SKCET Buzz

28th APRIL - 05th MAY 2023

INSIDE THE ISSUE

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INSTITUTIONAL EVENTS

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
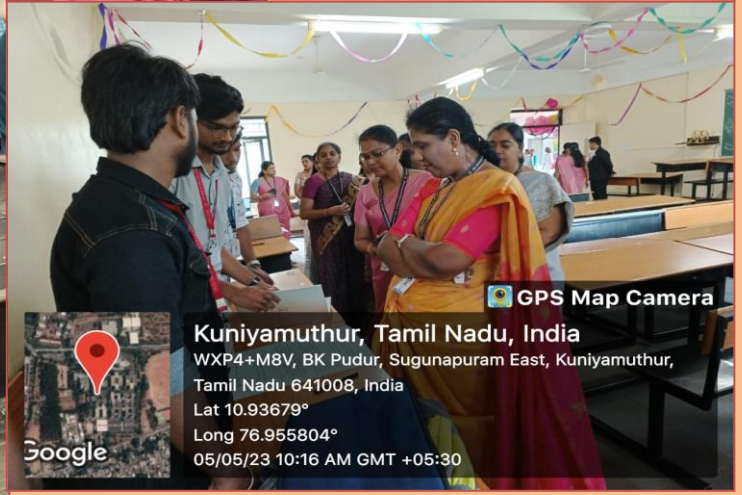
S&H | KRISHINNOV 2k23

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
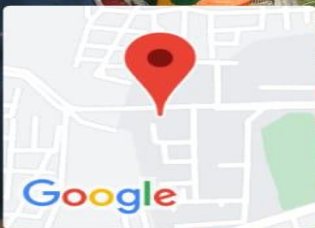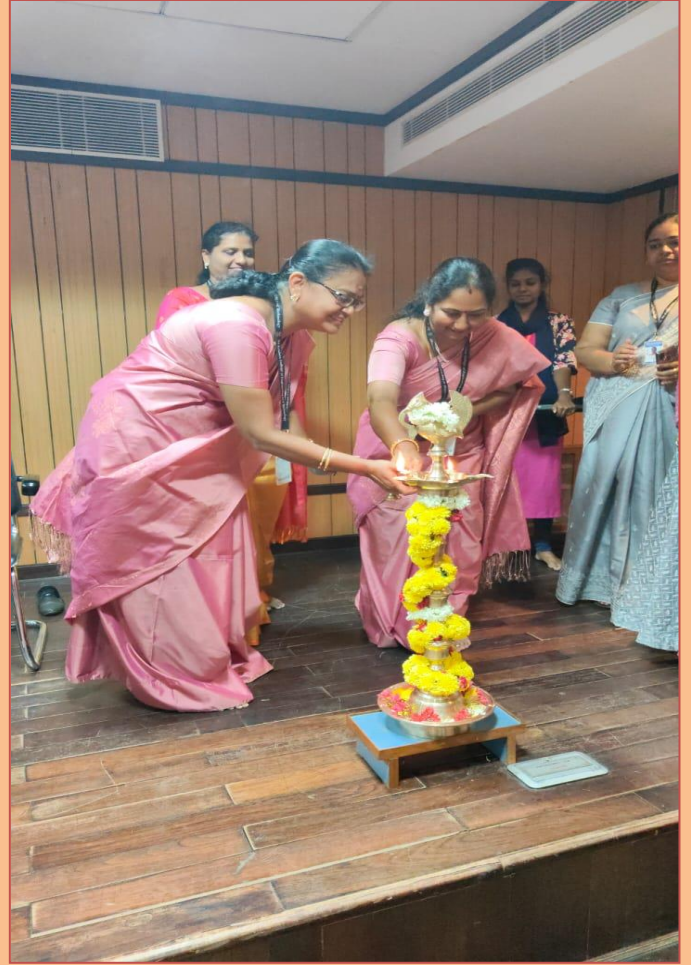
Progenix - Project Expo

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

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HACKATHON ACCOLADES

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

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STUDENTS PROGRESSION

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

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STUDENT CERTIFICATION

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.

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EVENTS

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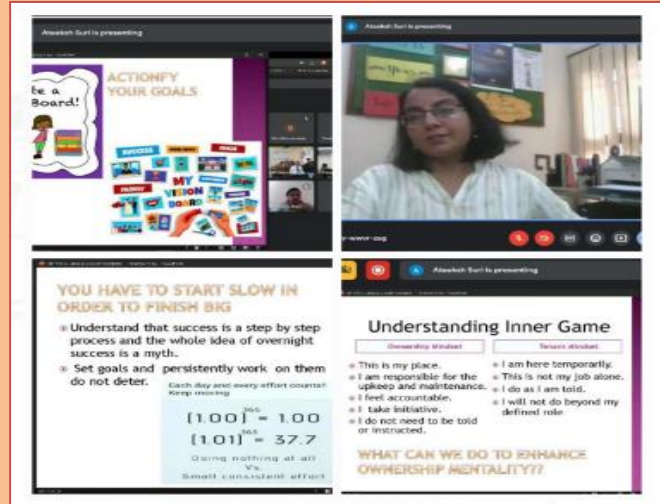
Department of **MCT** as Remote center, NITTTR Chandigarh organizes a **Short Term course on "Strategic Planning and Management"** from 24.04.2023 to 28.04.2023. The STC drew enthusiastic participation of the faculty members.

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
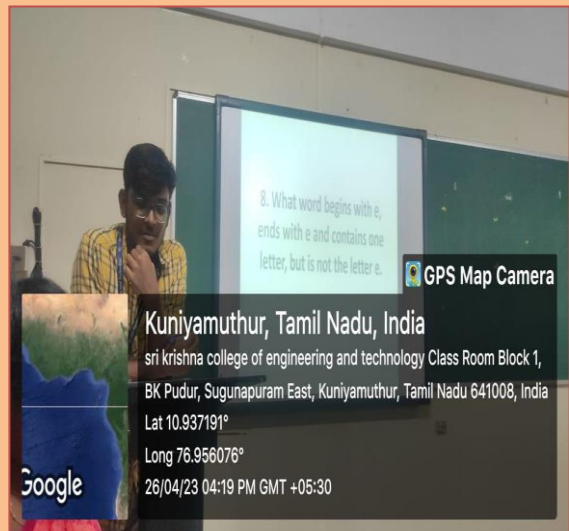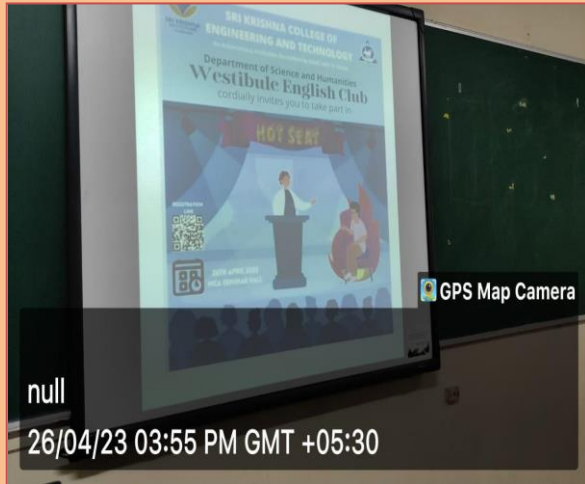
Westibule English Club of **Science and Humanities** Department organized an event entitled **"Hot Seat"** on 26th April 2023, for all the B.E/B.Tech students. Students from various streams participated in teams and gained new insight in connecting words with that of a task. The event invited students 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
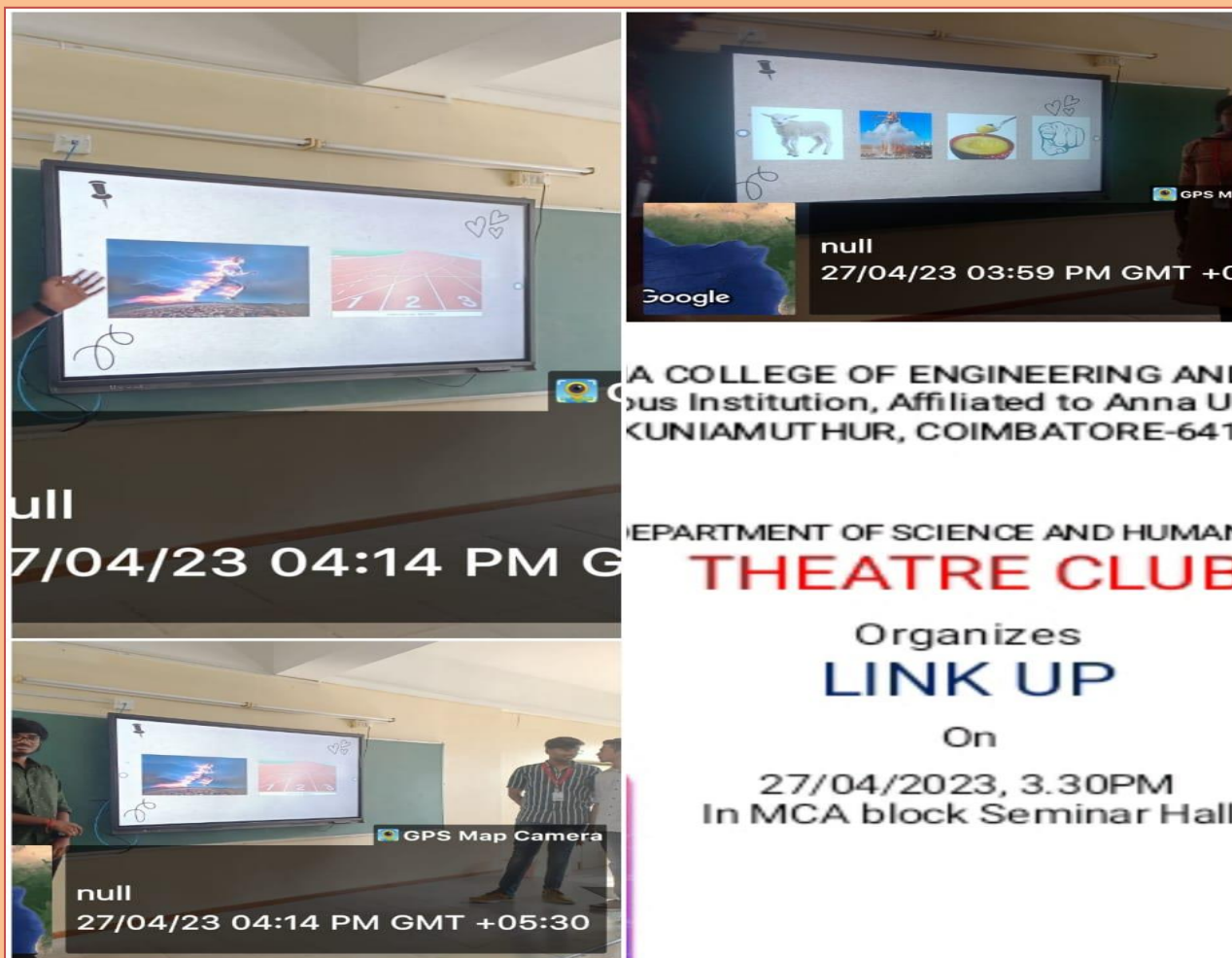
Theatre Club of **Science and Humanities Association** organized **LINK- UP** an abstract strategic event for the **First** year students. The players attempted to complete a specific type of connection with the given image pieces. Students were able to clear their thought as they played and this event 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
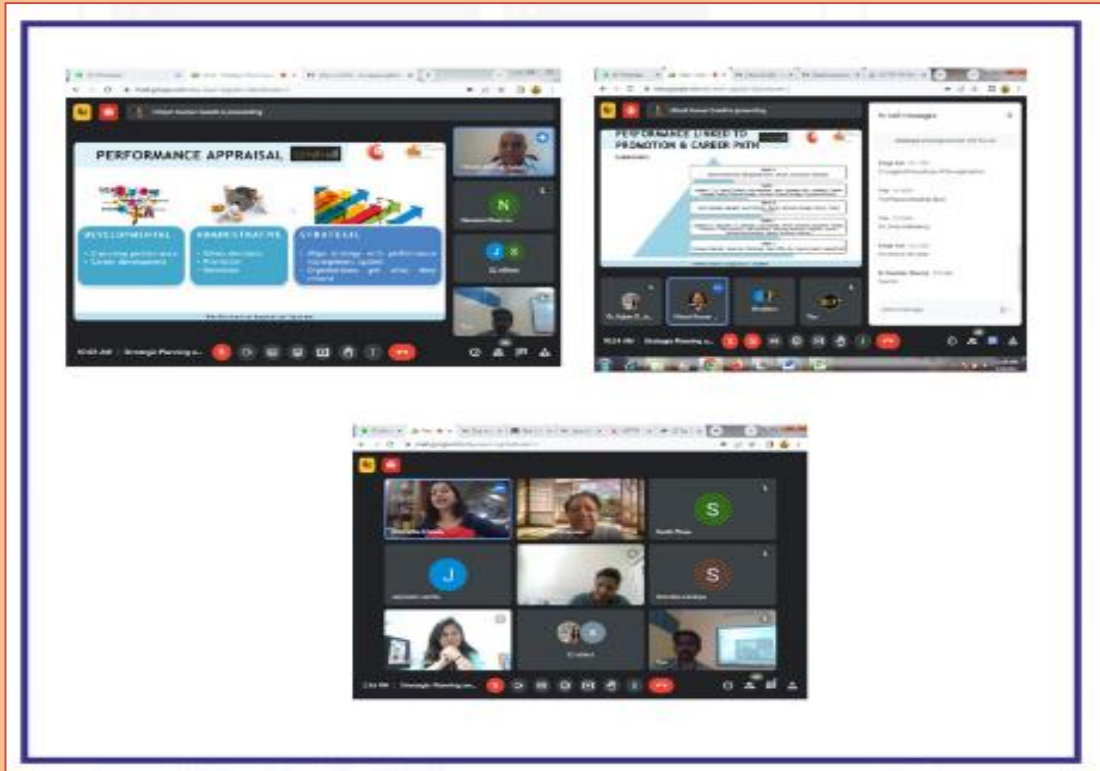
Day 3:

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
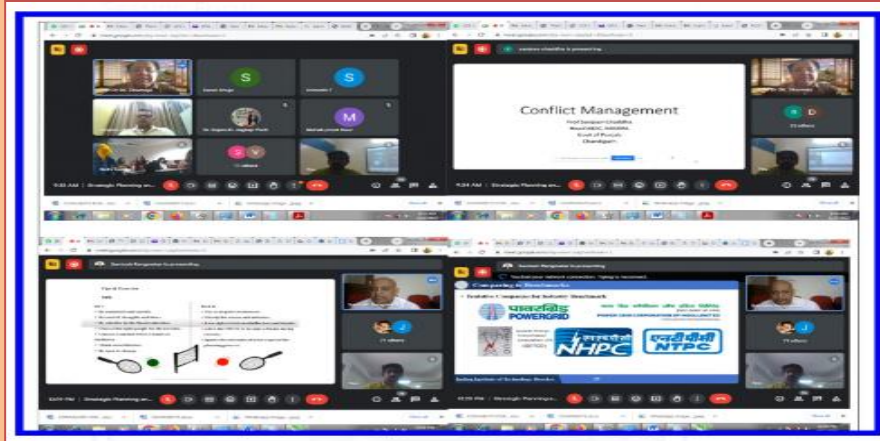
Day 4:
Session 1
Resource Person:
Dr.Sanjeev Chaddha, Professor & Head, Management Development Centre,
Mahatma Gandhi State Institute of Public Administration Punjab,
Chandigarh
Title: Conflict Management
Session Highlights:
- Conflict management styles
- Passive aggression and communication issues
- 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
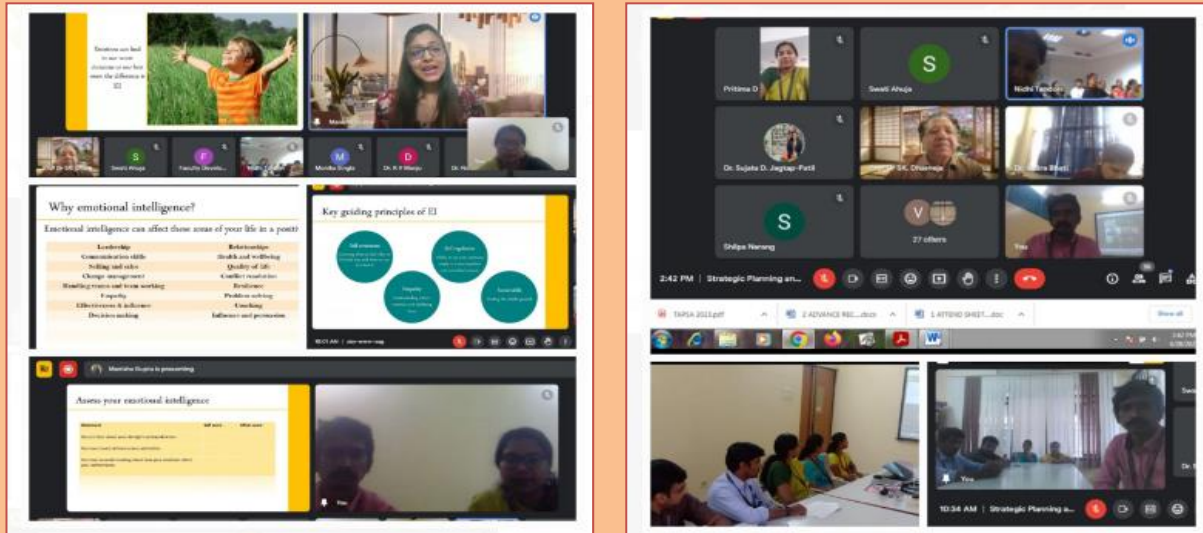
Day 5:
Session 1
Resource Person
Ms.Manisha Gupta
EI Expert,
Corporate Trainer,
Bengaluru
Topic: Emotional Intelligence
Session Focus:

- 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.

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RESEARCH AND DEVELOPMENT

R&D | SA UTILITY PATENT GRANT

REPUBLIC OF SOUTH AFRICA REPUBLIEK VAN SUID AFRIKA

PATENTS ACT, 1978

CERTIFICATE

In accordance with section 44 (1) of the Patents Act, No. 57 of 1978, it is hereby certified that:

Dr. S. Balakrishnan; Dr. J. Janet; Dr. P. Kavitha Rani; Dr. S. Venkata Lakshmi; Dr. L. Prabhu; Dr. G. Vijaya; Dr. P. Mohan Kumar; Dr. S. Vinodhkumar; ETB Samuel Jigme Harrison; Dr. Ravi Kumar Poluru

Has been granted a patent in respect of an invention described and claimed in complete specification deposited at the Patent Office under the number

2022/13006

A copy of the complete specification is annexed, together with the relevant Form P2.

testimony thereof, the seal of the Patent Office has been affixed at Pretoria with effect from the 22nd day of **February 2023**

Registrar of Patents

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

Dr.P.Saravanakumar, 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.

R&D | JOURNAL PUBLICATION | CIVIL

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

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.

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.[3]
[1]Department of Civil Engineering, Sri Krishna College of Engineering and Technology, Coimbatore, Tamil Nadu, India
[2]Department of Civil Engineering, Anna University, Chennai, Tamil Nadu, India
[3]Department of Civil Engineering, Sri Venkateswara College of Engineering, Sriperumbudur, 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/gnj.004691

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 theseelectrodes 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 & Mkandawire, 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 subabul seeds remediated textile wastewater contaminated soil (Jayanthy 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(S), 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

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.

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**".
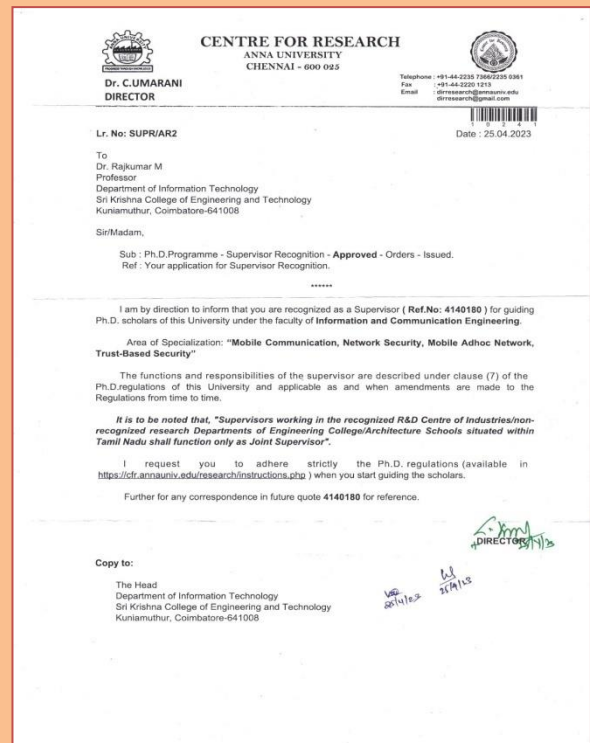
HEALTHOGRAPHICS

Health Benefits Of Millet

Treats Coronary Artery Disorder

Reduces Risk of Colon Cancer

Helps in preventing Celiac disease

Good Source of Antioxidants

Aids in Sleep

Helps in Weight Loss

Helps to decrease high blood pressure

Controls Diabetes

Helps in slowing down muscle degradation

Helps in relieving menstrual cramps

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FACULTY PROGRESSION

PROGRESS....

EEE | RESOURCE PERSON - GUEST LECTURE

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

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.

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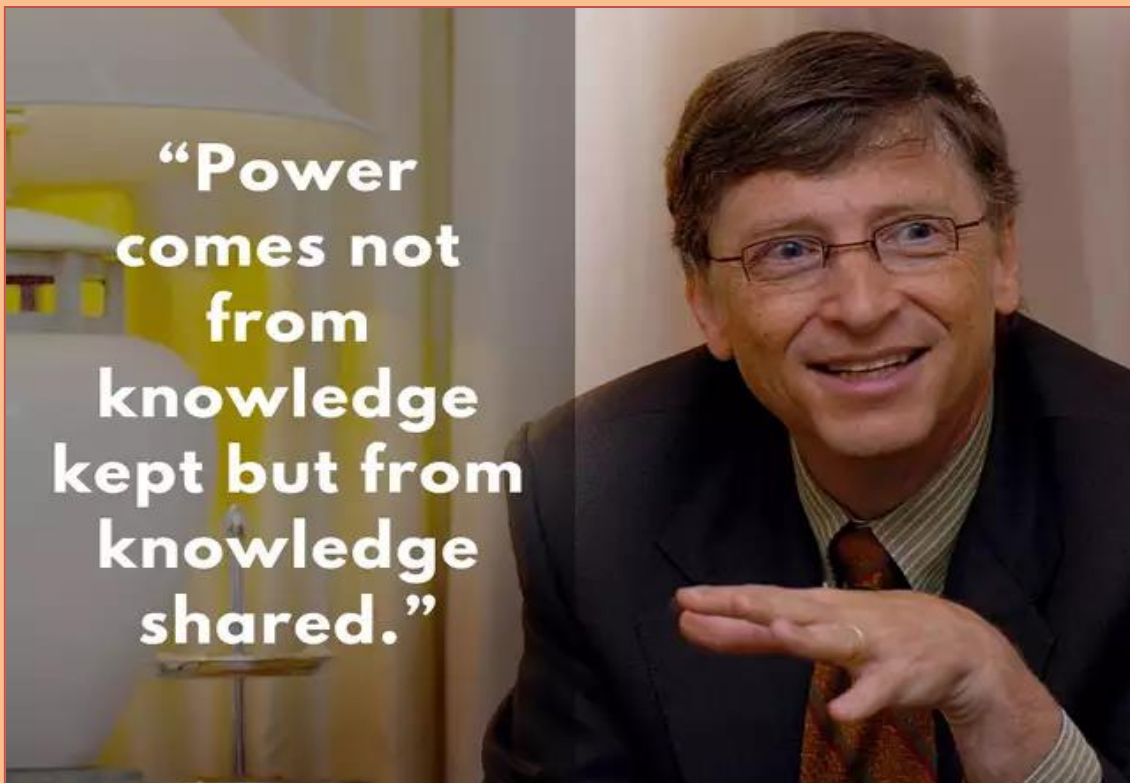# FACULTY CERTIFICATION

M.Tech CSE | WEBINAR ON SOCIAL RESPONSIBILIY

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

"Power comes not from knowledge kept but from knowledge shared."

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CONFERENCE PRESENTATION

EEE | CONFERENCE PRESENTATION
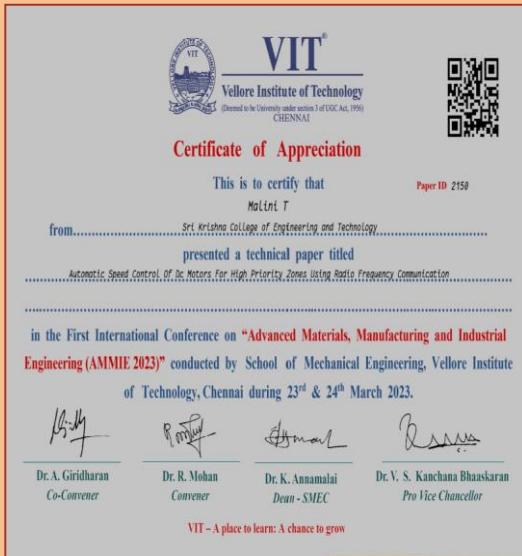
Ms.T.Malini, Assistant Professor, **EEE** has presented a research paper entitled **"Automatic Speed Control of DC Motors for High Priority Zones Using Radio Frequency Communication"** in the First International Conference on **"Advanced Materials, Manufacturing and Industrial Engineering (AMMIE – 2023)"** 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.**
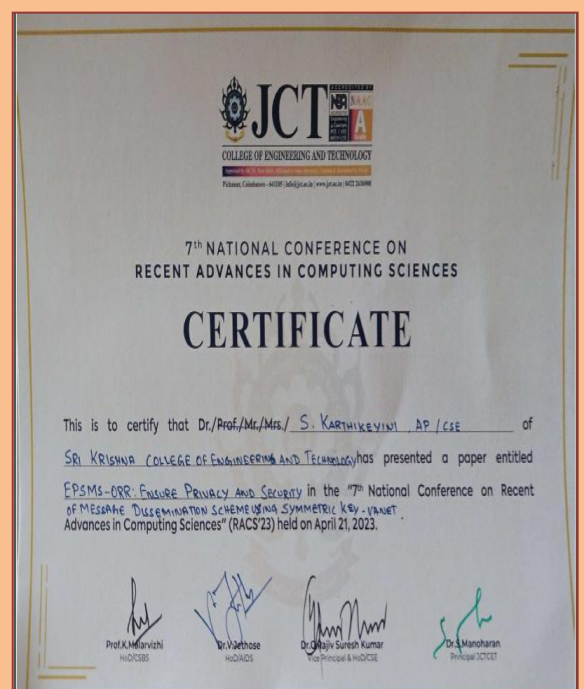
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Siva Dharini

III ECE C