

# MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY

(AUTONOMOUS INSTITUTION - UGC, GOVT. OF INDIA) Affiliated to JNTUH; Approved by AICTE, NBA-Tier 1 & NAAC with A-GRADE | ISO 9001:2015



# DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

# INNOVISION - July - December (2023 - 2024)



# Editorial Board Director Dr. VSK Reddy Principal Dr. S. Srinivasa Rao Dean Dr. T. Venu Gopal Head of the Department /CSE Dr. S. Shanthi Assistant Professor /CSE B. Saritha Newsletter Editor M. Venkat Gopi Krishna, III-CSE-C

# **ABOUT HOD**

Dr. S. Shanthi is a Professor and Head of the Department of Computer Science and Engineering. She completed her Ph.D. from the University of Mysore in 2016. Prior to her Ph.D., she earned a Bachelor of Engineering (B.E) in



Computer Science and Engineering from Madras University, Tamil Nadu, in 2003, and a Master of Engineering (M.E) from Sathyabama University, Chennai, in 2008.

With over sixteen years of academic experience in various reputed institutions in Telangana, her areas of interest include Operating Systems, Computer Networks, Object-Oriented Programming, Information Security, Artificial Intelligence, and Machine Learning. She has published more than 25 research papers in reputed journals and conferences and has organized many international and national conferences and technical workshops. She has published three book chapters and holds three patents.

Additionally, she has been a resource person for expert lectures in various domains of Computer Science and Engineering and serves as a reviewer for the Journal of Ambient Intelligence and Humanized Computing. She received the Best Women Faculty Award in 2018 from IASTE and has professional memberships in CSI and ISTE.

# VISION

To acknowledge quality education and instill high patterns of discipline, making the students technologically superior and ethically strong, which involves the improvement in the quality of life in the human race.

## MISSION

- To achieve and impart holistic technical education using the best of infrastructure, outstanding technical and teaching expertise to establish the students into competent and confident engineers.
- Evolving the center of excellence through creative and innovative teaching learning practices for promoting academic achievement to produce internationally accepted competitive and world class professionals.

# **PROGRAM EDUCATIONAL OBJECTIVES**

#### **PEO1-ANALYTICAL SKILLS**

To facilitate the graduates with the ability to visualize, gather information, articulate, analyze, solve complex problems, and make decisions. These are essential to address the challenges of complex and computation intensive problems increasing their productivity.

# **PEO2-TECHNICAL SKILLS**

To facilitate the graduates with the technical skills that prepare them for immediate employment and pursue certification providing a deeper understanding of the technology in advanced areas of computer science and related fields, thus encouraging to pursue higher education and research based on their interest.

#### **PEO3**-SOFT SKILLS

To facilitate the graduates with the soft skills that include fulfilling the mission, setting goals, showing selfconfidence by communicating effectively, having a positive attitude, get involved in team-work, being a leader, managing their career and their life.

#### **PEO4**-PROFESSIONAL ETHICS

To facilitate the graduates with the knowledge of professional and ethical responsibilities by paying attention to grooming, being conservative with style, following dress codes, safety codes, and adapting to technological advancements.

# **PROGRAM SPECIFIC OUTCOMES**

After the completion of the course, B. Tech Computer Science and Engineering, the graduates will have the following Program Specific Outcomes:

**PSO1**-Fundamentals and critical knowledge of the Computer System:-

Able to Understand the working principles of the computer System and its components , Apply the knowledge to build, asses, and analyze the software and hardware aspects of it .

**PSO2** -The comprehensive and Applicative kn -owledge of Software Development:-

Comprehensive skills of Programming Languages, Software process models, methodologies, and able to plan, develop, test, analyze, and manage the software and hardware intensive systems in heterogeneous platforms individually or working in teams.

**PSO3** -Applications of Computing Domain & Research:-

Able to use the professional, managerial, interdisciplinary skill set, and domain specific tools in development processes, identify the research gaps, and provide innovative solutions to them.



# DEPARTMENT ACTIVITIES

ICSCSP (International Conference on Soft Computing & Signal Processing)





Malla Reddy College of Engineering & Technology successfully hosted the 6<sup>th</sup> International Conference on Soft Computing and Signal Processing on **23<sup>rd</sup> & 26<sup>th</sup> June 2023**, with scholars from various countries presenting their research. The event featured keynote addresses, traditional performances, and the launch of the Souvenir. A total of 110 papers were shortlisted for publication in Springer, marking the event as a significant achievement for MRCET.

# **IDEATHON 2023**



The Department of Computer Science and Engineering at MRCET organized "Ideathon 2023" on **11th & 12th August 2023**, providing a platform for students to showcase innovative ideas addressing real-time problems. Out of over 30 submissions, 24 ideas were presented, with winners selected based on novelty, societal impact, and presentation. The event concluded with a valedictory ceremony where the efforts of participants and organizers were recognized.

**ENGINEER'S DAY** 





MRCET's Computer Science and Engineering department celebrated Engineers' Day on **15th September 2023**, honoring Dr. Mokshagundam Vishweshvaraya. The event engaged II and III-year students in activities like debates, idea presentations, and creative contests.

# TWO DAYS HANDS-ON PROGRAM ON R



MRCET's CSE department organized a two-day handsworkshop on on R Programming on 29th & 30th September 2023, led by industry expert Mr. Naga Sri Mouli Borusu. 135 third-year Around students participated, gaining valuable insights and practical experience in data science. machine learning, and R.

Statistical Visualization and Analysis Workshop:



A two-day workshop was conducted on **16th & 17th October 2023** by Mr. Dattatreya Goud from Decode Soft Tech Solutions Pvt Ltd. The session aimed to introduce third-year students to R Programming and emerging trends in Data Science and Machine Learning. Held at the Placement Block Lab, it saw active participation from 135 students, providing valuable insights and enhancing their technical skills for future careers.



### JOURNAL PUBLICATIONS BY FACULTY

Dr.V.Sangeetha, A New Approach for Plant Diseas -e Detection Using Convolutional Neural Network and Convolutional Autoencoder, *Journal of Army Engineering University of PLA*, 2023.

K.Chandusha, An Improved DNA Sequencing Usin -g Advanced Machine Learning and Deep Learning Techniques, *Science, Technology and Development*, ISSN: 0950-0707, 2023.

K.Chandusha,Sentiment Analysis Using Improved Long Short-Term Memory, *GIS Science Journal*, ISSN No: 1869-9391, 2023.

Dutta Sai Eswari, Anomaly and Intrusion Detecti on System in a Flow-Based Environment Using En semble Classifiers and the Feature Impact Scale, *International Journal of Intelligent Systems and Applications in Engineering*, August 2023, ISSN: 2147-6799.

Sandeep Agarwalla, An Intricate Network Sharing Protocol for Open Networks with Several Hierarchi es, *International Journal*, 2023-24, ISSN: 2320-5547, Volume No.11, Issue No.3, April – May 2023.

Sandeep Agarwalla, Developing a Machine Learning Methodology That Is Both Reliable and Secure, *International Journal*, 2023-24, ISSN: 2320-5547, Volume No.11, Issue No.3, April – May 2023, SCOPUS.

Dr. M. Sambasivudu, Recovering Images Based on Their Contents in a Distributed System, International Journal of Innovative Technology and Research, 2023, ISSN: 2320–5547.



# **BOOK PUBLICATIONS**

- Dr. Madduru Sambasivudu, Exploratory Data Analysis, Charulatha Publications, ISBN No.: 978-93-5577-846-8, Sep-23.
- Mr. Sandeep Agarwalla, Fundamentals of Information Technology, Himalaya Publishing House, ISBN:978-93-5840-072-4, October 2023.
- Dr. V Sangeetha, Python Algorithms: Mastering Data Structures and Problem Solving, Deccan International Academic Publishers, ISBN: 9788196499303, July-2023.

# SOFTWARE DEVELOPMENT CELL

## **CSE DEPARTMENT**

- SDC provides students with hands-on experience in roles like programmer, team lead, and management, covering the complete software development life cycle.
- SDC collaborates with industry experts, including alumni, to align projects with current technological needs.
- Key projects include College Website,
  College ERP, Digital Book Inventory, and
  Exam Cell Automation System.





# PATENTS AND INNOVATIONS

#### Dr. S. Shanthi

- ♦ Automated Food Freshness Detection Using Feature Deep Learning
- ♦ Patent Number: 2020100953
- ♦ Date: 25/06/2020

#### Dr. S. Rahamat Basha

- ♦ Borewell Rescue System Using Supervised Learning Techniques
- ♦ Patent Number: 202041043122
- ♦ Date: 16/10/2020

#### Dr. M. Sambasivudu, S. Rahamat Basha, M Nirmala

- ♦ Action and Gesture Recognition System for Children with Cerebral Palsy
- ♦ Patent Number: 202141013379A
- ♦ Date: 02/04/2021

#### Sandeep Agarwal

- ♦ An Investigation of Consumers Shift Toward E-commerce and M-commerce
- ♦ Patent Number: 202221052607
- ♦ Date: 23/09/2022

#### V. Sangeetha

- Blockchain Systems Assisted in Resolving Security Flaws and Risks in the Commercial Internet of Things with the Help of AI and Machine Learning
- ♦ Patent Number: 202341026303A
- ♦ Date: 05/05/2023

## **B. Sunil**

- ♦ Learning Based Intelligent Method for Students Academic Achievement Prediction
- ♦ Patent Number: 202341070866
- ♦ Date: 2023

## Dr. S. Shanthi

- ♦ An Automated System for Assisting Person of Medical Needs
- ♦ Patent Number: 201841015460
- ♦ Date: 27/04/2018

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