

SKCET Buzz



28th APRIL - 05th MAY 2023



Editor-in-Chief

**Dr.J.Janet
Principal**

Co-Editor

Dr.S.Venkata Lakshmi - AI & DS

Editorial Team

Mrs.S.Mary Fabiola - S&H,

Mr.M.Diwakaran - IT,

Ms.N.Pooranam - CSE,

Mr.G.S.Pugalendhi - AI & DS

INSIDE THE ISSUE

INSTITUTIONAL EVENTS : PG 03 - 16

HACKATHON ACCOLADES : PG 17 - 19

STUDENT PROGRESSION : PG 20 - 21

STUDENT CERTIFICATION : PG 22 - 23

EVENTS : PG 24 - 33

RESEARCH AND DEVELOPMENT : PG 34 - 39

FACULTY PROGRESSION : PG 40 - 41

FACULTY CERTIFICATIONS : PG 42 - 43

CONFERENCE PRESENTATION : PG 44 - 45

CREATIVE CORNER : PG 46 - 47

SKCET



Follow us
@



#skcetofficial



#skcetofficial



#skcet



#skcetofficial

INSTITUTIONAL EVENTS



Feedback @
skcetbuzz@skcet.ac.in

SKCET | ALUMNI MEET 2023 - CHENNAI CHAPTER



Alumni Meet 2023 - Chennai Chapter was organized on 29.04.2023. All our lovable alumni members gathered together and celebrated their exceptional moments of their college days. Our beloved Principal Madam **Dr.J.Janet** delivered a splendid Welcome Address, welcoming the treasures of SKCET.

SKCET | ALUMNI MEET 2023 - CHENNAI CHAPTER



On a very happy note our Respected **Chairperson Madam** delivered the Presidential Address highlighting the achievements and key events of SKCET on its 25 years of Excellence.

SKCET | ALUMNI MEET 2023 - CHENNAI CHAPTER



One of the best practices of SKCET is to recognize and appreciate the best combination of talent, skill and attitude. Our notable alumni members were felicitated with Icon Awards by our Chairperson Madam and Trustee sir recognizing their greatest accomplishments.

SKCET | ALUMNI MEET 2023 - CHENNAI CHAPTER



The special moment of togetherness was celebrated with sweets and cakes.

SKCET | ALUMNI MEET 2023 - CHENNAI CHAPTER



Alumni members shared their interesting and unforgettable moments of their campus life.

SKCET | ALUMNI MEET 2023 - CHENNAI CHAPTER



Alumni members interacted with our Chairperson Madam and conveyed their gratitude and also with enthusiasm and pride assured their support for their alma mater.

SKCET | ALUMNI MEET 2023 - CHENNAI CHAPTER - GLIMPSES



SKCET | ALUMNI MEET 2023 - CHENNAI CHAPTER - GLIMPSES



S&H | KRISHINNOV 2k23

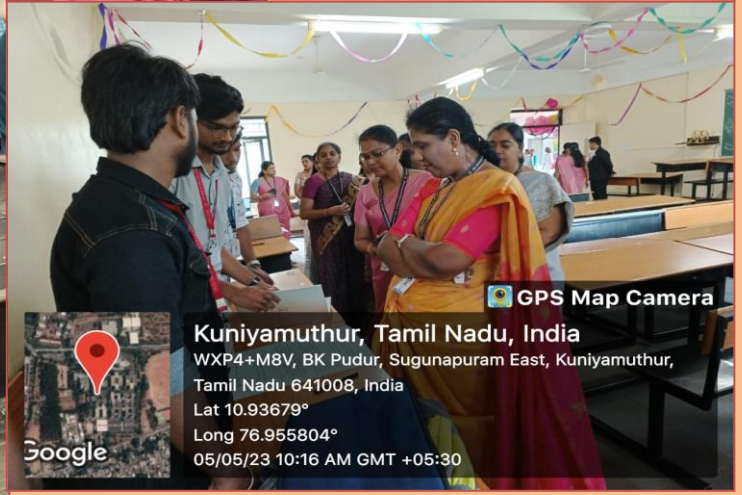


SKCET'S massive Techno cultural Fest **Krishinnov – 2k23** has returned with an essence to fortify talents and perpetuate memories in an exuberant way.

Principal Madam Dr.J.Janet presided over the inauguration ceremony and addressed the gathering highlighting the importance of this Annual Fest- which promotes diversity and innovation.

Deans, Heads and faculty members of various Departments were also present with utmost joy to kick start this exuberant locus.

S&H | KRISHINNOV 2k23



Trade Fair of **Krishinnov – 2k23** - ideated, planned, and executed by the students of **Science and Humanities Department**.

The major objective of this exclusive Trade Fair is to provide a dynamic learning platform to students and cater an unforgettable shopping experience to its audience.

It has been designed with various food and commercial stalls offering a versatile venue for a first-hand experience with entrepreneurship for aspiring students.

#Services sourced from different locations - presented under one roof

S&H | KRISHINNOV 2k23



Every student is an innovator in his/ her own life!!

SKCET has never failed to give the students the platform that is needed to explore, invent and rejoice in the learning process. With an aim to transcend thoughts and expectations various Technical events were organized for the students to showcase their technical capabilities via the following competitions.

Paperiva - Paper Presentation

Progenix - Project Expo

Dare to be Arch - Technical Drawing

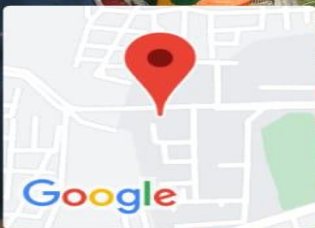
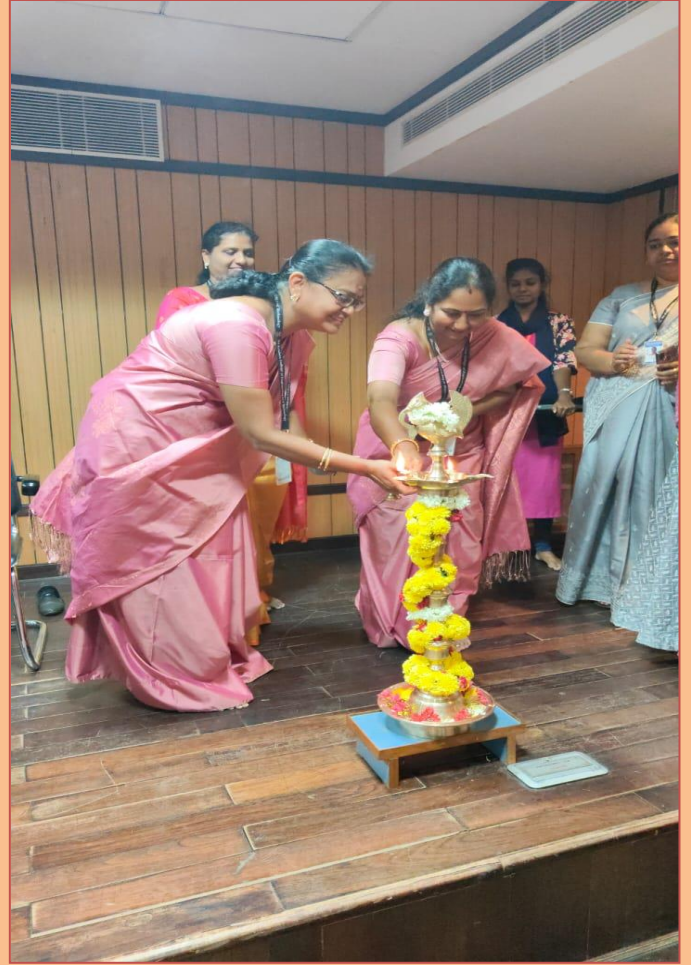
Quiz Whiz - Technical Quiz.

Technology is best when it brings people together for a noble cause!!

S&H | KRISHINNOV 2k23 - GLIMPSES



S&H | KRISHINNOV 2k23 - GLIMPSES



Coimbatore, Tamil Nadu, India

Sugunapuram East, BK Pudur, Kuniyamthur, WXQ4+54H, BK Pudur, Sugunapuram East, Coimbatore, Tamil Nadu 641008, India

Lat 10.937873°

Long 76.9555°

05/05/23 10:38 AM

GPS Map Camera

SKCET

Buzz



Follow us

@



#skcetofficial



#skcetofficial



#skcet



#skcetofficial

HACKATHON ACCOLADES



Feedback @
skcetbuzz@skcet.ac.in

MECH | SMASHING WINS AT L&T TECHGIUM PAN INDIA CONTEST



MECH | SMASHING WINS AT L&T TECHGIUM PAN INDIA CONTEST

Two student teams comprising of students from the **department of Mechanical, Computer Science & Engineering and Electrical & Electronics Engineering** have won stellar awards in a National level Tech event organised by L&T at the Mysore Campus from 2nd to 4th May 2023. The students have set a foot print battling a tough competition with 33,000 students from 480 plus Institutions. The teams have won awards in two prominent categories beating teams from other leading Institutions like IIT,VIT and SRM.It is noteworthy to mention that for the first time a student team from SKCET has won **Rs.5,00,000/- cash award**. Both the teams were mentored by **Mr. N. Ramachandran, Assistant Professor – Mechanical Engineering**.

Team 1 (Award) : 1st Runner up with Rs.5,00,000/- cash prize	Team 2 (Award): Employee Choice Award
Project title: Plugin Kit for Ready Charging	Project title: IoT Based Early Detection of Muscle cramps / spasms
Team Members: 1.Prithika Andrea Angelina F - II CSE 2.Pavan Kumar M A - III MECH 3.Manswini P S - III EEE 4.Monish Kumar - II CSE	Team Members: 1. Mohammed Riyash J - III MECH 2. Prithika Andrea Angelina - II CSE 3. Shwetaharini S - III CSE 4. Sharon Peter A P - III MECH

SKCET

Buzz



Follow us

@



#skcetofficial



#skcetofficial



#skcet



#skcetofficial

STUDENTS PROGRESSION



Feedback @
skcetbuzz@skcet.ac.in

EEE | ELECTRIC SOLAR VEHICLE CHALLENGE



Student team **Gandiva 2.0** of EEE Department have showcased their innovative talents in '**Electric Solar Vehicle Challenge (ESVC 3000)**' - Asia's Largest Solar Challenge organized by Imperial Society of Innovative Engineers (ISIE INDIA) and Automotive Research Association of India (ARAI) held at Galgotias University, Greater Noida, Uttar Pradesh from 18.04.2023 to 21.04.2023. This event was supported by the Ministry of New and Renewable Energy (MNRE), Government of India. The team has won two remarkable awards.

- **Future Award** with a Cash Prize of Rs.10,000/-
- **Best Mentor Award** among various competitors from across the nation.

Faculty Mentors:

- Dr.Ramji Tiwari, AP/EEE
- Mr.S.Boobalan, AP/EEE

SKCET



Follow us
@



#skcetofficial



#skcetofficial



#skcet



#skcetofficial

STUDENT CERTIFICATION



Feedback @
skcetbuzz@skcet.ac.in

AI & DS | AWS ACADEMY CERTIFICATION



Ananyaa V R & Suriya P, II-year students of **AI&DS** has successfully completed “**AWS Academy Graduate - AWS Academy Cloud Foundations**” on 24.04.2023 by AWS academy.

AI & DS | TCS – iON CERTIFICATION



Vishal, II-year student of **AI & DS** has successfully completed “**Introduction to Soft Skills**” on 04.04.2023 by TCS- iON.

SKCET



Follow us
@



#skcetofficial



#skcetofficial



#skcet



#skcetofficial

EVENTS



Feedback @
skcetbuzz@skcet.ac.in

SKCET EDC & SOM | WORLD CREATIVITY & INNOVATION DAY 2023



Entrepreneurship Development Cell of SKCET and School of Management jointly celebrated “World Creativity and Innovation Day 2023”. A Webinar on Entrepreneurship Development Program was organized along with Entrepreneurship Development Institute, India -Tamil Nadu chapter on 21.04.2023.

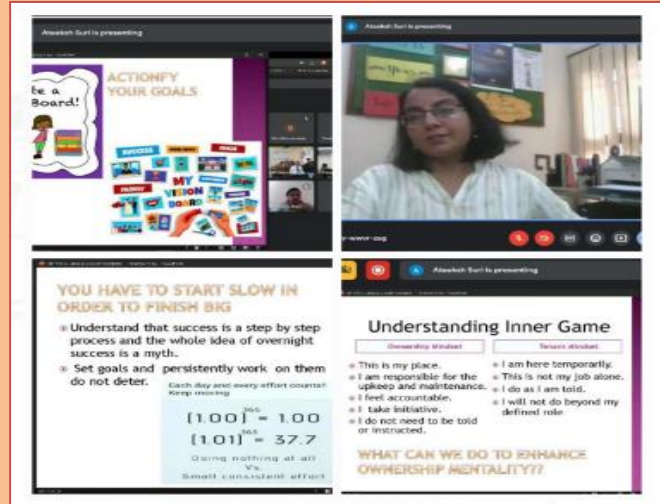
Session Highlights:

- Ways to develop business.
- Insights about facilities available for budding entrepreneurs such as - Grants and innovation fairs.
- Experience shared by upcoming entrepreneurs on broad topics such as nutrition and technology.

Resource People:

- Ms.Harini Rangarajan- Nutrigenetics Pvt Ltd
- Mr.Shrinidhi - Cosmetics and Skin care
- Ms.Chithra - Jeshron Biotech solution Pvt Ltd
- Mr.Shankaralingam .K - Greenscart
- Dr.M Parisa Beham - Entrepreneur cum Professor, Sethu institute of Technology.
- Mr.Riyaasdeen S - Founder and Innovator ,Final year Engineering student.

MCT | STC ON STRATEGIC PLANNING AND MANAGEMENT



Department of MCT as Remote center, NITTTR Chandigarh organizes a **Short Term course on “Strategic Planning and Management”** from 24.04.2023 to 28.04.2023. The STC drew enthusiastic participation of the faculty members.

Day 1: 24.04.23

Session 1 - Inauguration & Course Description

Resource Person:

Dr. SK Dhameja
Professor & Course Coordinator,
EDIC Department,
NITTTR, Chandigarh

Title: Strategic Planning and Management

Session Highlights:

- Characteristics & Need for Strategic planning.
- Scheduling & Stages in the Strategic planning.
- Various Strategies in the strategic planning.
- Difference between Strategic planning & strategic thinking.

Session 2

Resource Person:

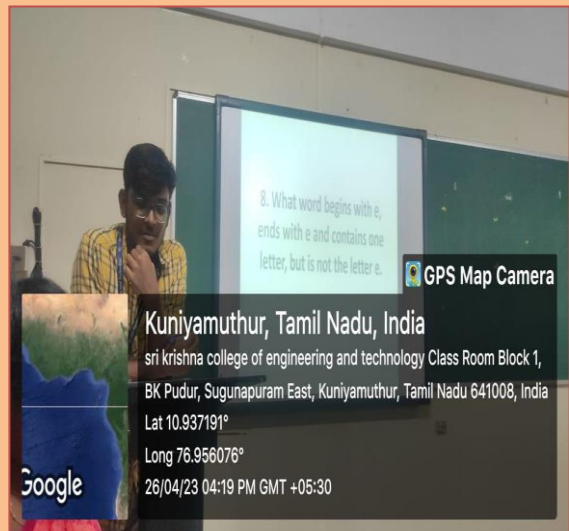
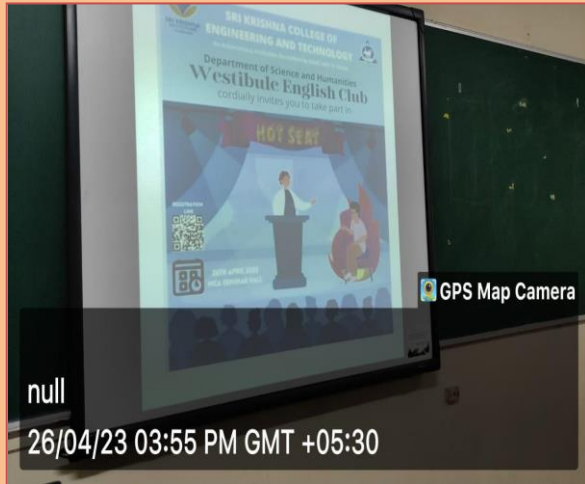
Dr. ShilpaSuri
Consultant Psychologist,
Planet Psychology
Chandigarh.

Title: Success Mindset for Leaders

Session Highlights:

- Understanding Inner game.
- Steps to overcome the limiting beliefs.
- How to withstand the quit moments?
- Importance of Vision board.

S&H | WESTIBULE CLUB



Westibule English Club of **Science and Humanities** Department organized an event entitled "**Hot Seat**" on 26th April 2023, for all the B.E/B.Tech students. Students from various streams participated in teams and gained new insight in connecting words with that of a task. The event invited students to explore new words and terms in multiple perspectives relevant to new ideas and paved the way for the participants to empower their communication skills in an ample environment. Students were given opportunities to learn with great sources of entertainment and a unique way of bringing out new terminology.

MCT | STC ON STRATEGIC PLANNING AND MANAGEMENT



Day 2:

Session 1

Resource Person:

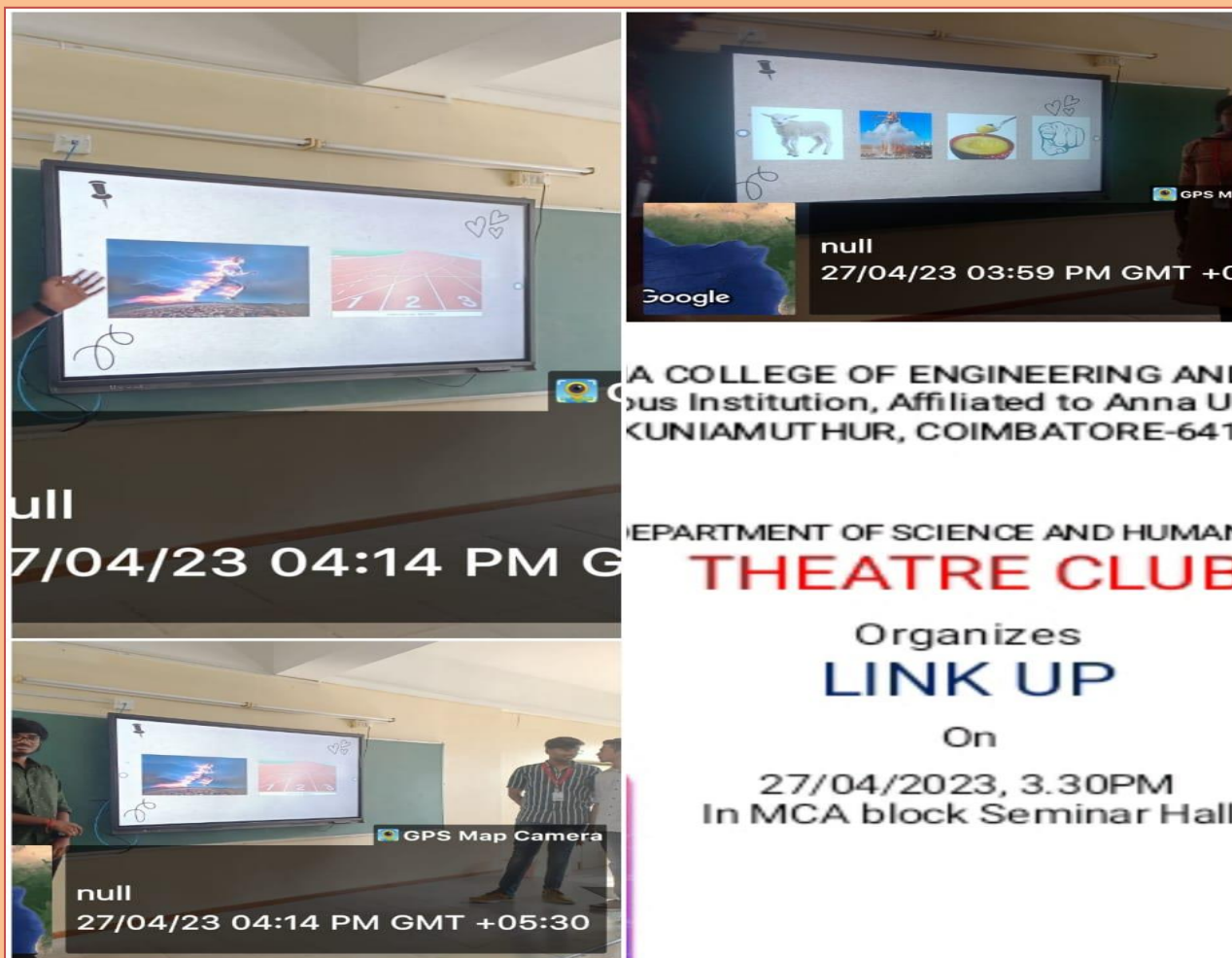
Dr. SK Dhameja
Professor & Course Coordinator,
EDIC Department,
NITTTR, Chandigarh

Title: 5C Steps in Strategic Planning Process

Session Highlights:

- Conducting Information gathering and Analysis.
- Crafting strategic Vision statement.
- Creating a Mission statement.
- Construct Strategic GOALS.
- Composing objectives for each strategic goals.

S&H | THEATRE CLUB



A COLLEGE OF ENGINEERING AND
 Technology Institution, Affiliated to Anna U
 KUNIAMUTHUR, COIMBATORE-641

DEPARTMENT OF SCIENCE AND HUMAN

THEATRE CLUB

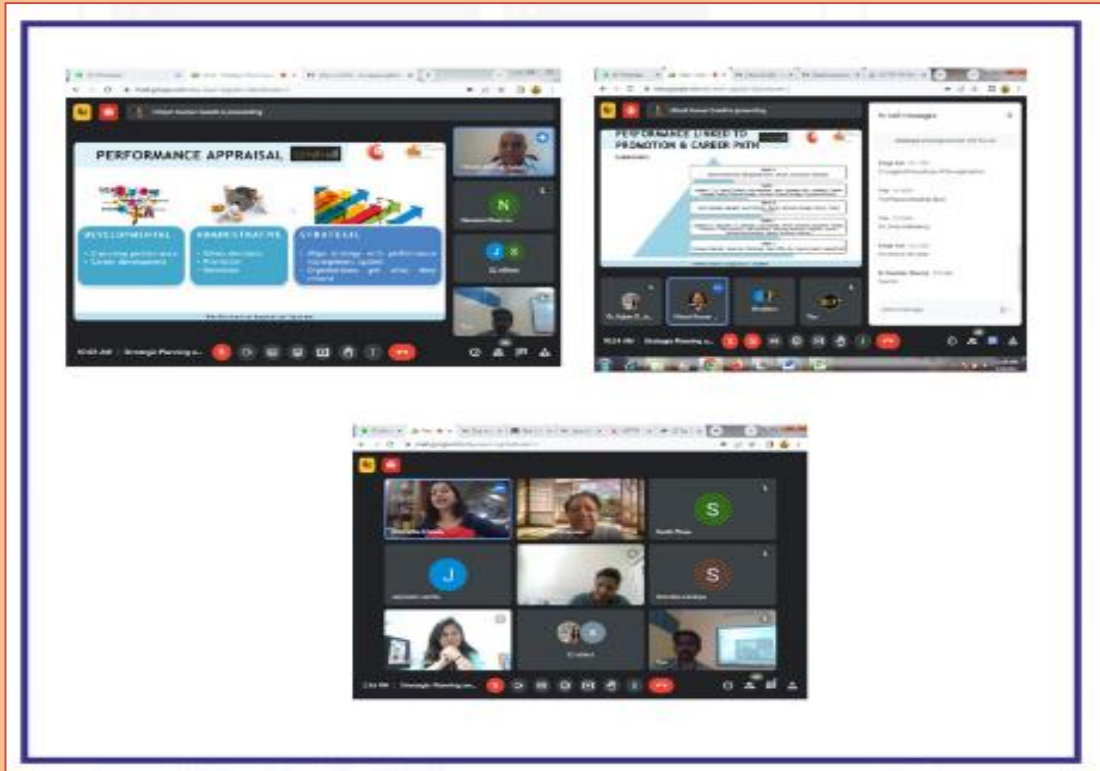
Organizes
LINK UP

On
 27/04/2023, 3.30PM
 In MCA block Seminar Hall

Theatre Club of Science and Humanities Association organized **LINK- UP** an abstract strategic event for the **First** year students. The players attempted to complete a specific type of connection with the given image pieces. Students were able to clear their thought as they played and this event enhanced their concentration level. The event also played a crucial role in eliminating stress, improving visual ability, and bonding among members.

Communication - the human connection is the key to personal success!!

MCT | STC ON STRATEGIC PLANNING AND MANAGEMENT



Day 3:

Session 1

Resource Person:

Shri Hitesh Kumar Gulati
Change and Organization Development,
Diversity Ace Business Consulting,
ZirakPur

Title: Performance Appraisal

Session Highlights:

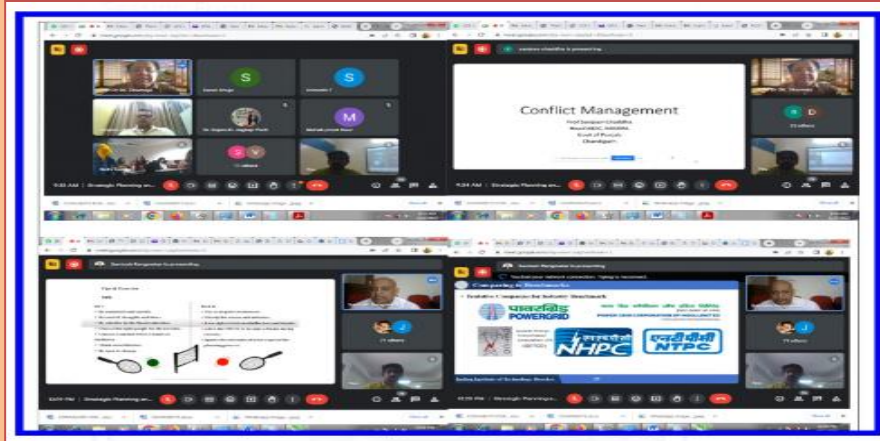
- 360 degree Feedback
- Assessment Centre Method.
- Management By Objective.
- Behaviorally Anchored Rating Scale.

S&H | TAMIL MANDRAM



Tamilmandram of Science and Humanities Association conducted - "Vidudhalai Yutham – Yen Manamkavarndha Veerar" an elocution competition. First year students from various Departments participated in this event and delivered exceptional speech about our nations dynamic leaders.

MCT | STC ON STRATEGIC PLANNING AND MANAGEMENT



Day 4:

Session 1

Resource Person:

Dr.Sanjeev Chaddha, Professor & Head, Management Development Centre, Mahatma Gandhi State Institute of Public Administration Punjab, Chandigarh

Title: Conflict Management

Session Highlights:

- Conflict management styles
- Passive aggression and communication issues
- Strategies to Tackle Conflict
- Thomas Killman Conflict Model.

Session 2

Resource Person:

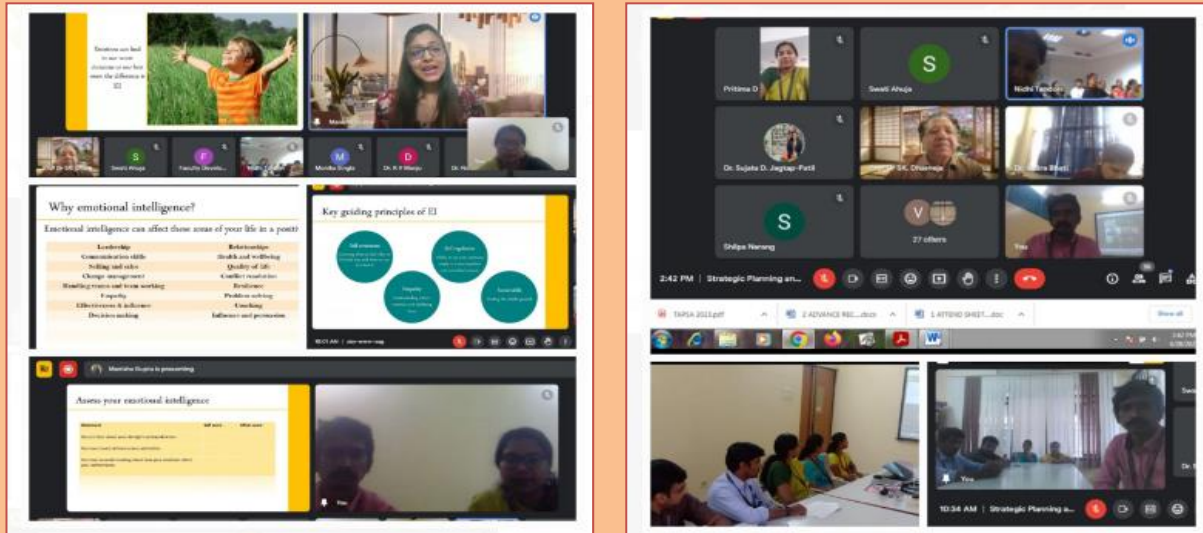
Prof.S. Rangnekar
Professor
Department of Management Studies,
IIT Roorkee

Title: SWOT Analysis including a Case study of Transmission Organization

Session Highlights:

- SWOT Evaluation Framework
- SWOT in Industry
- Grand Strategy Matrix
- SWOT Factors

MCT | STC ON STRATEGIC PLANNING AND MANAGEMENT



Day 5:

Session 1

Resource Person

Ms. Manisha Gupta

EI Expert,

Corporate Trainer,

Bengaluru

Topic: Emotional Intelligence

Session Focus:

- Understanding Emotions.
- Need of EI.
- Key guiding principles of EI.
- Steps to increase our EI quotient.

Session 2: Feedback and Valedictory

- A total of 33 faculty members from our institution participated in the STC.
- Effective sessions with both Academic & Industrial experts.
- Constructive feedback given by our faculties.
- Upcoming course and their contents were discussed.

R&D | SA UTILITY PATENT GRANT



Dr.J.Janet, Principal SKCET, **Dr.S.Balakrishnan**, HoD, CSBS, **Dr.P.Kavitha Rani**, HoD, M.Tech CSE, **Dr.S.Venkata Lakshmi**, HoD, AI&DS, **Dr.P.Mohankumar**, Professor, CSE and **Dr.G.Vijaya**, Professor, CSE has received a South African patent grant with a Certificate of Registration by the Patent Office for patent titled “**An IOT Based Drainage Pipes Cleaning Robot System**” the patent was appreciated for its novelty and applicability.

R&D | JOURNAL PUBLICATION | CIVIL

Proceedings of the International Conference on Sustainable Computing and Data Communication Systems (ICSCDS-2023)
IEEE Xplore Part Number: CFP23AEZ-ART, ISBN: 978-1-6654-9199-4

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

¹Uppara Raghu Babu
Associate Professor, Civil Engineering Department, Srinivasa Ramamujan Institute of Technology, Rotarypuram Village, BK Samudram Mandal, Anantapur District, India, uuppararaghubabu@gmail.com

²Taru Gohlot
Assistant Professor, Department of Civil Engineering, College of Technology and Agriculture Engineering Agriculture University, Jodhpur, Rajasthan, India, tarugohlot1103@gmail.com

³Dr. S. Theenmozhi
Associate Professor, Department of Civil Engineering, St. Joseph's College of Engineering, Chennai, Tamilnadu, India, theenmozhi@sjce.ac.in

⁴Dr. P. Saravanan Kumar
Associate Professor, Civil Engineering Department, Sri Krishna College of Engineering and Technology, Coimbatore, Tamilnadu, India, p.saravanan2000@gmail.com

⁵Dr. A. Ravibheja
Assistant Professor, Department of Civil Engineering, SFR Engineering College, Ayalur, Mandial, Kurnool, Andhra Pradesh, India, dr_ravibheja@yahoo.com

⁶Nishant Anant Rao Upadhye
Lecturer, Department of Civil Engineering, Bharati Thyagaraj'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 (COAFCMVDD) technique. The presented COAFCMVDD technique determines cross-correlation functions of vibration data as fundamental features as input. The proposed COAFCMVDD 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 improved by the COA. The experimental result analysis of the COAFCMVDD technique is tested using vibration dataset and the obtained outcomes signify the improved performance of the COAFCMVDD technique.

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

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].

Dr.P.Saravananakumar, Associate Professor, Department of Civil Engineering, has published a research article titled “Chimp optimization algorithm with fuzzy cognitive map for vibration-based damage detection” in IEEE Xplore, as a part of 2023 International Conference on Sustainable Computing and Data Communication Systems (ICSCDS).

R&D | JOURNAL PUBLICATION | EEE

Dr.T.Kokilavani, Assistant Professor, EEE Department has published a paper entitled “A Novel Security Algorithm RPBB31 for Securing the Social Media Analyzed Data using Machine Learning Algorithms” in Wireless Personal Communications, Springer. It is SCI indexed journal with an impact factor of 2.017.

Wireless Personal Communications
<https://doi.org/10.1007/s11277-023-10446-9>

A Novel Security Algorithm RPBB31 for Securing the Social Media Analyzed Data using Machine Learning Algorithms

Bagath Basha Chan Batcha¹ · Rajaprakash Singaravelu² · Meenakumari Ramachandran³ · Suresh Muthusamy⁴ · Hitesh Panchal⁵ · Kokilavani Thangaraj⁶ · Ashokkumar Ravindaran⁷

Accepted: 7 April 2023
© The Author(s), under exclusive licence to Springer Science+Business Media, LLC, part of Springer Nature 2023

Abstract
The present world data is most important in public because without data cannot live in the world. This data is big data and that data daily increases through Social Media like “Twitter, Facebook, Youtube, WhatsApp, Instagram, LinkedIn”, etc., because this media only share public opinion very fast through the net. From this media, more people used especially Twitter. Thus media are used to analyze the public opinion of the tweets and predict the future through Machine Learning Algorithm. This analyzed data should make it polarity score. This score data has very little security because, this score can change the score and affected the future, so apply the existing security algorithms is Salsa and ChaCha. The Salsa algorithm is diagonal values moved to the first row. The ChaCha algorithm is diagonal values moved to the first column. The existing algorithms do not have good security because they focused only on performance, not security. So, the novel security algorithm is RPBB31. This algorithm has seven stages. The 1st stage is to find the secret key N, n, and p values from the matrix. The 2nd stage is to apply the secret key in P_N(n) operation. The 3rd stage operation of P_N(n) up to n=1. The 4th stage is all P_N(n) operations make their single line. The 5th stage is to pair the values and swap the values in the matrix. The 6th stage is column operations in the matrix. The 7th stage is again Step 4 values used to swap but “oth” cell value start from reverse in the matrix. In world cricket is the most famous game. In all social media Millions of people are following in different manner, especially in indian cricketer are more famous in India and world. In some point of time it may lead to match fixing, betting. To overcome this kind of issue the four datasets chosen. The proposed algorithm has provide good security and performance while compare to existing algorithms.

Keywords Twitter · Machine learning algorithm · Security · Encryption · RPBB31

R&D | JOURNAL PUBLICATION | CIVIL

Valorization of Annona reticulata biochar by chitosan for the adsorption of Azo dye from Textile effluent

Paper Topic:
Water and Wastewater Treatment

Corresponding Author:
Rajakumar, S†

Authors:
Rajakumar, S, Ramakrishnan, S, Monica Nandini, G. K. El-marghany, A, Wárad, J, Senthil Kumar, M

Download Draft

Paper ID:
gnest_04882

Paper Status:
In press

Date Paper Submitted:
14-03-2023

Date Paper Accepted:
12-04-2023

Paper online:
18/04/2023

DOI:
<https://doi.org/10.30955/gn.004882>

Abstract:

Azo dye is a synthetic aromatic dye which are direct dye frequently used in textile industry to colour fibres. It also contributes to the damage of the environment. This study examines the adsorption biochar made from Annona reticulata to remove azo dye from textile wastewater. To improve the adsorption capacity, biochar valorized by chitosan molecules. Investigations were conducted on the use of chitosan-based materials that are acid-resistant for azo dye adsorption. In the batch experiment, basic operating parameters such as initial Azo dye concentrations, pH, contact time and bed height were assessed. The percentage removal efficiency for Azo dye was recorded as 67.18%, 75.88% and 94.37% for three dissimilar sized columns that were 6cm, 8cm, and 10cm. The UV-visible absorption spectroscopy was used to quantify the decolorization of dyes. The changed surface properties of the adsorbent produced from Annona reticulata were characterized by using SEM, XRD, and FTIR. The effectiveness of the column's adsorption was calculated mathematically by Yoon-Nelson, Thomas, and Adams-Bohart models. The model that best represents equilibrium isotherm data by adsorption had R2 values of 94.63, 86.67 and 96.35 respectively.

Keywords:
Azo dye removal, Textile wastewater, Annona reticulata, Chitosan, Adsorption

Dr.S.Ramakrishnan, Associate Professor, Department of **Civil Engineering** has published a research article titled **“Valorization of Annona reticulata biochar by chitosan for the adsorption of Azo dye from Textile effluent”** in Global Nest journal. It is indexed in WoS and is an Annexure 1 journal.

R&D | JOURNAL PUBLICATION | CIVIL

Dr.R.Chandra Devi and **Ms. R. Hemavathi**, faculty members from the Department of **Civil Engineering** have published a research article titled **“Electrokinetic Remediation for Textile Wastewater Contaminated Soil”** in the Global Nest journal. It is indexed in WoS and is an Annexure 1 journal.

Global NEST Journal, Vol 25, No 5, pp 83-89
Copyright© 2023 Global NEST
Printed in Greece. All rights reserved

Global NEST

Electrokinetic remediation for textile wastewater contaminated soil

Chandra Devi R.^{1,2*}, Hemavathi R.¹, Ashwinkumar S.¹, Gowtham B.¹, Selvam M.¹ and Vijay Vignesh A.²
¹Department of Civil Engineering, Sri Krishna College of Engineering and Technology, Coimbatore, Tamil Nadu, India
²Department of Civil Engineering, Anna University, Chennai, Tamil Nadu, India
Received: 24/12/2022, Accepted: 22/02/2023, Available online: 23/02/2023
*to whom all correspondence should be addressed; e-mail: chandraDEVIR@skcet.ac.in
<https://doi.org/10.30955/gn.004693>

Graphical abstract

Abstract

Soil contamination due to industrial activities is very common and discharging of partially treated or untreated textile wastewater into nearby environment in developing countries contaminated soils. The remediation of textile wastewater contaminated soils containing residual organic dyes and inorganic salts is risky. It is required to identify an economic and eco-friendly in-situ remediation technique for the textile wastewater contaminated soil. This paper investigates the effective removal of residual textile dyes and inorganic salts from the soil using electrokinetic remediation. Laboratory scale acrylic reactors were utilized and the soil was collected from the contaminated agricultural site. The experiment was optimized for different electrode combination (Iron-iron, Iron-stainless steel, Iron-aluminium, Iron-graphite), electrode distance (3 cm, 5.5 cm, and 10.5 cm) and electrical potential gradient (3V/cm, 4V/cm, and 5V/cm). Tap water was used as electrolytes in order to prevent further contamination during remediation process. An electroosmotic flow of 256 ml was observed at cathode reservoir for Iron-graphite electrodes and these electrodes removed 93% electrical conductivity and 82% of total organic carbon from soil. It is found that electroosmosis is the dominant mechanism by which residual textile dyes were removed. The proposed remediation technique is found efficient, economic and eco-friendly compared to the existing technologies.

Keywords: Textile dyes, inorganic salts, agricultural soil, electrolytes, electrodes

1. Introduction

The global impact on natural resources has increased over the past 150 years and the environmental concern on soil has begun to emerge especially in the past two decades (Rodriguez-Eugenio et al., 2018). Soil contamination due to industries is a widespread threat globally; textile industry is one of the major threats to the environment, as the wet processing utilizes lot of toxic chemicals, water and generates large amount of wastewater. Discharge of partially or untreated textile wastewater into nearby environment is practiced in developing countries for the last few decades and it affects aquatic organisms, plant growth, groundwater, soil quality, and human health. Similar situation was observed for the last three decades in Tiruppur, a textile hub in Tamil Nadu, Southern India, where deterioration of agricultural soil quality was observed and reported in a recent study (Raman & Mkindawire, 2021). The textile wastewater contaminated soil consists of residue of mixed reactive dyes and inorganic salts, affect soil fertility and it is challenging to remediate the soil. It is mandatory to identify and propose an economic and environmental sustainability in-situ remediation technique for the textile wastewater contaminated soil. Textile dye spiked soil was remediated using bioremediation (Bhatt et al., 2000; Khalid et al., 2011) and electrokinetic separation followed by electrochemical oxidation (Lee et al., 2009). However it required longer duration and specific laboratory conditions to achieve effective remediation. Plant biomass of subalpine seeds remediated textile wastewater contaminated soil (Jainthly et al., 2014). The results confirmed that adsorption of plant biomass could restore soils upto 50%

Chandra Devi R., Hemavathi R., Ashwinkumar S., Gowtham B., Selvam M. and Vijay Vignesh A. (2023), Electrokinetic remediation for textile wastewater contaminated soil, *Global NEST Journal*, 25(5), 83-89.

R&D | JOURNAL PUBLICATION | ECE

Dr.S.P.Premnath, Assistant Professor, **ECE** Department has published SCIE and Scopus indexed journal titled **“MSRFNet for skin lesion segmentation and deep learning with hybrid optimization for skin cancer detection”** in The Imaging Science Journal. **DoI:** 10.1080/13682199.2023.2187518

Research Article
MSRFNet for skin lesion segmentation and deep learning with hybrid optimization for skin cancer detection
 Diwan Baskaran ✉, Yanda Nagamani, Suneetha Merugula & S P Premnath
 Received 12 Dec 2022; Accepted 01 Mar 2023; Published online: 27 Mar 2023
[Download citation](#) | <https://doi.org/10.1080/13682199.2023.2187518> | [Check for updates](#)

Full Article | Figures & data | References | Citations | Metrics | Reprints & Permissions | [Get access](#)

ABSTRACT

Skin cancer is the irregular growth of skin cells, which is most often termed as cancer, developed by exposure of ultraviolet rays from sun. In this research paper, deep learning enabled hybrid optimization is followed for skin cancer detection and lesion segmentation. Two optimization algorithms are followed for skin lesion segmentation and cancer detection. Here, pre-processing is done by anisotropic diffusion followed by skin lesion segmentation. Here, Multi-Scale Residual Fusion Network (MSRFNet) is utilized for skin lesion segmentation, which is trained by proposed Average Subtraction Student Psychology Based Optimization (ASSPBO). After skin lesion segmentation, necessary features are extracted, followed by skin cancer detection. Skin cancer is detected by Deep Residual Network (DRN) trained by proposed Fractional ASSPBO (FrASSPBO). Moreover, performance of proposed FrASSPBO-DRN is analysed by three performance metrics like testing accuracy, True Positive Rate (TPR), and False Positive Rate (FPR) with values of 93.4%, 94%, and 8.2%.

KEYWORDS: Multi-scale residual fusion network, fractional calculus, average and subtraction based optimizer, student psychology based optimization, deep residual network, skin cancer, Fractional Average Subtraction Student Psychology Based Optimization, True Positive Rate

Related res
 Recommend
 Hybrid quantu
 skin cancer >
 Vijayarsi Iyer
 Journal of Intern
 Published online
 Investigation o
 detection usin
 Mohammed R
 Journal of Mode
 Published online
 Imtiazulmod: at
 treatment of p
 cancer >
 Evangelia Pap
 Expert Opinion

R&D | JOURNAL PUBLICATION | CSE

Dr.G. Sathish Kumar, Assistant Professor Department of **CSE** has published a research article titled **“STIF: Intuitionistic fuzzy Gaussian membership function with statistical transformation weight of evidence and information value for private information preservation”**, in Distributed Parallel Databases (2023), an International Journal of Data Science, Engineering, and Management Springer with **DOI:10.1007/s10619-023-07423-3**, Anna University Annexure 1 journal list and its SCI indexed.

Distributed and Parallel Databases
<https://doi.org/10.1007/s10619-023-07423-3>

STIF: Intuitionistic fuzzy Gaussian membership function with statistical transformation weight of evidence and information value for private information preservation

G. Sathish Kumar¹ · K. Premalatha²

Accepted: 10 April 2023
 © The Author(s), under exclusive licence to Springer Science+Business Media, LLC, part of Springer Nature 2023

Abstract

Data sharing to the multiple organizations are essential for analysis in many situations. The shared data contains the individual's private and sensitive information and results in privacy breach. To overcome the privacy challenges, privacy preserving data mining (PPDM) has progressed as a solution. This work addresses the problem of PPDM by proposing statistical transformation with intuitionistic fuzzy (STIF) algorithm for data perturbation. The STIF algorithm contains statistical methods weight of evidence, information value and intuitionistic fuzzy Gaussian membership function. The STIF algorithm is applied on three benchmark datasets adult income, bank marketing and lung cancer. The classifier models decision tree, random forest, extreme gradient boost and support vector machines are used for accuracy and performance analysis. The results show that the STIF algorithm achieves 99% of accuracy for adult income dataset and 100% accuracy for both bank marketing and lung cancer datasets. Further, the results highlights that the STIF algorithm outperforms in data perturbation capacity and privacy preserving capacity than the state-of-art algorithms without any information loss on both numerical and categorical data.

Keywords Classifiers · Information value · Intuitionistic fuzzy · Privacy preserving data mining · Weight of evidence

✉ G. Sathish Kumar
 sathishg@gmail.com
 K. Premalatha
 kpl_bsrath@yahoo.co.in

¹ Department of Computer Science and Engineering, Sri Krishna College of Engineering and Technology, Coimbatore, Tamil Nadu, India

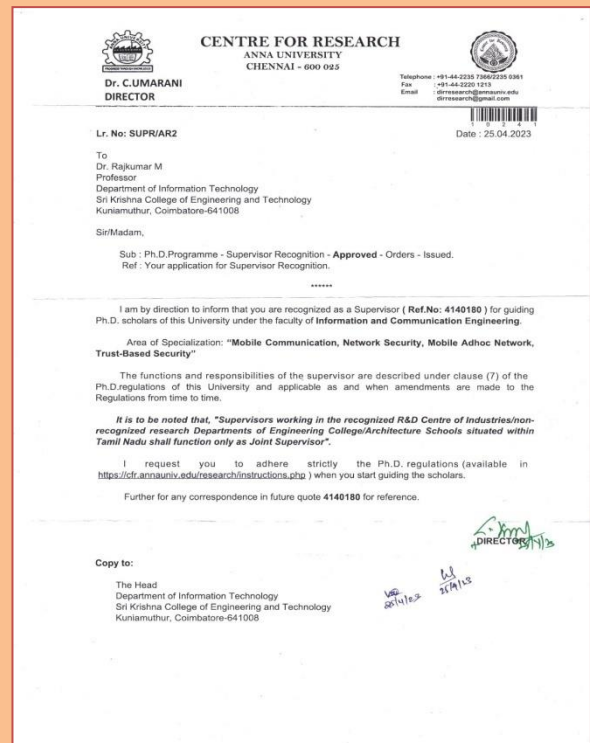
² Department of Computer Science and Engineering, Banari Amman Institute of Technology, Erode, Tamil Nadu, India

Published online: 21 April 2023



IT | SUPERVISOR RECOGNITION

Dr.M.RajKumar, Professor,
Department of **Information Technology** has been recognized as a Supervisor for guiding Ph.D. scholars of Anna University under the Faculty of Information and Communication Engineering. His area of specialization is "**Mobile Communication, Network Security, Mobile Adhoc,Trust based Security**".



HEALTHOGRAPHICS

Health Benefits Of Millet

Treats Coronary Artery Disorder

Helps in Weight Loss

Reduces Risk of Colon Cancer

Helps to decrease high blood pressure

Helps in preventing Celiac disease

Controls Diabetes

Good Source of Antioxidants

Helps in slowing down muscle degradation

Aids in Sleep

Helps in relieving menstrual cramps



SKCET

Buzz



Follow us
@



#skcetofficial



#skcetofficial



#skcet



#skcetofficial

FACULTY PROGRESSION



Feedback @
skcetbuzz@skcet.ac.in

EEE | RESOURCE PERSON - GUEST LECTURE

Narasu's Sarathy Institute of Technology
INSTITUTION'S INNOVATION COUNCIL (IIC - NSIT) & DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING Organizes an One Day Seminar on

Current Research on the Effects of Electromagnetic Radiations

DATE & LINK
28th APRIL 2023
Google Meet Link: <https://meet.google.com/nbr-rtbck-htz>

RESOURCE PERSON
Dr. T. Kokilavani, Associate Professor, Department of Electrical and Electronics Engineering, Sri Krishna College of Engineering and Technology, Coimbatore.

SESSION PLAN
10.00 AM - 11.00 PM ELECTROMAGNETIC FIELD AND ITS APPLICATIONS
11.15 AM - 12.30 PM MAXIMUM PERMISSIBLE EXPOSURE AND ITS APPLICATIONS
01.00 PM - 02.30 PM THEORY OF TIME VARYING FIELDS
03.00 PM - 04.00 PM PRACTICE ORIENTED WORKSHOP
Followed by Interactive Session with Students & Staff

In the August Presence
Mrs. Aishwarya Nitish, Mrs. G. Prabakaran, Dr. V. Munusami, Dr. K. Arutselvan

CO - ORDINATOR Mr. P. VELMURUGAN, AP - EEE, 99023 65509 www.nsit.edu.in

Narasu's Sarathy Institute of Technology
Approved by AICTE, New Delhi | Accredited by NAAC | Affiliated to Anna University, Chennai.
Pooariappatti (P.o), Kadayampatti Taluk, Salem - 636 305, Tamil Nadu, India.

Phone: 04290 - 249662
Fax: 04290 - 249663
Mobile: 93449 72274
principal@nsit.edu.in

Dr. V. Munusami, M.E., Ph.D., MISTE., FIE.,
Principal Date: 29.04.2023

APPRECIATION LETTER

We would like to thank and appreciate **Dr.T.Kokilavani**, Associate Professor, Department of Electrical and Electronics Engineering, Sri Krishna College of Engineering and Technology, Coimbatore for the presentation delivered to our students on the topic of **"Current Research on the effects of Electromagnetic Radiations"** on April 28, 2023. The presentation was very informative and well received by our students.

We expect your continued association with our college for such academic exchanges and activities in the future.

(Signature)
PRINCIPAL

Dr.T.Kokilavani, Assistant Professor, EEE Department has delivered a guest lecture on **"Current Research on the Effects of Electromagnetic Radiations"** at Narasu's Sarathy Institute of Technology, Salem on 28-04-2023.

CSBS | RESOURCE PERSON - GUEST LECTURE

RVS COLLEGE OF ENGINEERING & TECHNOLOGY
(Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai)
NAAC Accredited & ISO 91001:2018 CERTIFIED
Kumarar Kottam Campus, Karampalayam (P.O), Coimbatore - 641 402.
Phone : 0422 - 2687877 Fax : 0422 - 2688077
E-mail : principal@rvscet.ac.in website : www.rvscet.ac.in

APPRECIATION LETTER FOR GUEST LECTURE
Date: 03.05.2023

To
FMARGRET SHARMILA,
ASSISTANT PROFESSOR / CSBS,
SRI KRISHNA COLLEGE OF ENGINEERING AND TECHNOLOGY,
COIMBATORE.

Dear Mam,

We specially appreciate your innovative lecture on the topic **"Virtualization and mobile Operating Systems"** on 03-05-2023. Your effort for this Guest Lecture has helped to strengthen the knowledge of the students and also shaped creative thoughts to apply in the field of operating system development. We are very thankful to you for the valuable knowledge that you have shared with us.

(Signature)
HoD - CSE
Dr. K. KARUPPASAMY M.E., Ph.D.,
Professor & Head
Dept. of Computer Science & Engineering
RVS College of Engg. & Technology
Coimbatore - 641 402

Ms.F.Margret Sharmila, Assistant Professor, CSBS has delivered a Guest Lecture titled **"Virtualization and Mobile Operating Systems"** at RVS College of Engineering and Technology, Coimbatore on 03.05.2023.

SKCET



FACULTY CERTIFICATION



Follow us
@



#skcetofficial



#skcetofficial



#skcet



#skcetofficial



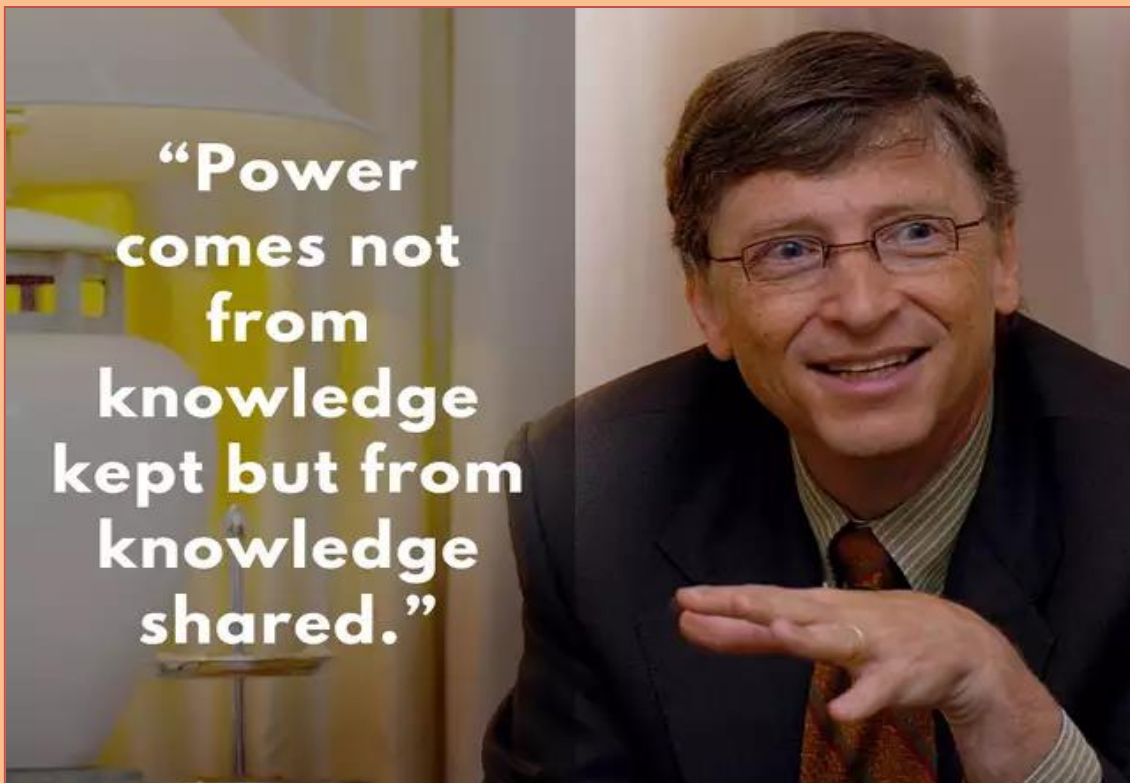
Feedback @
skcetbuzz@skcet.ac.in

M.Tech CSE | WEBINAR ON SOCIAL RESPONSIBILITY



Ms. T Dureen V Rayen, Assistant Professor of **M.Tech Computer Science and Engineering** has participated in a **Webinar on Scientific Social Responsibility for Women** organized by the Department of Computer Technology, MIT Campus, Anna University held on **March 31, 2023**.

LEGENDARY INSIGHTS



SKCET



Follow us
@



#skcetofficial



#skcetofficial



#skcet



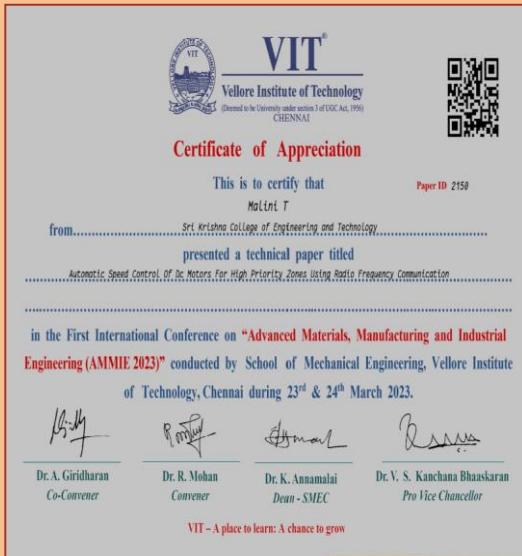
#skcetofficial

CONFERENCE PRESENTATION



Feedback @
skcetbuzz@skcet.ac.in

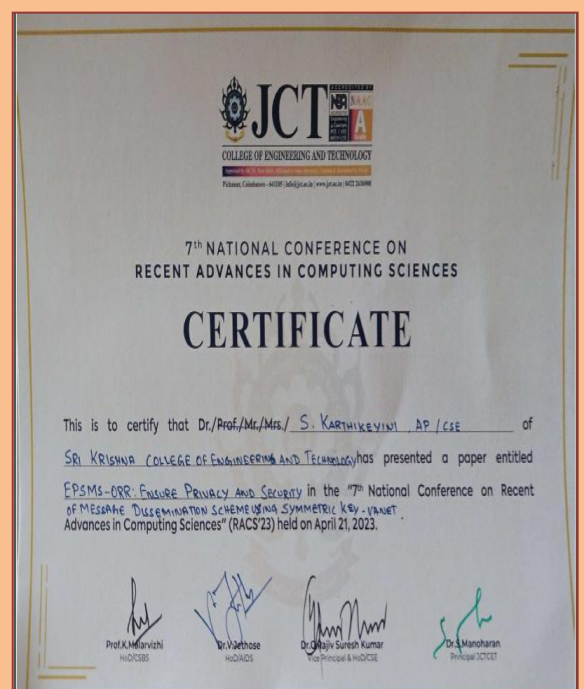
EEE | CONFERENCE PRESENTATION



Ms.T.Malini, Assistant Professor, **EEE** has presented a research paper entitled **“Automatic Speed Control of DC Motors for High Priority Zones Using Radio Frequency Communication”** in the First International Conference on **“Advanced Materials, Manufacturing and Industrial Engineering (AMMIE – 2023)”** organized by School of Mechanical Engineering, Vellore Institute of Technology, Chennai.

M.TECH CSE | PAPER PRESENTATION

Dr S Karthikeyini, Assistant Professor, Department of M.Tech Computer Science and Engineering has presented a paper titled **“Ensure Privacy and Security of Message Dissemination Scheme using Symmetric Key in VANET”** in the 7th National Conference on Recent Advances in Computing Sciences (RACS’23) held on April 21, 2023 at JCT College of Engineering and Technology, Coimbatore.



SKCET

Buzz



Follow us

@



#skcetofficial



#skcetofficial



#skcet



#skcetofficial



Feedback @
skcetbuzz@skcet.ac.in

**CREATIVE
CORNER**



ECE | CAM CURVE



Siva Dharini

III ECE C