

CONFIGURATIONS

A BI-ANNUAL NEWSLETTER

Department of Computer Science & Engineering

Volume XI Issue-I January 2024



**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

Greetings to all readers.



It is a matter of great satisfaction to witness the **continuous progress** and **collective growth** of the Department of Computer Science and Engineering. Our department believes that true **academic development** arises from the **shared commitment** of dedicated **faculty**, enthusiastic **students**, and the constant support of the **institution**.

In the rapidly **evolving world of technology**, engineering education carries **great responsibility**, and students must develop not only technical knowledge but also **ethical values**, **critical thinking**, **creativity**, and a spirit of **lifelong learning**.

Our department continues to **promote academic excellence** through technical events, workshops, research initiatives, and collaborative learning opportunities. This issue of **Configurations**, the first issue of the newsletter for the year 2024, highlights some of the important academic and co-curricular activities of the department. As we celebrate **Republic Day** on January 26, 2024, I extend my warm greetings to all students, faculty members, and readers. **Wishing everyone a Happy Republic 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. M. Venu Gopala Rao
Principal

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

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Quote!



“Talk is cheap. Show me the code.”

- Linus Torvalds

(Creator of the Linux Kernel and Pioneer of Open-Source Software)

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.

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 (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 Programs

Faculty Development Programs (FDPs) play a vital role in enhancing the **academic** and **professional competencies** of faculty members. The Department of **Computer Science & Engineering** actively encourages participation in FDPs to strengthen expertise in **emerging technologies, research, and innovative teaching practices**.

Through these programs, faculty stay updated with the latest **industry trends** and technological advancements. The department remains committed to delivering **quality technical education** aligned with evolving **industry needs**.

Selected list of FDP

S.No	Faculty Name	Date(s)	FDP Title	Host Institution
1	Dr. P. Harini	14-08-2023 to 19-08-2023	One Week Online International FDP on NLP and ChatGPT Applications	SECAB Institute of Engineering & Technology in Collaboration with ExcelR Edtech Pvt. Ltd.
2	Dr. Yezarla Chittibabu	21-08-2023 to 26-08-2023	One Week National Level FDP on Cloud Infrastructure (AWS)	Dept. of CSE, JNTUK University College of Engineering Narasaraopet, Andhra Pradesh, in Collaboration with Brainovision Solutions India Pvt. Ltd. and AICTE
3	Dr. A. Tirupathaiah	14-08-2023 to 19-08-2023	One Week Online International FDP on NLP and ChatGPT Applications	SECAB Institute of Engineering & Technology in Collaboration with ExcelR Edtech Pvt. Ltd.
4	Mr. P. V. Subbarama Sarma	21-08-2023 to 26-08-2023	One Week National Level FDP on Cloud Infrastructure (AWS)	Dept. of CSE, JNTUK University College of Engineering Narasaraopet, Andhra Pradesh, in Collaboration with Brainovision Solutions India Pvt. Ltd. and AICTE
5	Dr. Ratna Raju Mukiri	08-11-2023 to 13-11-2023	One Week Online FDP on Artificial Intelligence and Machine Learning	National Institute of Technology Warangal & Raghu Engineering College, Visakhapatnam
6	Mr. Nageshbabu Dasari	21-08-2023 to 26-08-2023	One week National level Faculty Development Program on Cloud Infrastructure(AWS)	Dept. of CSE, JNTUK University College of Engineering Narasaraopet, Andhra Pradesh, in collaboration with Brainovision Solutions India Pvt Ltd and AICTE
7	Mr. N. Lakshmi Narayana	14-08-2023 to 19-08-2023	One Week Online International FDP on NLP and ChatGPT Applications	SECAB Institute of Engineering & Technology in Collaboration with ExcelR Edtech Pvt. Ltd.
8	Mrs. P. Sushma	21-10-2023 to 23-10-2023	Three-Day Online FDP on Cyber Security	Lakireddy Bali Reddy College of Engineering, Mylavaram
9	Mrs. V. L. N. S. Swapinika	08-11-2023 to 13-11-2023	One Week Online FDP on Artificial Intelligence and Machine Learning	National Institute of Technology Warangal & Raghu Engineering College, Visakhapatnam
10	Mr. Tulasi Seshasai	08-11-2023 to 13-11-2023	One Week Online FDP on Artificial Intelligence and Machine Learning	National Institute of Technology Warangal & Raghu Engineering College, Visakhapatnam

Faculty Publications

The **faculty** of the Department of **Computer Science & Engineering** continued to make **notable contributions** to research through publications in **Scopus-indexed** and **UGC Care-listed journals**. The published works span emerging domains such as **Artificial Intelligence**, **Machine Learning**, **Cloud Computing**, **Blockchain**, **IoT**, **Healthcare Analytics**, and **Data Science**, reflecting the department's commitment to **innovation**, **research excellence**, and **knowledge creation**.

List of Publications by Faculty

S.No	Author	Title	Journal / Conference
1	Dr. P. Harini	Searching Mental Health Problems using Social Media in Emotional Patterns	Juni Khyat , Vol. 13, Issue 08, August 2023 (UGC Care Group-I)
2	Dr. Grandhi Prasuna	Enhancing English Learning Outcome Predictions: A Hybrid Approach Integrating Gradient Boosting and K-Nearest Neighbours Techniques	Journal of Theoretical and Applied Information Technology , Vol. 101, No. 1, 15-01-2024 (Scopus Indexed)
3	Dr. Y. Chitti Babu	Hybrid MAC Protocol for Wireless Multimedia Networks – A Research Perspective	TELEMATIQUE , Vol. 22, Issue 1, 2023 (Scopus Indexed)
4	Dr. M. Ratna Raju	Secure Data Sharing in the Cloud using Blockchain Data Storage Methods	Industrial Engineering Journal , Vol. 52, Issue 9, September 2023 (UGC Care)
5	Dr. A. Tirupathaiah	Anomaly Detection for Electric Energy Consumption in Smart Farms	International Journal of Advanced Research and Review , Vol. 8, Issue 12, 2023 (UGC Care)
6	Dr. A. Tirupathaiah	Classification of Skin Diseases Using Machine Learning Techniques	International Journal of Advanced Research and Review , Vol. 8, Issue 12, 2023 (UGC Care)
7	Mr. N. Lakshmi Narayana	Automated Pneumonia Detection from X-Ray Images Using Deep Learning	International Journal of Advanced Research and Review , Vol. 8, Issue 12, 2023 (UGC Care)
8	Mrs. D. Madhuri	Automatic Disaster Warning System Using Amazon Web Service	International Journal of Advanced Research and Review , Vol. 8, Issue 12, 2023 (UGC Care)
9	Dr. D. Nagesh Babu	Creation of Chatbots in Customer Services at Banking	International Journal of Advanced Research and Review , Vol. 8, Issue 12, 2023 (UGC Care)
10	Mr. P. V. Subbarama Sarma	Analysis and Identification of Health and Diseases in Medicinal and Aromatic Plants Using Machine Learning	International Journal of Advanced Research in Information and Communication Engineering , Vol. 3, Issue 2, 2023 (UGC Care)

Student Workshops

To enhance students' **practical knowledge** and exposure to **emerging technologies**, the Department organized a series of **technical workshops** in collaboration with **industry partners** and **professional training organizations**.

These workshops provided **hands-on learning opportunities** and strengthened students' skills in areas such as **Ethical Hacking, Image Processing, Brain Fingerprinting**, and **Artificial Intelligence & Machine Learning (AI & ML)**. The sessions were delivered by **experienced industry trainers**, enabling students to gain valuable insights into **current technological trends** and **industry-relevant skills**.



List of Student Workshops

S.NO	Title	Offered By	Duration	Resource Person(s)	Designation
1	Ethical Hacking	APSSDC	21-08-2023 to 26-08-2023	Mr. B. Phanindra	Technical Skill Trainer
2	Image Processing	APSSDC	11-09-2023 to 16-09-2023	Ms. P. Indu Priya	Technical Skill Trainer
3	Brain Finger Printing	APSSDC	25-09-2023 to 30-09-2023	Mr. R. Ranganayakulu	Technical Skill Trainer
4	AI & ML Using Python	MAD Blocks Technologies Pvt. Ltd., Hyderabad	03-10-2023 to 24-10-2023	Mr. Madhu Parvathaneni	Founder & Director

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**. These interactions provide valuable insights from **academicians** and **industry professionals**, helping students enhance their **technical knowledge**, broaden their **perspectives**, and strengthen their **career readiness**.



List of Guest Lectures

S. No	Date	Title of the Guest Lecture	Organization / Offered By	Resource Person	Designation	Target Students	Students Benefited
1	31-08-2023	Finger Reader	Brain O Vision Solutions India Pvt. Ltd.	Mr. Ganesh Nagu Doddi	CEO	III B.Tech	215
2	27-10-2023	Dynamic Memory Allocation	MAD Blocks Technologies Pvt. Ltd., Hyderabad	Mr. Madhu Parvathaneni	Founder & Director	II B.Tech	203
3	09-11-2023	Virtual LAN Technology	Indian Servers, Vijayawada	Mr. Sai Satish	CEO	III B.Tech	193

Toppers

Our **academic toppers** have demonstrated exceptional **dedication, hard work**, and **academic excellence**, achieving outstanding results in their **First Semester examinations**. Their consistent performance, strong **commitment to learning**, and pursuit of **academic success** set a benchmark for their peers and inspire a culture of excellence within the department. We take immense pride in their remarkable **achievements** and extend our heartfelt congratulations, wishing them continued success in their **academic journey** and future endeavours.

I year 1 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 1 Sem

S. No	HTNO	Student Name	%
1	22F01A0545	GATTUPALLI HEMA VENKATA NAGA MANIDEEP	91.1
2	22F01A05A4	NASAKA LIKHITHA	89.71
3	22F01A05C9	PIKKI DURGA PRASAD	87.38
4	22F01A05E5	SATRAM GAYATRI	86.92
5	22F01A05G2	SUNKARA VYSALINI	86.92

III Year 1 Sem

S. No	HTNO	Student Name	%
1	21F01A05G4	MULA VANDANA	84.13
2	21F01A0524	BOLISSETTY BABY SUVARNA	84.13
3	21F01A05J0	SURAGANI BINDU MANASA	84.13
4	21F01A05J6	YADAMA GOWRI SHANMUKHA PRIYA	84.13
5	21F01A05G0	LAKSHMI PRIYA YELLELA	84.13

IV Year 1 Sem

S. No	HTNO	Student Name	%
1	20F01A05I8	VINJAMURI VENKATA AMRUTHA	82.10
2	20F01A0562	MANCHA NAGA LAKSHIMI	82.10
3	20F01A05H5	SHAIK JAMEER BASHA	80.80
4	20F01A05G9	PONDUGALA PUJITHA	80.80
5	20F01A0582	PERUGU GNANA PRAVALLIKA	80.80

Placements

The **Department of Computer Science and Engineering** is delighted to announce the encouraging start of the **placement season** for the graduating **2020–2024 batch**. Students have already secured employment opportunities in several **reputed organizations**, reflecting their strong **technical foundation**, **problem-solving abilities**, and **industry readiness**.

These **early placement achievements** are the result of the students' **dedication**, continuous **training initiatives**, and the department's persistent efforts in enhancing **employability skills** through **technical training**, **aptitude development**, **coding practice**, and **industry interaction programs**. The department remains confident that many more students will secure placements in **leading organizations** in the coming months.

Early Placement Achievements

S.No	Student Name	Roll No.	Company
1	Akurathi Siva Parvathi	20F01A05C8	ECOLAB
2	Chinnapothula Venkatesh	21F05A0503	ECOLAB
3	Desuri Brahmanaidu	21F05A0504	ECOLAB
4	Devarampati Bhargava Nandan	20F01A0521	NEC
5	Gunti Shanmukha Srinivas	20F01A0536	VERISK
6	Doma Manikanta Reddy	20F01A0522	VERISK
7	Gorantla Kushvanth Sai	20F01A0530	TECH MAHINDRA
8	Shaik Ibrahim	20F01A05A3	TECH MAHINDRA
9	Kunchala Yagna Sri Lakshmi Narayana Reddy	20F01A05F6	AMAZON
10	Kamparaju Parvathi	21F05A0510	AMAZON
11	Karri Praveen Kumar	20F01A05F2	HEXAWARE
12	Somana Naga Lakshmi	20F01A05H9	GENPACT

The CSE department **congratulates** all the students who have secured placements so far and appreciates their hard work and perseverance. With several **recruitment drives still in progress**; the department looks forward to many more success stories from the **2020–2024 graduating batch**. We remain committed to providing the necessary **guidance**, **training**, and **opportunities** to help our students achieve **rewarding careers** in the IT industry and beyond.

Student Corner : Tech Buzz



AWS LAMBDA: Serverless Computing Made Easy

In the rapidly evolving domain of cloud computing, managing servers and infrastructure often becomes complex and resource-intensive. AWS Lambda addresses this challenge by introducing a serverless computing model, enabling developers to execute code without the need for provisioning or managing servers.

AWS Lambda facilitates the execution of applications in response to **real-time events** such as file uploads, database updates, or API requests. It provides **automatic scaling**, allowing applications to handle varying workloads efficiently, from minimal requests to large-scale demand. This ensures **high efficiency** and **cost-effectiveness**, as users are billed only for the actual compute time utilized.

A significant advantage of AWS Lambda is its seamless integration with various **cloud services**, including storage systems, databases, and APIs. This capability enables the development of **scalable, event-driven applications** with reduced operational overhead. It is widely applied in domains such as **web application development, data processing pipelines, IoT systems, and automation workflows**.

For students, AWS Lambda offers valuable exposure to **modern cloud-native technologies**, enhancing practical understanding and technical skills. In industry, it is extensively used to build **highly scalable and resilient systems**. As the adoption of serverless architectures continues to increase, AWS Lambda plays a crucial role in shaping the future of application development.

Free Tier / Sandbox Access

Students and developers can explore AWS Lambda through the official free tier:

<https://aws.amazon.com/free/> (Lambda Included)

Advantages of AWS Free Tier (Lambda):

- Provides **1 million free requests per month**
- Offers **400,000 GB-seconds of compute time**
- Eliminates the need for **server setup and maintenance**
- Supports **hands-on experimentation in a sandbox environment**
- Enables learning of **real-time cloud application development** without cost

Article by



D. Bhargav Nandan
| (21F01A0521)

Caution: -

- **AWS** may ask for a **debit/credit card for verification** (no charge if within limits)
- Always monitor usage to **avoid billing**
- Lambda free tier is **“Always Free within limits”** (not just trial)

Student Corner : Company Spotlight

Infosys: From a Small Startup to a Global Technology Leader

For this edition's **Company Spotlight**, we explore **Infosys Limited**, one of India's most successful technology companies. Founded in **1981** by **N. R. Narayana Murthy** and six fellow engineers, Infosys began with an initial investment of just **\$250**. From these humble beginnings, the company has grown into a globally recognized leader in information technology and consulting services.

A Remarkable Journey

Infosys pioneered the **Global Delivery Model**, proving that high-quality software solutions could be developed in India and delivered to clients worldwide. This innovation played a significant role in establishing India as a global IT destination.

Key Milestones

- ❖ **1981** – Founded in Pune, India
- ❖ **1983** – Headquarters shifted to Bengaluru
- ❖ **1999** – First Indian IT company listed on NASDAQ
- ❖ **2004** – Crossed \$1 Billion in annual revenue
- ❖ **2023** – Emerged as one of India's leading global technology enterprises

Article BY



I. Swathi
(21F01A05F2)

Global Presence

Today, Infosys operates in **more than 50 countries** and employs over **317,000 professionals** worldwide. The company's headquarters is located in **Electronics City, Bengaluru**, while its renowned **Mysore Training Campus** is one of the largest corporate training facilities in the world.

Innovation and Leadership

Under the leadership of **Salil Parekh**, Infosys continues to focus on emerging technologies such as **Artificial Intelligence, Cloud Computing, Data Analytics, and Digital Transformation**. Recent initiatives such as **Infosys Topaz** and **Infosys Cobalt** demonstrate the company's commitment to next-generation technologies.

Inspiration for Students

The success of Infosys proves that determination, innovation, and continuous learning can transform a small startup into a global enterprise. For engineering students, Infosys stands as a symbol of what can be achieved through technical excellence, hard work, and visionary thinking.

"Great journeys begin with small steps. The story of Infosys reminds us that innovation and perseverance can create a global impact."

Student Corner : Puzzle Box

Debug the Code (Python)

```
def remove_duplicates(data):  
    unique = []  
    for i in range(len(data)):  
        if data[i] not in data[i+1:]:  
            unique.append(data[i])  
    return unique  
  
numbers = [1, 2, 2, 3, 4, 4, 5]  
  
result = remove_duplicates(numbers)
```

Hints

- What does data[i+1:] represent?
- Is the logic removing duplicates or keeping the last occurrence?
- What happens if you want to keep the first occurrence instead?

Guess the Logo

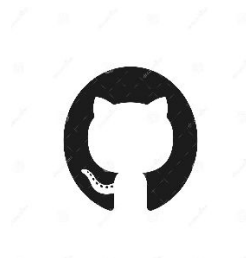
1.



2.



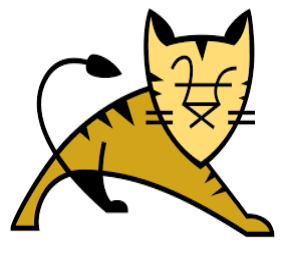
3.



4.



5.





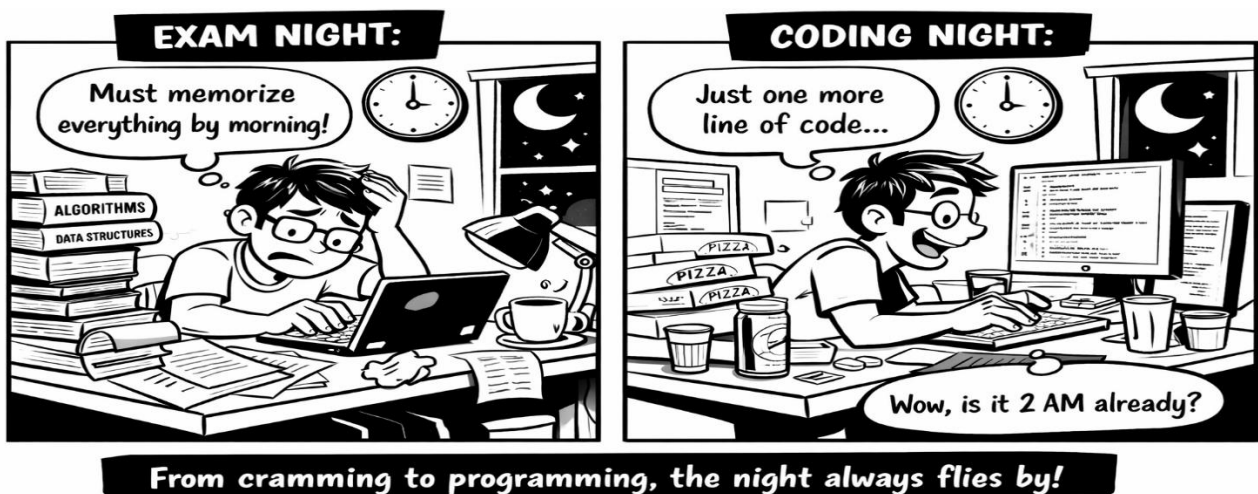
Debug the Code

Correct code	Output
<pre>def remove_duplicates(data): unique = [] for item in data: if item not in unique: unique.append(item) return unique numbers = [1, 2, 2, 3, 4, 4, 5] result = remove_duplicates(numbers) print("Unique values:", result)</pre>	Unique values: [1, 2, 3, 4, 5]
	Explanation - The function <code>remove_duplicates</code> iterates through the input list and creates a new list to store unique elements. - For each item, it checks whether it is already present in the unique list to avoid duplicates. - Only the first occurrence of each element is added, thereby preserving the original order. - Finally, the function returns the list of unique values, which is printed as the output.

□ Guess the Logo

1. Microsoft 2. Amazon 3. GitHub 4. Docker 5. Tomcat

Humour Corner



Editorial Desk Message

It gives us immense pleasure to present this edition of the Department of Computer Science & Engineering Newsletter, a reflection of the achievements, activities, and vibrant academic culture of our department.

We express our heartfelt gratitude to **Dr. P. Harini, Head of the Department**, for her constant encouragement, guidance, and unwavering support in bringing this newsletter to fruition. We are equally grateful to our respected **Principal, Dr. M. Venu Gopala Rao**, and the **Management** for fostering an environment that promotes creativity, innovation, and student participation.

We extend our sincere appreciation to **Ms. M. Anusha, Faculty Mentor**, whose valuable insights, mentorship, and continuous support played a pivotal role throughout the preparation of this publication.

Finally, we thank all the **faculty members, students, and contributors** whose enthusiasm, cooperation, and contributions have made this newsletter possible. We hope this edition serves as a platform to celebrate accomplishments, share knowledge, and strengthen the bond within our academic community.

– **Student Editorial Team, CSE Department**

Student Editorial Team

 Mr. Asif (20F01A05H4) Chief Editor	 Ms. Tejaswi (20F01A05F5) Associate Editor	 G. Sai Kumar (20F01A0535) Design & Technical Editor	Faculty Mentor  Mrs. M. Anusha Assistant Professor
 M. Padmaja (20F01A0567) Content & Documentation Editor	 D. Syam Kumar (20F01A05D7) Proofreading Editor	 CH. JYOTHI (20F01A05D6) Creative Editor	



**26TH
JANUARY**

~ REPUBLIC DAY ~