OrCAD, PSpice
▪ Embedded Computing	C/C++, Rasberry Pi & Arduino
▪ System on Chip	EAGLE, VHDL, SystemC
▪ Embedded Control	MATLAB, Control System

Qualification ***Bachelor of Technology in Electronics and Instrumentation Engineering.***
Duration 07/2011 – 05/2015
Organization SRM University, 603203, Chennai, India.
Principle Subjects
VLSI Design and Embedded Systems, Virtual Instrumentation, Communication Technology, Control Systems, Digital Systems, DSP, Microcontrollers, Power Electronics, Electrical Machines.
Bachelor Project ***Smart Glass:*** *Holographic Projection and gesture control of Computer.*

Technische Universität München | Arcisstraße 21 | 80333 München
Professur für Umweltsensorik und Modellierung

A. Jagadeesh Kumar
Briachstraße 2, Zi. Nu. A114
Weingarten-88250
Baden Württemburg
Deutschland
Email: jagadeesh.srmuniv@gmail.com

München, 13. Juni 2017

Subject: Invitation letter for conducting Master's Thesis at TU Munich

Dear Mr. Jagadeesh Kumar. A,

It is my pleasure to invite you to the **Electronic System for High Accuracy Green-house gas Measurement** at the **Technische Universität München** from 10th August to 31st January 2018 in order to carry out your Master's thesis in the area of **Urban Emission Estimates Using TDLAS**. The **Environmental Sensing and Modeling** will provide the required laboratory space and experimental infrastructure that will be required to carry out your thesis. Close collaboration and supervision support from the senior researcher from the Chair will also be provided.

The task of the Master thesis is to design the electronic system to make the TDLAS measurement system be portable. That is: a temperature controller to control the temperatures of the laser and the photodetector, a current signal generator to tune the laser wavelength, and a data acquisition to record the laser light signal.

We understand that your travel expenses to Munich, including all incidental expenses, your accommodation in Munich and health insurance will be borne by you.

With best regards,

Sign by supervisor

Jia Chen

Lijuan LAN

Technische Universität München
Fakultät für Elektrotechnik und Informationstechnik
Professur für Umweltsensorik und Modellierung

Professorin Dr.-Ing. Jia Chen
Theresienstr. 90
Rückgebäude N5
80333 München

Tel. +49 89 289 23350
Fax +49 89 289 23348

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www.esm.ei.tum.de
www.tum.de

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IBAN-Nr.:
DE10700500000000024866
BIC: BYLADEMM
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USt-IdNr.: DE811193231

Hochschule Ravensburg-Weingarten
Technik | Wirtschaft | Sozialwesen

IMMATRIKULATIONSBESCHEINIGUNG

für das Wintersemester 2017/18

Herr	Jagadeesh Kumar Ashok Kumar
Matrikel-Nr.	28807
geboren am	05.01.1994
geboren in	Chennai/India
ist an der	Hochschule Ravensburg-Weingarten
im Studiengang	El. and Embedded Systems
im Status	Haupthörer
mit dem Abschlussziel	Master of Engineering (M.Eng.)
	ordnungsgemäß immatrikuliert und nicht beurlaubt.
Bescheinigungsdauer:	Wintersemester 2017/18
Wintersemester	01.09. - 29.02.
Sommersemester	01.03. - 31.08.
Regelstudienzeit:	3

Erstellt am 06.11.2017

Diese Bescheinigung wurde per Computer erstellt und ist ohne Unterschrift gültig. Zusätze und Änderungen bedürfen der ausdrücklichen Bestätigung durch die Studentische Abteilung.

Verifikationsschlüssel: UGXKHXFNKPYL

Zur Verifikation dieser Bescheinigung rufen Sie bitte folgende Webadresse auf:
https://www.lsf.hs-weingarten.de/verify

Hochschule
Ravensburg-Weingarten -
Technik, Wirtschaft,
Sozialwesen
Doggenriedstrasse
88250 Weingarten

Herrn
Jagadeesh Kumar Ashok Kumar

Briachstraße 2, Zi. A114
88250 Weingarten

geboren am: 05.01.1994
in: Chennai/India
Matrikelnummer: 28807
aktuelles Fachsemester: 3

Montag, 06. November 2017

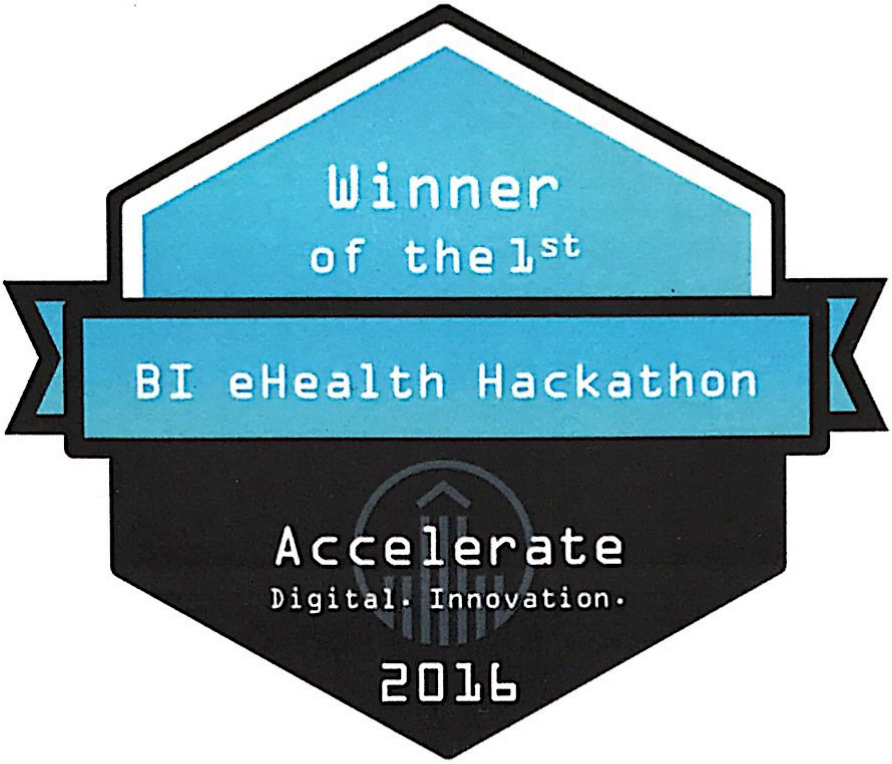
N o t e n s p i e g e l

Studiengang: El. and Embedded Systems
(angestrebter) Abschluss: Master mit vorausg. Absch
PO-Version: 10

PrNr	Prüfungstext	Semester	Note	Status	Credits	Versuche
49402	Circuits and Systems 1	WS 2016	3,0	BE	5.0	1
49404	Communication 2	WS 2016	4,0	BE	5.0	1
5891	Deutsch als Fremdsprache A 1	WS 2016	1,7	BE	2.0	1
49403	Signalprocessing 1	WS 2016	3,6	BE	5.0	1
49407	Advanced Control Systems	SS 2017	2,4	BE	5.0	1
49405	Circuits and Systems 2	SS 2017	2,0	BE	5.0	1
49401	Communication 1	SS 2017	2,5	BE	5.0	1
5892	Deutsch als Fremdsprache A2	SS 2017	1,3	BE	4.0	1
49408	Embedded Computing	SS 2017	1,6	BE	10.0	1
49400	Mathematics	SS 2017	1,3	BE	10.0	1
43036	Processes and Automation in Photovoltaics	SS 2017	2,2	BE	5.0	1
49406	Signalprocessing 2	SS 2017	1,1	BE	5.0	1
43027	System Analysis and Simulation with LabView	SS 2017	1,6	BE	5.0	1
43028	Laboratory on Robotics	WS 2017	---	BE	3.0	1

Diese Liste wurde maschinell erstellt und trägt daher keine Unterschrift.

Status: AN=angemeldet. BE=bestanden. EN=endgültig nicht bestanden. NB=nicht bestanden.



Jagadeesh Kumar

was part of the winning team of the

1st BI eHealth Hackathon

Nov 16th-17th 2016 in Biberach

Martin Locher

Prof. Dr. Franz Brümmer

Serial Number: 100-317-20570
Issue Date: 6/29/2017
Expiration Date: 6/28/2019

NI CUSTOMER EDUCATION

Certification

Jagadeesh Kumar Ashok Kumar

Has successfully completed all requirements and is now granted the title of:

Certified LabVIEW
Associate Developer
National Instruments

Alex Davern
President and CEO
National Instruments

NATIONAL INSTRUMENTS

SKYLARK DRONES

DATE: 26th July, 2016

TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Mr. Jagadeesh Kumar A,** has worked in our organization, **SKYLARK DRONES PRIVATE LIMITED** since **3rd August 2015 to 28th July 2016** designated as **Electronics and Flight Controller**.

He was responsible for the electronics and sensor integration of the Drones in our organization.

He possesses good technical knowledge and communication skills. During his tenure in our organization, we found his character and conduct to be satisfactory.

We wish him all success.

For Skylark Drones Pvt. Ltd.

SKYLARK DRONES PRIVATE LIMITED

John Paul
HR-Admin

Skylark Drones Pvt. Ltd.
IKP Eden, 16 Bhuvanappa Layout,
Tavarekere Main Road,
Bengaluru - 560 029, India
+91 - 806 565 8600 | info@skylarkdrones.com | www.skylarkdrones.com

Reg. No.: 1171110122

SRM University

ESTABLISHED U/S 3 OF UGC ACT 1956

Faculty of Engineering and Technology

The Board of Management of the SRM University

hereby makes known that

JAGADEESH KUMAR A

has been admitted to the Degree of

BACHELOR OF TECHNOLOGY IN

ELECTRONICS AND INSTRUMENTATION ENGINEERING

having been certified by duly appointed examiners to be qualified to receive the same and placed in the

FIRST CLASS

at the examination held in MAY - 2015

Given under the seal of the University.

DATED: 07 NOV 2015

SRM Nagar, Kattankulathur - 603 203
Kanchipuram Dist., Tamilnadu, India.

REGISTRAR

VICE-CHANCELLOR

SRM UNIVERSITY

Established U/S 3 of UGC Act 1956

B.Tech. DEGREE EXAMINATION

TRANSCRIPT

FOLIO NO : **A36532**

NAME OF THE CANDIDATE	JAGADEESH KUMAR A [05-Jan-1994]	REGISTER NUMBER	1171110122

Sem	Subject Code	Subject Title	Credits	Grade	Att Code	Month & Year of Passing
1	LE0101	ENGLISH	2	B+	9	DEC - 2011
1	MA0101	MATHEMATICS - I	4	B-	9	DEC - 2011
1	PH0101	PHYSICS	3	C	H	DEC - 2011
1	CY0101	CHEMISTRY	3	C+	H	DEC - 2011
1	GE0101	BASIC ENGINEERING - I	4	B	H	DEC - 2011
1	PD0101	PERSONALITY DEVELOPMENT - I	0	-	9	DEC - 2011
1	GE0107A	NSS	1	D	-	DEC - 2011
1	GE0105	COMPUTER LITERACY	1	B	H	DEC - 2011
1	PH0103	PHYSICS LABORATORY	1	B	H	DEC - 2011
1	CY0103	CHEMISTRY LABORATORY	1	A-	H	DEC - 2011
1	ME0130	ENGINEERING GRAPHICS	3	A-	H	DEC - 2011
2	GE0108	VALUE EDUCATION	1	C	H	MAY - 2012
2	GE0102	BIOLOGY FOR ENGINEERS	2	B-	H	MAY - 2012
2	GE0104	PRINCIPLES OF ENVIRONMENTAL SCIENCE	2	C	9	MAY - 2012
2	MA0102	MATHEMATICS - II	4	C+	H	MAY - 2012
2	PH0102	MATERIAL SCIENCE	3	B-	H	MAY - 2012
2	GE0106	BASIC ENGINEERING - II	4	B	H	MAY - 2012
2	EI0102	ELECTRONIC DEVICES	3	B-	9	MAY - 2012
2	PD0102	PERSONALITY DEVELOPMENT - II	0	-	H	MAY - 2012
2	CS0140	COMPUTER PRACTICE	2	A+	9	MAY - 2012
2	ME0120A	WORKSHOP PRACTICE	2	A-	9	MAY - 2012
2	EI0110	DEVICES LABORATORY	1	B+	H	MAY - 2012
3	LE0201	GERMAN - I	2	B+	H	NOV - 2012
3	MA0211	MATHEMATICS - III	4	C+	H	NOV - 2012
3	CE0221	ENGINEERING MECHANICS	3	B	H	NOV - 2012
3	EI0201	ELECTRICAL MACHINES	3	B-	H	NOV - 2012
3	EI0203	DIGITAL SYSTEMS	3	B	H	NOV - 2012
3	EI0205	ELECTRONIC CIRCUITS	3	B-	H	NOV - 2012
3	EI0207	ELECTRIC CIRCUITS AND NETWORKS	3	B-	H	NOV - 2012
3	PD0201A	PERSONALITY DEVELOPMENT - III	1	C+	H	NOV - 2012
3	EI0213	CIRCUITS LABORATORY	1	A	H	NOV - 2012
3	EI0215	ELECTRICAL AND ELECTRONICS LABORATORY	1	A+	H	NOV - 2012
4	LE0202	GERMAN - II	2	B	9	MAY - 2013
4	MA0212	PROBABILITY AND QUEUING THEORY	4	C+	9	MAY - 2013
4	ME0232	THERMODYNAMICS AND FLUID MECHANICS	3	C+	9	MAY - 2013
4	EI0202	LINEAR INTEGRATED CIRCUITS	3	C+	9	MAY - 2013
4	EI0204	TRANSDUCERS ENGINEERING	3	C+	9	MAY - 2013
4	EI0206	ELECTRICAL AND ELECTRONICS MEASUREMENTS AND INSTRUMENTATION	3	A-	9	MAY - 2013
4	EI0208	COMMUNICATION ENGINEERING	3	C	9	MAY - 2013
4	PD0202A	PERSONALITY DEVELOPMENT - IV	1	B+	9	MAY - 2013
4	EI0212	LINEAR AND DIGITAL INTEGRATED CIRCUITS LABORATORY	1	B	9	MAY - 2013
4	EI0214	TRANSDUCER ENGINEERING LABORATORY	1	A-	8	MAY - 2013
5	MB0301	ENGINEERING ECONOMICS AND MANAGEMENT	3	B	H	NOV - 2013

BRANCH / SPECIALISATION	ELECTRONICS AND INSTRUMENTATION ENGINEERING	MONTH & YEAR OF LAST APPEARANCE	MAY - 2015

Sem	Subject Code	Subject Title	Credits	Grade	Att Code	Month & Year of Passing
5	EI0303	INDUSTRIAL INSTRUMENTATION	3	C+	9	NOV - 2013
5	EI0305	CONTROL SYSTEMS	3	C-	H	NOV - 2013
5	EI0307	MICROPROCESSORS AND MICROCONTROLLERS	3	B	H	NOV - 2013
5	EI0309	ANALYTICAL INSTRUMENTATION	3	B-	H	NOV - 2013
5	EI0311	DIGITAL SIGNAL PROCESSING	3	B	H	NOV - 2013
5	PD0301A	PERSONALITY DEVELOPMENT - V	2	B-	H	NOV - 2013
5	EI0313	MICROPROCESSORS AND MICROCONTROLLERS LABORATORY	1	B+	H	NOV - 2013
5	EI0315	CONTROL ENGINEERING LABORATORY	1	A+	9	NOV - 2013
5	EI0319	COMPREHENSION - I	1	B+	H	NOV - 2013
5	EI0321	INDUSTRIAL TRAINING - I	1	A+	9	NOV - 2013
6	EI0302	POWER ELECTRONICS	3	C-	9	MAY - 2014
6	EI0310	VLSI DESIGN AND EMBEDDED SYSTEMS	3	C-	9	MAY - 2014
6	EI0304	DIGITAL SYSTEM DESIGN	3	E	9	MAY - 2014
6	EI0306	PROCESS CONTROL	3	D	9	MAY - 2014
6	EI0308	INDUSTRIAL DRIVES AND CONTROL	3	C	H	MAY - 2014
6	EI0354	MODERN CONTROL SYSTEMS	3	C-	9	MAY - 2014
6	PD0302A	PERSONALITY DEVELOPMENT - VI	2	B+	9	MAY - 2014
6	EI0312	ELECTRONIC DESIGN PROJECT LABORATORY	1	B	H	MAY - 2014
6	EI0314	PROCESS CONTROL LABORATORY	1	C-	H	MAY - 2014
6	EI0316	COMPUTER SKILLS	2	B+	9	MAY - 2014
6	EI0318	COMPREHENSION - II	1	B-	9	MAY - 2014
7	EI0401	VIRTUAL INSTRUMENTATION	3	B	9	NOV - 2014
7	EI0403	COMPUTER CONTROL OF PROCESSES	3	B	H	NOV - 2014
7	EI0405	INDUSTRIAL AUTOMATION	3	B-	H	NOV - 2014
7	EI0451	ROBOTICS AND AUTOMATION	3	C+	H	NOV - 2014
7	EI0459	POWER PLANT INSTRUMENTATION	3	C+	9	NOV - 2014
7	EI0413	VIRTUAL INSTRUMENTATION LABORATORY	1	A	H	NOV - 2014
7	EI0415	AUTOMATION LABORATORY	1	A-	H	NOV - 2014
7	EI0417	INDUSTRIAL TRAINING - II	1	A+	H	NOV - 2014
8	EI0458	INSTRUMENTATION AND CONTROL IN PETROCHEMICAL INDUSTRIES	3	C	9	MAY - 2015
8	EI0460	INSTRUMENTATION AND CONTROL IN IRON AND STEEL INDUSTRIES	3	C+	H	MAY - 2015
8	EI0444	PROJECT WORK	8	A+	H	MAY - 2015

***** End Of Statement *****

CGPA : 7.512

CGPA is Calculated from Third Semester Onwards

Date : 28-Mar-2016

Medium of Instruction : English

SRM Nagar
Kattankulathur - 603 203
Kancheepuram (Dt), Tamil Nadu, India.

This Certificate bears no correction

Registrar

GRADING

Letter Grade	A+	A	A-	B+	B	B-	C+	C	C-	D	E	U	W	I
Grade Points	10	9.5	9.0	8.5	8.0	7.5	7.0	6.5	6.0	5.0	4.0	0	0	0

U - Failure due to insufficient marks

W - Failure due to insufficient attendance

I - Incomplete due to absent

CALCULATION OF CGPA

$$\text{The Cumulative Grade Point Average (CGPA)} = \frac{\Sigma(C \times GP)}{\Sigma C}$$

Where, C = Credit of the course

GP = Grade Points obtained for the course

CGPA is calculated considering all the courses taken from third semester onwards.

ATTENDANCE CODE (Att. Code)

Attendance Percentage	95 % and above	85 to 94%	75 to 84%	Below 75%
Code	H	9	8	L

Read by	
Verified by	