

IGNITE 2022



A DAILY NEWSLETTER

Editor in Chief

Dr. Srinivasan Alavandar
Principal, ACT

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OUTREACH PROGRAMME



The Departments of Mechatronics Engineering and Electronics & Communication Engineering have participated in a **Project Expo** conducted for school students at **Satheesh Balaji Matric Higher Secondary School, Chennai**. The projects kindled curiosity and ignited their Passion for Engineering.

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IN-HOUSE SKILL DEVELOPMENT TRAINING



Yuvanraj A, II year student, Department of Mechanical Engineering & Naveenraj S, III year student, Department of Information Technology have completed the **HMS Foundation Course Program** offered by **Huawei Training** on 14th November 2022 under the guidance of Dr Ratheesh R, AP, Department of Electronics and Communication Engineering & Mrs. Suganthi Prabhakaran, AP, Department of Information Technology.

WEBINAR

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**DEPARTMENT OF CHEMICAL ENGINEERING
&
INSTITUTION'S INNOVATION
COUNCIL (IIC)**

Organises
**WEBINAR on
INNOVATION & DEVELOPMENT OF
ULTRA HIGH PURE METALS**

Date : 14th November 2022
Time : 1.00pm to 2.00pm
Venue : Smart Room

Resource person
Dr. Y. Purushotham,
Scientist E,
C-MET,
Government of India,
Hyderabad.

Meeting Webex LINK :
<https://agni.webex.com/agni/j.php?MTID=m3ee8f164aac58b3d4d61705565b4ad42>

IIC Co-ordinator: Mrs. Swathi Chenna AP-CMS
Dr. P. Murugan HOD-CMS
Dr. Kalai Murugan President, ACT-IEC
Dr. Srinivasan Alavandar PRINCIPAL, ACT



The Department of Chemical Engineering has organized a **Webinar on Innovation and Development of Ultra High Pure Metals** on 14th November 2022. Dr. Y. Purushotham, Scientist E, C-Met, Hyderabad was the Guest Speaker.

FACULTY ACHIEVEMENT



Elite

NPTEL Online Certification

(Funded by the MoE, Govt. of India)




This certificate is awarded to
RAJITHA
for successfully completing the course



Basic Environmental Engineering and Pollution Abatement

with a consolidated score of **78** %

Online Assignments	25/25	Proctored Exam	53.33/75
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Total number of candidates certified in this course: **1250**



Prof. Sanjeev Manhas
Coordinator, Continuing Education Centre
IIT Roorkee

Jul-Oct 2022
(12 week course)



Prof. Priti Maheshwari
NPTEL Coordinator
IIT Roorkee



Indian Institute of Technology Roorkee



Roll No: NPTEL22CH45S34463714

To validate the certificate



No. of credits recommended: 3 or 4

Ms. R. Rajitha, Assistant Professor, Department of Science and Humanities (Chemistry) has completed the NPTEL certificate course on **Basic Environmental Engineering and Pollution Abatement** on 10th November 2022.

FACULTY ACHEIVEMENT



Elite
NPTEL Online Certification
(Funded by the MoE, Govt. of India)

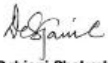


This certificate is awarded to
R BEAULA JASMINE
for successfully completing the course
Plastic Waste Management
with a consolidated score of **60** %

Online Assignments	13.63/25	Proctored Exam	46.5/75
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Total number of candidates certified in this course: **3166**

Aug-Oct 2022
(8 week course)



Prof. Debjani Chakraborty
Coordinator, NPTEL
IIT Kharagpur



Indian Institute of Technology Kharagpur



Roll No: NPTEL22CE72S44465087

To validate the certificate



No. of credits recommended: 2 or 3

Mrs. Beaula Jasmine. R, Head, Department of Civil Engineering has completed the NPTEL certificate course with **ELITE** on the topic **Plastic Waste Management** conducted in the academic year 2022-23.

FACULTY ACHIEVEMENT

NEUROQUANTOLOGY | NOVEMBER 2022 | VOLUME 20 | ISSUE 15 | PAGE 1741-1781 | DOI: 10.14704/NQ.2022.20.15.NQ88159
K.Senthil Kumar / SUSTAINABLE SMART ENERGYSYSTEMS USING MACHINE LEARNING AND IOT: KEY DEVELOPMENTS, CHALLENGES, AND FUTURE RESEARCH OPPORTUNITIES IN THE CONTEXT OF SMART GRID PARADIGM



SUSTAINABLE SMART ENERGYSYSTEMS USING MACHINE LEARNING AND IOT: KEY DEVELOPMENTS, CHALLENGES, AND FUTURE RESEARCH OPPORTUNITIES IN THE CONTEXT OF SMART GRID PARADIGM

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ABSTRACT:

The current trajectory points toward a future in which energy distribution and consumption are managed by self-driving software designed to maximize efficiency in decision making and resource utilization. Optimizing energy distribution systems and networks relies heavily on cutting-edge machine learning (ML) technology. To emphasize the significance of this topic, a study was undertaken on data-driven probabilistic ML methods and their find excellent to intelligent energy systems and networks. The primary foci of this research were (i) the applications of ML to fundamental energy technologies and (ii) the applications of ML to energy distribution companies. Smart energy material production in the smart grid paradigm, strategic energy planning, integrating renewable energy, and big data analytics in the smart environment are all examples of the fundamental energy technologies that make use of machine learning. Predicting future energy consumption and costs, ranking future energy price predictions by merit, and calculating the lifetime worth of a customer are all parts of the ML space explored in energy distribution systems. Transmission, distribution, and consumption of electricity, as well as grid-edge systems and distributed energy, are briefly covered in the context of cyber security. In order to facilitate future research on ML for efficient energy distribution, this effort aimed to identify common difficulties. Many different viewpoints on energy's major advantages and disadvantages were compiled at the study's conclusion. It is estimated that the utility sector and the energy business could save between \$237 billion and \$813 billion if smart ML automation were applied to its intended energy systems.

Keywords: Strategic energy planning and smart, Energy distribution, Data-driven probabilistic machine learning, Discovery and design of energy materials, manufacturing, Energy demand-side response, big data analytics and smart grid,
DOI Number: 10.14704/NQ.2022.20.15.NQ88159

NeuroQuantology2022;20(15): 1741-1781

1. INTRODUCTION

There is still a significant obstacle [1] to be overcome as nations work to reorganize their energy policies and increase their reliance on greener forms of energy. Wind

and solar power are inherently intermittent because of their variable availability [2]. An uncontrollable external variable, such as the amount of cloud cover, the amount of solar radiation, or the speed of the wind,



Mrs Maheswari D & Mr Ohm Shankar S, Assistant Professors, Department of Electronics and Communication Engineering have published a paper on **Sustainable Smart Energy Systems using Machine Learning and iot: Key Developments, Challenges, and Future Research Opportunities in the Context of Smart Grid Paradigm** in the issue of November 2022 of the Journal **NeuroQuantology**.

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FACULTY ACHIEVEMENT



Mr. Sabaresan. V, Assistant Professor, Department of Information Technology has completed the online course on **Introduction to IoT** offered by SkillUp on 9th November 2022.

STUDENT ACHIEVEMENT



Elite

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This certificate is awarded to
T JEEVA
for successfully completing the course

Basic Environmental Engineering and Pollution Abatement

with a consolidated score of **65** %

Online Assignments	17.19/25	Proctored Exam	47.87/75
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Total number of candidates certified in this course: **1250**

Prof. Sanjeev Manhas
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Jul-Oct 2022
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Prof. Priti Maheshwari
NPTEL Coordinator
IIT Roorkee

Indian Institute of Technology Roorkee

Roll No: NPTEL22CH45S44460832

To validate the certificate

No. of credits recommended: 3 or 4

T. Jeeva, final year student, Department of Chemical Engineering has completed NPTEL online certification course on **Basic Environmental Engineering and Pollution Abatement** during the academic year 2022-23.

STUDENT ACHIEVEMENT



Ramkumar. K. S & Mohamed Ruwaid. A, II year student, Department of Information Technology has completed the online course on **Introduction to IoT** offered by SkillUp on 10th & 14th November 2022 respectively.

STUDENT ACHIEVEMENT



Sanjay V, Sarfraj Ansari, Priyadharshini, II year students, Department of Computer Science and Engineering have completed the online course on **Python Seaborn** offered by Great Learning Academy in the month of October 2022.

STUDENT ACHIEVEMENT



V. Neha, II year student, Department of Computer Science and Engineering has completed the online course on **The AWS Course** offered by Tutorials Point on 28th September 2022.

STUDENT ACHIEVEMENT



Sarfraj Ansari, II year student, Department of Computer Science and Engineering has completed the online course on **NumPy Tutorial** offered by Great Learning Academy in the month of November 2022.

STUDENT PARTICIPATION



T. KASI RAJAN, III year student, Department of Mechatronics Engineering, Rotary Club Member has participated in **HUG RYLA** at S. A College of Arts and Science, Avadi on 29th October 2022.

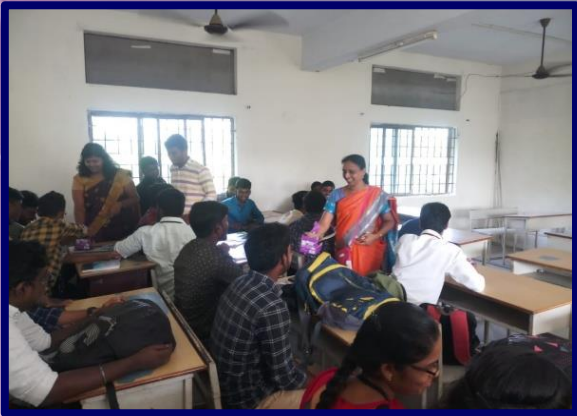
FACULTY & STUDENT ACHIEVEMENT



Dr. S. K. Narendranathan, Head, Department of Aerospace Engineering along with the Faculty members and students visited Dr. Alavandar Srinivasan, Principal after getting course certificate from NPTEL. The Principal appreciated the faculty members and the students for their achievements.

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CHILDREN'S DAY CELEBRATION



On the occasion of Children's Day Dr N V S Sree Rathna Lakshmi, Professor & Head and the faculty members, Department of Electronics and Communication Engineering distributed sweets to the students and wished them the best in their future endeavours.

PARENTS - TEACHERS MEET



Dr. Sharmila, Head, Department of Computer Science and Engineering, has conducted Parents Teachers Meeting for the third year students on 15th November 2022. Suitable measures and advice were given to improve the academics of the students.

PARENTS - TEACHERS MEET



Dr. T. Anand, Head, Department of Mechanical and Automation Engineering and Second year Class Advisor Dr. K. Ragupathy, Assistant Professor interacted with the parent of Mahdi Immamudeen, II year student on 15th November 2022 and provided valuable suggestions for enhancing academic performance and clear arrear papers.

STUDENT REPOSITORY



S. Karunamoorthy, II year student, Department of Computer Science and Engineering has portrayed a **Pencil Sketch** of **Lord Ganesh** on 14th November 2022.