

### COLLEGE

#### Vision of the Institute

To be one of the nation's premier Institutions for Technical and Management Education and a key contributor for Technological and Socio-economic Development of the Nation.

#### Mission of the Institute

To produce technically competent Engineers and Managers by maintaining high academic standards, world class infrastructure and core instructions.

To enhance innovative skills and multi disciplinary approach of students through well experienced faculty and industry interactions.

To inculcate global perspective and attitude of students to face real world challenges by developing leadership qualities, lifelong learning abilities and ethical values.

### CSE Department

#### Vision of the Department

To be a choice for education in the area of Computer Science and Engineering, serve as a valuable resource for IT industry & society and exhibit creativity, innovation and ethics to cater the global challenges.

#### Mission of the Department

**M1:** To educate learners by adapting innovative pedagogies for enhancing their cognitive skills, technical competence and lifelong learning.

**M2:** To provide training programs and guidance to learners through industry institute partnerships, social awareness programs, internships, competitions and project works to inculcate research skills to address the global challenges.

**M3:** To provide opportunities for students to practice professional, social and ethical responsibilities using IT expertise with a blend of leadership and entrepreneurial skills.

### Program Educational Objectives (PEOs)

**PEO1:** Procure employment/progress towards higher degree and practice successfully in the CS/IT profession. (Successful Career Goals).

**PEO2:** Address complex problems by adapting to rapidly changing IT technologies. (Professional Competency).

**PEO3:** Gain respect and trust of others as effective and ethical team member by demonstrating professionalism and functioning effectively in team-oriented and open-ended activities in industry and society. (Leadership, Ethics and Contribution to Society).

## PROGRAM OUTCOMES (PO's)

**PO\_1:** Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

**PO\_2:** Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

**PO\_3:** Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

**PO\_4:** Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

**PO\_5:** Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

**PO\_6:** The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

**PO\_7:** Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

**PO\_8:** Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

**PO\_9:** Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

**PO\_10:** Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

**PO\_11:** Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

**PO\_12:** Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

## PSOs of the Department

**Domain Specific Knowledge:** Apply the relevant techniques to develop solutions in the domains of algorithms, system software, computer programming, multimedia, web, data and networking.

**Software Product Development:** Apply the design and deployment principles to deliver a quality software product for the success of business of varying complexity.

## Technical talk on IoT Technology Applications & Challenges

Department of CSE has conducted a event in association with Industry Institute Interaction Cell (IIIC) a Technical talk on IoT Technology Applications & Challenges on 08/07/2022. Sri S.V. Ramana Murthy, Senior Vice President, Code Tantra Tech Pvt. Ltd., Hyderabad. The program aims to train the students and develop within them strong theoretical foundation, systematic professional knowledge and strong practical skills in the fields of web-technologies, real time embedded systems, communications protocols and collaborative intelligence.



## NSS Activity - 115<sup>th</sup> Bhagath Singh Birthday

Department of CSE, Narayana Engineering College, Nellore in Association with NSS Unit Conducted 115<sup>th</sup> Bhagath Singh Birthday. For Indian people, Bhagat Singh is a real hero and freedom fighter who sacrificed his life happily for the sake of his motherland, his birthday on 27<sup>th</sup> September 2022 is commemorated as Bhagat Singh Jayanti and every Indian remembers his contribution and gives tribute to him on this auspicious day.



The Bhagath Singh Jayanti event is commemorated out as a great tribute to Bhagath Singh so to recall his sacrifice the CSE Department conducted an elocution program on life style, adventures and sacrifice of Bhagath Singh and his role in freedom fight. Students from different branches B.Tech, MCA, MBA has participated in the event.

## Guest Lecture on “Formal Languages And Automata Theory”

The Department of Computer Science and Engineering of Narayana College of Engineering, Nellore Organized a Guest Lecture on “Formal Languages And Automata Theory” in association with CSI on 16.12. 2022 for III B.Tech Students at Main Auditorium, C-Block. Resource Person is Mr. G. Murali, working as a Professor, Dept of CSE, JNTUACEP, Pulivendula. The resource person was introduced by the Department HOD-CSE Dr. C.Rajendra, addressed the students and explained the importance of Formal Languages and Automata Theory. This Guest Lecture is aimed to impart knowledge and training on the Fundamentals of Formal Languages and Automata Theory in solving real world problems. The resource person also explained the concepts of Formal Languages and Automata Theory. Students from II B.Tech (CSE) got benefited by this Program.



## Webinar on Cyber Security

October is celebrated as National Cyber Security Awareness Month (NCSAM) globally. In order to bring attention to Cyber Security and as a concentrated effort to stay safe and secure online, NCSAM is celebrated all over the world. Department of CSE of Narayana Engineering College, Nellore, celebrated NCSAM by organizing webinar on National Cyber Security in technical collaboration with ISoC India Hyderabad and ACM Hyderabad Deccan on 31<sup>st</sup> October 2022.

The webinar started by inviting guest and welcome address by Dr. C Rajendra, HOD-CSE. The seminar was attended by students. The participants were briefed about the chief guests Dr. Tilottama Goswami, Chair, ACM Hyderabad Deccan, Prof. Salman, Vice President, ISoC India Hyderabad and Mr. K Mohan Raidu CEO, Informatics India and the chief guests addressed the participants about the awareness on cyber security everyone should have as the Internet is today's backbone for all kind of online services and it has given rise to various features such as Social Media, Online Shopping, Digital Payments, e-Education, e-Health etc., Cyber Security is now a part of every individual's life. The more we connect we get, sage-guard our digital identities becomes a shared responsibility. The more we share, the more we must care.

The session started by brief introduction of the speaker of this webinar Dr. N Rukma Rekha, Associate Professor, School of Computing and Information Sciences, University of Hyderabad. Dr. N Rukma Rekha explained about the basics of Data Protection. In the current pandemic situation where Work from Home is a reality for most and Digital services are on the rise, so are cyberattacks.

Cyber Security has become more important than ever in today's Digital Life. It is no more a matter for security experts and web admins to take care of. Hackers and cyber attackers no more target only companies and corporations, but individuals too. The session is concluded with Vote of Thanks by Convener and Display of Appreciation Certificate to the speaker of the webinar.



## Guest Lecture on Computer Organization and Architecture

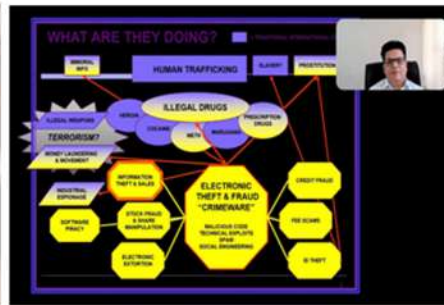
The Department of Computer Science and Engineering organized a Guest Lecture on Computer Organization and Architecture under Student Chapter IEI (Institution of Engineers India) on 21-11-22 for II Year CSE students. The resource person for the session was Mr. V. Muniraju Naidu, Assistant Professor, Malla Reddy University, Hyderabad. In this guest lecture, the resource person highlights the overview of bus structure, and explains how the bus structure was implemented, uses of bus structure, data bus and control bus. He also delivered the lecture on different types of instruction formats of a computer. By using these instruction formats, how operations will perform on data and also he demonstrated the polish and reverse notations.



All students are actively participated in the program and took suggestions from the expert. Participants have felt very happy to attend this guest lecture. They expressed their sincere thanks and regards to conduct this kind of lectures are very beneficial to students to improve their scope of knowledge.

## Guest Lecture on The Issues and Challenges in User Authentication

Department of CSE is organised a Guest Lecture on “The Issues and Challenges in User Authentication” on 22-10-2022 at CSE Seminar Hall in Virtual Mode. The Resource person Prof. Mohammad Sarosh Umar, Renowned Academician Aligarh Muslim University, Aligarh. He is an expert in the field of cyber security and authentication, and has conducted extensive research on this topic. The main motive of Guest lecture is to create an awareness for III B.Tech Students and Faculty on User authentication and ensuring the security in online transactions.



### Introduction

- ❑ 27 million Indian adults experienced identity theft in the past 12 months.
- ❑ The figures will further increase in the coming years if not checked !!
- ❑ Losses occurred through password theft – phishing, vishing, social engg., guessing, brute force attacks etc.

©Gartner, AntiPhishing Work Group (APWG) Report; India Today; AARP; Statista



## Value Added Course on “Embedded Robotics”

Department of CSE, Narayana Engineering College, Nellore has organized a six day Value Added Course on “Embedded Robotics” with hands on session from 14.11.2022 to 19.11.2022.

The objectives of the program are:

1. To enable students to design and develop Websites using Wordpress.
2. To make students to learn and implement new technologies in Website Development..

Dr. C. Rajendra, HOD of CSE Department has addressed the participants at 10.00 AM. He has explained the importance of websites for Commercial and Non-commercial organizations and he instructed the students to be up-to-date with technologies and to implement in Real Time environment. Handed over the session to the resource person Mr. Venkataramana started the session by interacting with students and gave introduction to Wordpress and demonstrated Websites developed using Wordpress.

The Hands on sessions provided to all students after delivering concepts to students in Laboratories. The program was concluded on sixth day at 5.00 PM after a Group Photo Session with participants. Dr. C. Rajendra thanked the organizers of VAC, the management, Director, Principal and Participants for their support and interest in attending the program.



## The National Level Five Day Faculty Development Program on “Computer Forensics and Cyber Crimes”

The National Level Five Day Faculty Development Program on “Computer Forensics and Cyber Crimes” was organized through offline mode by the Department of Computer Science & Engineering in Collaboration with Indian Servers, Vijayawada from 19<sup>th</sup> September to 23<sup>rd</sup> September 2022. Faculty members have participated in this event.

In the Day-1 Session of National Level Five Day Faculty Development Program, Dr. C Rajendra, HOD addressed the gathering and spoke about many useful faculty development programs organized by the Department and importance of Computer Forensics and Cyber Security. The Respectful Resource person of the session Mr. D. Sai Satish is having 15 years experience in IT. He is the CEO of Indian servers and written some books on ethical hacking and cyber security. This day he explained about Crypto Currency Frauds, VOIP Call analysis, Disposable eMail, Disposable SMS, VPN, Tor and Darkweb investigation. Lastly Sai Sathish concluded the session by giving some tips and tricks while protecting from hacking and cyber crimes and made an interactive Q&A session with the participants.

### **VALIDICTORY:**

The validictory session started where all the coordinators of the program shared their experiences they got by attending the National Level Five Day Faculty Development Program on “Computer Forensics and Cyber Crimes” and shared their feedback about the program. And some of the participants of the program shared their views about the program. Once when the Valedictory session was done, Dr K M Vara Prasad, Coordinator Concluded the program by conveying his heart-felt gratitude to HOD CSE Dr C.Rajendra garu, Principal Dr G.Srinivasulu Reddy, Director Dr. A.V.S. Prasad, everyone for making the NATIONAL LEVEL FIVE DAY FACULTY DEVELOPMENT PROGRAMME to end in a very good note.



## PATENTS

S. No	Academic Year	Author	Patent Title	National / International	Publication Date	Patent ID
1.	2022-23	Dr. B. Sunil Kumar	Smart and Advanced Biometric Mouse with Dual Authentication Aspects	National Patent	22-07-22	202241042089
2.		Dr. Y. Pavan Kumar Reddy	Smart and Advanced Biometric Mouse with Dual Authentication Aspects	National Patent	22-07-22	202241042089

## PAPER PUBLICATIONS

S. No	Name of the Author	Title of Paper	Name of the Journal	Year of Publication	ISSN No.
1.	Dr C. Rajendra	Blockchain Based Voting System in Local network	International Journal of Research in Engineering, IT and Social Sciences	July, 2022	2250-0588
2.	Dr. K. M. Vara Prasad	A Hand Gesture Recognition to Text Conversion for Deaf and Dumb Using Deep Learning	The International journal of analytical and experimental modal analysis	July, 2022	0886-9367
3.	Dr. P. Penchalaiah	An Efficient Image Transfer Reality and Background Noise Removal by Using Augmented Reality and Artificial Intelligence.	The International journal of analytical and experimental modal analysis	July, 2022	0886-9367
4.	Dr. Y. Pavan Kumar Reddy	Internet Financial Fraud Detection using Machine Learning Models with NODE2VEC	International Journal of Research in Engineering, IT and Social Sciences	July, 2022	2250-0588
5.	Mrs. D. Sujitha	Sleepy driver Alert with SOS System	The International journal of analytical and experimental modal analysis	July, 2022	0886-9367

## Prizes/ Awards Received (Outside the State)

S.NO	ROLL Number	Student Name	Year	Participation	Event name	Date	College Name	Prize
1.	20711A0527	CH. DEEKSHITHA	II-II	Infotechwhiz	TEHCRES CENZA-2K23	14-11-2022	RMD College, Chennai	I
2.	20711A0554	I. SRITEJA	III-II	Infotechwhiz	TEHCRES CENZA-2K23	14-11-2022	RMD College, Chennai	I
3.	20711A0565	K.SAI NIHARIKA	III-II	Infotechwhiz	TEHCRES CENZA-2K23	14-11-2022	RMD College, Chennai	I