One Week Faculty Development Program on Recent Trends in Computer Science

Department of Computer Science & Engineering organized on 8 th August 2022 one week faculty development program on "**Recent Trends in Computer Science**". Program is conducted by Mr. Arate Dhanraj, Mr. Abhijit Nashte, Abhijit Gatade, Mr.Gore from Different MNC Software Companies. FDP covers major **Recent Trends in Computer Science** as Python, MongoDB, Big data, Azure in cloud computing. This FDP enhanced the faculty knowledge on Web Technology.

Interactive session/Expert talk on Career Opportunities in Network & Security Engineering

Department of Computer Science & Engineering organized "Expert talks on "**Career Opportunities in Network & Security Engineering**" On 30th September 2022. Mr. Kailas Karajkhede (CEO & Managing Director at M-Tech Logic Consultancy Services LLP Pune, Maharashtra, India) started with an introduction to networks and their components, with an emphasis on what needs to be protected, where and how it should be protected. He spoke of security controls at enterprises like Mobile device management relevant to BYOD policies. He also spoke about the real-time scanning of files for malware detection and the advantages of black-listing and white-listing. Towards the end of session he spoke of endpoint security, File integrity checker, SIEM's etc.

Expert talks on Data Structure

Department of Computer Science & Engineering organized "Expert talks on Data Structure" on 29th November 2022. Prof.V.M.Sale started the session with Introduction and in computer science, a data structure is a data organization, management and storage format that enable efficient access and modification. More precisely, a data structure is a collection of data values, the relationships among them, and the functions or operations that can be applied to the data. Data Structure includes all topics such as Array, Pointer, Structure, Linked List, Stack, Queue, Graph, Searching, Sorting, Programs, etc. He explained all the types with real time examples. And he showed many C programs for implementing these types. Many C puzzles related to this topic are asked and students answered with interest.
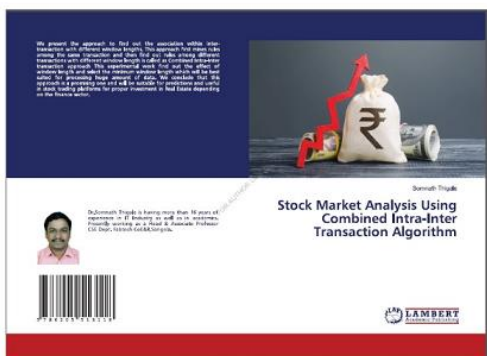
LinkedIn Profile Competition

Department of Computer Science & Engineering organized state level "LinkedIn Profile Competition" under the banner of computer science and engineering student association on dated 10 th November 2022 at 2:00 PM to 5:00 PM. Total 250 student participated in this competition from different colleges .Winner of this competition is Shubham Bundgar from SVERI's College of Engineering and First Runner-up is Ganesh Lavte and Second runner-up Nisraga Fasage. From this computation all students aware of how to create and manage LinkedIn Profile.

Dr. Somnath Thigale Published book on "Stock Market Analysis Using Combined Intra-Inter Transaction Algorithm"

Dr. Somnath Thigale Published book on 25th November. Dr. Somnath Thigale is head & associate professor in computer science & engg. department. He is having more than 16 years of experience out of which 10 years as Prof. In CSE Dept. & more than 6 years as IBM Rational & DB2 Certified facilitator. In this book present the approach to find out the association within inter-transaction with different window lengths. This approach first

mines rules among the same transaction and then find out rules among different transactions with different window length is called as Combined Intra-Inter transaction approach. This book is published by Lambert publication.

Expert talks by Dr. Somnath Thigale at different colleges.
Dr. Somnath Thigale is head & associate professor in computer science & engg. department. Conducted expert talk at government polytechnic, Solapur for third year students on topic "Design Thinking Approach in Project" more than 60 Students and 3 staff attended session.
Also the session conducted for Students and staff of the Institute of Computer and Management Studies, Pandharpur on the topic "Design Thinking-Cooperative Learning". Where small storytelling practices, Hands-on sessions on Innovative Ideas along with Project to Product were discussed.
He Delivered a expert talk at Shivaji Polytechnic, Sangola for TY CO students on Software Testing a Innovative Perception.

Indain Paitent Achivments by Dr. Somnath Thigale

Dr. Somnath Thigale is head & associate professor in computer science & engg. Department. Dr.Somnath is having more than 16 years of experience out of which 10 years as Prof. In CSE Dept. & more than 6 years as IBM Rational & DB2

Certified facilitator. Sir has achieved Three Indian Patents Successfully published on 21 th October 2022.

1. Application No.202221059356 A, Title of the invention : Optimum Design Of Thermoelectric Couple-Based Heat Ventilation And Air Conditioning System For Cars
2. Application No.202221059374 A, Title of the invention : Design & Development Of Scalable Real-Time Electric Vehicles Charging and
3. Application No.202221059392 A, Title of the invention : Design Of Solar Grain Dryer For Storage.

Parent Teacher meeting

The Department of Computer Science & Engineering organized a Parent Teacher meeting on Friday, 25th November 2022 at 2.00 pm. The main purpose of meeting was to create a common platform, where teacher and parents come together to enrich the student's educational experiences and discuss a variety of issues regarding all around development of students. In this Felicitated of winners in Linked \Profile creation Competition. The addressing speech was given by Head of department Dr. Prof. Somanath Thigale. After this Training and placement officer Dr. Prof. Sahebgouda Sangangoudar gave guidance about placement.

Workshop on LaTex

Department of Computer Science & Engineering organized "Workshop on LaTex" on 3th January 2023. Prof. Namdev Sawant started the session with LaTex is a document preparation system for high-quality typesetting. It is most often used for medium-to-large technical or scientific documents but it can be used for almost any form of publishing. LaTeX is not a word processor! Instead, LaTeX encourages authors not to worry too much about the appearance of their documents but to concentrate on getting the right content.

Guest Lecture on "Discrete Mathematics"

Department of Computer Science & Engineering organized "**Guest Lecture on "Discrete Mathematics"**" on 16th January 2023. Prof. Sumit Ingole started the session with Introduction with Discrete mathematical structures include objects with distinct values like graphs, integers, logic-based statements, etc. In this Lecture, covered all the topics of Discrete Mathematics for computer science like set theory, recurrence relation, group theory, and graph theory. Purpose of this guest lecture is to understand Discrete Mathematics Technology Concepts.

Expert Lecture on "Computer Architecture and Organization".

Department of Computer Science & Engineering organized **Expert Lecture on "Computer Architecture and Organization".** on 3rd February 2023. The expert lecture was conducted by Prof. Vijay J., KIT, Shelave, Pandharpur on

"Computer Architecture and Organization". Computer Organization is one of the prominent subjects for CSE students. The expert was emphasized on how computer internally works? He also extended the lecture on instruction formats of a computer, Using these instruction formats, how operations on data will be performed? How architecture of computer can be implemented? Number representation, floating point representation, floating point arithmetic. Sir had also explained all important points regarding control unit and input output organization, memory organization. All students are actively participated in the program and took suggestions from the expert.

Expert Lecture on "Design and Analysis of Algorithm".

Department of Computer Science & Engineering organized **Expert Lecture on "Design and Analysis of Algorithm".** on 10th July 2023. The expert lecture was conducted by Mrs. Trupti Bansode, Analyst, CXM, Merkle. Design and Analysis of Algorithm is one of the prominent subjects for CSE students. Design and Analysis of Algorithm is very important for designing algorithm to solve different types of problems in the branch of computer science and information

technology. It plays a vital role in the programming world. The expert was emphasized on how analysis of any algorithm is to be calculated? She also extended the lecture on dynamic programming; She explained examples of Bellman Ford algorithm, Floyd Warshall algorithm. Madam had also explained all important points regarding algorithm visualization.

All students are actively participated in the program and took suggestions from the expert.

Two Days IoT & Project Workshop

Department of Computer Science & Engineering, organized a two-day hands-on workshop on "IOT & Projects" on May 23 and 24, 2023, from 9 am to 5 pm. Under the guidance of Hon. Management, Hon. Campus Director, and Respected Principal Sir. The resource persons for this workshop were Prof. Manoj Deshmukh & Dr. Somnath Thigale. More than 68 students and 03 staff attended sessions and came out with 10 Projects.

The workshop began with an overview of IoT, its applications, and its impact on various industries. Participants had the opportunity to work with IoT development boards and sensors, learning how to collect and transmit sensor data to a cloud platform. Participants were divided into groups and given a project challenge to design and implement an IoT solution using the knowledge gained during the workshop.

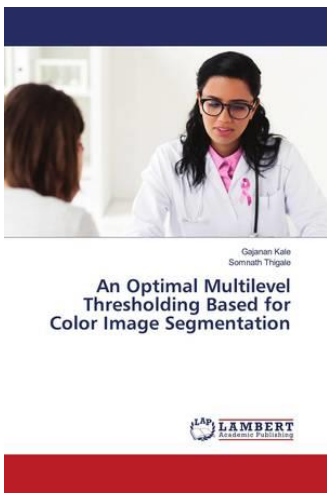**Mr. Yuvraj Rajendra Patil got first rank in speech competition**

The 96th birth anniversary of Dr. Ganapatraoji Deshmukh was celebrated on Labours Day 10th August 2023. This occasion speech competition organized by organization. In this competition student of Fabtech College of Engineering Mr. Yuvraj Rajendra Patil got first rank.

Brilliant success of students at FabTech Technical Campus

A national level exhibition was organized at Ramakrishna Garden Villa, Mangalvedha Road, Sangola from 23 August 2023 to 25 August 2025. Six project groups from Fabtech Technical Campus College of Engineering and Research participated in the event. Computer Engineering Department student Sutar Digvijay won third prize in the event. His project is "Cap for Blind People" A cap is a device used by people who are blind or visually impaired. A cap primarily allows its user to scan their surroundings for obstacles or orientation marks, but is also helpful for onlookers in identifying the user as blind or visually impaired and taking appropriate care.

Prof. G. G. kale & Dr. S.B Thigale has published a book in LAMBERT Publication on "An Optimal Multilevel Thresholding Based for Color Image Segmentation"

prof. G. G. kale & Dr. S.B Thigule has published a book in LAMBERT Publication **on 16ᵗʰ August 2023**. The **title** of the book is" An Optimal Multilevel Thresholding Based for Color Image Segmentation**"** In this book, propose a practical and self interpretable invasive cancer diagnosis solution. With minimum annotation information, the proposed method mines contrast patterns between normal and malignant images in unsupervised manner and generates a probability map of abnormalities to verify its reasoning. Particularly, a fully convolution auto encoder is used to learn the dominant structural patterns among normal image patches. Patches that do not share the characteristics of this normal population are detected and analyzed by one-class support vector machine and 1-layer neural network. Here apply the proposed method to a public breast cancer image set. Results, in consultation with a senior pathologist, demonstrate that the proposed method outperforms existing methods. The obtained probability map could benefit the pathology practice by providing visualized verification data and potentially leads to a better understanding of data-driven diagnosis solutions.

Dr. S. B. Thigale nominated as a Member for IEI Sholapur Local centre, Sholapur.

Dr. S. B. Thigale (Head -Associate Professor) nominated as a Member for IEI Sholapur Local centre, Sholapur. IEI Solapur Local Centre is established on 22nd August 2010 with 646 corporate members & 1683 Non corporate attached to it. Total 9 Student Chapters are working under IEI-SLC at Engineering & Polytechnic Colleges. Technician & Sr. Technicians are guided for form submission attestation & support. Members, students can avail study material & library facility at local centre

Dr. S. B. Thigale Conducted online workshop for TY and Final year Students of SMSMP COE, Aakluj