

CONFIGURATIONS

A BI-ANNUAL NEWSLETTER

Department of Computer Science & Engineering

Volume – XII | Issue – II | AUGUST 2025



St. Ann's College of Engineering & Technology
(Autonomous)

Chirala – 523 187, Bapatla District

Approved by AICTE – New Delhi, Permanently Affiliated to JNTUK – Kakinada

Accredited by NBA and Institution of Engineers(INDIA)

Institution Accredited by NAAC with 'A' Grade

Recognised by UGC under Section 2(f) & 12(B) of the UGC Act, 1956

Awarded 'A' Grade by Andhra Pradesh State Government.

VISION To be a centre of excellence in Computer Science & Engineering, and to produce students with ability to address emerging challenges in global perspective with social concern.	MISSION • To impart quality education that builds strong computational knowledge and prepares students for global technological demands. • To develop analytical, design, and research capabilities enabling students to create innovative and sustainable engineering solutions. • To promote experiential learning through projects, internships, and hands-on exposure to modern tools and technologies. • To nurture responsible engineers with ethical values, societal awareness, and a commitment to inclusive technological growth. • To encourage participation in research, consultancy, and community-oriented initiatives that enhance societal impact. • To encourage continuous professional growth by fostering adaptability, curiosity, and lifelong learning habits.			
Message From HOD Desk Greetings to all, as we bring out the August 2025 edition of “<i>Configurations</i>,” I extend my warm wishes to our students, faculty, and staff on Independence Day. May this occasion inspire us to think innovatively and contribute meaningfully to society. We stand at a time where Human Intelligence is being enhanced by Artificial Intelligence, opening doors to new possibilities and achievements. This synergy enables us to move beyond conventional boundaries and reach greater heights in learning and innovation. I encourage everyone to see every change not as a hurdle, but as an opportunity to grow and excel in new dimensions. The willingness to adapt and the spirit to embrace change should become our guiding motto. Let us continue to learn, evolve, and collaborate with a shared vision of excellence. With best regards, Dr. P. Harini, Ph.D. Professor & Head of the Department Department of Computer Science & Engineering St. Ann’s College of Engineering & Technology, Chirala. 				
BEST COMPLIMENTS FROM <table><tr><td> Sri. V. Ramakrishna Rao Secretary </td><td> Sri.S. Lakshmana Rao Correspondent </td><td> Dr. K. Jagadeesh Babu Principal </td></tr></table>		 Sri. V. Ramakrishna Rao Secretary	 Sri.S. Lakshmana Rao Correspondent	 Dr. K. Jagadeesh Babu Principal
 Sri. V. Ramakrishna Rao Secretary	 Sri.S. Lakshmana Rao Correspondent	 Dr. K. Jagadeesh Babu Principal		
St. Ann’s College of Engineering & Technology :: Chirala				

CONTENTS 1. Program Educational Objectives (PEOs) 2. Program Specific Outcomes (PSOs) 3. Quote 4. Program Outcomes (POs) 5. Faculty Development Programs 6. Publications 7. Student Workshops 8. Guest Lectures 9. Toppers 10. Placements 11. Student Corner: Tech Buzz 12. Student Corner: Puzzle Box 13. Amazing Tech Facts 14. Humour Corner	PROGRAM EDUCATIONAL OBJECTIVES (PEOs) • PEO1: Apply fundamental knowledge and engineering principles to design, develop, test, and maintain reliable and efficient software systems that meet user and industry requirements. • PEO2: Build and implement software solutions to address needs in research, education, training, and e-governance, contributing to technological and societal advancement. • PEO3: Function effectively as professionals by working collaboratively in teams, using modern tools, standard development environments, and sound project management practices. • PEO4: Engage in lifelong learning, uphold ethical practices, enhance professional skills, and adapt proactively to evolving AI technologies and societal needs.
QUOTE!  “Don’t be a know-it-all; be a learn-it-all.” — Satya Nadella (Chairman & CEO of Microsoft)	PROGRAM SPECIFIC OUTCOMES (PSOs) PSO1: Design, implement, and evaluate software solutions by applying core principles of algorithms, data structures, operating systems, and database technologies to meet specified functional and performance requirements. PSO2: Analyze and develop intelligent computing systems using computational techniques in artificial intelligence, machine learning, data analytics, and cloud technologies to solve real-world problems. PSO3: Architect, deploy, and manage secure and scalable computing environments by selecting appropriate tools, platforms, and frameworks for modern software development, networked systems, and enterprise applications.

PROGRAM OUTCOMES (REVISED)

PO1: Engineering Knowledge: Apply knowledge of mathematics, natural science, computing, engineering fundamentals and an engineering specialization as specified in WK1 to WK4 respectively to develop to the solution of complex engineering problems.

PO2: Problem Analysis: Identify, formulate, review research literature and analyze complex engineering problems reaching substantiated conclusions with consideration for sustainable development. (WK1 to WK4)

PO3: Design/Development of Solutions: Design creative solutions for complex engineering problems and design/develop systems/components/processes to meet identified needs with consideration for the public health and safety, whole-life cost, net zero carbon, culture, society and environment as required. (WK5)

PO4: Conduct Investigations of Complex Problems: Conduct investigations of complex engineering problems using research-based knowledge including design of experiments, modelling, analysis & interpretation of data to provide valid conclusions. (WK8).

PO5: Engineering Tool Usage: Create, select and apply appropriate techniques, resources and modern engineering & IT tools, including prediction and modelling recognizing their limitations to solve complex engineering problems. (WK2 and WK6)

PO6: The Engineer and The World: Analyze and evaluate societal and environmental aspects while solving complex engineering problems for its impact on sustainability with reference to economy, health, safety, legal framework, culture and environment. (WK1, WK5, and WK7).

PO7: Ethics: Apply ethical principles and commit to professional ethics, human values, diversity and inclusion; adhere to national & international laws. (WK9)

PO8: Individual and Collaborative Team work: Function effectively as an individual, and as a member or leader in diverse/multi-disciplinary teams.

PO9: Communication: Communicate effectively and inclusively within the engineering community and society at large, such as being able to comprehend and write effective reports and design documentation, make effective presentations considering cultural, language, and learning differences

PO10: Project Management and Finance: Apply knowledge and understanding of engineering management principles and economic decision-making and apply these to one's own work, as a member and leader in a team, and to manage projects and in multidisciplinary environments.

PO11: Life-Long Learning: Recognize the need for, and have the preparation and ability for i) independent and life-long learning ii) adaptability to new and emerging technologies and iii) critical thinking in the broadest context of technological change. (WK8)

FACULTY DEVELOPMENT PROGRAMS (FDPs)

Faculty Development Programs (FDPs) are structured initiatives aimed at **enhancing** the **teaching, research, and technical skills** of faculty members. They **enable educators** to stay **updated** with emerging **technologies**, innovative **methodologies**, and industry **trends**, thereby **improving** the overall **quality of education**.



Selected List of FDPs Attended by the Faculty

S.No	Name of the Faculty	Date(s)	Name of the Programme	Host Institution
1	Dr. P. Harini	17-03-2025 to 23-03-2025	One Week Online FDP on Natural Language Processing	E&ICT Academy, NIT Warangal
2	Dr. Yezarla Chittibabu	15-02-2025 to 20-02-2025	One Week Online International FDP on Gen-AI and Prompt Engineering Using Microsoft Co-Pilot	BNMIT, D.Y. Patil ATU & Marwadi University (ExcelR)
3	Dr. Prasuna Grandhi	15-02-2025 to 20-02-2025	One Week Online International FDP on Gen-AI and Prompt Engineering Using Microsoft Co-Pilot	BNMIT, D.Y. Patil ATU & Marwadi University (ExcelR)
4	Dr. Amarthaluri Tirupathaiah	16-06-2025 to	2 Weeks FDP on Transforming Medical Research with Next-Gen AI (ML & DL)	MeitY, Govt. of India, E&ICT Academy NIT

		27-06-2025		Warangal with ANITS
5	Dr. E. Sandeep Krupakar	16-06-2025 to 27-06-2025	2 Weeks FDP on Transforming Medical Research with Next-Gen AI (ML & DL)	MeitY, Govt. of India, E&ICT Academy NIT Warangal with ANITS
6	Dr. Nagesh Babu Dasari	16-06-2025 to 27-06-2025	2 Weeks FDP on Transforming Medical Research with Next-Gen AI (ML & DL)	MeitY, Govt. of India, E&ICT Academy NIT Warangal with ANITS
7	Dr. Ratna Raju Mukiri	17-03-2025 to 23-03-2025	One Week Online FDP on Natural Language Processing	E&ICT Academy, NIT Warangal
8	Mr. D. Shyam Babu	05-02-2025 to 08-02-2025	FDP on Cyber Security: Threats, Attacks, and Countermeasures	Sridevi Women's Engineering College (IIT Bombay)
9	Mrs. M. Praveena	23-03-2025 to 26-03-2025	FDP on Introduction to Quantum Computing	Vidya Jyothi Institute of Technology, Hyderabad
10	Karri Ramesh Babu	26-04-2025 to 27-04-2025	FDP on Quantum Science & Technology	JNTUK UCEK (QETCI & National Quantum Mission)
11	Mr. N. Lakshmi Narayana	17-03-2025 to 23-03-2025	One Week Online FDP on Natural Language Processing	E&ICT Academy, NIT Warangal
12	Mrs. Madhuri Draksharam	16-06-2025 to 27-06-2025	2 Weeks FDP on Transforming Medical Research with Next-Gen AI (ML & DL)	MeitY, Govt. of India, E&ICT Academy NIT Warangal with ANITS

In addition to the FDPs listed above, faculty members attended several programmes organized by **NIT Warangal, IIT Bombay, MeitY, JNTUK, ANITS, BNMIT, Marwadi University, and APSSDC** in areas such as **AI, ML, DL, NLP, Cyber Security, Quantum Computing, and Web Technologies**, strengthening the department's **academic excellence, research culture, and industry-oriented learning**.

PUBLICATIONS

Faculty publications reflect the **research strength** and **academic excellence** of an institution, showcasing the **scholarly contributions** of faculty members toward advancing knowledge in their respective domains. They play a vital role in fostering **innovation**, enhancing the institution's **reputation**, and promoting a vibrant **research culture**.

Selected Publications of the Faculty

S. No	Author Name	Title of the Paper	Journal / Conference
1	Dr. P. Harini	Hybrid SVM–Random Forest Framework for Early Detection and Risk Prediction of Diabetes Mellitus	<i>IEEE ICICNIS-2025</i> https://doi.org/10.1109/ICICNIS66685.2025.11315635
2	Dr. Y. Chitti Babu	An IoT-Enabled Hybrid Deep Learning Framework for Smart Town Traffic Accident Prevention	<i>IEEE ICICNIS-2025</i> https://doi.org/10.1109/ICICNIS66685.2025.11315704
3	Dr. K. Subba Rao	Detection of Parkinson Disease in the Early Stage	<i>Springer ICT4SD 2025</i> https://doi.org/10.1007/978-3-032-06703-6_51
4	Dr. M. Ratna Raju	Secure Attribute-based Hybrid Blockchain–Deep Learning Framework for Cloud Data Verification	<i>IEEE ICICNIS-2025</i> https://doi.org/10.1109/ICICNIS66685.2025.11315756
5	Dr. D. Nagesh Babu	Multi-Network Contrastive Learning Model for Financial Risk Assessment and Prediction	<i>IEEE ICICNIS-2025</i> https://doi.org/10.1109/ICICNIS66685.2025.11315748
6	Dr. P. V. S Sarma	Multi-Network Contrastive Learning Model for Financial Risk Assessment and Prediction	<i>IEEE ICICNIS-2025</i> https://doi.org/10.1109/ICICNIS66685.2025.11315748
7	Dr. A. Tirupathaiah	Advancing Quantum Key Distribution: Challenges, Trends, and Future Prospects	<i>Journal of Information Systems Engineering and Management</i> https://doi.org/10.52783/jisem.v10i27s.4401 [SCOPUS]
8	Dr. Grandhi Prasuna	Enhancing Kidney Stone Detection using Medical Imaging	<i>Journal of Theoretical and Applied Information Technology</i> https://www.jatit.org/volumes/Vol103No4/15Vol103No4.pdf [SCOPUS]
9	Dr. Grandhi Prasuna	Safety Online Shopping Techniques with Differential Data Privacy	<i>Industrial Engineering Journal</i> http://www.journal-iiie-india.com/1_jan_25/22_online_jan.pdf [UGC CARE]
10	Dr. M. Ratna Raju	Forward and Reverse Engineering using UML	<i>Journal of Theoretical and Applied Information Technology</i> https://www.jatit.org/ [SCOPUS]

STUDENT WORKSHOPS

Student Workshops are designed to provide **hands-on training** and **practical exposure** to **emerging technologies** and **industry-relevant skills**. They enhance students' **problem-solving abilities**, **technical proficiency**, and **readiness for real-world challenges**.



S.N O	Title	Offered By	Duration	Resource Person(s)	Designatio n
1	HACKATHON AI FULLSTACK	MAKE SKILLED	28-01-2025 to 01-02-2025	Mr. Madhu Parvathaneni	CEO
2	Data Analytics using Power BI	EDUNET	17-02-2025 to 22-02-2025	Mr. Narendra Eluri	Master Trainer

GUEST LECTURES

Guest lectures provide students with **valuable opportunities** to **interact** with **experts** from **academia** and **industry**, bridging the gap between classroom learning and real-world applications. These sessions **expose** students to **emerging technologies**, **industry trends**, and career opportunities while **enhancing** their **technical knowledge** and **professional skills**. The Department of **Computer Science & Engineering** organized the following guest lectures:



S. No.	Date	Title of the Guest Lecture	Resource Person	Designation	Organization
1	03-03-2025	Software Development	Ms. P. Indu Priya	Technical Skill Trainer, Multi Skill Trainer	APSSDC
2	17-03-2025	Sentiment Analysis	Dr. T. Kishore Kumar	Professor, Department of ECE	Dept. of CSE, SACET in association with NIT Warangal
3	28-03-2025	Elements of AI	Mr. Ganesh Nagu Doddi	Chief Executive Officer (CEO)	Brain O Vision Solutions India Pvt. Ltd.

PLACEMENTS

The Department of **Computer Science and Engineering** is delighted to announce the outstanding **placement achievements** of the graduating batch **(2021–2025)**. Through rigorous **training, industry focused skill development programs, coding practice sessions, and placement preparation initiatives**, students have secured employment opportunities in **leading multinational corporations (MNCs)** and reputed technology organizations. These accomplishments reflect the dedication of our **students, faculty members, and placement team** in fostering **career excellence**.

Major Placement Achievements – Batch 2021–2025

S. No	Roll Number	Student Name	Company
1	21F01A0559	Kota Sai Avinash Reddy	AMAZON
2	21F01A0524	Bolisetty Baby Suvarna	THOUGHTWORKS
3	21F01A0536	Dhulipalla Bharath Kumar	VERISK
4	21F01A0552	Kantheti Durga Mydhili	IBM
5	21F01A05F4	Karanam Bhavya	COGNIZANT
6	21F01A05J5	Vignesh Padmanabhuni	COFORGE
7	21F01A0510	Asadi Prudhvi	CAPGEMINI
8	21F01A0502	Adapala Sai Tarun	INFOSYS
9	21F01A0533	Devarakonda Joshnavi	TCS
10	21F01A0513	Avvaru Bhanu Deepthi	WIPRO
11	21F01A0560	Lanka Sowmya Sri	HCLTECH
12	21F01A0556	Kolamudi Hema Amrutha	TECH MAHINDRA
13	21F01A0578	Pallaprolu Naga Bhavani	NAGARRO
14	21F01A0514	Ballikurava Salomi	NEC
15	21F01A0538	Garikina Nani	FLIPKART

The placement season for the graduating batch **(2021–2025)** witnessed remarkable success, with students securing opportunities in leading **MNCs, product-based companies, and technology organizations** including **Amazon, IBM, Cognizant, Infosys, TCS, Wipro, Capgemini, HCLTech, Tech Mahindra, Flipkart, NEC**, and several other reputed recruiters. The department congratulates all the placed students and wishes them a successful professional career.

STUDENT CORNER: TECH BUZZ



With the growing demand for **practical development skills**, students need platforms that provide **hands-on experience** in building **real-world applications**. **Google Developers Codelabs** is a **free, interactive learning platform** that offers **guided, step-by-step labs** on technologies such as **APIs, Firebase, Android, Web Development, and Google Cloud**.

The platform emphasizes **learning by doing**, enabling students to **write code, deploy applications**, and gain exposure to **industry-standard tools**. Its **self-paced, beginner-friendly** approach, combined with **pre-configured environments**, makes it accessible to learners of all skill levels while helping bridge the gap between **academic learning** and **real-world software development**.

For students, **Google Developers Codelabs** is an excellent way to gain **practical experience**, build **working applications**, and understand **modern development practices**.

Free Tier / Student Access:

<https://codelabs.developers.google.com/> (Completely Free)

Advantages:

- Hands-on learning & Real application development
- No setup for many labs & Self-paced and beginner-friendly
- Exposure to Google Cloud, Firebase, and APIs

Caution:

- Limited depth compared to full courses
- Some labs require basic programming knowledge
- Not focused on long-term or large-scale projects

Article by



N. Likhitha

(22F01A05A4)

PUZZLE CORNER – ROCK YOUR BRAIN HARDER	
 Password Logic A system password follows these rules: - Must contain exactly 8 characters - Contains 2 uppercase, 2 digits, 2 special characters, 2 lowercase - No character repeats Options: A) Ab1@Cd2# B) AB12@#cd C) A1@bcD2# D) Aa1@Bb2@ FIND THE VALID PASSWORD	 Memory Mapping Challenge You have: 1 KB = 1024 bytes - An integer takes 4 bytes How many integers can be stored in 16 KB memory?
 Loop Lockdown <pre>while(true) { if(condition) break; }</pre> Is it truly infinite or does it secretly have an exit plan? When does it say “I’m done!”? 	 The Breach at 10:06 A secure server logs the following: - User A accessed database at 10:00 - User B accessed database at 10:02 - User C accessed database at 10:05 - At 10:06 → Data breach detected - Only one user had privilege escalation rights Additional facts: - User A denies involvement - User B says: “C didn’t do it” - User C says: “B is lying” Only one statement is true Who caused the Breach?
 The Algorithm Illusion You are given: - A function that always divides the problem size by 2, - but occasionally performs a full scan of size n. Question: - Is the time complexity always $O(\log n)$? - Under what condition does it degrade to $O(n)$? 	

PUZZLE CORNER – ANSWERS



Password Logic

A) Ab1@Cd2#

B) AB12@#cd

C) A1@bcD2#

Above are valid Passwords



Memory Mapping Challenge

Given:

- 1 KB = 1024 bytes
- 16 KB = $16 \times 1024 = 16384$ bytes
- 1 integer = 4 bytes

Calculation:

$$16384 \div 4 = 4096 \text{ integers}$$

How it works:



Loop Lockdown

while(true) → creates an **infinite loop** (runs forever)

- Inside the loop:

If condition == true → break executes → loop **stops immediately**

If condition == false → break is skipped → loop **continues**

The **Breach** at 10:06

B says C didn't do it & C says B is lying

Assume B is true → C didn't do it

Then C's statement = false → only one truth (valid)

Therefore, **User A** caused the breach



The Algorithm Illusion

Given:

Problem size halves → like binary search → $O(\log n)$

Occasionally full scan → $O(n)$

? Is it always $O(\log n)$? NO

When does it become **$O(n)$** ? When the full scan happens frequently (or every step)

Ex: If every recursive step does $O(n)$ work Then total becomes: $O(n + n/2 + n/4 + \dots) = O(n)$

Not always **$O(\log n)$** Becomes **$O(n)$** when full scan dominates

Puzzles are by: M. Akash(22F01A0596), S.N. Karthik(22F01A05E7)

AMAZING TECH FACTS

1. The Internet We Use Is Mostly Underwater!

🌐 More than **95% of international internet traffic** travels through thousands of kilometers of **submarine fiber-optic cables** laid across ocean floors—not satellites!

✈️ *Your WhatsApp message to a friend abroad is probably traveling under the sea right now.*

2. The First Computer "Bug" Was a Real Bug

🦋 In 1947, engineers working on the **Harvard Mark II** found an actual moth trapped inside the machine, causing a malfunction.

✈️ That incident popularized the term **"debugging"** in computing.

3. Every Google Search Has a Carbon Footprint

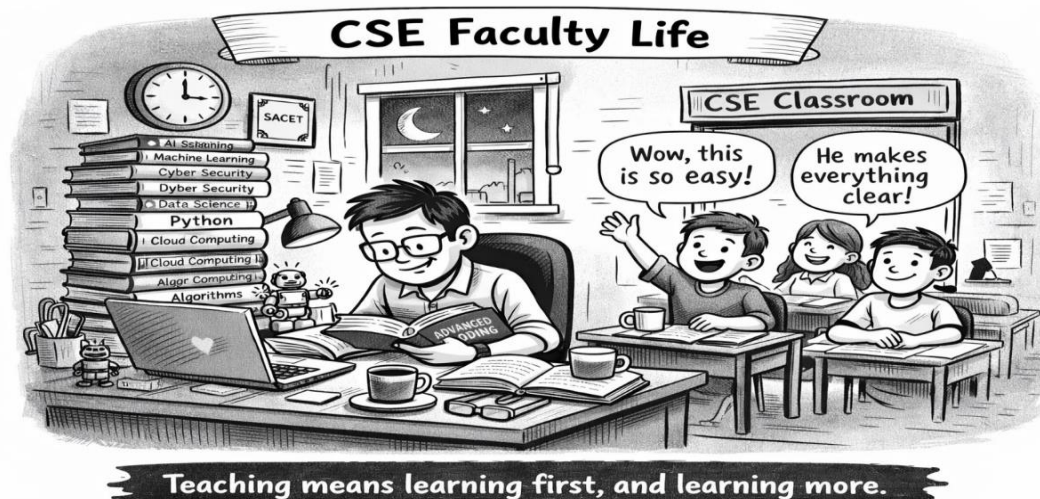
🔍 Data centers process billions of searches daily, consuming enormous amounts of energy.

♻️ This is why tech giants are investing heavily in **green computing** and renewable energy-powered data centers.



By:
K. Ratna Kumari
23F01A0583

HUMOUR CORNER



Teaching means learning first, and learning more.



By:
G. V.S.P. Ganesh
23F01A0553

EDITORIAL NOTE

As we conclude this edition of our newsletter, we celebrate the spirit of **learning, innovation, and collaboration** that defines the **Department of Computer Science and Engineering**. Every article, achievement, and activity featured in these pages reflects the curiosity, creativity, and dedication of our students and faculty.

We express our sincere gratitude to **Dr. P. Harini, Head of the Department, Dr. K. Jagadeesh Babu, Principal**, and the **Institution Management** for their constant support and encouragement. We also extend our heartfelt thanks to our **Faculty Mentor, Mrs. M. Anusha**, all **faculty members, staff**, and **students** whose contributions made this publication possible.

We hope this edition has informed, inspired, and engaged you. Let us continue to learn, innovate, and grow together as we embrace new opportunities and shape the future through technology.

— **Student Editorial Team**

Department of Computer Science and Engineering

Student Editorial Team

 M. Akash (22F01A0596) Chief Editor	 G.H.V.N Manideep (22F01A0545) Associate Editor	 S.N. Karthik (22F01A05E7) Design & Technical Editor	Faculty Mentor  Mrs. M. Anusha Assistant Professor
 V.S.N.V Deepthi (22F01A05G1) Content & Documentation Editor	 K.V.L. Sahithi (22F01A0578) Proofreading Editor	 K. Sindhura (22F01A0562) Creative Editor	



Happy
Independence
Day