Vidyavardhini's College of Engineering and Technology

K.T.Marg, Vasai Road |(west); Dist-Palghar;Pin-401202

Academic Year	2021-22
TITLE	Energy Conservation Week expert session on "Application of IoT and ML in Management of Energy Utilities" by Dr Hemant Wamburkar, Director, Innovative Digital Energy Applications & Solutions, Pune
Organizing Committee	Mechanical Engineering

Date:	14/12/2022	Time	10 am

Venue of the Event	Seminar hall
No of participating Students	63
No of participating faculty	2

Swapnil Mane
Faculty In-charge

HOD,

HEAD
Dept. of Mechanical Engg.
Vidyavardhini's College of
Engineering & Technology
Vasai Road-401202.

VIDYAVARDHINI'S COLLEGE OF ENGINEERING & TECHNOLOGY

Founder President Late Padmashri H. G. Vartak

(Approved by AICTE and Affiliated to the University of Mumbai)
Four Branches Permanently Affiliated by University of Mumbai

K. T. Marg, Vasai Road (W), Dist. Palghar - 401202, Maharashtra.
Tel.: 0250 - 2338234 (6 Lines) • Fax: 0250 - 2339486 • Email: vcet_inbox@vcet.edu.in
Website: www.vcet.edu.in

Report on Energy Conservation Day 2021

Program	Energy Conservation Day 2021
Date	14/12/2021
Mode	Online
Description	Every year, Department of Mechanical Engineering, Vidyavardhini`s College of Engineering and Technology (VCET), Vasai (west), organizes "Energy Conservation Week". The event is organised on the occasion of "World Energy Conservation Day" i.e 14th December to highlight the importance of energy consumption and its use in our day-today life. On this occasion, an Expert session on "Application of IOT and ML in Management of Energy Utilities" was scheduled at 10:30am to 11:45 am on 14th December 2021 through Online mode by Dr Hemant Wamburkar.
Organizing Committee	Coordinator: Mr Swapnil R Mane, Assistant Professor, Mechanical Engineering Chief Guest: Dr Hemant Wamburkar, Director, Innovative Digital Energy Applications & Solutions, Pune
Participation Details	63 participants from and across various colleges participated in this online session and certificates were provided for those who actively participated in the workshop
Total Number of Participants	**63**
Google Meet link Whatsapp link	https://meet.google.com/iid-oyyx-ihe https://chat.whatsapp.com/EJHFNybNVDiD8Pvxm6lEh9
Description of Event	**Topics Covered** Energy optimisation in smart manufacturing Automated Energy Meter Reading: -

| | Smart Alerting System for Proactive Response: -

Automated Reporting System for Routine Analysis: -

Analytical Tools for Diagnostics and Optimization:

Visibility for Improved Productivity: -

2) Use of IOT (AI and ML) for Energy Data. Going beyond EMS with Plant connect. The guest explained about how Internet of Things and concepts of AI and ML can help data managers acquire useful information with Energy Management system.

3)Digital Utilities
Using continuous data obtained from IoT and from Big Data provide inputs for optimizing energy, water and asset performance from energy signature of machines and systems at part loads (Continuous re-commissioning)

This uses the dynamic modelling of fluid (Liquids/Gases) systems from energy, and derive fluid and thermal energy flows and efficiencies

So data of parameters like Energy, Power, Electrical, Temp, Pressure, RH, vibration provide useful insights for altering the operating machines at part loads for maximizing their energy performance. |
| **Feedback** | Feedback and constructive comments were given by students and the events was successfully organized with certificates being presented to successful students. |

Mr Swapnil Mane

Co-ordinator, Startup Cell

Glimpses of the Event