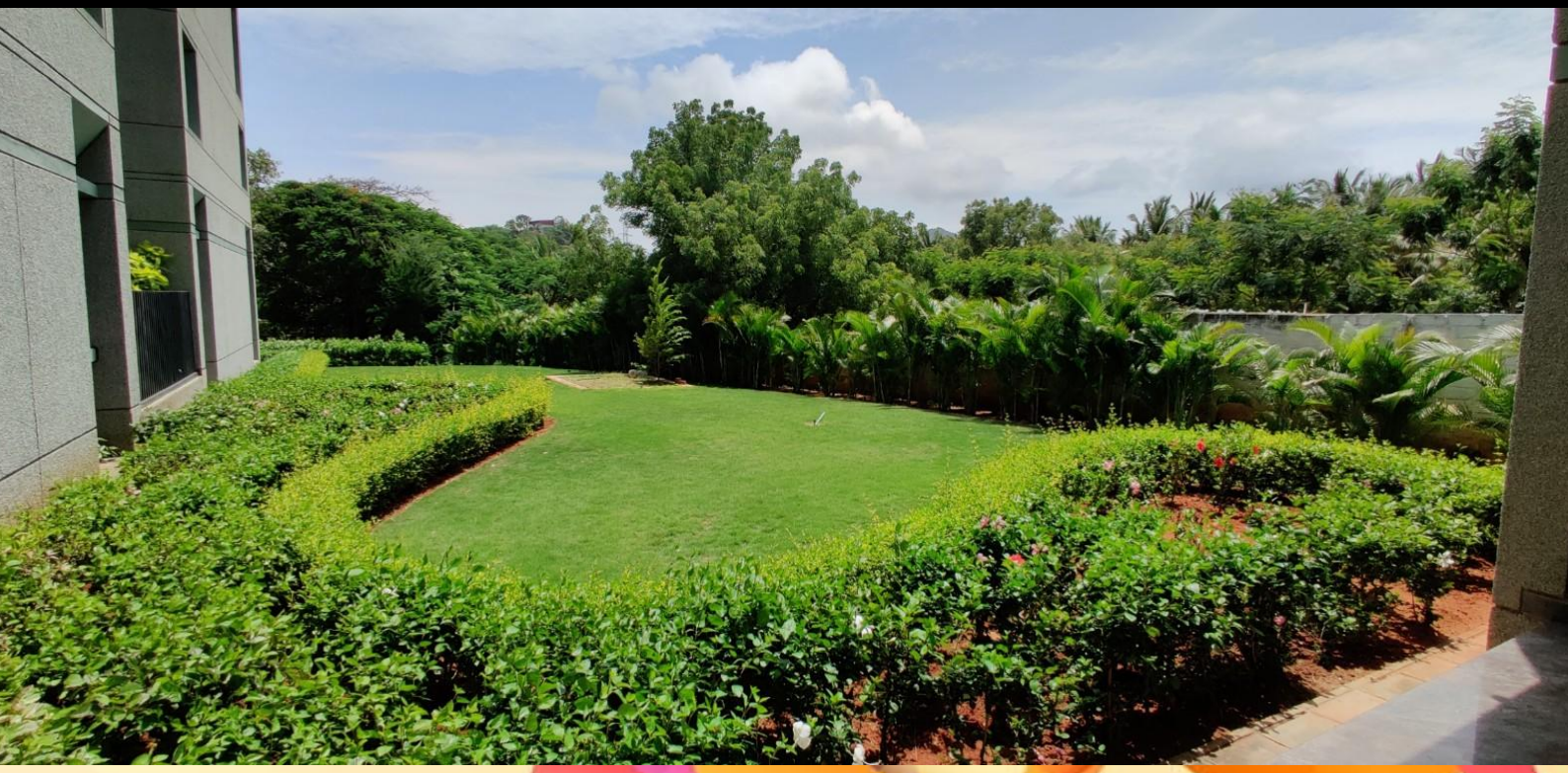
SKCET Buzz

25th - 31st MARCH 2023



INSIDE THIS ISSUE

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INSTITUTIONAL EVENTS

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SKCET | DHWANI 2023

Interdepartmental cultural extravaganza **DHWANI 2023** was witnessed on 30.03.2023 with great vibe at Sri Krishna Hall. It was a platform the students to exhibit their talents and skills with great zeal. The celebration was presided over by our Principal Madam **Dr. J. Janet.**

SKCET | DHWANI 2023

Mr & Ms DHWANI - ***An ethnic fashion ramp walk of the SKCETs most passionate fashion enthusiasts.***

Energetic and stylish young men and women with their ethnic apparels stole the show with new collections of unique attires that never goes out of vogue. Our beloved Principal Madam **Dr.J.Janet** along with the Judge of the show **Ms.Helinbegh Chelsia**,happily witnessed the grand event.

Fashion weaves our identity!!

SKCET | DHWANI 2023

DHWANI 2023 the multicultural mosaic was filled with soulful tunes and passionate performances and left the audience mesmerized.

SKCET | DHWANI 2023

The Chief Guest of the day **Mr.Sathya Prakash**, playback singer and Carnatic Vocalist was felicitated by our beloved **Principal Mam Dr.J.Janet**

SKCET | DHWANI 2023

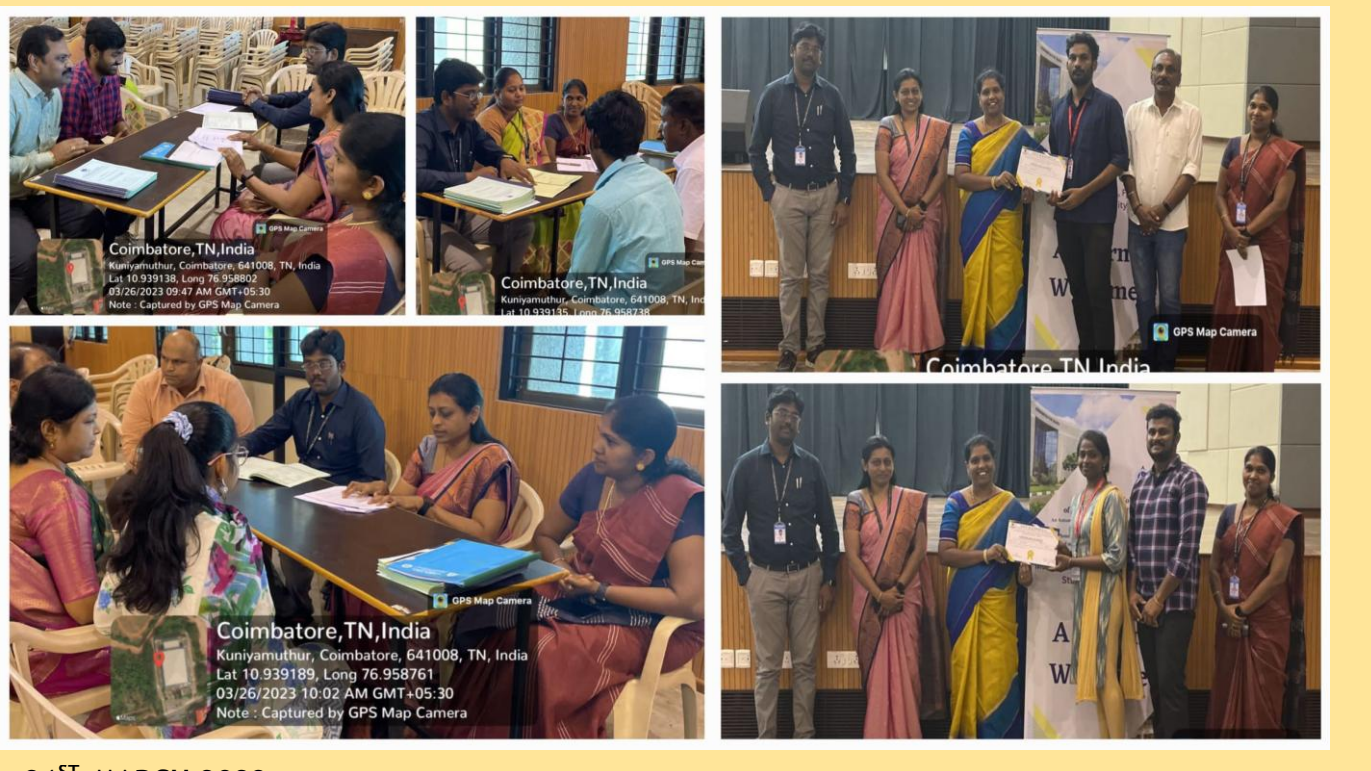
Principal Madam along with the Chief Guest felicitated all the prize winners who exhibited their talents and wished them success.

SKCET | DHWANI 2023

Live performance of music by **Mr.Sathya Prakash**, Playback Singer and Carnatic Vocalist created an immersive experience for the SKCET audience allowing them to connect with the music and performer in a unique and memorable way.

SKCET | ACADEMIC REVIEW MEETING

SKCET | ACADEMIC REVIEW MEETING



SKCET | ACADEMIC REVIEW MEETING

SKCET | ACADEMIC REVIEW MEETING

SKCET | ACADEMIC REVIEW MEETING

The Academic Review Meeting was conducted for the **Second** and **Third** year students to facilitate an interaction between the faculty and the parents and to assess the performance of their wards. Parents enthusiastically participated and interacted with the tutors and class handling faculty members to know their ward's performance and also provided valuable feedbacks for further improvement which would aid in enhancing the learning experience of the students. Student achievers were appreciated and merit certificates were awarded by our beloved Principal Madam **DrJ.Janet**. It served as an encouragement for the students to achieve more.

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HACKATHON ACCOLADES

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MCT | MAGNIMA STATUP ARENA

Second year student team from **MCT** and **CSE** has won the First Place in **UZHUVISAI** with a cash prize worth of Rs.15,000/- in MagnimaStartup Arena Pragyan'23 conducted at National Institute of Technology,Trichy.

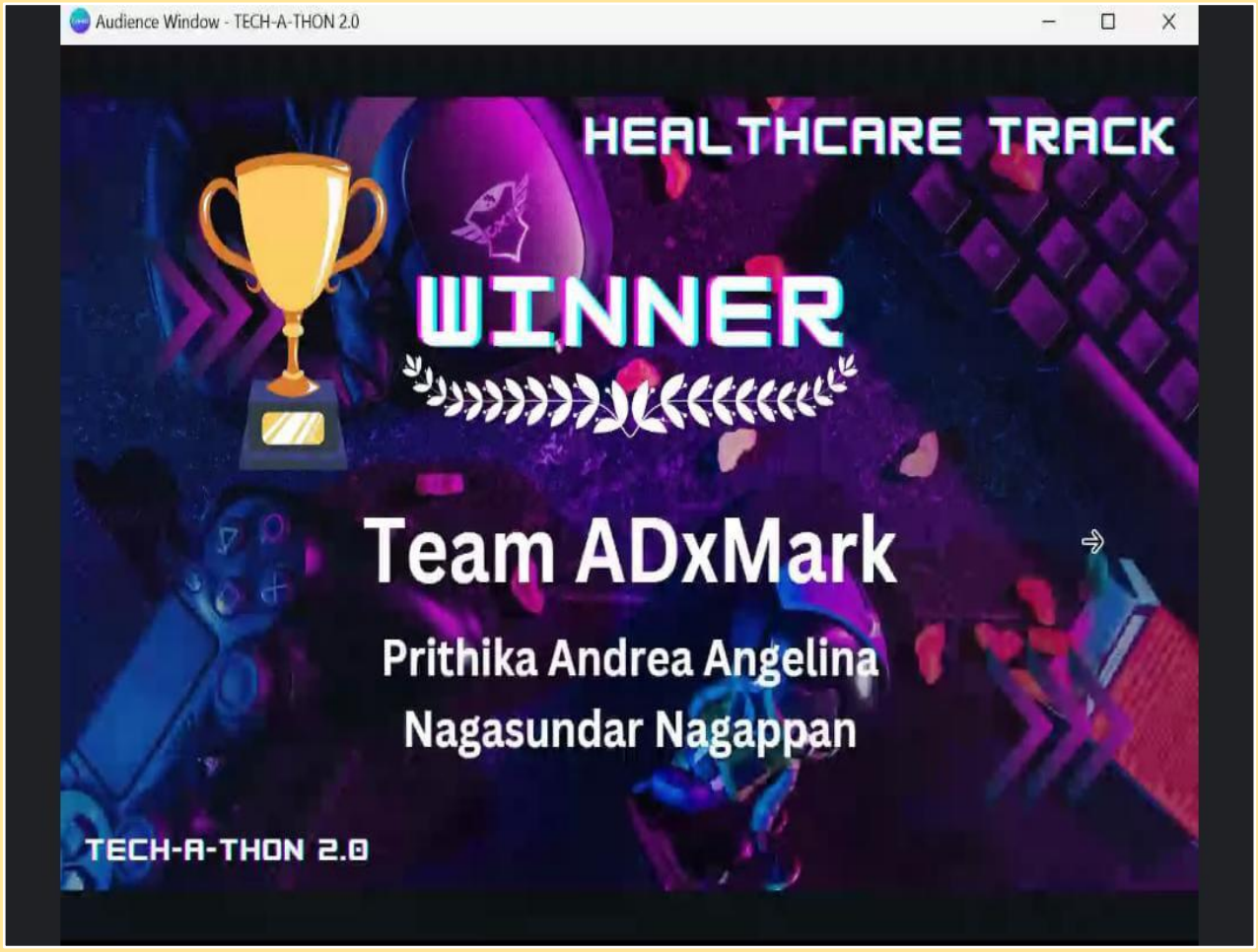
They were selected as one of the Top 6 finalist out of 236 teams in the final round. The team has also connected with Mr.Rithwin Siva , Founder and CEO of 'Building Vittae' for taking the startup to the next level and have been specially invited for an Entrepreneur-Cell Conference by NIT Trichy.

Team Members:

- Harini Sri G - II MCT A
- Amritbalaji K - II MCT A
- Chandru P - II MCT A
- Prathiba S - II CSE B

Mentors : Dr.D.Pritima, Prof / MCT & Dr.G.Veerappan, ASP / MCT

CSE | TECH-a-THON 2.0



SKCET- CSE TRIUMPHANT FEAT AT TECH-A-THON 2.0

Second year student team from the Department of **Computer Science and Engineering** contested against 250+ participants in the **TECH-a-THON 2.0** organized under UDAAN, the annual fest of **Institutions Innovation Council (IIC)** at Shaheed Rajguru College of Applied Sciences for Women, University of Delhi. The team secured **First Prize** under the category Healthcare and was awarded **740 dollars + Kind**. The team has also received an honorable mention amidst working professionals.

Team members:

1. Prithika Andrea Angelina F (II - CSE)
2. Nagasundar N (II - CSE)

CSBS | TAMIL NADU POLICE HACKATHON

Student team from the Department of CSBS repeatedly proclaims Innovation by enjoying the winning moment for the second time in the Tamil Nadu Police Hackathon 2023. The team has captured the Runner-Up position with the cash prize of **Rs.50,000**/- in the **TN Police Hackathon 2023** organised by Crime Wing, Chennai in association with St. Joseph's College of Engineering, OMR, Chennai. It was a 24 hour hackathon for the entire student crew of Tamil Nadu held on 28th & 29th of March 2023.

Team Members:

- Vishal Chinnasamy
- Sasidharan Ramachandran
- Rohith Kumar

Mentor:

Dr. S. Balakrishnan, Prof and Head, CSBS

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STUDENT PROGRESSION

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CSBS | IEEE YESIST 12

Students of the **Department of Computer Science and Business Systems** have given a tough compete in the **IEEE YESIST 12** (Youth Endeavors for Social Innovation using Sustainable Technology) (SS12) with over 120+ Abstracts and 400+ Participants across 25+ Colleges which was organized by iExplore Foundation, IEEE KPRIET Student Branch and KPRIET held on 25th March 2023 at KPR Institute of Engineering and Technology

They have tried diligently and climbed up to Top 20 teams for the finale that will held at Egypt in the month of September and was highly appreciated by Dr. M. Ramalatha (Director, iExplore Foundation) and Jury Panels.

Team members:

1. Vishal Chinnasamy C (ll - CSBS)
2. Sasidharan R (ll - CSBS)
3. Christina Mercy Mathew (II - CSBS)
4. Rathi Raguraman (II - M.Tech CSE)

CSBS | STUDENTS ACHIEVEMENT

SKCET-CSBS repeatedly proclaims Innovation by enjoying the winning moment for the second time in the Tamil Nadu Police Hackathon 2023.

The II year Students team from the **Department of Computer Science and Business Systems** has captured the Runner-Up position with the cash prize of **Rs.50,000**/- in the **TN Police Hackathon 2023** organised by CRIME WING, CHENNAI in association with St. Joseph's College of Engineering, OMR, Chennai. It was a 24 hour hackathon for the entire Student crew of Tamil Nadu held on **28th & 29th of March 2023.** Our Principal Madam **Dr.J.Janet** appreciated the winners.

Team Members:

- Vishal Chinnasamy
- Sasidharan Ramachandran
- Rohith Kumar

Mentor:

Dr. S. Balakrishnan, Prof and Head, CSBS

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STUDENT CERTIFICATIONS

MCT | GAME DEVELOPMENT


PSG COLLEGE OF TECHNOLOGY
STUDENTS UNION 2022-23

CERTIFICATE
OF PARTICIPATION

This is to certify that Mr/Ms KISHOR G from SRI KRISHNA COLLEGE OF ENGINEERING has participated in the workshop Game Development during KRIYA 2023 held on March 24, 25 & 26, 2023

R. Dharmendra — Mr R Dharmendra, Chairperson, Students Union
Dr K Natarajan, Dean - Student Affairs
Dr K Prakasan, Principal

G.Kishor, student of **Third** year MCT has actively participated in the workshop on **"Game Development"** during KRIYA 2023 held on March 24th to 26th , 2023.

MCT | AUTOMATED LAND TRILLER MACHINE


M.KUMARASAMY COLLEGE OF ENGINEERING

CERTIFICATE OF EXCELLENCE

International Conference on
Advances in Mechanical & Civil Engineering
(ICAMCE 2023)
17TH MARCH 2023
This certificate is proudly awarded that

ABHIJITH P R

of Sri Krishna College Of Engineering And Technology Coimbatore has participated and presented his / her paper entitled Automated Land Tiller Machine

in the INTERNATIONAL CONFERENCE ON ADVANCES IN MECHANICAL & CIVIL ENGINEERING (Hybrid Mode)
held at M.Kumarasamy College of Engineering, Karur, Tamilnadu, India, 639 113.

Mr.G.Balaji Coordinator / Civil · Dr.R.Kamalakannan Coordinator / Mech · Dr.V.Senthilkumar Convener / Civil · Dr.M.Mohan Prasad Convener / Mech · Dr.B.S.Murugan Principal


M.KUMARASAMY COLLEGE OF ENGINEERING

CERTIFICATE OF EXCELLENCE

International Conference on
Advances in Mechanical & Civil Engineering
(ICAMCE 2023)
17TH MARCH 2023
This certificate is proudly awarded that

KAVIN KUMAR R

of Sri Krishna College Of Engineering And Technology Coimbatore has participated and presented his / her paper entitled Automated Land Tiller Machine

in the INTERNATIONAL CONFERENCE ON ADVANCES IN MECHANICAL & CIVIL ENGINEERING (Hybrid Mode)
held at M.Kumarasamy College of Engineering, Karur, Tamilnadu, India, 639 113.

Mr.G.Balaji Coordinator / Civil · Dr.R.Kamalakannan Coordinator / Mech · Dr.V.Senthilkumar Convener / Civil · Dr.M.Mohan Prasad Convener / Mech · Dr.B.S.Murugan Principal

R.Kavin Kumar and **P R. Abhijith,** students of Final year MCT have presented a paper entitled **"Automated Land Triller Machine"** in the International Conference on Advances in Mechanical and Civil Engineering held at M.Kumarasamy College of Engineering, Karur on 17th March 2023.

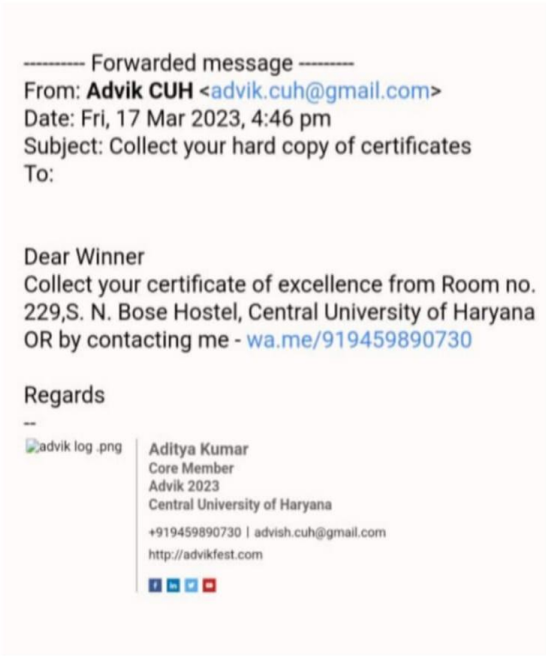
MCT | PAPER PRESENTATION

K. PremKumar, A. ShakkilAhamed and **L. Sudarsan** students of **Final** year MCT have presented a paper entitled **"Automated Fabric Analysis System using Machine Vision &IoT"** in the International Conference on Advances in Mechanical and Civil Engineering held at M.Kumarasamy College of Engineering, Karur on 17th March 2023.

MCT | PAPER PRESENTATION

K.V. Aravind, **K.S. Bharath Kumar** and **A. Kalaiarasan**, students of **Final** year MCT have presented a paper entitled **"Solar Panel Cleaning Robot"** in the International Conference on Advances in Mechanical and Civil Engineering held at M.Kumarasamy College of Engineering, Karur on 17th March 2023.

M.TECH CSE | TECHNICAL FEST - ADVIK



---------- Forwarded message ---------
From: **Advik CUH** <advik.cuh@gmail.com>
Date: Fri, 17 Mar 2023, 4:46 pm
Subject: Collect your hard copy of certificates
To:

Dear Winner
Collect your certificate of excellence from Room no. 229,S. N. Bose Hostel, Central University of Haryana
OR by contacting me - wa.me/919459890730

Regards
--
advik log .png
Aditya Kumar
Core Member
Advik 2023
Central University of Haryana
+919459890730 | advish.cuh@gmail.com
http://advikfest.com

N Praveen, M Ragavi and **Mohammed Rizad M,** students of **Second** year **M.Tech CSE** has won **Third** prize in Hackathon at Technical fest - **ADVIK** conducted by the Central University of Haryana on 27th February, 2023.

M.TECH CSE | KRIYA - 2023

K KavinKishore, S Surya and Priyadharshini, students of **Second** year **M.Tech CSE** have won **1st Prize** in **Try and Triumph** part of Kriya -2023 under the event category - Kriyative at PSG College of Technology, Coimbatore on 25th March 2023.

IT | CELESTRA 2K23

Anbarasu A N, student of **Second** year **IT** has participated in the National Level Symposium CELESTRA 2K23 conducted by the Department of IT, Coimbatore Institute of Technology(CIT) on 17th March 2023.

CSBS | IEEE CERTIFICATION

Dhasagreevan.C student of **Second** year **CSBS,** has attended the IEEE MAS HUB COGRESS 2023 – Coimbatore organized by IEEE Madras Section on 18th March 2023.

MCT | WORKSHOP


NATIONAL INSTITUTE OF TECHNOLOGY
TIRUCHIRAPPALLI

CERTIFICATE OF PARTICIPATION

This is to certify that

VIJAYA SARATHI

of SRI KRISHNA COLLEGE OF ENGINEERING AND TECHNOLOGY
has participated in the workshop on "Current Trends in Energy Storage & Electric Vehicle Technologies" organised by the Department of Energy & Environment(DEE), NIT Tiruchirappalli from Feb 06th-10th, 2023

Dr. Premalatha M, PROFESSOR, DEE | Dr. Ruben Sudhakar, HOD, DEE | Dr. D V. Siva Krishna Rao K, ASST. PROFESSOR, DEE | Dr. Aditya Kumar, ASST. PROFESSOR, DEE


NATIONAL INSTITUTE OF TECHNOLOGY
TIRUCHIRAPPALLI

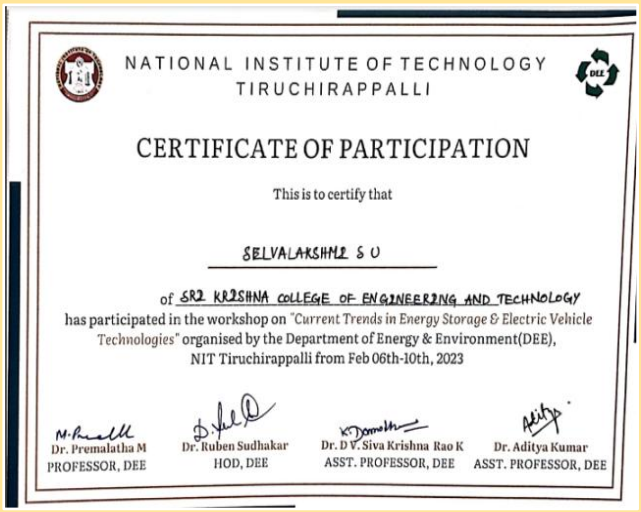
CERTIFICATE OF PARTICIPATION

This is to certify that

THREE VISHNU A G

of SRI KRISHNA COLLEGE OF ENGINEERING AND TECHNOLOGY
has participated in the workshop on "Current Trends in Energy Storage & Electric Vehicle Technologies" organised by the Department of Energy & Environment(DEE), NIT Tiruchirappalli from Feb 06th-10th, 2023

Dr. Premalatha M, PROFESSOR, DEE | Dr. Ruben Sudhakar, HOD, DEE | Dr. D V. Siva Krishna Rao K, ASST. PROFESSOR, DEE | Dr. Aditya Kumar, ASST. PROFESSOR, DEE


NATIONAL INSTITUTE OF TECHNOLOGY
TIRUCHIRAPPALLI

CERTIFICATE OF PARTICIPATION

This is to certify that

SELVALAKSHMI S U

of SRI KRISHNA COLLEGE OF ENGINEERING AND TECHNOLOGY
has participated in the workshop on "Current Trends in Energy Storage & Electric Vehicle Technologies" organised by the Department of Energy & Environment(DEE), NIT Tiruchirappalli from Feb 06th-10th, 2023

Dr. Premalatha M, PROFESSOR, DEE | Dr. Ruben Sudhakar, HOD, DEE | Dr. D V. Siva Krishna Rao K, ASST. PROFESSOR, DEE | Dr. Aditya Kumar, ASST. PROFESSOR, DEE


NATIONAL INSTITUTE OF TECHNOLOGY
TIRUCHIRAPPALLI

CERTIFICATE OF PARTICIPATION

This is to certify that

S.M. YAZHINI

of Sri Krishna College of Engineering and Technology
has participated in the workshop on "Current Trends in Energy Storage & Electric Vehicle Technologies" organised by the Department of Energy & Environment(DEE), NIT Tiruchirappalli from Feb 06th-10th, 2023

Dr. Premalatha M, PROFESSOR, DEE | Dr. Ruben Sudhakar, HOD, DEE | Dr. D V. Siva Krishna Rao K, ASST. PROFESSOR, DEE | Dr. Aditya Kumar, ASST. PROFESSOR, DEE

Mr.Vijaya Sarathi, Mr.A.G.Sri Vishnu, Ms.S.U.Selva Lakshmi, Ms.S.M.Yazhini, Students of II year MCT have actively participated in the workshop on **"Current Trends in Energy Storage and Electric Vehicle Technologies"** organized by the Department of Energy and Environment (DEE), NIT Trichy from Feb 6th to 10th , 2023.

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EVENTS

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SOM | OUT BOND TRAINING PROGRAM

Students of **First** year **MBA** have participated in the **Out Bond Training Program** conducted at Niligiri Bioshphere, Anakatti. Students had a complete field exposure on the aspects of Leadership and Team Building.

EEE | PROJECT BASED LEARNING

To exhort creative problem solving, drive innovation and build brand awareness, the Department of **EEE** conducted **Second Project Review** for the **Final** year **EEE** students. Proposed work and Hardware Demonstration done by the students and the same was reviewed by the faculty in-charge.

CSE | PROJECT REVIEW

Final year Project Review was conducted for the Department of **Computer Science and Engineering** students on 27th March 2023. The panel members reviewed the progress of the student projects and provided their valuable comments and recommendations to enhance the project.

CSBS, AI & DS & M.Tech CSE | RALLY

"STOP WITH THE LOOKS - BASED SEXUAL HARASSEMENT"

This rally is an event where women came together to raise awareness and promote gender equality, women's rights, and social justice. It aimed to inspire, motivate, and empower women to take an active role in society and fight for their rights. The objective of this rally is to create a safe space where women can come together to discuss their challenges, share their experiences, and network with other women.

A Women is the full circle,. Within her is the Power to create, nurture and transform!!

AI&DS | HACKATHON-PSY-CHORE - DAY 1

Department of **Artificial Intelligence and Data Science** in association with **Wenzhou Kean University**, China organized Two day hackathon Psy-Chore on 28.03.2023 & 29.03.2023.

Students from various colleges actively participated and presented their innovative ideas to provide solutions to help people with neuro disorders.

Evaluation Jury members

Mr.Manivannan, CEO, Ampyo Technologies Pvt Ltd,Coimbatore.

Dr.K.Sujatha, Professor, CS, Wenzhou Kean University, China

Dr.T.Sujatha, Associate Professor, AI&DS

AI&DS | HACKATHON-PSY-CHORE - DAY 2

Participants exhibited their innovative solution for Neuro disorders and got appreciation from jury members. The winners are awarded with exciting cash prizes.

First Prize

College: KGISL Institue of Technology, **Team Name:** Tech Amigos

Members: M.Kalaivani,II year, J.P. Nithish, II year

Second Prize

College: AI & DS, SKCET, **Team Name**: Connectors

Members : Suriya P, II year, Atchaya S, II year, Vishnu LRK, III year, Hari Hara Chandar B, III year

Best Pitch:

College: CSBS, SKCET, **Team Name**: DARQ-X, **Members:** TamilAnbu R, II year, Lionel Roshan P, II year, Rayhaan R, II year, Suhail A, II year

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PLACEMENT AND TRAINING

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EEE | TESTIMONIAL BY PLACED STUDENTS

Studying at SKCET was a wonderful experience, one that will live in the memory forever. I had the chance to get to know the remarkable and vibrant faculty members who are passionate, amiable, patient, and highly competent. I have been able to excel in all areas of life thanks to their direction and close supervision. Without the assistance of the Placement & Training cell, I wouldn't have been employed by a reputable company. I've changed into a new person. For this fantastic opportunity, I am grateful to my Parents, the SKCET administration, the principal, and the entire SKCET community.

Anuvarshini K M
EEE (2023 Batch)
Kaar Technologies - 6.5LPA

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RESEARCH AND DEVELOPMENT

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R&D | UK DESIGN PATENT GRANT | SKCET

Intellectual Property Office

Certificate of Registration for a UK Design

Design number: 6268378

Grant date: 22 March 2023

Registration date: 15 March 2023

This is to certify that,

in pursuance of and subject to the provision of Registered Designs Act 1949, the design of which a representation or specimen is attached, had been registered as of the date of registration shown above in the name of

Dr.S. Balakrishnan, Dr.J. Janet, Dr.S.Venkata Lakshmi, Dr.P. Kavitha Rani,

Dr.K.C. Ramya, Dr G. Vijaya, Dr.S. Vinodhkumar, Mr. ETB Samuel Jigme

Harrison

in respect of the application of such design to:

IoT Based Agricultural Drone for Pesticide Spray

International Design Classification:
Version: 14-2023
Class: 12 MEANS OF TRANSPORT OR HOISTING
Subclass: 07 AIRCRAFT AND SPACE VEHICLES

Adam Williams
Comptroller-General of Patents, Designs and Trade Marks
Intellectual Property Office
The attention of the Proprietor(s) is drawn to the important notes overleaf.

Intellectual Property Office is an operating name of the Patent Office www.gov.uk/ipo

SKCET: INNOVATIVE ENGINEERING SOLUTION - UK PATENT GRANT

Dr.J.Janet, Principal SKCET, **Dr.S.Balakrishnan**, HoD CSBS, **Dr.S.Venkata Lakshmi**, HoD - AI&DS, **Dr.P.Kavitha Rani**, HoD - M.Tech CSE **Dr.K.C.Ramya**,HoD- EEE and **Dr.G.Vijaya**, Professor, CSE has received a UK design patent grant with a Certificate of Registration by the Patent Office for the patent titled "**An IOT Based Agriculture Drone for Pesticide Spray**" with the design Number 6268378.

R&D | JOURNAL PUBLICATION | EEE

Semiconductor Optoelectronics, Vol. 41 No. 12 (2022), 1277-1287
https://bdtgd.cn/

Semiconductor Optoelectronics ISSN: 1001-5868

PERFORMANCE EVALUATION OF PV INTEGRATED GRID SYSTEM USING SEVEN-LEVEL GRID-CONNECTED PACKED U CELL INVERTER

B.Stalin[1], D.Buvana [2], B.Hemananth[3], K.C.Ramya[4], T.Ilakkia[5]and M.Vetrivel[6]
[1]Professor, Dr. M.G.R. Polytechnic College, Arani, Tiruvannamalai, Tamilnadu, India.
[2]Professor, Adhiparasakthi Engineering College, Melmaruvathur,Tamilnadu, India.
[3]Assistant Professor, Sri Eshwar College of Engineering, Coimbatore, Tamil Nadu, India.
[4]Professor, Sri Krishna College of Engineering and Technology, Coimbatore, Tamil Nadu, India.
[5]Assistant Professor, Sona College of Technology, Salem, Tamilnadu, India.
[6]Assistant Professor, Narasu's Sarathy Institute of Technology, Salem, Tamil Nadu, India

Abstract
This article presents and analyses the standalone operation of a Packed U Cell(PUC) inverter in a grid-connected PV system. In this system, seven level inverter ifs formulated using six switches and two DC sources. The INC MPPT topology is utilized in this topology to boost the efficiency of the PV system and is integrated with a SEPIC converter. To demonstrate its effectiveness, simulations were carried out using the MATLAB/Simulink platform. From the results, it can be concluded that the proposed PUC7 inverter injects an active with unit power factor at the grid.

Introduction
The use of fossil fuels as a source for electrical energy production has resulted in increased fuel costs and carbon dioxide emissions. On the other hand, Renewable Energy Sources (RES) like PV, wind etc., plays a significant role in electricity generation. Solar PV cell power generation is characterised by low operating costs, clean energy and less maintenance. Apart from this, PV based energy systems are a possible solution to the growing environmental concerns [1]. Due to its ease of installation and operation, PV arrays are used widely in off-grid applications [2]. So researchers from all over the world are currently concentrating on improving the three following aspects of a solar system:
(1) System Efficiency;
(2) Installation Costs and
(3) Reliability.
For integrating PV system with grid, Multilevel inverters are utilised to provide high power form a medium voltage source. They are becoming more popular due to their benefits over traditional inverters. Different voltage levels are synthesised to produce multilevel output [3]. Despite not having a pure sinusoidal output voltage, they have a significantly lower total harmonic distortion (THD) than the two-level topology, which mitigates power quality problems [4].The multilevel inverter can reduce the level of Harmonics at the point of common coupling in accordance with IEEE standard (519-2014). The harmonics limit is fixed at 5% for

Dr.K.C.Ramya, HoD, **EEE** Department has published a paper entitled "**Performance Evaluation of PV Integrated Grid System Using Seven-Level Grid-Connected Packed U Cell Inverter"** in Semiconductor Optoelectronics Impact Factor: 0.58. It is indexed in Scopus

Dr.J.Karthika, Professor, EEE Department has published a paper entitled on "**A hybrid solar-battery power source with nano - grid smart home with plug-in electric vehicle"** in AIP Conference Proceedings 2690, 020039 (2023) https://doi.org/10.1063/5.0119613.

A Hybrid Solar-Battery Power Source with Nano - Grid Smart Home with Plug-In Electric Vehicle

E. Fantin Irudaya Raj[1,a)], J. Karthika[2,b)], N. Keerthi Kumar[3,c)], Bikash Chandra Saha[4,d)], S. Hemavathi[5,e)], T. Vijay Muni[6,f)]

[1]Department of Electrical & Electronics Engineering, Dr. Sivanthi Aditanar College of Engineering, Tiruchendur - 628215, Tamilnadu, India
[2]Department of Electrical & Electronics Engineering, Sri Krishna College of Engineering and Technology, Coimbatore -641008, Tamil Nadu, India
[3]Department of Mechanical Engineering, BMS Institute of Technology and Management, Yelahanka, Bangalore-560064, Karnataka, India
[4]Department of Electrical & Electronics Engineering, Cambridge Institute of Technology, Ranchi Jharkhand 835103, India
[5]Battery Division, Central Electrochemical Research Institute and Academy of Scientific and Innovative Research, CSIR Madras Complex, Chennai - 600113, Tamil Nadu, India
[6]Department of Electrical & Electronics Engineering, Koneru Lakshmaiah Education Foundation, Vaddeswaram, Guntur 522502, Andhra Pradesh, India

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[b)]karthika@skcet.ac.in
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Abstract. The hybrid power supply of solar batteries is essential for the plug-in, green and smart construction of electric cars (PEV). This paper provides a framework for optimization for green power testing and PEV nutrients, balanced home batteries, and photovoltaic arrays (PVAt the same time as fulfilling domestic power and PEV demand, we are seeking to extend the domestic financing structure. The formulation of convex (CP) programming is achieved easily, based on clever domestic nano grid and computer structure. The different battery energy storage dence (BESS) parameters are designed and chosen precisely. With the unequivocal optimism period viewpoint, the home BESS and electrical value criteria, such as the home BESS frequency, firm and effect style of PEVs, are routinely discussed. At some point in the height time of the electricity charge that depends on the Convex programming control law in (h2V) mode and (v2H) mode BESS no longer supplied electricity from the electric power grid.

Keywords: Solar PV Array, BESS, Smart Home Energy Management system

INTRODUCTION

The accelerated production of green and hybrid vehicles [1, 2] is taking place due to the ongoing ecological crisis and electricity demand. Electric cars are, in any event, continuously discontinuous and unreliable charging activities, including certain renewable power sources, such as Solar and Wind. It is necessary for introducing and finding the smart grid [3,4] that EVs and large-scale distributed generation (DG) units be accommodated and unstinting to ensure an optimal usage of electricity [5].

IEET International Conference on Applied Science & Engineering (CASE 2022)
AIP Conf. Proc. 2690, 020039-1-020039-5; https://doi.org/10.1063/5.0119613
Published by AIP Publishing. 978-0-7354-4334-1/$30.00

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FACULTY CERTIFICATIONS

CIVIL | NITTT COURSE COMPLETION

No: 03/2023/1/M5/63122

अखिल भारतीय तकनीकी शिक्षा परिषद्

प्रमाणपत्र

प्रमाणित किया जाता है कि

हेमवती र

एनआईटीटीटी पंजीयन क्रमांक :20201111593

ने

राष्ट्रीय तकनीकी शिक्षक प्रशिक्षण पहल

के अंतर्गत

मॉड्यूल 5 : प्रौद्योगिकी समर्थित अधिगम और आजीवन स्वाधिगम

को सफलता पूर्वक पूर्ण किया।

All India Council for Technical Education (AICTE)

Certificate

This is to certify that

HEMAVATHI R

NITTT Registration No: 20201111593

has successfully completed

Module 5 : Technology Enabled Learning and Life-Long Self Learning

of

National Initiative for Technical Teachers Training

Director NITTTR, Bhopal | Director NITTTR, Chandigarh | Member Secretary AICTE | Director NITTTR, Chennai | Director NITTTR, Kolkata

FEBRUARY 2023

No: 03/2023/1/M3/58696

अखिल भारतीय तकनीकी शिक्षा परिषद्

प्रमाणपत्र

प्रमाणित किया जाता है कि

विग्नेश आर

एनआईटीटीटी पंजीयन क्रमांक :20212116851

ने

राष्ट्रीय तकनीकी शिक्षक प्रशिक्षण पहल

के अंतर्गत

मॉड्यूल 3 : संचार कौशल, मोड और ज्ञान प्रसार

को सफलता पूर्वक पूर्ण किया।

All India Council for Technical Education (AICTE)

Certificate

This is to certify that

VIGHNESH R

NITTT Registration No: 20212116851

has successfully completed

Module 3 : Communication Skills, Modes and Knowledge Dissemination

of

National Initiative for Technical Teachers Training

Director NITTTR, Bhopal | Director NITTTR, Chandigarh | Member Secretary AICTE | Director NITTTR, Chennai | Director NITTTR, Kolkata

FEBRUARY 2023

The following Civil Engineering faculty members have completed NITTT courses.

S. No	Name of the faculty	Name of the course
1	Mr. R. Vighnesh	M3: Communication skills, modes and knowledge dissemination
2	Ms. R. Hemavathi	M5: Technology Enabled Learning and Life Long Self Learning

CIVIL | SEMINAR ON VALUE ENGINEERING & DESIGN THINKING

Dr. M. R. Ezhilkumar, Assistant Professor, **Civil Engineering Department**, participated in **"Value Engineering and Design Thinking for product and process"** conducted by Vidya Jyothi Institute of Technology, Hyderabad under AICTE-DCP Scheme.

SOM | FDP ON INVESTOR AWARENESS

Dr. R. SuyamPraba, Associate Professor**, SOM** has actively participated and completed One Day National Level online Faculty Development Program on **Investor Awareness** conducted by Department of Management Sciences, Hindusthan Institute of Technology, Coimbatore in association with Knowise Learning Academy, Bengaluru on 16th March 2023.

EEE | FDP ON RESEARCH CHALLENGES AND ISSUES ON ANTENNAS

Ms.G.Mahalakshmi, Assistant Professor, EEE Department has participated in Six Days Faculty Development Program on "**Research Challenges and Issues on Antennas"** organized by IEEE Antennas & Propagation society, in association with Sathyabama Institute of Science and Technology, Chennai.


IEEE Antennas and Propagation Society (Madras Section)
(In Association with)
SATHYABAMA
INSTITUTE OF SCIENCE AND TECHNOLOGY
(DEEMED TO BE UNIVERSITY)
www.sathyabama.ac.in
CERTIFICATE OF PARTICIPATION
This is to certify that
Mr/Ms G MAHALAKSHMI of
Sri Krishna College of Engineering and Technology
has actively participated in the six days Faculty Development Program on "RESEARCH CHALLENGES AND ISSUES ON ANTENNAS" from 27/02/2023 to 04/03/2023 organized by IEEE Antennas & Propagation society (Madras Section) in association with Sathyabama Institute of Science and Technology, Chennai.
Dr.R.NARMADHA (FDP Organizer)
Dr.T.RAVI HOD,Department of ECE
Dr.N.M.NANDHITHA Dean,School of EE
Dr.T.SHANMUGANANTHAM Chairman,IEEE APS(Madars section)

IT | INFOSYS CERTIFICATION

Dr. S. Durga, Associate Professor, IT has successfully completed a course on **"IoT Platforms Overview"** on March 27th, 2023 and **"IoT Edge Computing and IoT Analytics"** on March 28th, 2023 certified by Infosys springboard.


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COURSE COMPLETION CERTIFICATE
The certificate is awarded to
Dr. Durga S
for successfully completing the course
IoT Platforms Overview
on Monday, March 27th 2023
Infosys | Springboard
Congratulations! You make us proud!
Thirumala Arohi
Senior Vice President and Head
Education, Training and Assessment (ETA)
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The certificate is awarded to
Dr. Durga S
for successfully completing the course
IoT Edge Computing and IoT Analytics
on Tuesday, March 28th 2023
Infosys | Springboard
Congratulations! You make us proud!
Thirumala Arohi
Senior Vice President and Head
Education, Training and Assessment (ETA)
Infosys Limited

IT | FDP ON ML USING PYTHON

Dr.S.Deepa Kanmani, Associate Professor, **IT** has participated in the five days FDP on "**Machine Learning Using Python"** from 13.03.2023 to 17.03.2023 conducted by the Department of Computer Applications, Hindusthan College of Engineering and Technology, Coimbatore.

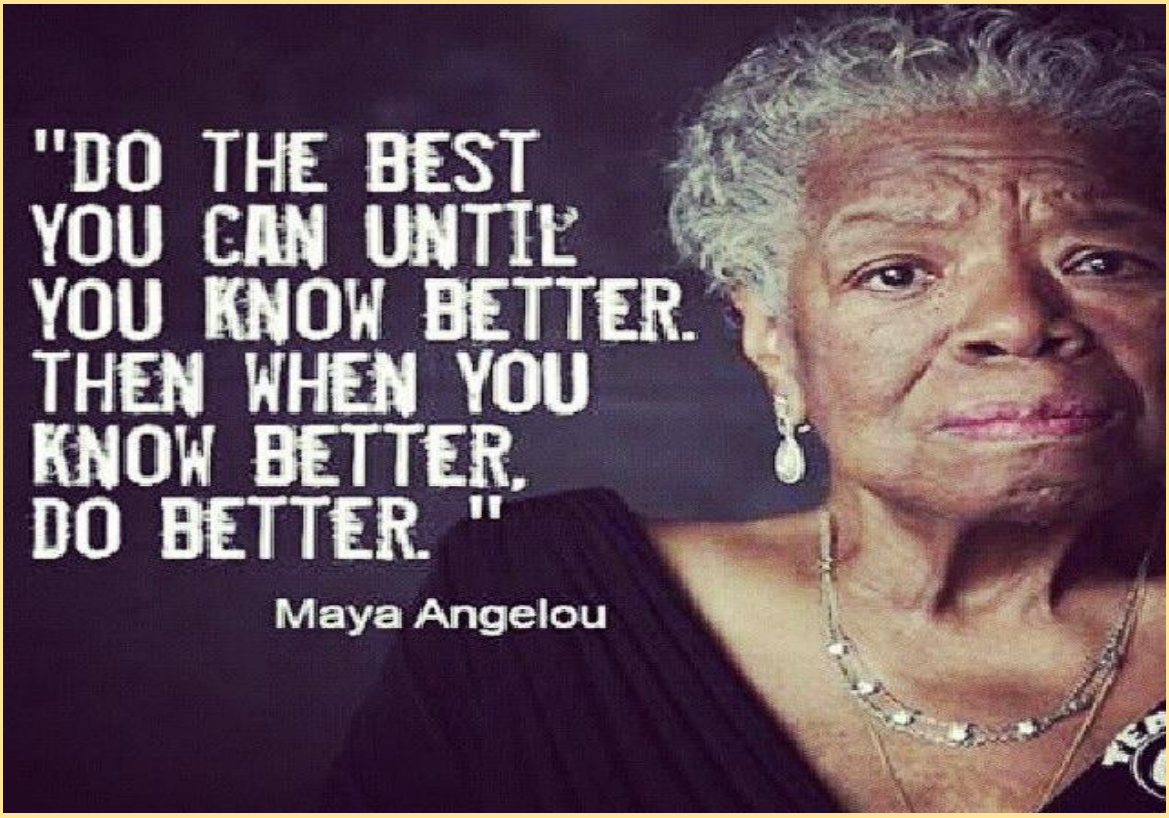
AI&DS | ATAL FACULTY DEVELOPMENT PROGRAMME

Mr.SenthilKumar, Assistant Professor of AI&DS has participated and completed AICTE training and Learning(ATAL) Academy Blended Hybrid FDP on" **Recent Advances and challenges in Artificial Intelligence, Machine Learning & Blockchain Technology**" from 04.03.2023 to 10.03.2023 at Amrita Vishwa Vidyapeetham, Coimbatore campus

AI&DS | FDP ON ML USING PYTHON

Mr.G.S.Pugalendhi, Assistant Professor of AI&DS has participated five days faculty development programme on" **Machine Learning using Python**" from 13.03.23 to 17.03.2023

LEGENDARY INSIGHTS



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CIVIL | CONFERENCE PRESENTATION

Proceedings of the International Conference on Sustainable Computing and Data Communication Systems (ICSCDS-2023)
DVD Part Number: CFP23AZ5-DVD; ISBN: 978-1-6654-5579-4

Chimp Optimization Algorithm with Fuzzy Cognitive Map for Vibration-based Damage Detection

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[4]Dr. P. Saravanakumar
[4]Associate Professor, Civil Engineering Department, Sri Krishna College of Engineering and Technology, Coimbatore, Tamilnadu, India, psaravana2000@gmail.com

[5]Dr A Ravitheja
[5]Assistant Professor, Department of Civil Engineering, SVR Engineering College, Ayyalur, Nandyal, Kurnool, Andhra Pradesh, India, dr_ravitheja@yahoo.com

[6]Nishant Anantrao Upadhye
[6]Lecturer, Department of Civil Engineering, Bharati Vidyapeeth's Jawaharlal Nehru Institute of Technology Pune, Maharashtra, India, nishantupadhye@gmail.com

Abstract— In the past, Structural health monitoring (SHM) and vibration-oriented structural damage detection gain the great attention of mechanical, aerospace, and civil engineers. Initial and meticulous damage recognition has been one main aim of SHM applications. One key difficulty for structural damage detection utilizing observing dataset was to gain features that are delicate to damage but insensitive to noise (for example sensor measurement noise) along with the operational and environmental effects (for instance temperature effect). The performance of traditional damage detection techniques mainly relies upon the choice of the classifier and the features. Therefore, this study develops a Chimp Optimization Algorithm with Fuzzy Cognitive Map for Vibration-based Damage Detection (COAFCM-VDD) technique. The presented COAFCM-VDD technique determines cross-correlation functions of vibration data as fundamental features as input. The proposed COAFCM-VDD technique intends to derive damage features from the field measurement under the impact of noisy uncertainty. For detecting the damages, the FCM model is exploited in this work. At last, the performance of the FCM model can be improvised by the COA. The experimental result analysis of the COAFCM-VDD technique is tested using vibration dataset and the obtained outcomes signify the improved performance of the COAFCM-VDD technique.

Keywords— Damage detection; Vibration signals; Fuzzy cognitive maps; Chimp optimization algorithm; Civil works

I. INTRODUCTION

Due to human-induced, environmental and operational factors, civil infrastructure has been always vulnerable to different types of damage namely degradation, deterioration, fatigue, shrinkage, creep, corrosion, and so on [1]. With their comparatively huge size, damage assessment of engineering structures has been proved to be expensive and laborious. However, the engineering structure needs to be regularly inspected to improve the lifecycle performance, remain operational, protect human lives and avoid catastrophic failures [2]. Once damaged, the geometric and material features of a structural element change, which affect stability and stiffness of the infrastructure. Traditional damage assessment method depends on periodic visual examination of structure is not effective, particularly for composite structure as they need easier access to the monitored structural member and well-trained labor [3]. Quantifying, Detecting and locating structural damage in engineering structures remains a continuing problem for engineers and researchers. As a result, some research studies have been held to develop automatic global and local structural health monitoring (SHM) methodologies [4].

Global (viz., vibration-related) damage detection system is exploited to measure the overall effectiveness of observed structures by transforming the vibration responses into relevant indices reflecting actual condition of the structures [5]. The final objective of vibration-related method is to find location, presence, and severity of destructed area by processing signals assessed by the network of accelerometers. In parametric method, system detection algorithm is exploited to define the modal variables like mode shapes and natural frequencies from the measured response [6]. Deviations in this parameter regarding the parameter recognized for the undestructed cases are used to find structural impairment. At the same time, nonparametric approach employs statistical means to directly find the impairment from the assessed signals [7].

Current advancement in communication and sensor technologies (wired and wireless, contact and contactless, etc.) has made opportunity for attainment of observables at an unprecedented amount and rate [8]. Additionally, advancements in other supporting software and hardware were used in different forms. Deep Learning (DL) can be regarded as a subbranch of machine learning (ML), and its applications in handling great deal of information were scientifically proven

978-1-6654-9199-0/23/$31.00 ©2023 IEEE 1062

Dr.P.Saravanakumar, Associate Professor, Department of **Civil Engineering**, has presented a research article titled **"Chimp optimization algorithm with Fuzzy cognitive map for vibration-based damage detection"** in the 2nd International Conference on Sustainable Computing and Data Communication Systems (ICSCDS 23) organised by Shree Venkateswara Hi-Tech Engineering College on 23rd to 25th March 2023.

EEE | CONFERENCE PRESENTATION

Dr.S.Sivaranjani, Professor**, EEE Department** has presented research paper entitled **"Efficient Object Detection on Sparse-to-Dense Depth Prediction"** in the International Conference on Advanced Computing & Communication Systems-ICACCS 2023 at Sri Eshwar College of Engineering, Coimbatore.

ICACCS 2023
Sri Eshwar College of Engineering
An Autonomous Institution
Coimbatore, India
2023 International Conference on Advanced Computing & Communication Systems
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Certificate of Presentation

Certify that
S. Sivaranjani
Sri Krishna College of Engineering and Technology, Coimbatore, India.
has presented a paper in the International Conference on
Advanced Computing & Communication Systems - ICACCS 2023
on 17th & 18th March 2023 at Sri Eshwar College of Engineering,
Coimbatore, TamilNadu, India.

Paper Title :
Efficient Object Detection on Sparse-to-Dense Depth Prediction

Dr. H. Anandakumar
Conference Chair
Dr. R. Subha
Convener
Dr. Sudha Mohanram
Patron

EEE | CONFERENCE PRESENTATION

Ms.T.Malini, Assistant Professor, **EEE** Department has presented research paper entitled **"IoT Based Smart Poultry Farm Monitoring"** in the International Conference on Advanced Computing & Communication Systems-ICACCS 2023 at Sri Eshwar College of Engineering, Coimbatore.

MCT | CONFERENCE PRESENTATION

Mr.S.Panneerselvam, Assistant Professor of **MCT** has presented a paper entitled **"Automated Land Triller Machine"** in the International Conference on Advances in Mechanical and Civil Engineering (Hybrid Mode) held at M.Kumarasamy College of Engineering, Karur on 17th March 2023.

CSE | CONFERENCE PRESENTATION

CERTIFICATE OF PRESENTATION

This is to certify that

R Dhanalakshmi, L Kavisankar, Balasubramani S, K Ramesh

School of Computer Science and Engineering, Vellore Institute of Technology (VIT), Chennai,
School of Computing, College of Engineering and Technology, SRM Institute of Science and Technology, Chennai,
Department of Computer Science and Engineering, Hindustan Institute of Science and Technology, Chennai,
Department of Computer Science and Engineering, Sri Krishna College of Engineering and Technology, Coimbatore, TN

presented a paper titled

QUANTUM COMPUTING: A THREAT TO BLOCKCHAIN TECHNOLOGY AND POTENTIAL SOLUTIONS

in the Research Scholar's Colloquium 2023 held in association with ACM Chennai, CSI Chennai, and IEEE CS Madras on March 14, 2023, at Department of Information Technology, SSN College of Engineering, Kalavakkam.

DR. S. CHITHRA
RSC'23 Organizer

Dr. K. Ramesh Professor, Department of **CSE** has Presented a paper titled "**Quantum Computing: A Threat to Block chain Technology and Potential Solutions**" in the research scholar's colloquium 2023 held in association with ACM Chennai, CSI Chennai, IEEE CS Madras on march14th 2023 at SSN College of Engineering ,Kalavakkam.

CSE | CONFERENCE PRESENTATION

Dr.D.Rasi, Associate Professor, Department of **CSE** has presented a paper titled "**Monitoring, Tracking and Fighting Pandemics using Drone –based Artificial Intelligence in IOT**" in the International Conference on Advanced computing & Communication Systems during 17th and 18th March 2023 at Sri Eshwar College of Engineering ,Coimbatore.

ICACCS 2023

Sri Eshwar College of Engineering An Autonomous Institution Coimbatore, India

2023 International Conference on Advanced Computing & Communication Systems

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Certificate of Presentation

Certify that

D. Rasi

Sri Krishna College of Engineering and Technology, Coimbatore, India.

has presented a paper in the International Conference on Advanced Computing & Communication Systems - ICACCS 2023 on 17th & 18th March 2023 at Sri Eshwar College of Engineering, Coimbatore, TamilNadu, India.

Paper Title :
Monitoring, Tracking and Fighting Pandemics using Drone-based Artificial Intelligence in IoT

Dr. H. Anandakumar, Conference Chair
Dr. R. Subha, Convener
Dr. Sudha Mohanram, Patron

MCT | CONFERENCE PRESENTATION

Mr.S.Panneerselvam, Assistant Professor of **MCT** has presented a paper entitled **"Solar Panel Cleaning Robot"** in the International Conference on Advances in Mechanical and Civil Engineering (Hybrid Mode) held at M.Kumarasamy College of Engineering, Karur on 17th March 2023.

HEALTHOGRAPHICS

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ALUMNI CORNER

SKCET | ALUMNI ASSOCIATION MEETING

The Alumni Coordinators **Dr.JayasudhaSubburaj**, **Dr. K.C Ramya** and Department Alumni Coordinators discussed on the upcoming International Virtual Alumni Meet and its arrangements.

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NATURE CLICKS | EEE

Dr. S. Sivaranjani
Professor, EEE

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Warm Regards,
Amitabh Kant, G20 Sherpa - India

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