



SSM INSTITUTE OF ENGINEERING AND TECHNOLOGY

(Approved by AICTE, New Delhi / Affiliated to Anna University, Chennai / Accredited by NAAC (2019-24))

Dindigul – Palani Highway, Dindigul – 624 002

Department of Electrical and Electronics Engineering

Consolidated Financial Support Details

S. NO.	Academic Year	Total Number of Financial Support Events
1	2022-2023	03
2	2021-2022	Nil
3	2020-2021	Nil
4	2019-2020	01
5	2018-2019	02

V. satheesh
HoD / EEE



Principal

Dr.D.SENTHIL KUMARAN, M.E., Ph.D.,(NUS)
Principal
SSM Institute of Engineering and Technology
Kuttathupatti Village, Sindalagundu(Po),
Palani Road, Dindigul - 624 002.



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Department of Electrical and Electronics Engineering

List of faculty provided with financial support to attend conference / workshop

Academic Year: 2022 -2023

S. NO.	Name of Teacher	Name of conference/ workshop attended for which financial support provided	Date	Amount of support
1	Mr.T.Arulkumar	Presented a paper entitled Simulation of Hybrid Renewable Energy-First International Conference on Recent Advances and Innovations in Science, Engineering, Technology and Management (iCRAISETM) conducted by Solamalai College of Engineering, Madurai on 21.04.23 – 22.04.23.	21.04.23 to 22.04.20	Rs.300/-
2	Mr.G.Satheesh Kumar	NPTEL Course on "Sensors and Actuators" conducted by IISc, Bangalore (Jan-Apr 2023)	Jan-Apr 2023	Rs.1000/-
3	Mr.P.Siva Subramanian	NPTEL Course on "Outcome Based Pedagogic Principles for Effective Teaching" conducted by IIT , Madras (Feb-Mar 2023)	Feb-Mar2023	Rs.1100/-

V. Sathish
HoD / EEE



Principal

Dr.D.SENTHIL KUMARAN, M.E., Ph.D.,(NUS)
Principal
SSM Institute of Engineering and Technology
Kuttathupatti Village, Sindalagundu(Po),
Palani Road, Dindigul - 624 002.

Announcement and Call for Papers
**1ST INTERNATIONAL CONFERENCE ON
RECENT ADVANCES AND INNOVATIONS IN SCIENCE,
ENGINEERING, TECHNOLOGY AND MANAGEMENT**

iCRAISETM 2023
21 & 22 April 2023
Research – Endeavour for Ever



In association with ICT Academy, Tamilnadu
(Our Publication Partner)

*Selected papers in the conference by the Judges / Reviewers
will be recommended for possible publication in the
ICTACT International Journals with no additional charges

Best Paper Award will be given in each track

Keynote Speakers



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Indian Welding Society



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www.solamalaice.ac.in | solconference2023@gmail.com



INSTITUTION'S
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(Ministry of HRD Initiative)

ABOUT THE ORGANISING INSTITUTE

SOLAMALAI COLLEGE OF ENGINEERING

Solamalai College of Engineering (Formerly Raja College of Engineering and Technology) was established in the year 1995. The college was acquired by Solamalai Group in the year 2014. Solamalai, a popular brand in Madurai has evolved since 1962 as a single lorry operator and now has diversified business operations throughout Tamilnadu. Marking foot steps in FMCG distribution, C&F services, Goods Truck, Passenger transportation, Infrastructure, Cinema Exhibition with an able team of more than 1400 employees.

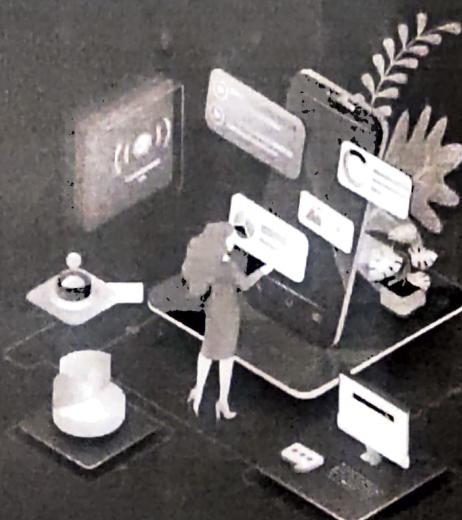
Solamalai College of Engineering is affiliated to Anna University, Chennai and approved by All India Council for Technical Education (AICTE), New Delhi offering 7 undergraduate programmes in the disciplines of Artificial Intelligence and Data Science, Civil, Computer Science and Engineering, Computer Science and Business Systems, Electrical and Electronics Engineering, Electronics and Communication Engineering, Mechanical Engineering and 4 post graduate programmes in Soil Mechanics and Foundation Engineering, Computer Science and Engineering, Embedded Systems Technology and Master of Business Administration. We have got 3.5 Star rating in IIC 4.0 for the year 2021-2022. Also, we were recognized in the band Promising under the category of "Colleges/Institutes (Private/Self-financed) (Technical)" in Atal Ranking of Institutions on Innovations Achievement (ARIIA) 2021. Our college is a Nodal Centre for BMW Skill Next Program. We are one of the affiliated centres to conduct Pradhan Mantri Kaushal Vikas Yojana (PMKVY). We have MHRD – IIT Bombay supported e-Yantra Robotics lab. Our college has been recognised by TNSDC for conducting skill development courses and by Unnat Bharat Abhiyan (UBA) for rural development in various villages in Madurai District. Our institution has skill training centres and industry collaborative innovation units for nurturing innovation culture among students. As a result, we are confident that our students will emerge as valuable contributory assets to the development of the organizations they serve as well as the nation.

Conference Theme – “Research Endeavor for Ever”

Innovating new technologies and updating the existing ones is essential to reinforce the capabilities for achieving sustainable development in the economic growth of the world, its environmental protection and the overall welfare of society.

Synergistic cooperation among fields of science, engineering, management and technology is imperative for the advancement and updating of technologies for the benefit of humanity.

This conference aims at bringing together the academicians, industrialists, and researchers throughout the globe to a common platform, and summarizing recent advances and innovations by way of conglomerating their findings of solutions for the obstacles in the real-time environment.



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Dr.R.Princitta
Associate Professor,
Department of Management Studies
Solamalai College of Engineering, Madurai

CONFERENCE SECRETARIAL

Track 01 – Recent Trends in Science and Technology (track01.scemdu@gmail.com)

Track 02 – Recent Trends in Civil & Mechanical Engineering (track02.scemdu@gmail.com)

Track 03 – Recent Trends in Electrical, Electronics & Communication,

Instrumentation Engineering (track03.scemdu@gmail.com)

Track 04 – Recent Trends in Computer and Information Technology (track04.scemdu@gmail.com)

Track 05 – Recent Trends in Management Studies and all other topics related to the theme
(track05.scemdu@gmail.com)

CALL FOR PAPERS

Papers on original research work are invited from UG, PG, PhD Scholars, academicians, researchers & Industrialist and on topics related to the title and theme of the conference. The abstract is written in English (MS Word, A4 size, Arial 11 and 1.5 spacing) and should not exceed 500 words. The title, objectives and mail ID are to be included. The abstract must be submitted through concern Track Mail ID's. Selection is based on peer review by eminent experts in the respective fields. In the event of an additional number of authors, at least one author must register for the conference. Selected papers without registration fees for presentations and subsequent publication in the conference proceeding or in a journal will not be accepted. There will also be a few poster presentation sessions.

Publications

- All papers submitted to the conference will be peer reviewed and evaluated for originality, technical content, and relevance to the conference
- Journals Indexed in Scopus and UGC Care accepted to publish reviewed papers of this conference, after further peer review
- List of Free journals (Listed in UGC Care)
1. ICTACT Journal on Communication Technology 2. ICTACT Journal on Soft Computing
3. ICTACT Journal on Image & Video Processing 4. ICTACT Journal on Microelectronics
5. ICTACT Journal on Management Studies
- List of Paid journals (Indexed in Scopus)
1.Journals list will be updated in the conference website
2.Publication charge is applicable as per journal norms



Important Dates

Last date to receive Abstracts	28 February 2023
Notification of Acceptance	07 March 2023 onwards
Registration of full text along with registration form & Fees	30 March 2023
Conference dates	21 & 22 April 2023

Registration Fee

UG	-	Rs.300
PG, PhD	-	Rs.1000 (Scholars , Industry and Scientists)
Foreign Delegates	-	US \$100

For further details contact

Co-Convenor - iCRAISETM 2023
Dr.M.Prince Cell : 7708344415
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Payment

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About Madurai City

Madurai is a major city in the Indian state of Tamilnadu. It is the cultural capital of Tamilnadu and administrative headquarters of Madurai District. Madurai city is located on the banks of River Vaigai. It is often called as "Thoonga Nagaram", meaning "the city never sleeps". Madurai is closely associated with Tamil language. The city has several historical monuments, with the Meenakshi Temple and Thirumalai Nayak Palace being the most prominent. The city is well connected by buses, trains and flights to major cities of India. Madurai is an important industrial and education hub in south Tamilnadu. The city attracts many tourists from within the country and abroad. The top attractions to visit Madurai are: Madurai meenakshi amman temple, Aayiram Kaal Mandapam, Pazhamudhir Solai, Alagarkoil Temple and Shrine, Thirumalai Nayakar Mahal.



IWS
Indian Welding Society



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ICTACADEMY

**1st INTERNATIONAL CONFERENCE ON
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ENGINEERING, TECHNOLOGY AND MANAGEMENT (iCRAISETM - 2023)**

Certificate of Appreciation

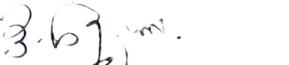
This is to Certify that Dr/ Mr/ Mrs/ Ms T. ARUL KUMAR, AP/EEE, SSMIET

has Presented Paper entitled SIMULATION OF HYBRID RENEWABLE ENERGY SYSTEMS at

the International Conference on Recent Advances and Innovations in Science, Engineering, Technology and Management (iCRAISETM - 2023) held at Solamalai College of Engineering, Madurai, Tamil Nadu, India on 21st & 22nd April 2023.


Convenor


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E-LEARNING COURSES FROM THE IITs & IISc



National Programme on Technology Enhanced Learning (NPTEL)

**Receipt for successful payment of fees for online courses conducted by NPTEL
Course Run:Jan-Apr 2023**

Name of candidate : **Satheesh kumar G**

Courses name : **Sensors and Actuators**

Date of exam : **30-04-2023**

Mode of payment : **Billdesk**

Amount paid : **Rs.1000**

We hereby acknowledge with thanks, the receipt of Rs.1000 from the afore-mentioned candidate towards payment for NPTEL Online Certification Exam, details of which are shown above.



NPTEL Online Certification

(Funded by the MoE, Govt. of India)



This certificate is awarded to
SATHEESH KUMAR G
for successfully completing the course

Sensors and Actuators

with a consolidated score of **47** %

Online Assignments	17.19/25	Proctored Exam	30/75
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Total number of candidates certified in this course: 1232

Prof. G. L. Sivakumar Babu
Chairman, Center for Continuing Education
IISc Bangalore

Jan-Apr 2023

(12 week course)

Prof. L. Umanand
NPTEL Coordinator
IISc Bangalore



Indian Institute of Science Bangalore



Roll No: NPTEL23EE66S63500019

To validate the certificate



No. of credits recommended: 3 or 4

**National Programme on Technology Enhanced Learning (NPTEL)**

Receipt for successful payment of fees for online courses conducted by NPTEL
Course Run:Jan-Apr 2023

Name of candidate : **SIVA SUBRAMANIAN P**

Courses name : **Outcome Based Pedagogic Principles for Effective Teaching**

Date of exam : **30-04-2023**

Mode of payment : **Bilddesk**

Amount paid : **Rs.1100**

We hereby acknowledge with thanks, the receipt of Rs.1100 from the afore-mentioned candidate towards payment for NPTEL Online Certification Exam, details of which are shown above.



NPTEL-AICTE

Faculty Development Programme

(Funded by the MoE, Govt. of India)



This certificate is awarded to

SIVA SUBRAMANIAN P

for successfully completing the course

Outcome Based Pedagogic Principles for Effective Teaching

with a consolidated score of **66 %**

Prof. Andrew Thangaraj
NPTEL Coordinator
IIT Madras



(Feb-Mar 2023)

Roll No: NPTEL23GE14S63500067

Duration of NPTEL course : 4 Weeks

The candidate has studied the above course through MOOCs mode, has submitted online assignments and passed proctored exams.
This certificate is therefore acceptable for promotions under CAS as per AICTE notifications dated 24th July 2018, similar to other refresher / orientation courses.
F.No. AICTE / RIFD / FDP through MOOCs / 2017-18



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Department of Electrical and Electronics Engineering

List of faculty provided with financial support to attend conference / workshop

Academic Year: 2019 -2020

S. NO.	Name of Teacher	Name of conference/ workshop attended for which financial support provided	Date	Amount of support
1	Dr.K.Vijayakumar	Presented a paper entitled Influence of iron power core on the Switched reluctance motor performance enhancement-2nd International conference on advanced materials (SCICON'19) conducted by Amirtha Vishwa Vidyapeetham, Coimbatore on 15.12.2019 – 17.12.2019.	15.12.2019 to 17.12.2019	Rs.3540/-
	Mr.V.Sivakumar			
	Dr.N.Balamurugan			

HoD / EEE



Principal
Dr.D.SENTHIL KUMARAN, M.E., Ph.D., (NUS)
Principal
SSM Institute of Engineering and Technology
Kuttathupatti Village, Sindalagundu (Po),
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SCICON '19

"Materials for a
BETTER LIVING"

2nd International Conference on Advanced Materials

FIRST CALL FOR ABSTRACTS

The second edition of International Conference on Advanced Materials, SCICON '19, is a highly interdisciplinary initiative organized at Amrita Vishwa Vidyapeetham, Coimbatore campus. The conference gives a platform for scientists and young researchers to exchange ideas in their field. The conference targets at uniting the research findings into possible products for end users.

SCICON '19 will comprise plenary lectures, key-note, oral and poster presentations. Original research papers on the thrust areas of the conference are invited from faculty members/ scientists/research scholars and industrialists. Contributors are requested to submit the abstract not exceeding 300 words as per the template provided in the web page. Abstracts of all scientific contributions will be brought out as proceedings with ISBN number and selected contributions will be published in Scopus indexed journal.

Important dates
 Abstract submission opens: March 30, 2019
 Abstract submission closes: July 31, 2019
 Early bird registration: May 1, 2019 - July 31, 2019
 Acceptance notification: August 15, 2019
 Registration opens: August 15, 2019
 Dates: December 15 -17, 2019
 Venue: Amrita Vishwa Vidyapeetham, Coimbatore.

Tracks

Biomaterials | Nanomaterials | Electronic and Magnetic Materials
 | High Energy Materials | Materials for Energy applications
 | Materials for water purification | Nanocomposites | Basic Science

Confirmed Speakers

December 15 -17, 2019

Amlan J. Pal, IACS, Jadavpur, Kolkata
 Ajayaghosh A., NIST, India
 Amelia Almeida, IST, Lisbon, Portugal
 Bo Tan, Ryerson University Toronto, Canada
 Mangal Sundar, IIT, Chennai, India
 Mohan Srinivasarao, GATECH, USA
 N Kalaiselvi, CSIR-CECRI, India
 Nader Pourmand, University of California, USA
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Address for correspondence

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 Shanti Hair, Amrita Vishwa Vidyapeetham, India
 Shantanu Bowmik, Amrita Vishwa Vidyapeetham, India
 Siva Umepathy, IISc, Bengaluru, India
 Venkatakrishnan, Ryerson University Toronto, Canada

Registration

All participants must register individually on the conference webpage. Registration includes all conference materials, breakfast, lunch, dinner and refreshments during the conference days.

Category*	National (INR), 18% GST included		Overseas (US\$)	
	Early Bird Registration	Regular Registration	Early Bird Registration	Regular Registration
Faculty	720	8250	200	300
Industry	940	11800	250	350
Post Doc	4720	5900	150	200
Research Scholars/ Students	3540	4130	100	120
Accompanying person*	1770	2360	100	150

* Group registration of participants from same organization is encouraged at a reduced registration fee. Accommodation would not be made only to Ph.D. scholars/students on first come-first serve basis and for others will be arranged in the University Guest House/hotel as per request, on additional charges.

2nd International Conference on Advanced Materials

SCICON '19

MATERIALS FOR BETTER LIVING

15 - 17 December, 2019

Book of **ABSTRACTS**

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fraction ($\text{Co}_{1.5}\text{Cr}_{1.5}\text{O}_4$) exhibited higher dielectric constant and dielectric loss, with greater electrode effect. This arises due to the defect induced polarization, which comes from the greater porosity on the lower density samples [2]. It is seen that dielectric constant and dielectric losses marginally increases with increase in the frequency. Densification and subsequent high temperature sintering resulted in decrease of domain density and internal stress, varying the dielectric properties [3,4]. Higher density and lower Cr-fraction yield stable dielectric properties from the Co_3O_4 based series studied. **Keywords:** Dielectric relaxation, relaxor behavior, porosity, densification

References

1. Rajeevan, N.E., Kumar, R., Shukla, D.K., Thakur, P., Brookes, N.B., Chae, K.H., Choi, W.K., Gautam, S., Arora, S.K., Shvets, I.V. and Pradyumnan, P.P., 2009. Bi-substitution-induced magnetic moment distribution in spinel $\text{Bi}_x\text{Co}_2-x\text{MnO}_4$ multiferroic. *Journal of Physics: Condensed Matter*, 21(40), p.406006.
2. Hsiang, H.I., Yen, F.S. and Huang, C.Y., 1995. Effects of porosity on dielectric properties of BaTiO_3 ceramics. *Japanese journal of applied physics*, 34(4R), p.1922.
3. Zhang, T.S., Ma, J., Leng, Y.J., Chan, S.H., Hing, P. and Kilner, J.A., 2004. Effect of transition metal oxides on densification and electrical properties of Si-containing $\text{Ce}_{0.8}\text{Gd}_{0.2}\text{O}_{2-\delta}$ ceramics. *Solid State Ionics*, 168(1-2), pp.187-195
4. Lu, P., Xu, X., Yi, W. and German, R.M., 2001. Porosity effect on densification and shape distortion in liquid phase sintering. *Materials Science and Engineering A*, 318(1-2), pp.111-121..

Influence of Iron Powder Core on the Switched Reluctance Motor Performance Enhancement

K.Vijayakumar¹, A. Joseph Basanth², S. Kannan³, V. Sivakumar⁴ and N. Balamurugan⁵

^{1,4&5}Electrical Engineering, SSMIET, Dindigul, Tamilnadu and India

²Electrical Engineering, AU Campus, Dindigul, Tamilnadu and India

³Green Energy solar solutions, Puducherry and India

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Advancement of iron powder Soft magnetic composite (SMC) materials and the application in electrical machines have undergone significant development in the past decade. The major advantages of the materials include isotropic magnetic and thermal properties, very low eddy current loss and relatively low total core loss at medium and higher frequencies, and low cost fabrication with good tolerance and surface finish using the well developed powder metallurgical techniques. This paper presents the application potential of iron powder SMC in switched reluctance machine (SRM). Results are presented of extensive finite element simulations and experimental verifications of the proposed fabricated prototype machine.

Index Terms— Iron powder (SMC) switched reluctance motor (SRM) Finite element analysis (FEA)

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SSM INSTITUTE OF ENGINEERING AND TECHNOLOGY

(Approved by AICTE, New Delhi / Affiliated to Anna University, Chennai / Accredited by NAAC (2019-24))

Dindigul – Palani Highway, Dindigul – 624 002

Department of Electrical and Electronics Engineering

List of faculty provided with financial support to attend conference / workshop

Academic Year: 2018 -2019

S. NO.	Name of Teacher	Name of conference/ workshop attended for which financial support provided	Date	Amount of support
1	Mr.P.Siva Subramanian	NPTEL Course on "Automatic Control" conducted by IIT, Roorkee, Jan-Mar 2019	Jan-Mar 2019	Rs.1600/-
2	Mr.B.Marisekar	NPTEL Course on "Electronic Waste Management-Issues And Challenges" Conducted by IIT, Kharagpur, Feb-Mar 2018	Feb-Mar 2018	Rs.1100/-

V. Sankar
HoD / EEE




Principal

Dr.D.SENTHIL KUMARAN, M.E., Ph.D.,(NUS)
Principal
SSM Institute of Engineering and Technology
Kuttathupatti Village, Sindalagundu (Po),
Palani Road, Dindigul - 624 002.

**National Programme on Technology Enhanced Learning (NPTEL)**

Receipt for successful payment of fees for online courses conducted by NPTEL
Course Run:Jan-Mar 2019

Name of candidate : **SIVA SUBRAMANIAN P**

Courses name : **Automatic Control**

Date of exam : **2019-03-31**

Mode of payment : **Billdesk**

Amount paid : **Rs.1500**

FDP Amount : **Rs.100**

We hereby acknowledge with thanks, the receipt of Rs.1600 from the afore-mentioned candidate towards payment for NPTEL Online Certification Exam, details of which are shown above.

Roll No: NPTEL19ME05511540080

To SIVA SUBRAMANIAN P
SIVEL
KSM INSTITUTE OF ENGINEERING AND
TECHNOLOGY,
SINDALAGUNDU POST
TIRUCHENGODE
TAMIL NADU
624002
PH. NO :7639112777



Score	Type of Certificate
>=90	Elite+Gold
75-89	Elite+Silver
>=60	Elite
40-59	Successfully completed the course
<40	No Certificate

No. of credits recommended by NPTEL:2

Elite



NPTEL Online Certification

(Funded by the Ministry of HRD, Govt. of India)



This certificate is awarded to

SIVA SUBRAMANIAN P
for successfully completing the course

Automatic Control

with a consolidated score of 75 %

Online Assignments 23.75/25 Proctored Exam 51/75

Total number of candidates certified in this course: 314


Prof. B. K. Gandhi
Coordinator, Continuing Education Centre
NPTEL Coordinator, IIT Roorkee

Jan-Mar 2019
(8 week course)



Indian Institute of Technology Roorkee



Roll No: NPTEL19ME05511540080

To validate and check scores: <http://npTEL.ac.in/noc>

Roll No:NPTEL18CE07S1300034

To

MARISEKAR B
232B, RAILWAY COLONY
NEAR RMS
VIRUDHUNAGAR
TAMIL NADU
626001
PH. NO :8248100851



No. of credits recommended by NPTEL:1

Score	Type of Certificate
>=90	Elite + Gold Medal
60-89	Elite
40-59	Successfully Completed the course
<40	No Certificate

Elite



NPTEL Online Certification

(Funded by the Ministry of HRD, Govt. of India)



This certificate is awarded to

MARISEKAR B

for successfully completing the course
Electronic Waste Management - Issues And Challenges
with a consolidated score of **74 %**

Online Assignments	23.25/25	Proctored Exam	51/75
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Prof. Anupam Basu
NPTEL Coordinator
IIT Kharagpur

Total number of candidates certified in this course: **558**

Feb-Mar 2018
(4 week course)



Prof. Adrijit Goswami
Dean
Continuing Education, IIT Kharagpur



Indian Institute of Technology Kharagpur

Roll No: NPTEL18CE07S1300034

To validate and check scores: <http://nptel.ac.in/noc>





E-LEARNING COURSES FROM THE IITs & IISc

**National Programme on Technology Enhanced Learning (NPTEL)**

**Receipt for successful payment of fees for online courses conducted by NPTEL
Course Run:Jan-Apr 2018**

Name of candidate : **MARISEKAR B**

Courses name : **Electronic Waste Management - Issues And Challenges**

Date of exam : **2018-04-28**

Mode of payment : **Billdesk**

Amount paid : **Rs.1100**

We hereby acknowledge with thanks, the receipt of Rs.1100 from the afore-mentioned candidate towards payment for NPTEL Online Certification Exam, details of which are shown above.