NEC

NARASARAOPETA ENGINEERING COLLEGE
(AUTONOMOUS)
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

VISION OF THE DEPARTMENT

To become a centre of excellence in nurturing the quality Computer Science and Engineering professionals embedded with software knowledge, aptitude for research and ethical values to cater to the needs of industry and society.

MISSION OF THE DEPARTMENT

The Department of Computer Science and Engineering is committed to

M1: Mould the students to become Software Professionals, Researchers and Entrepreneurs by providing advanced laboratories.

M2: Impart high quality professional training to get expertize in modern software tools and technologies to cater to the real time requirements of the industry.

M3: Inculcate team work and lifelong learning among students with a sense of societal and ethical responsibilities.

PROGRAM EDUCATIONAL OBJECTIVES (PEOs)

The graduates of the program are able to:

PEO 1 Apply the knowledge of Mathematics, Science and Engineering fundamentals to identify and solve Computer Science and Engineering problems.

PEO 2 Use various software tools and technologies to solve problems related to academia, industry and society.

PEO 3 Work with ethical and moral values in the multi-disciplinary teams and can communicate effectively among team members with continuous learning.

PEO 4 Pursue higher studies and develop their career in software industry.

PROGRAM SPECIFIC OUTCOMES (PSOs)

Students will be able to:

**PSO 1** Apply mathematical and scientific skills in numerous areas of Computer Science and Engineering to design and develop software based systems.

PSO 2 Acquaint module knowledge on emerging trends of modern era in Computer Science and Engineering.

PSO 3 Promote novel applications that meet the needs of entrepreneur, environmental and social issues.

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PROGRAM OUTCOMES (POs)

Graduates of the Computer Science and Engineering program are expected to have the following.

PO1: Engineering knowledge: Apply the knowledge of Mathematics, Science, Engineering fundamentals, and an Engineering Specialization to the solution of Complex Engineering problems.

PO2: 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.

PO3: 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.

PO4: 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.

PO5: 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.

PO6: 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.

PO7: 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.

PO8: Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO9: Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO10: 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.

PO11: 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.

PO12: 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.
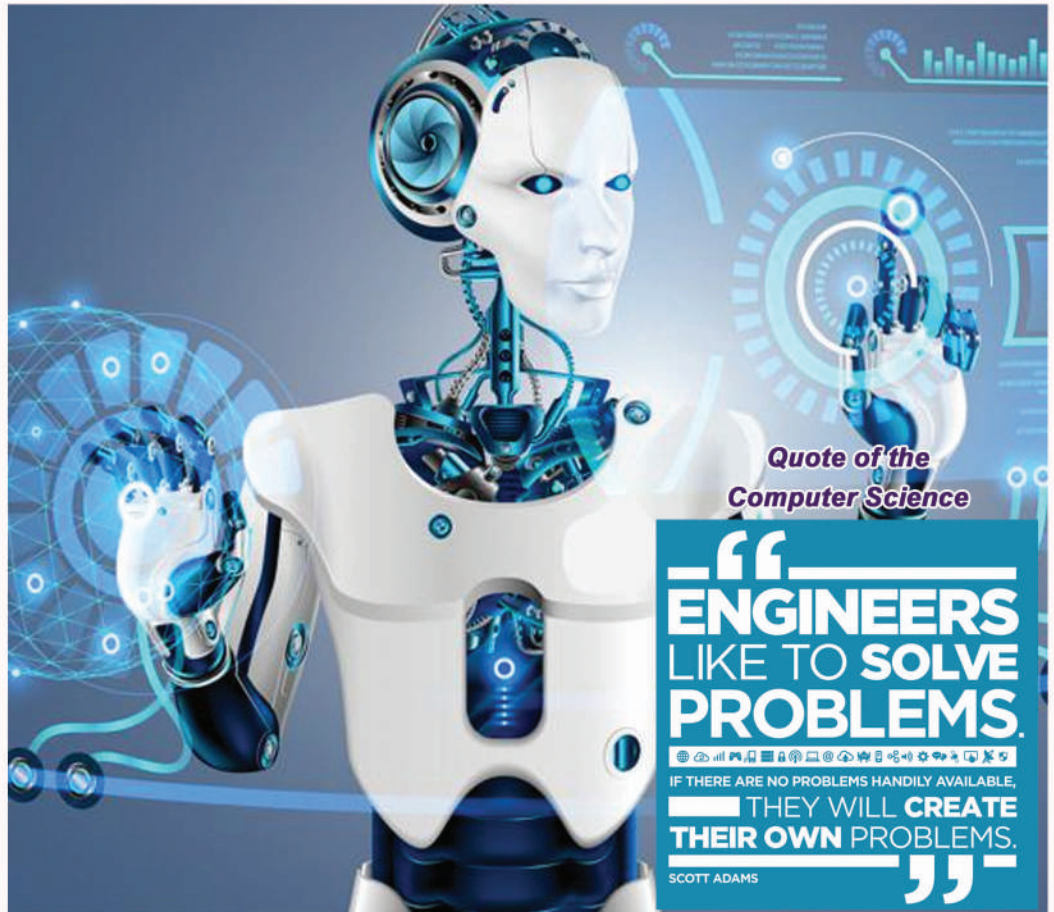
Quote of the Computer Science

ENGINEERS LIKE TO SOLVE PROBLEMS.
IF THERE ARE NO PROBLEMS HANDILY AVAILABLE,
THEY WILL CREATE THEIR OWN PROBLEMS.

SCOTT ADAMS

DEPARTMENT OF
COMPUTER SCIENCE & ENGINEERING

Innovation is our tradition

Vision

To become a centre of excellence in nurturing the quality computer science & engineering professionals embedded with software knowledge, aptitude for research and ethical values to cater to the needs of industry and society.

Mission

The Department of Computer Science and Engineering is committed:

Mould the students to become software Professionals, researchers and entrepreneurs by providing advanced laboratories.
Impart high-quality professional training to get expertize in modern software tools and technologies to cater to the real-time requirements of the industry.
Inculcate teamwork and lifelong learning among students with a sense of societal and ethical responsibilities.

Robotic Process Automation and Artificial Intelligence

Taking into account the technological evolution of the last decades and the proliferation of information systems in society, today we see the vast majority of services provided by companies and institutions as digital services. Industry 4.0 is the fourth industrial revolution where technologies and automation are asserting themselves as major changes. Robotic Process Automation (RPA) has numerous advantages in terms of automating organizational and business processes. Allied to these advantages, the complementary use of Artificial Intelligence (AI) algorithms and techniques allows to improve the accuracy and execution of RPA processes in the extraction of information, in the recognition, classification, forecasting and optimization of processes. In this context, this paper aims to present a study of the RPA tools associated with AI that can contribute to the improvement of the organizational processes associated with Industry 4.0. It appears that the RPA tools enhance their functionality with the objectives of AI being extended with the use of Artificial Neural Network algorithms, Text Mining techniques and Natural Language Processing techniques for the extraction of information and consequent process of optimization and of forecasting scenarios in improving the operational and business processes of organizations.

Robotic Process Automation

Robotic Process Automation (RPA) is the automation of services tasks that reproduce the work that humans do. The automation is done with the help of software robots or AI workers that are able to perform, accurately, repetitive tasks. The task instructions are set by the developer using some form of screen recording and defining variables. These tasks include actions like logging into applications, copying and pasting data, opening emails, filling forms, among others. Van der Aalst et al. state that "RPA is an umbrella term for tools that operate on the user interface of other computer systems". Although traditional forms of process automation (like screen recording, scraping and macros) also rely on the computer's user interface, RPA's core function is via element identification and not by screen coordinates or XPath selections. This, in most cases, provides a more intelligent interaction with the user interface. Commercial vendors of RPA tools report a surge in demand since 2016, and we see some research where these tools are used for automating digital forensics, auditing and industry. The advent of the fourth industrial revolution is paving the way for new ways to automate mundane rules-based business processes, using RPA tools on information obtained from smart devices . For business processes, RPA is the extrapolation of a human worker's repetitive tasks by a robot (where those tasks are done quickly and profitably). This aims to replace people by automation in an outside-in manner. Unlike traditional methods, RPA is not part of the information infrastructure but rather sits on top of it, implying a low level of intrusiveness possibly reducing costs. Some reports present a 30% to 50% decrease in operational costs of transactional activities within shared services with the use of RPA technologies.

Artificial Intelligence

At one time AI was a concept divided into major fields of application. Some of those fields where natural language processing, automatic programming, robotics, computer vision, automatic theorem proving, intelligent data retrieval, etc. Nowadays these application areas are so extensive that each could be considered a field in and of itself. AI is now best described as a group of core ideas that underline many of these applications. The use of AI by machines to complete complex tasks, reduce costs and improve the quality of goods and services is the core principle of smart factories. AI technologies are permeating the manufacturing industry and merging the physical and virtual worlds with the help of cyber-physical systems. The use of AI makes the manufacturing industry smart and capable of addressing modern challenges like customizable requirements, reduced time to reach the market and increasing number of sensors used in equipment. The use of flexible robots combined with AI allows for easier manufacturing of different products. AI methods (like data mining) are capable of analyzing large volumes of real- time data gathered from various sensors.

Smart India Hackathon-2022

Students of Dept. of CSE Participated in Internal Smart India Hackathon -2022 Conducted on 14 & 15 March 2022.

Internal Hackathon CSE students participation   Internal Hackathon in Main Seminar Hall

AWS Work Shop Training Programme conducted for 230 students from 14th - 26th March, 2022

Aws Work Shop

Alumni Student Interaction   Alumni Student Interaction

APSSDC-DATA SCIENCE INTERNATIONAL INTERNSHIP PROGRAM

Training Programmes conducted for students IV-II regarding Higher Education.

Interaction with Students

IELTs Guru Trainers

CSE ASST.PROF RATIFICATION conducted by JNTUK Professor & Team on 23.03.2022

Uppalapadu, Andhra Pradesh, India
53X4+FFM, Uppalapadu, Andhra Pradesh
522611, India
Lat 16.198818°
Long 80.055554°
23/03/22 02:20 PM

Uppalapadu, Andhra Pradesh, India
53X4+FFM, Uppalapadu, Andhra Pradesh
522611, India
Lat 16.198804°
Long 80.055525°
23/03/22 02:18 PM

Guest Lecture given by the following faculty on 23.03.2022
• Dr.G.Siva Nageswar Rao (KLU CSE DEPARTMENT)
• Dr.P.Pavan Kumar(PVP IT DEPARTMENT)

Uppalapadu, Andhra Pradesh, India
53X4+FFM, Uppalapadu, Andhra Pradesh 522611, India
Lat 16.198818°
Long 80.05551°
28/03/22 10:25 AM

Uppalapadu, Andhra Pradesh, India
53X4+FFM, Uppalapadu, Andhra Pradesh 522611, India
Lat 16.198871°
Long 80.055542°
28/03/22 10:26 AM

Technical Python (TECH HUB) conducted for 150 Students of III Year II Sem on 28-03-2022

IBM ACADEMIC INITIATIVE AGREEMENT Dr.MANI MADHU-KAR, ProgrameManager, Global University Programs, IBM Resarch

The Narasaraopet Engineering College in association with Indo-Euro Synchronization ARC conducting Data Science Intern-Ship Program (3 months) in Hybrid blended mode from 15-03-2022 onwards empowered by APSSDC .

International Conference on Artificial Intelligence and Its Emerging Areas NEC-ICAIEA-2K22
03rd & 04th June, 2022

NEC-ICAIEA – 2K22 Brochure Release

Dept. of CSE conducted Jubilation-2022 A National Level Student Tech Fest on May-07-2022.
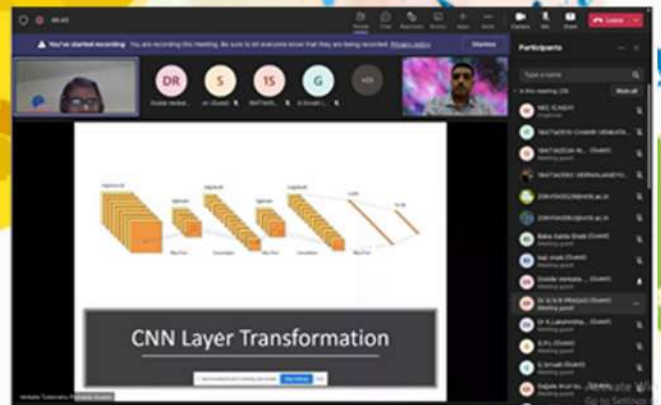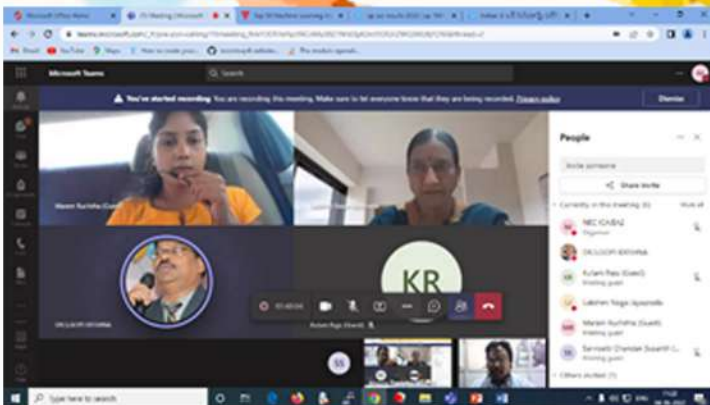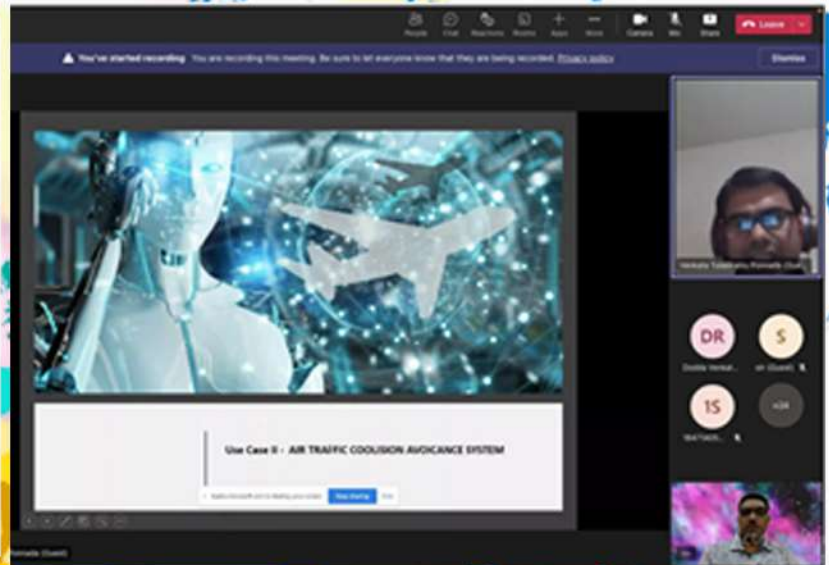

Conducting Department Technical event

Farewell Party

Farewell Day Celebrations on 24.05.2022 conducted by III CSE students for IV CSE Students.

INTERNATIONAL CONFERENCE 2K22

A INTERNATIONAL CONFERENCE on ARTIFICIAL INTELLIGENCE AND ITS EMERGING AREAS on 03.06.2022 and 04.06.2022

Student Focus

Training Programmes conducted for 230 students of II Year by ByteXL Training on 11-04-22 To 13-04-22

Training Programmes conducted for students of III & II CSE II semester from 24.05.22 to 28.05.22.

Toppers List Academic year 2021-22

NARASARAOPETA ENGINEERING COLLEGE (AUTONOMOUS)

DEPARTMENT OF COMPUTER SCIENCE ENGINEERING

I B.Tech. I Semester, CSE Toppers List (2021 Batch)

Name	ID	CGPA
B.YASASWINI	21471A0512	9.69
A.MANGONA	21471A05E1	9.46
G.SIVA ANJANI	21471A0526	9.38
A.L NIHARIKA	21471A0573	9.38
K.J.SAI PRIYA	21471A0591	9.38
SK.HAFIJA	21471A05C0	9.38
SYED RIZWANA	21471A05D1	9.38
TATA SUMANTH	21471A05D2	9.38
V.TEJA SRI	21471A05D3	9.38
K.RAMYA	21471A05N0	9.38

Management, Principal, HOD & Faculty Express their Hearty Congratulations to Toppers in I B.Tech I Sem

NARASARAOPETA ENGINEERING COLLEGE (AUTONOMOUS)

DEPARTMENT OF COMPUTER SCIENCE ENGINEERING

II B.Tech. I Semester, CSE Toppers List (2020 Batch)

Name	ID	CGPA
K.HARSHITHA	20471A0525	9.44
P.LAHARI	20471A05M3	9.44
G.RAMYA	20471A0522	9.30
S.VINEELA	20471A0550	9.30
SK.SUHANA	20471A05N1	9.16
N.ANUSHA	20471A0544	9.02
Ch.JAHNAVI	20471A0576	9.02
SK.SAMREEN	20471A05B6	9.02
S.HARSHINI	20471A05C0	9.02
CH.L.BHAVYA	20471A05K4	9.02

Management, Principal, HOD & Faculty Express their Hearty Congratulations to Toppers in II B.Tech I Sem

Toppers List Academic year 2021-22

NARASARAOPETA ENGINEERING COLLEGE (AUTONOMOUS)

DEPARTMENT OF COMPUTER SCIENCE ENGINEERING
III B.Tech. I Semester, CSE Toppers List (2019 Batch)

K.SAI CHARINI	M.ADILAKSHMI	T.S.V.DHEERAJ	Y. RENUKA	S.S.PRIYANKA
19471A0596	19471A0535	19471A0596	19471A0504	19471A0509
9.36	9.23	9.23	9.23	9.23

M.V.JYOSHNA	M.H.R.THULASI	R.B.VIJAY SINGH	T.BHAGYA LAKSHMI	T.N. MOUNIKA
19471A0534	18471A05g5	19471A0501	19471A05I7	19471A0560
9.11	9.11	9.11	9.06	8.98

Management, Principal, HOD & Faculty Express their Hearty Congratulations to Toppers in III B.Tech I Sem

NARASARAOPETA ENGINEERING COLLEGE (AUTONOMOUS)

DEPARTMENT OF COMPUTER SCIENCE ENGINEERING
IV B.Tech. I Semester, CSE Toppers List (2018 Batch)

K.SRIVALLI	P.ANUSHA	G.L.L.PRASANNA	K.SRAVANTHI	P. ASRITHA
18471A05E7	18471A05A1	18471A05E1	18471A05K5	18471A05L5
9.61	9.48	9.41	9.48	9.48

MD.MOBINA	P.LAKSHMI DIVYA	M.S.S.DEEPIKA	P.J.CHANDRIKA	V.S.N. JYOTHI
18471A0584	18471A0540	18471A0590	18471A05A2	18471A05B7
9.35	9.35	9.35	9.35	9.35

Management, Principal, HOD & Faculty Express their Hearty Congratulations to Toppers in IV B.Tech I Sem

ALUMNI VOICE

The infrastructure of a college plays a vital role in the development of the college as the students are now focusing on the labs, class rooms, etc while selecting a college. It is important that the colleges have very good infrastructure with advanced laboratories equipped with state of the art equipment etc. Only then the students can get hands on experience with the latest technologies. Computing resources are one of the important and mandatory needs of a college.

Chandra Sekhar. V
(01471A0504)
Data Engineer
Expedia,
Gurgaon, New Delhi

STUDENT VOICE

Narasaraopeta Engineering College is one of the prestigious and renowned insititute in this region.It is a privilege to be a part of this insititue to be a part.
I like the faculty and I feel I had the best environment for my studies. I learned many new things from my teachers who were very helpful in every way they could. The teacher-student interaction was great. The teachers were very friendly because of which I could clarify many of my doubts. High quality teaching, assessment and management of learning, regular and reliable feedback on student progress and achievements.

Y.Geethika
(20471A05C6)
CSE II Year, NEC