

CONFIGURATIONS

A Bi-Annual Newsletter
Department of Computer Science & Engineering,

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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 & 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's Desk

It gives me great pleasure to present this edition of “*Configurations*” on the occasion of **Independence Day**.

Education **empowers** individuals to shape their **futures** and contribute meaningfully to society. In today's rapidly evolving **technological world**, it is essential for students to continuously **update** their **knowledge** and stay aligned with **global trends**.

At the same time, true success lies in **unity**, **integrity**, and **collaborative growth**. Our department strives to create an environment where students and faculty **learn**, **innovate**, and **progress together**. On this proud occasion, let us reaffirm our **commitment to learning**, **innovation**, and **service** to the nation.

Wishing you all a Happy Independence Day.

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

Sri. V. Ramakrishna Rao
Secretary



Sri. S. Lakshmana Rao
Correspondent



Dr. K. Jagadeesh Babu
Principal

St. Ann's College of Engineering & Technology :: Chirala

<u>Contents</u> 1. Program Educational Objectives (PEOs) 2. Program Specific Outcomes (PSOs) 3. Program Outcomes (POs) 4. Faculty Development Programs 5. Faculty Publications 6. Student Workshops 7. Guest Lectures 8. Toppers 9. Placements 10. Student Corner: Tech Buzz 11. Student Corner: Puzzle Box	<u>Program Educational Objectives (PEOs)</u> • 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.
<u>Quote!</u>  <i>“The advance of technology is based on making it fit in so that you don’t really even notice it.”</i> — Bill Gates <i>(Co-founder of Microsoft and Pioneer of Personal Computing and a Philanthropist)</i>	<u>Program Specific Outcomes (PSOs)</u> • 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 (POs)

- **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.

Faculty Development Program (FDPs)

The **Department of Computer Science and Engineering** strongly encourages **continuous professional development** among its faculty.

Faculty members actively participate in various **Faculty Development Programs (FDPs)** to stay updated with **emerging technologies** and **industry trends**. These programs enhance both **technical expertise** and **innovative teaching methodologies**.

Such initiatives reflect the **commitment of the department** towards **academic excellence** and **quality education**. Through **continuous learning**, our faculty strive to deliver the **best knowledge and skills** to students.

Selected FDPs Attended by Faculty Members

S.No	Name of the Faculty	Date(s)	Name of the Programme	Host Institution
1	Dr. P. Harini	05-02-2024 to 09-02-2024	One Week National Level FDP on Essential Mathematics for Data Science and Machine Learning	Dept. of AI & ML, CBIT Hyderabad
2	Dr. P. Harini	05-07-2024 to 10-07-2024	One Week Online FDP on Data Visualization and Business Intelligence	APSSDC in collaboration with ExcelR Edtech Pvt. Ltd.
3	Dr. A. Tirupathaiah	26-02-2024 to 03-03-2024	One Week Online FDP on Deep Learning and Artificial Intelligence	APSSDC in collaboration with ExcelR Edtech Pvt. Ltd.
4	Dr. Prasuna Grandhi	19-02-2024 to 08-03-2024	3-Week Wipro Certified FDP on Java Full Stack	Wipro Talent Next
5	Dr. Prasuna Grandhi	02-04-2024	Wipro Certified Faculty Certification (Java Full Stack – Project Based Learning)	Wipro Talent Next
6	Dr. Prasuna Grandhi	17-06-2024 to 21-06-2024	One Week FDP on Artificial Intelligence & Machine Learning	Wipro Talent Next
7	Dr. Yezarla Chittibabu	10-08-2024 to 08-09-2024	30 Days FDP on Full Stack Web Development Master Class (Ongoing)	Pantech e Learning Pvt Ltd, Chennai
8	Dr. Subbarao Katteda	01-08-2024 to 06-08-2024	One Week National Level FDP on Research Methodology and Technical Paper Writing	Dept. of CSE, JNTUK UCE Narasaraopet (in collaboration with Brainovision & AICTE)

Faculty Publications

The Department of Computer Science and Engineering fosters a strong culture of **research, innovation, and academic excellence**. Faculty members contribute through **high-quality publications** in reputed journals and international conferences, with research focused on **Artificial Intelligence (AI), Machine Learning (ML), Cyber Security, and Data Science**.

These achievements reflect a commitment to **research quality, knowledge dissemination, and technological innovation**, enhancing the department's **research profile, academic reputation, and overall institutional growth**.

Selected List of Publications by Faculty

S. No	Author Name	Title of the Paper	Journal / Conference
1	Dr. P. Harini	Advanced Secure and Privacy Preserving Data Deduplication using Extreme Learning Machine	<i>Journal of Basic Science and Engineering</i> , Vol. 21, No. 1, ISSN: 1005-0930, 06 July 2024, pp. 1503–1512 [Scopus Indexed]
2	Dr. P. Harini	Analyze and Predict of Human Cyber Attackers using Artificial Neural Network	<i>Journal of Basic Science and Engineering</i> , Vol. 21, No. 1, ISSN: 1005-0930, 08 July 2024, pp. 1529–1536 [Scopus Indexed]
3	Dr. Y. Chitti Babu	A New Method for Disaster Victim Detection using YOLO Algorithm Index	<i>Journal of Basic Science and Engineering</i> , Vol. 21, No. 1, ISSN: 1005-0930, 03 July 2024, pp. 1424–1432 [Scopus Indexed]
4	Dr. A. Tirupathaiah	New Cyber Security Methods in Network using Logistic Regression Techniques	<i>Journal of Basic Science and Engineering</i> , Vol. 21, No. 1, ISSN: 1005-0930, 03 July 2024, pp. 1433–1441 [Scopus Indexed]
5	Dr. Grandhi Prasuna	Improve Machine Learning for Hybrid Traffic in Railway Station using Artificial Intelligence	<i>Journal of Basic Science and Engineering</i> , Vol. 21, No. 1, ISSN: 1005-0930, 08 July 2024, pp. 1545–1553 [Scopus Indexed]
6	Dr. M. Ratna Raju	Accurate Stock Market Hierarchical Trend Prediction Forecasting with Artificial Optimization Algorithm	<i>Journal of Basic Science and Engineering</i> , Vol. 21, No. 1, ISSN: 1005-0930, 06 July 2024, pp. 1494–1502 [Scopus Indexed]
7	Dr. Nagesh Babu Dasari	Data Reliable Energy Prediction for Electric Buses using Artificial Neural Network	<i>Journal of Basic Science and Engineering</i> , Vol. 21, No. 1, ISSN: 1005-0930, 03 July 2024, pp. 1415–1423 [Scopus Indexed]
8	Dr. M. Ramesh	Studies on Energy Efficient Techniques for Agricultural Monitoring by Wireless Sensor Networks	<i>Computers and Electrical Engineering</i> , Vol. 113, 2024, ISSN: 0045-7906, Online ISSN: 1879-0755 [SCIE / Elsevier Indexed Journal]
9	Mrs. Madhuri Draksharam	New Analysis Liver Disease Diagnosis using Logistic Regression	<i>Journal of Basic Science and Engineering</i> Vol. 21, No. 1, 2024-07-03, ISSN: 1005-0930 pg: 1406 - 1414 [Scopus Indexed]

Student Workshops

The **Department of Computer Science and Engineering** organized a series of **student workshops** during this period to enhance **technical competency** and **industry readiness**.

These workshops provided **hands-on exposure** in emerging domains such as **networking**, **web development**, **machine learning**, and **full-stack technologies**, helping students **bridge the gap** between **academic learning** and **real-world applications**.



List of Workshops

S.NO	Title	Offered By	Duration	Resource Person(s)	Designation
1	Analyzing Computer Networks with Wireshark	MAD Blocks Technologies Pvt. Ltd., Hyderabad	16-03-2024 to 21-03-2024	Mr. Madhu Parvathaneni	Founder & Director
2	Web Development	MAD Blocks Technologies Pvt. Ltd., Hyderabad	01-04-2024 to 06-04-2024	Mr. Madhu Parvathaneni	Founder & Director
3	Machine Learning	JP Morgan Chase, Hyderabad	22-04-2024 to 27-04-2024	Mr. Narendra Reddy	Big Data Developer
4	Full Stack Web Development	MAKESKILLED	03-06-2024 to 27-07-2024	Mr. Madhu Parvathaneni	CEO

Guest Lectures

Guest Lectures play a vital role in enriching the **academic experience** by connecting **classroom learning** with **real-world industry practices**. The **Department of Computer Science and Engineering** regularly organizes expert sessions to **expose students** to **emerging technologies**, **industry trends**, and **professional opportunities**.

S. No	Date	Title of the Guest Lecture	Organized By	Resource Person	Designation	Target Students	Students Benefited
1	27-03-2024	Scope of Software Testing in ML and AI	MAD Blocks Technologies Pvt. Ltd., Hyderabad	Mr. Madhu Parvathaneni	Founder & Director	II B.Tech	206

Toppers

Our **academic toppers** have demonstrated exceptional **dedication, discipline**, and **academic excellence**, achieving **outstanding results** in their **recent semester**. Their **consistent performance** and commitment to **learning** set a high standard and serve as an **inspiration** to their peers. We take great pride in their **achievements** and wish them continued **success** in their **academic journey**.

I Year 2 Sem

S. No	HTNO	Student Name	%
1	23F01A0540	EEGA PUSHPA	85.32
2	23F01A05G4	SAVANAM HEMAKSHI	85.32
3	23F01A05I8	VALLAMPATLA SIVA MANI DURGA	84.55
4	23F01A0534	DEVARAPALLI SARA	84.55
5	23F01A0524	CHATRASI YAMINI	83.78

II Year 2 Sem

S. No	HTNO	Student Name	%
1	22F01A05H5	UDATHA THANUSRI	91.32
2	22F01A05A4	NASAKA LIKHITHA	90.15
3	22F01A05B0	PACHIPULUSU SAI KAVYASRI	88.97
4	22F01A05H8	UPPALA PALLAVI	88.97
5	22F01A05I6	VEESAM MALLIKARJUNA	88.97

III Year 2 Sem

S. No	HTNO	Student Name	%
1	21F01A05J0	SURAGANI BINDU MANASA	82.73
2	21F01A05J6	YADAMA GOWRI SHANMUKHA PRIYA	82.73
3	21F01A05I0	RAGUTU SUSHMA SRI	82.73
4	21F01A05G4	MULA VANDANA	81.34
5	21F01A0501	ACHHUTHA PAVANI GANGOTHRI	81.34

IV Year 2 Sem

S. No	HTNO	Student Name	%
1	20F01A05I8	VINJAMURI VENKATA AMRUTHA	80.47
2	20F01A05H5	SHAIK JAMEER BASHA	79.28
3	20F01A05E7	GOVADA LAKSHMI THIRUPATHAMMA	78.88
4	20F01A05F5	KOVELA LAKSHMI NAGA TEJASWI	77.75
5	20F01A05H4	SHAIK ASIF	77.13

Placements

The **Department of Computer Science and Engineering** takes pride in the outstanding **placement achievements** of the graduating **2020–2024 batch**. A significant number of students have secured employment opportunities in prestigious organizations such as **Amazon, Accenture, Cognizant, Wipro, TCS, Tech Mahindra, NEC, Ecolab, Verisk, Hexaware, Concentrix, Sutherland**, and several emerging technology companies.

This accomplishment reflects the students' **dedication, technical competence, and industry readiness**, along with the continuous support of the faculty and the department's commitment to enhancing **employability skills**. The successful placement season has further strengthened the department's reputation for **academic excellence, professional development, and career success**.

Major Placement Achievements

S.No	Student Name	Roll No.	Company
1	Varun Moparthi	20F01A05B8	AMAZON
2	Yalavarthi Nataraj	20F01A05C4	AMAZON
3	Ch Jyothi	20F01A05D6	AMAZON
4	Devisetty Eswar Sai Ganesh	20F01A05E0	AMAZON
5	Jalagam Naga Sri Sai Rohith	20F01A05E9	AMAZON
6	Tadikonda Bhargava Kalyan	20F01A05I3	AMAZON
7	Buraga Chaitanya	21F05A0501	AMAZON
8	Miriyala Sai Bhavya	21F05A0512	AMAZON
9	Billa Prasanth	20F01A0509	ACCENTURE
10	Narayanam Lakshmi Sudheshna	20F01A05G4	ACCENTURE
11	Ogirala Bhargavi	20F01A05G5	ACCENTURE
12	Akurathi Devi Kanaka Durga	20F01A05C7	COGNIZANT
13	Suragani Akhila	20F01A05B0	WIPRO
14	Dumbala Narasimha Ramcharan	20F01A0524	TCS
15	Perali Charith	20F01A0581	TCS
16	Yakkala Venkata Lahari	20F01A05B9	TCS
17	Pedakapu Solomon	21F05A0514	NEC
18	Chunduri Manideep	20F01A0516	VERISK
19	Bondi Ajay	20F01A0511	HEXAWARE
20	Annadasu Uday Kiran	20F01A0503	TACHYON TECHNOLOGIES

Several other students secured placements in **Concentrix, Sutherland, Innovasphere Infotech, ADIT, Prasthana, Tachyon Technologies**, and other reputed organizations, reflecting the department's strong industry connections and commitment to student success.

Student Corner: Tech Buzz



Power BI

POWER BI

Bring your data to life

In the rapidly evolving domain of **data analytics**, handling large volumes of data and extracting meaningful insights can be challenging and time-consuming. Microsoft Power BI addresses this challenge by providing a powerful **business intelligence platform**, enabling users to visualize data and share insights without requiring advanced programming skills.

Power BI facilitates the transformation of raw data into **interactive dashboards and reports**. It supports real-time data connectivity from various sources such as Excel, databases, cloud services, and APIs. It provides **automatic data refresh and visualization tools**, allowing users to analyze trends, patterns, and key metrics efficiently. This ensures **better decision-making and operational efficiency**, as organizations can monitor performance in real time.

A significant advantage of Power BI is its seamless integration with other Microsoft tools such as Microsoft Excel, Azure, and SQL Server. This capability enables the development of **scalable, data-driven solutions** with minimal effort. It is widely applied in domains such as **business analytics, financial analysis, healthcare data management, marketing insights, and enterprise reporting systems**.

For students, Power BI offers valuable exposure to **data visualization and analytics skills**, which are highly demanded in today's job market. In industry, it is extensively used to convert complex datasets into actionable insights. As organizations increasingly rely on data-driven strategies, Power BI plays a crucial role in shaping the future of **business intelligence and analytics**.

Free Tier / Student Access

Students and developers can explore Power BI through the official platform:

<https://powerbi.microsoft.com/>

Advantages of Power BI (Free Version):

- Provides **free desktop version (Power BI Desktop)**
- Enables creation of **interactive dashboards and reports**
- Supports integration with **multiple data sources**
- Offers **drag-and-drop interface** (no coding required)
- Helps in building **real-world data analytics projects**



Article by

S. Bindu Manasa
(21F01A05J0)

Caution:

- Some features (like sharing dashboards online) require **Power BI Pro license**
- Large datasets may need **optimized system performance**
- Always manage data privacy when working with real datasets

PUZZLE CORNER – Test Your Tech Brain!



Debug the Code (C Language)

```
#include <stdio.h>
```

```
int main() {
    int arr[] = {2, 4, 6, 8};
    int sum;

    for(int i = 0; i < 4; i++) {
        sum += arr[i];
    }

    printf("Sum = %d", sum);
    return 0;
}
```

Task:

- What is the issue in this code?
- Correct it and find the expected output.

Code Cracker: The Hexadecimal Cipher

The Problem:

The factory's secure control panel is flashing a sequence of mysterious hexadecimal values. We suspect this is a simple **encoded message**. We have identified that the values represent **ASCII characters in base 16**.

The Cipher:

48 65 6c 6c 6f 20 57 6f 72 6c 64 21

Decipher the message.

What does the control panel say?



Guess the Algorithm

- I compare adjacent elements
- I repeatedly swap until sorted
- My worst-case complexity is $O(n^2)$

Who am I?



Rapid Fire

1. What does CPU stand for?
2. What is the full form of API?
3. What is Git used for?
4. What does RAM stand for?

Logo Locator Find the Hidden Logos



Puzzles are by: A. Bhanu Deepthi (21F01A0513), U. Sathwika (21F01A05C0)

ANSWERS



Debug the Code

Issue: sum is not initialized

Fix: `int sum = 0;`

Output: Sum = 20

Code Cracker Solution:

Hello World!

Hex	ASCII	Hex	ASCII	Hex	ASCII
48	H	65	e	6c	l
6c	l	6f	o	20	(Space)
57	W	6f	o	72	r
6c	l	64	d	21	!



Guess the Algorithm

Bubble Sort

Initial Array	5	3	8	4	2	6
Pass 1 Result	3	5	4	2	6	8
Pass 2 Result	3	4	2	5	6	8
Pass 3 Result	3	2	4	5	6	8
Pass 4 Result	2	3	4	5	6	8



Rapid Fire

- **CPU** → Central Processing Unit
- **API** → Application Programming Interface
- **Git** → A Version Control System used to track changes in code
- **RAM** → Random Access Memory

Logo Locator



LOGO ANSWER KEY:

- 1. GitHub (on mug)
- 2. Zoom (on note)
- 3. VS Code (on paper)
- 4. Slack (on mug)

As we conclude this edition of **Configurations**, we reflect on the dynamic intersection of academic theory and the rapidly shifting frontiers of technology. This newsletter serves as a curated space for our student community to engage with the professional world, and it is with great pride that we present these insights.

A special note of thanks to our **Faculty Mentor, Mrs. M. Anusha**, for providing us with this invaluable opportunity and for her meticulous mentorship. We also appreciate the collective efforts of our **dedicated faculty** and the diverse contributions of our **fellow students**.

— Student Editorial Team
Department of Computer Science & Engineering

S. Manikanta (21F01A0599) Chief Editor	U. Sathwika (21F01A05C0) Associate Editor	P. Vignesh (21F01A05J5) Design & Technical Editor	Faculty Mentor
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15th August

Happy Independence day

