

# TechVista

An Annual Magazine of Department of Computer Science & Engineering

Volume – II

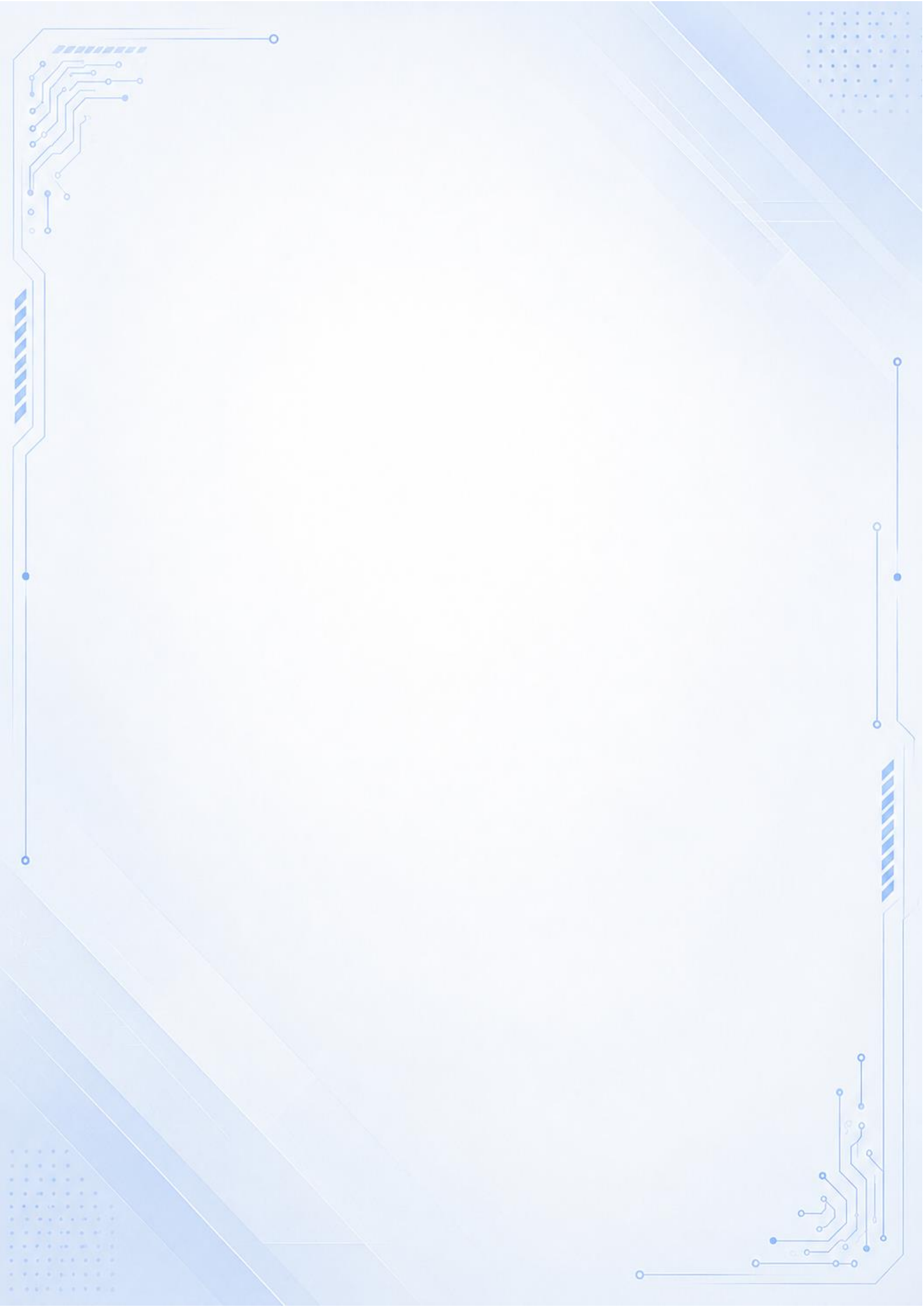
September 2024



## 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** and Institution of Engineers(INDIA)
- Institution Accredited by **NAAC** with **A Grade**
- Recognised by **UGC** under Section 2(f) & 12(B) of UGC Act, 1956
- Awarded '**A**' **Grade** by Andhra Pradesh State Government.



| <b>CONTENTS</b>                                                               |           |
|-------------------------------------------------------------------------------|-----------|
| <b>1. Contents</b>                                                            | <b>1</b>  |
| <b>2. A Note from the HOD &amp; A Word from the Principal</b>                 | <b>2</b>  |
| <b>3. Greetings from the Secretary &amp; Correspondent</b>                    | <b>3</b>  |
| <b>4. Vision &amp; Mission of the CSE Department</b>                          | <b>4</b>  |
| <b>5. Program Educational Objectives &amp; Program Specific Outcomes</b>      | <b>5</b>  |
| <b>6. Program Outcomes</b>                                                    | <b>6</b>  |
| <b>7. CSE: Engineering the Future</b>                                         | <b>7</b>  |
| <b>8. Faculty – The Pillars of CSE</b>                                        | <b>8</b>  |
| <b>9. Faculty Development Initiatives</b>                                     | <b>8</b>  |
| A) FDPs Attended                                                              |           |
| B) FDPs Organised                                                             |           |
| <b>10. Professional Society Memberships</b>                                   | <b>11</b> |
| <b>11. Faculty Expertise Beyond Classroom</b>                                 | <b>12</b> |
| <b>12. Learning, Innovation &amp; Intellectual Excellence</b>                 | <b>14</b> |
| <b>13. Research &amp; Scholarly Excellence – Faculty Publications 2023–24</b> | <b>15</b> |
| <b>14. Faculty Authorship</b>                                                 | <b>18</b> |
| <b>15. Students --- Tomorrow starts from Today</b>                            | <b>20</b> |
| <b>16. Academic Toppers</b>                                                   | <b>21</b> |
| <b>17. Placements — From Campus to Career</b>                                 | <b>23</b> |
| <b>18. Alumni Spotlight</b>                                                   | <b>30</b> |
| <b>19. MOUs --- Building Bridges Between Academia and Industry</b>            | <b>32</b> |
| <b>20. Scholarship Achievers</b>                                              | <b>33</b> |
| <b>21. IIT Bombay Spoken Tutorials</b>                                        | <b>34</b> |
| <b>22. NPTEL Certification Excellence</b>                                     | <b>35</b> |
| <b>23. ISTE and CSI Student Chapters</b>                                      | <b>36</b> |
| <b>24. Cruisers Elite</b>                                                     | <b>37</b> |
| <b>25. Tech, Think &amp; Tickle</b>                                           | <b>38</b> |
| A) Tech Trends                                                                |           |
| B) Brain Bytes                                                                |           |
| C) CSE Crossword Puzzle                                                       |           |
| <b>26. The Humour Corner</b>                                                  | <b>43</b> |
| <b>27. The Sporting Pulse</b>                                                 | <b>44</b> |
| <b>28. INVICTUS</b>                                                           | <b>45</b> |
| <b>29. Editorial Team Closing Note</b>                                        | <b>46</b> |

## A Note from the HOD



Every academic year brings new opportunities, achievements, and aspirations, and *TechVista – Volume II* is a reflection of that inspiring journey. It showcases the academic excellence, innovation, and collective efforts of our students and faculty in shaping a vibrant learning environment.

As technology continues to evolve through **Artificial Intelligence, Data Science, Cloud Computing, Cyber Security, and Generative AI**, our department remains committed to nurturing technically proficient, innovative, and socially responsible professionals equipped to meet future challenges.

*TechVista* celebrates the accomplishments, creativity, and collaborative spirit of our department while providing a platform for students and faculty to share their ideas and achievements. I sincerely appreciate all **faculty members, students** and **all the individuals** associated with department for their dedicated efforts in bringing out the best. My heartfelt gratitude also goes to the **Management** and the **Principal** for their constant encouragement and support.

I hope this edition inspires every reader to continue learning, innovating, and striving for excellence.

With Best Wishes,  
**Dr. P. Harini**  
**Professor & Head of the Department**  
**Department of Computer Science & Engineering**

## A Word from the Principal

It gives me immense pleasure to extend my warm wishes to the **Department of Computer Science & Engineering** on the publication of **Volume – II of *TechVista***, the Annual Magazine of the department. This publication is a reflection of the academic accomplishments, creativity, innovations, and collective efforts of our students and faculty.



I appreciate the sincere efforts of the **Department of Computer Science & Engineering, the Editorial Team, faculty members, and student contributors** in bringing out this edition of *TechVista*. Their commitment and enthusiasm in documenting and celebrating the achievements of the department are truly commendable.

I extend my heartfelt congratulations and best wishes to everyone associated with this publication. May *TechVista* continue to serve as a platform that inspires our students and faculty to pursue **excellence, innovation, creativity, and lifelong learning**.

**Dr. K. Jagadeesh Babu**  
**Principal**  
**St. Ann's College of Engineering & Technology**

## Greetings from the Honourable Secretary



I extend my warm greetings to the **Department of Computer Science & Engineering** on the release of **Volume – II of TechVista**.

This annual magazine is a reflection of the department's commitment to **academic excellence, innovation**, and the holistic development of its students.

The **Department of Computer Science & Engineering** has consistently distinguished itself through quality education, research, technical activities, and student accomplishments. It is encouraging to witness the department fostering not only **technical competence** but also **ethical values, leadership**, and a spirit of **continuous learning**, enabling students to become responsible professionals and valuable members of society.

I congratulate the department on its continued progress and wish **TechVista** and all its future ventures every success.

**Sri. V. Ramakrishna Rao**  
**Secretary**  
**St. Ann's College of Engineering & Technology**

## Greetings from the Respected Correspondent

My heartfelt **congratulations** to the **Department of Computer Science & Engineering** on the continued publication of **TechVista**, the Annual Magazine of the department.

The department has made significant contributions to the **growth and success of our institution** through its steadfast commitment to **quality education, student development, academic excellence, and technological advancement**. The achievements and initiatives of the department reflect the dedication of its faculty and the enthusiasm and potential of its students.



May **TechVista** continue to flourish as a platform that inspires **creativity, excellence, innovation, and lifelong learning**, and may the Department of Computer Science & Engineering continue to reach greater heights in the years ahead.

**Sri. S. Lakshmana Rao**  
**Correspondent**  
**St. Ann's College of Engineering & Technology**

## VISION & MISSION OF CSE

### 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.

## 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.

## CSE: Engineering the Future

The **Department of Computer Science and Engineering (CSE)** at **St. Ann's College of Engineering & Technology (Autonomous), Chirala**, has been committed to **academic excellence, technological innovation, research, and professional development** since its establishment in **2001**. Over the years, the department has evolved with the rapidly changing computing landscape, preparing students to meet the demands of a technology-driven world.

With a strong focus on **quality education, practical learning, innovation, and industry relevance**, the department provides an environment that encourages students to explore ideas, develop solutions, and apply their knowledge to real-world challenges. Through its **academic programmes, well-equipped laboratories, faculty expertise, technical activities, research initiatives, and industry interactions**, the department strives to bridge the gap between classroom learning and professional requirements.

Beyond academics, students are encouraged to engage in **projects, coding activities, workshops, seminars, hackathons, internships, certifications, and research initiatives**, fostering technical competence alongside **creativity, problem-solving, teamwork, communication, and leadership skills**.

As technology continues to shape the future, the department remains dedicated to nurturing **innovators, responsible professionals, and lifelong learners** who can make meaningful contributions to society and the digital world.



## **FACULTY — THE PILLARS OF CSE**

In **Computer Science and Engineering**, faculty members are more than educators—they are **mentors, guides, innovators, and catalysts for growth**. Their expertise and engagement with emerging technologies help students transform **knowledge into practical skills and meaningful solutions**.

The **CSE Department** values its faculty as a cornerstone of its success. Through **teaching, mentoring, research, innovation, industry engagement, and student development**, they inspire curiosity, nurture ideas, and foster a culture of **excellence**.

**Great CSE students are shaped by faculty who inspire, guide, and believe in their potential.**

## **Faculty Development Initiatives**

Faculty participation in **Faculty Development Programmes (FDPs)** provides valuable exposure to **emerging technologies, new ideas, and evolving practices** beyond the academic environment. These experiences strengthen the **technical knowledge and professional competencies of faculty**, contributing to the overall academic growth of the CSE Department.

The knowledge gained through such programmes is reflected in **updated content, improved teaching practices, practical insights, and innovative approaches to learning**. Thus, continuous faculty development directly contributes to a **more relevant and enriching learning experience for students**.

The **CSE Department** also actively organizes **FDPs**, bringing faculty members together with **industry professionals and subject experts**. These interactions promote **knowledge sharing, professional collaboration, and stronger industry–institution connectivity**, while enhancing the department's academic and professional engagement.

Most importantly, these connections create **new avenues for students** through **industry exposure, expert interactions, internships, projects, skill development, and career opportunities**. In this way, faculty development becomes a pathway connecting **faculty growth, departmental progress, institutional development, and student success**.

## FDPs Attended

Faculty members of the **Department of Computer Science & Engineering** participated in **62 external Faculty Development Programmes during the Academic Year 2023–2024**, gaining exposure to contemporary technologies as well as academic, research and pedagogical practices.

The programmes covered diverse areas including **Artificial Intelligence, Machine Learning, Deep Learning, Data Science, ChatGPT, Cyber Security, Big Data Analytics, Database Management Systems, Business Analytics, Research Methodology** and other emerging areas of computing. Participation in programmes conducted by reputed academic institutions and industry-linked organizations enabled faculty members to continually update their technical knowledge and professional competencies.

### Highlights of External FDP Participation

| Area / Programme                                        | Institution / Organizer                                                                                         |
|---------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| <b>Applications of Business Analytics</b>               | Department of Management Studies, Ramaiah Institute of Technology in collaboration with ExcelR Edtech Pvt. Ltd. |
| <b>Cyber Security</b>                                   | LakiReddy Bali Reddy College of Engineering, Mylavaram                                                          |
| <b>Machine Learning and Artificial Intelligence</b>     | APSSDC in collaboration with ExcelR Edtech Pvt. Ltd.                                                            |
| <b>Artificial Intelligence and Machine Learning</b>     | NIT Warangal & Raghu Engineering College, Visakhapatnam                                                         |
| <b>Database Management System</b>                       | NPTEL–AICTE, IIT Madras                                                                                         |
| <b>Data Science and ChatGPT</b>                         | K L Deemed University in collaboration with ExcelR                                                              |
| <b>Deep Learning and Artificial Intelligence</b>        | APSSDC in collaboration with ExcelR Edtech Pvt. Ltd.                                                            |
| <b>Research Methodology and Technical Paper Writing</b> | Chaitanya Bharathi Institute of Technology (CBIT) in collaboration with ExcelR                                  |
| <b>Ethical Hacking and Digital Forensics</b>            | Department of Information Science & Engineering, VVCE, Mysuru                                                   |
| <b>Data Visualization and Business Intelligence</b>     | APSSDC in collaboration with ExcelR Edtech Pvt. Ltd.                                                            |
| <b>Big Data Analytics using Hadoop Framework Tools</b>  | Department of CSE, Presidency University, Bengaluru                                                             |

## FDPs Organized by the Department

In addition to participating in professional development programmes, the **Department of Computer Science & Engineering** actively organized Faculty Development Programmes during **Academic Year 2023–2024**, creating opportunities for faculty members to enhance their technical knowledge, exchange expertise and engage with contemporary technologies through interaction with industry professionals.

### FDPs Organized During the Academic Year

| Programme                                         | Duration                 | Resource Person                                                                | Participants |
|---------------------------------------------------|--------------------------|--------------------------------------------------------------------------------|--------------|
| <b>Full Stack Technologies</b>                    | 21-08-2023 to 26-08-2023 | Mr. M. Venkat Gopi Chand, Senior Tech Lead, Tech Mahindra, Hyderabad           | <b>35</b>    |
| <b>Analyzing Computer Networks with Wireshark</b> | 18-03-2024 to 23-03-2024 | Mr. Surendra Babu N, Application Engineer, Calnex Solutions Ltd., Scotland, UK | <b>36</b>    |

#### Highlights:

- The CSE Department organized **2 Faculty Development Programmes** during **AY 2023–24**. A total of **71 participants** benefited from the two programmes.
- The programmes brought **industry expertise** into the academic environment through interaction with professionals from **Tech Mahindra** and **Calnex Solutions Ltd., Scotland, UK**.
- **Full Stack Technologies** provided exposure to contemporary software development practices. **Wireshark-based network analysis** provided practical exposure to computer-network monitoring and analysis.



## Professional Society Memberships

Active engagement with **professional societies and academic bodies** reflects the **CSE Department's** commitment to continuous professional growth, knowledge sharing, and meaningful participation in the wider technical community. Faculty members maintain **lifetime memberships** with several reputed national and international professional organizations, providing opportunities for **professional networking, academic collaboration, knowledge exchange, and staying connected with emerging developments in their respective fields.**

### Lifetime Membership Details

| S.No. | Professional Society / Body                                                              | Lifetime Members                                                                                                                                                                             |
|-------|------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1     | <b>Computer Society of India (CSI)</b>                                                   | Dr. P. Harini<br>Dr. Y. Chitti Babu<br>Dr. A. Tirupathaiah<br>Dr. P.V.S. Sarma<br>Dr. K. Subba Rao<br>Mr. N. Lakshmi Narayana<br>Mr. S. Amarnath Babu<br>Mrs. D. Madhuri<br>Mr. T. Sessa Sai |
| 2     | <b>Indian Society for Technical Education (ISTE)</b>                                     | Dr. P. Harini<br>Dr. Y. Chitti Babu<br>Dr. A. Tirupathaiah<br>Dr. P.V.S. Sarma<br>Dr. G. Prasuna<br>Dr. K. Subba Rao<br>Mr. N. Lakshmi Narayana<br>Mr. S. Amarnath Babu                      |
| 3     | <b>Institution of Engineers India (IEI)</b>                                              | Dr. P. Harini<br>Dr. Y. Chitti Babu<br>Dr. A. Tirupathaiah<br>Dr. D. Nagesh Babu<br>Dr. P.V.S. Sarma<br>Dr. K. Subba Rao<br>Mr. N. Lakshmi Narayana<br>Mrs. D. Madhuri                       |
| 4     | <b>International Computer Science and Engineering Society (ICSCS)</b>                    | Dr. M. Ratna Raju                                                                                                                                                                            |
| 5     | <b>International Association of Engineers (IAENG)</b>                                    | Dr. M. Ratna Raju;<br>Dr. D. Nagesh Babu                                                                                                                                                     |
| 6     | <b>Institute for Engineering Research and Publication (IFERP)</b>                        | Dr. M. Ratna Raju                                                                                                                                                                            |
| 7     | <b>International Association of Computer Science and Information Technology (IACSIT)</b> | Dr. D. Nagesh Babu                                                                                                                                                                           |

## Faculty Expertise Beyond the Classroom

### CSE Faculty as Resource Persons in STTPs & FDPs

Faculty members of the **Department of Computer Science & Engineering** extended their **academic expertise beyond the institution** by serving as **Resource Persons** in **STTPs, FDPs, and other academic programmes** during **2023–24**. Their involvement in delivering sessions on contemporary areas such as **Artificial Intelligence, Deep Learning, Full-Stack Development, Data Structures, Cryptography, Operating Systems, and Python Programming** reflects the department's growing **academic outreach, professional engagement**, and commitment to **knowledge sharing**.

| S.NO | Name of the Faculty as Resource Person | Name of the STTP/FDP                                                        | Date       | Location   | Organized by                                                           |
|------|----------------------------------------|-----------------------------------------------------------------------------|------------|------------|------------------------------------------------------------------------|
| 1    | Dr. P. Harini                          | DEVOPS                                                                      | 29-01-2024 | Ongole     | Dept. of CSE, <i>PACE Institute of Technology and Sciences</i>         |
| 2    | Dr. Y. Chitti Babu                     | Advanced Data Structures                                                    | 30/01/2024 | Ongole     | Dept. of CSE, RISE Krishna Sai Prakasam Group of Institutions          |
| 3    | Dr. Y. Chitti Babu                     | Java Programming                                                            | 22/09/2023 | Eluru      | Dept. of CSE, <i>Eluru College of Engineering &amp; Technology</i>     |
| 4    | Dr. A. Tirupathaiah                    | MERN STACK DEVELOPMENT                                                      | 12-10-2023 | Markapur   | Dept. of CSE, Samuel George Institute of Engineering & Technology.     |
| 5    | Dr. A. Tirupathaiah                    | Secure Operating Systems and System Hardening                               | 19-03-2024 | Guntur     | Dept. of CSE, St. Mary's Group of Institutions Guntur for Women.       |
| 6    | Dr. G. Prasuna                         | Advanced Trees and Efficient Search Techniques                              | 4-11-2023  | Eluru      | Dept. of CSE, <i>Eluru College of Engineering &amp; Technology</i> .   |
| 7    | Dr. G. Prasuna                         | Mastering Java Full Stack Development: From Backend To Frontend Integration | 31-01-2024 | Vijayawada | Dept. of CSE, P. B. Sidhartha College of Arts and Sciences, Vijayawada |
| 8    | Dr. M. Ratna Raju                      | Introduction to Programming                                                 | 11-08-2023 | Guntur     | Dept. of CSE, St. Mary's Group of Institutions Guntur for Women.       |

|    |                    |                                            |            |               |                                                                                     |
|----|--------------------|--------------------------------------------|------------|---------------|-------------------------------------------------------------------------------------|
| 9  | Dr. M. Ratna Raju  | Computer Networks                          | 03-02-2024 | Macherla      | Dept. of CSE, Newton's Institute of Engineering                                     |
| 10 | Dr K. Subba Rao    | National Webinar on Applications of Python | 21-03-2024 | Ongole        | Dept. of CSE, DS Govt. Degree College for Women, Ongole, Prakasam District          |
| 11 | Dr K. Subba Rao    | Applications of Python                     | 11-03-2024 | Chimakurthy   | Dept. of CSE, BVSR Engineering College,Chimakurthy,college code: HR,PrakasamDist.AP |
| 12 | Dr. D. Nagesh Babu | Foundational Cryptography                  | 17-02-2024 | Guntur        | Dept. of CSE, Chalapathi Institute of Technology                                    |
| 13 | Dr. P V S SARMA    | ARTIFICIAL INTELLIGENCE                    | 29-06-2024 | Narasaraopeta | Dept. of CSE, Narasaraopet Engineering College                                      |



The faculty members' role as **Resource Persons** represents more than an academic contribution—it reflects the department's ability to **share knowledge, disseminate emerging technologies, and contribute to the wider academic community**. Such engagements provide faculty with opportunities for **professional enrichment and academic networking**, while strengthening the department's **visibility and outreach** beyond the institution. Ultimately, this culture of knowledge exchange enriches the faculty and contributes to bringing **updated knowledge, contemporary practices, and broader academic perspectives** into the classroom for the benefit of students.

## Learning, Innovation & Intellectual Excellence

The academic journey of the faculty of the **Department of Computer Science & Engineering** extends beyond classroom teaching, encompassing **continuous professional learning, technological advancement, and innovative research**. During **2023–24**, faculty members strengthened their academic profiles through **NPTEL certifications** and contributed to the domain of **intellectual property through PATENT publications**. These accomplishments reflect a culture of **lifelong learning, innovation, and academic excellence** within the department.

### NPTEL Certifications

The faculty members have successfully completed **NPTEL courses** offered by premier institutions, strengthening their expertise in **emerging technologies and contemporary computing domains**.

| S.No | Name of the Faculty       | Name of Course Passed                          | Course Offered by (agency) | Grade obtained if any |
|------|---------------------------|------------------------------------------------|----------------------------|-----------------------|
| 1    | Dr. G. Prasuna            | Introduction to Machine Learning, Jul-Sep 2023 | NPTEL, IIT Kharagpur       | 75% Elite+Silver      |
| 2    | Mrs. Kurapati Devi Nagsri | Data Base Management System Jan-Mar 2024       | NPTEL, IIT Kharagpur       | 63% Elite             |

### Patents & Intellectual Property

The department takes pride in the **research and innovation contributions** of its faculty members through **patent publications**, reflecting their efforts towards developing **innovative technological solutions** and transforming academic ideas into intellectual property.

| S.No | Author Name   | Title of the Invention                                                                      | Details                                                                            |
|------|---------------|---------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| 1    | Dr. P. Harini | Next-generation AI Chatbot with Advanced Language Understanding and Generation Capabilities | Application No: 202341050566, Filed date 26/07/2023 and Published Date: 01/09/2023 |
| 2    | Dr. P. Harini | AI-driven Analytical Tools for Assessing and Enhancing Pedagogical Strategies               | Application No: 202341077156, Filed date-12/11/2023 and Published Date: 22/12/2023 |

## Research & Scholarly Excellence – Faculty Publications 2023–24

**Faculty research and scholarly contributions** play a vital role in strengthening the academic environment of the Department of Computer Science & Engineering. Through research, faculty members explore **emerging technologies, innovative ideas, and contemporary challenges**, while enhancing their knowledge and academic expertise.

This research culture promotes **innovation, collaboration, knowledge sharing, and continuous learning**, thereby contributing to the **development of the department and the growth of the institution**. The impact of faculty research extends beyond publications and academic achievements, directly benefiting **student learning and development**.

By bringing **research experiences, emerging technologies, practical applications, and new perspectives** into the classroom, faculty members inspire students to **think critically, innovate, and develop research-oriented skills**. Thus, **Faculty Research → Departmental Development → Institutional Growth → Student Advancement** forms a strong foundation for a dynamic and progressive academic environment.

| S.No. | Major Journal / Conference Platform                                                                   | Category / Indexing             |
|-------|-------------------------------------------------------------------------------------------------------|---------------------------------|
| 1     | International Journal of Advanced Research in Information and Communication Engineering (IJARCSA)     | UGC CARE                        |
| 2     | International Research Journal of Infinite Innovations in Engineering and Technology (IJIET)          | UGC CARE                        |
| 3     | International Journal of Marketing Management (IJMM)                                                  | UGC CARE                        |
| 4     | International Journal of Advanced Research and Review (IJARR)                                         | UGC CARE                        |
| 5     | Industrial Engineering Journal (IE Journal)                                                           | UGC CARE                        |
| 6     | Juni Khyat                                                                                            | UGC Care Group I Listed Journal |
| 7     | Journal of Theoretical and Applied Information Technology (JATIT)                                     | SCOPUS Indexed                  |
| 8     | Telematique                                                                                           | SCOPUS                          |
| 9     | IEEE – Fifth International Conference on Electrical, Computer and Communication Technologies (ICECCT) | SCOPUS                          |
| 10    | National Conference on New Innovations in Computer Science and Engineering (NICSE-2023)               | National Conference             |

### Details of Faculty Publications (2023-24)

| S.NO        | FACULTY NAME          | DESIGNATION      | JOURNALS |                | CONFERENCES |                |
|-------------|-----------------------|------------------|----------|----------------|-------------|----------------|
|             |                       |                  | NATIONAL | INTER NATIONAL | NATIONAL    | INTER NATIONAL |
| 1           | Dr. P.Harini          | Professor        | -        | 04             | 07          | -              |
| 2           | Dr. M.Ratna Raju      | Professor        | -        | 05             | 04          | -              |
| 3           | Dr. Y.Chitti Babu     | Professor        | -        | 02             | 05          | -              |
| 4           | Dr. A.Tirupathaiah    | Assoc. Professor | -        | 05             | 06          | -              |
| 5           | Dr. Grandhi Prasuna   | Assoc. Professor | -        | 07             | 05          | 01             |
| 6           | Dr.D. Nagesh Babu     | Assoc. Professor | -        | 01             | 05          | -              |
| 7           | Mr.P.V.S.Sarma        | Assoc. Professor | -        | 03             | 04          | -              |
| 8           | Mr.N.Lakshmi Narayana | Asst.Professor   | -        | 03             | 05          | -              |
| 9           | Mrs.D. Madhuri        | Asst.Professor   | -        | 02             | 04          | -              |
| 10          | Mr. T. Sesha Sai      | Asst.Professor   | -        | 01             | 03          | -              |
| 11          | Mrs. N. Sulakshna     | Asst.Professor   | -        | 01             | 03          | -              |
| 12          | Mr.K. Ramesh          | Asst.Professor   | -        | 02             | -           | -              |
| Sub Total   |                       |                  | -        | 36             | 51          | 01             |
| Grand Total |                       |                  | 88       |                |             |                |

## A few Highlights

| S.No | Author Name             | Title                                                                                                                               | Journal/Conference                                                                                                                                                             |
|------|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1    | Dr. P. Harini           | Search Mental Problems using Social Media in Emotional Patterns                                                                     | Juni Khyat, ISSN: 2278-4632, Vol-13, Issue-08, August 2023 (UGC Care Group I Listed Journal)                                                                                   |
| 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, ISSN: 1992-8645, E-ISSN: 1817-3195, 15 <sup>th</sup> January 2024, Vol. 101, No. 1, Pg. No. 97–110 [Scopus Indexed] |
| 3    | Dr. Y. Chitti Babu      | Hybrid MAC Protocol for Wireless Multimedia Networks – A Research Perspective                                                       | TELEMATIQUE, Volume 22, Issue 1, 2023, ISSN: 1856-4194, Pg: 2755–2763 [SCOPUS]                                                                                                 |
| 4    | Dr. M. Ratna Raju       | New Security Models in Cloud IoT System using Hash Machine Learning                                                                 | Industrial Engineering Journal (IE Journal), ISSN: 0970-2555, Volume: 52, Issue 8, August 2023, Pg: 328–337 [UGC CARE]                                                         |
| 5    | Dr. A. Tirupathaiah     | Anomaly Detection for Electric Energy Consumption in Smart Farms                                                                    | International Journal of Advanced Research and Review, ISSN No: 2455-7277, Volume No: 8, Issue No: 12, 2023, Pg: 49–55 [UGC CARE]                                              |
| 6    | Dr. D. Nagesh Babu      | Creation of Chatbots in Customer Services at Banking                                                                                | International Journal of Advanced Research and Review, ISSN No: 2455-7277, Volume No: 8, Issue No: 12, 2023, Pg: 80–85 [UGC CARE]                                              |
| 7    | Mr. P. V. S. Sarma      | Analysis and Identification of Health and Diseases in Medicinal and Acromatic Plants Using Machine Learning                         | International Journal of Advanced Research in Information and Communication Engineering (IJARCSA), ISSN: 2321-8940, Vol. 3, Issue No. 2, 2023, Pg: 65–71 [UGC CARE]            |
| 8    | Mr. N. Lakshmi Narayana | Automated Pneumonia Detection From X-Ray Images Using Deep Learning                                                                 | International Journal of Advanced Research and Review, ISSN No: 2455-7277, Volume No: 8, Issue No: 12, 2023, Pg: 56–63 [UGC CARE]                                              |
| 9    | Mrs. D. Madhuri         | Enhancing Student Photography Skills with Web Based Photo Stock and Learning System                                                 | Internal Journal of Marketing Management (IJMM), ISSN: 2454-5007, Vol. 11, Issue 4, 2023, Pg: 139–145 [UGC CARE]                                                               |
| 10   | Mr. T. Sesha Sai        | Cloud Based Adaptive Traffic Signal System using Amazon AWS                                                                         | Internal Journal of Marketing Management (IJMM), ISSN: 2454-5007, Vol. 11, Issue 4, 2023, Pg: 108–113 [UGC CARE]                                                               |

## Faculty Authorship

The Department of **Computer Science & Engineering** takes pride in the scholarly and creative contributions of its faculty members. Faculty authorship reflects the department's commitment to **knowledge creation, research, innovation, and academic excellence**. Through books and book chapters, faculty members contribute valuable knowledge to emerging areas of Computer Science and Technology.

### Dr. P. Harini, Professor & Head of the Department, CSE

A distinguished academician and author, **Dr. P. Harini** has contributed to contemporary technological knowledge through her authorship in the rapidly evolving field of **Generative Artificial Intelligence**. Her book reflects an academic effort to provide readers with a comprehensive understanding of modern AI tools and their applications.

### Chat GPT: A Comprehensive Study on Generative AI Tool (2023)

#### Publication Details:

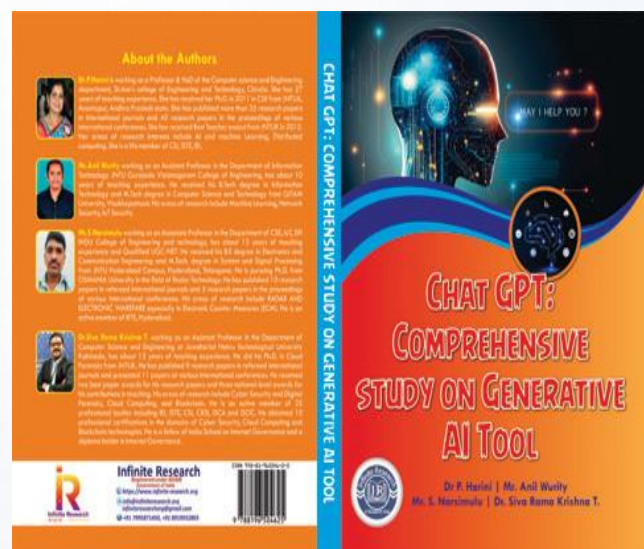
- **Title:** *Chat GPT: A Comprehensive Study on Generative AI Tool*
- **Author(s):** Dr. P. Harini, Mr. Anil Wurity, Mr. S. Narsimulu, Dr. Siva Rama Krishna T
- **Year of Publication:** August 2023
- **ISBN:** 978-81-965046-2-5
- **Publisher:** Infinite Research
- **Category:** International

#### Key Contribution

The book focuses on the emerging field of **Generative Artificial Intelligence**, with particular emphasis on **ChatGPT and its capabilities as an AI-powered tool**. It represents a valuable academic contribution towards understanding the growing influence of generative AI in education, technology, research, and modern digital applications.

#### Available at:

1. [Publisher Website – Infinite Research](#)
2. [Flipkart – ChatGPT: A Comprehensive Study on Generative AI Tool](#)

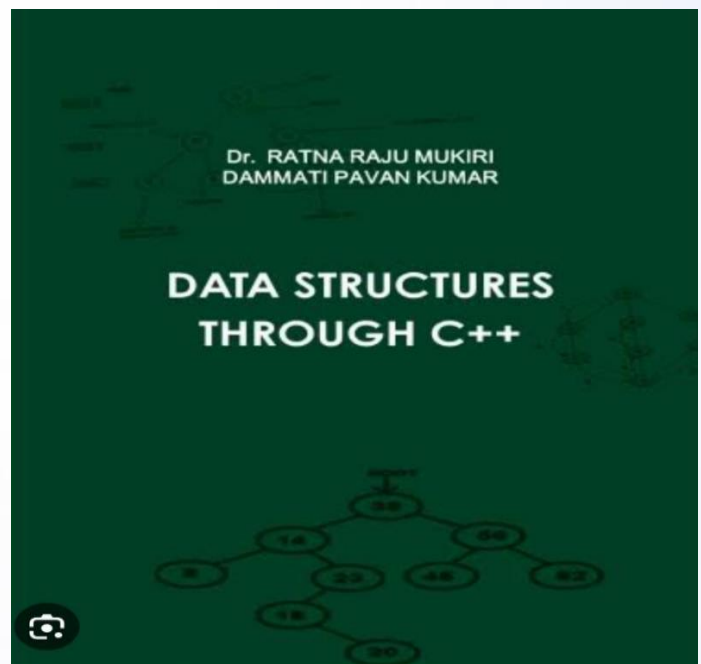


**Dr. Ratna Raju Mukiri, Professor, Ph.D., Post-Doctoral Research (Vietnam)**

A distinguished academician and author, **Dr. M. Ratna Raju Mukiri** has contributed to the field of **Computer Science education** through the authorship of *Data Structures Through C++*. The book is designed to introduce and explain advanced data-structure concepts using the C++ programming language.

**Data Structures Through C++ (2019)****Publication Details:**

- **Title:** *Data Structures Through C++*
- **Authors:** Dr. Ratna Raju Mukiri and Pavan Kumar Dammati
- **Year of Publication:** 2019
- **Publication Date:** March 26, 2019
- **ISBN:** 9780359546473
- **Publisher / Platform:** Lulu
- **Language:** English
- **Category:** Engineering
- **Pages:** 134
- **Format:** Paperback

**Key Contributions**

- Introduces concepts related to **advanced data structures**.
- Uses **C++ programming** as the implementation language.
- Supports learners in understanding fundamental data-structure concepts and their practical implementation.
- Serves as a useful academic resource for students studying **Computer Science and Engineering**.

**Available at:**

[Lulu – Data Structures Through C++](#)

## Students — Tomorrow Starts from Today

Students are the **heart of every educational institution** and the driving force behind a brighter future. At the Department of **Computer Science & Engineering**, we believe that every student carries unique potential, aspirations, and the ability to create meaningful change. Their journey is not merely about acquiring a degree—it is about discovering their strengths, developing their skills, and growing into confident individuals ready to make a difference.

In a world shaped by rapid technological advancements and constant change, the Department of CSE is committed to **nurturing students today for the challenges of tomorrow**. Through quality education, practical learning, innovation, creativity, teamwork, and continuous skill development, we strive to prepare our students to adapt, excel, and lead in an ever-changing global environment.

A student represents more than the future of a department—they represent the **future of society and the nation**. The ideas they explore today can become tomorrow's innovations; the knowledge they gain can solve future challenges; and the values they develop can help build a stronger, more responsible, and progressive nation.

At CSE, we value our students as **young innovators, future professionals, problem-solvers, leaders, and nation-builders**. By empowering them with knowledge, skills, confidence, and a spirit of lifelong learning, we aim to help them transform their dreams into achievements.

*Today, they are students learning to shape their future. Tomorrow, they will be the innovators, leaders, and changemakers shaping the world. Because tomorrow truly starts from today.*



## Academic Toppers

The Department of **Computer Science & Engineering** takes immense pride in celebrating its **academic toppers**, whose achievements reflect **dedication, discipline, and perseverance**. Their outstanding performance is a testament to their commitment to learning and continuous improvement.

These young achievers inspire their peers to set higher goals and strive for excellence. With the guidance of faculty and their determination to succeed, they continue to set remarkable academic standards. **They truly represent the bright future of the CSE Department.**

### Semester Wise Academic Toppers

#### I year I 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 I Sem

| S. No | HTNO       | Student Name                             | %     |
|-------|------------|------------------------------------------|-------|
| 1     | 22F01A0545 | GATTUPALLI HEMA VENKATA NAGA<br>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 I 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 I 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 |

**I Year II 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 II 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 II Sem**

| S. No | HTNO       | Student Name                    | %     |
|-------|------------|---------------------------------|-------|
| 1     | 21F01A05J0 | SURAGANI BINDU MANASA           | 82.73 |
| 2     | 21F01A05J6 | YADAMA GOWRI SHANMUKHA<br>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 II Sem**

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

## Placements — From Campus to Career

The Department of **Computer Science & Engineering** takes immense pride in the successful career journeys of its students. The **2020–2024 batch placement summary** reflects the department's commitment to preparing students with the knowledge, technical skills, and confidence required to enter the professional world.

With students securing opportunities in reputed organizations such as **Amazon, TCS, Accenture, Tech Mahindra, Concentrix, Hexaware, NEC, Verisk, Ecolab, and Sutherland**, the department continues to bridge the gap between **academic learning and industry expectations**.

These achievements stand as a testament to the hard work of our students, the guidance of faculty, and the collective efforts towards building successful careers. **From the classrooms of today to the workplaces of tomorrow, our students are confidently stepping forward to shape their professional future.**

### Our Talented Achievers

|                                                                                                                                                      |                                                                                                                                                   |                                                                                                                                                     |                                                                                                                                                                              |                                                                                                                                                                |
|------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <p><b>ANNADASU<br/>UDAY KIRAN</b><br/>20F01A0503<br/>TACHYON</p> |  <p><b>ATHOTA<br/>ANUHYA</b><br/>20F01A0505<br/>CONCENTRIX</p> |  <p><b>BANDARU<br/>NANDINI</b><br/>20F01A0507<br/>CONCENTRIX</p> |  <p><b>BHEEMAVARAPU<br/>VEERA VASANTHA<br/>LAKSHMI</b><br/>20F01A0508<br/>SUTHERLAND</p> |  <p><b>BILLA<br/>PRASANTH</b><br/>20F01A0509<br/>ACCENTURE</p>            |
|  <p><b>BONDI AJAY</b><br/>20F01A0511HEX<br/>AWARE</p>             |  <p><b>BONDI DAVIDU</b><br/>20F01A0512<br/>SUTHERLAND</p>      |  <p><b>CHUNDI KAVYA</b><br/>20F01A0515<br/>CONCENTRIX</p>        |  <p><b>CHUNDURI<br/>MANIDEEP</b><br/>20F01A0516<br/>VERISK</p>                           |  <p><b>DEVARAMPATI<br/>BHARGAVA<br/>NANDAN</b><br/>20F01A0521<br/>NEC</p> |

|                                                                                                                                                                |                                                                                                                                                                     |                                                                                                                                                                           |                                                                                                                                                                |                                                                                                                                                                              |
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|  <p><b>DOMA<br/>MANIKANTA<br/>REDDY</b></p> <p>20F01A0522<br/>VERISK</p>      |  <p><b>DOMATOTI<br/>SWETHA</b></p> <p>20F01A0523<br/>SUTHERLAND</p>                |  <p><b>DUMBALA<br/>NARASIMHA<br/>RAMCHARAN</b></p> <p>20F01A0524<br/>TCS</p>             |  <p><b>GOKANAKONDA<br/>RESHMA</b></p> <p>20F01A0527<br/>TACHYON</p>          |  <p><b>GOLLAPUDI<br/>VENKATA NAGA<br/>SAI SRAVYA</b></p> <p>20F01A0528<br/>CONCENTRIX</p> |
|  <p><b>GORANTLA<br/>KUSHVANTH SAI</b></p> <p>20F01A0530<br/>TECH MAHINDRA</p> |  <p><b>GORRE<br/>LAKSHMI</b></p> <p>20F01A0532<br/>TCS</p>                         |  <p><b>GOTTIPATI<br/>NITHIN</b></p> <p>20F01A0534<br/>SUTHERLAND</p>                     |  <p><b>GUNTI<br/>SHANMUKHA<br/>SRINIVAS</b></p> <p>20F01A0536<br/>VERISK</p> |  <p><b>JANGAM SUDHEER<br/>BABU</b></p> <p>20F01A0538<br/>CONCENTRIX</p>                   |
|  <p><b>JANNI<br/>SWAMULU</b></p> <p>20F01A0539<br/>CONCENTRIX</p>           |  <p><b>JERRIPOTHU<br/>SHINY</b></p> <p>20F01A0540<br/>VERISK</p>                 |  <p><b>KAATAMGARI<br/>RAMAKRISHNA</b></p> <p>20F01A0542<br/>SUTHERLAND</p>             |  <p><b>KARRA SALOMI</b></p> <p>20F01A0545<br/>SUTHERLAND</p>               |  <p><b>KESANI BINDHU<br/>PRIYA</b></p> <p>20F01A0549<br/>CONCENTRIX</p>                 |
|  <p><b>KONJETI<br/>CHANDANA</b></p> <p>20F01A0551<br/>SUTHERLAND</p>        |  <p><b>KOPPOLU<br/>LAKSHMI<br/>LIKHITHA</b></p> <p>20F01A0552<br/>CONCENTRIX</p> |  <p><b>KOSURI SRI<br/>VENKATA SAI<br/>PALLAVI</b></p> <p>20F01A0553<br/>CONCENTRIX</p> |  <p><b>KOTHAPALLI<br/>SWATHI</b></p> <p>20F01A0555<br/>CONCENTRIX</p>      |  <p><b>KUKKALA YAGNA<br/>GAYATHRI</b></p> <p>20F01A0556<br/>VERISK</p>                  |

|                                                                                                                                                                  |                                                                                                                                                                            |                                                                                                                                                                     |                                                                                                                                                                         |                                                                                                                                                         |
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|  <p><b>KURICHETI SAI<br/>PRAVALLIKA</b><br/>20F01A0557<br/>CONCENTRIX</p>       |  <p><b>MAJETI<br/>SAISRAVANTHI2</b><br/>0F01A0559<br/>CONCENTRIX</p>                      |  <p><b>MAMIDIPAKA<br/>VENKATA SAI<br/>SREEJA</b><br/>20F01A0561<br/>CONCENTRIX</p> |  <p><b>MANCHA NAGA<br/>LAKSHIMI</b><br/>20F01A0562<br/>CONCENTRIX</p>                 |  <p><b>MATTHI PRAGATHI</b><br/>20F01A0564<br/>SUTHERLAND</p>         |
|  <p><b>MELLACHERUVU<br/>SAMBA SIVA<br/>RAO</b><br/>20F01A0565<br/>PRASTHANA</p> |  <p><b>MOPIDEVI<br/>PRANA DEEP<br/>CHANDU</b><br/>20F01A0566<br/>ADIT</p>                 |  <p><b>MUPPOORI<br/>PADMAJA</b><br/>20F01A0567<br/>CONCENTRIX</p>                  |  <p><b>MUTTIREDDY<br/>VIJAY<br/>VARDHANARAJU</b><br/>20F01A0568<br/>IDEYALABS</p>     |  <p><b>NADIKOTI SAI<br/>ALEKHYA</b><br/>20F01A0569<br/>PRASTHANA</p> |
|  <p><b>NAGANDLA<br/>LEELAVATHI</b><br/>20F01A0570<br/>ADIT</p>                |  <p><b>NASIKA HARIKA</b><br/>20F01A0571<br/>CONCENTRIX</p>                              |  <p><b>NUTHALAPATI<br/>CHAITHANYA</b><br/>20F01A0573<br/>CONCENTRIX</p>          |  <p><b>PALAPARTHI NAGA<br/>SAI</b><br/>20F01A0574<br/>INNOVASPHERE<br/>INFOTECH</p> |  <p><b>PALLAPOLU<br/>BHAVANA</b><br/>20F01A0575<br/>ADIT</p>       |
|  <p><b>PAMULA<br/>PUJITHA</b><br/>20F01A0576<br/>CONCENTRIX</p>               |  <p><b>PANTA MOHAN<br/>NAGA<br/>SHANKAR<br/>RAMBABU</b><br/>20F01A0577HEX<br/>AWARE</p> |  <p><b>PASUMARTHI<br/>MOUNIKA</b><br/>20F01A0579<br/>CONCENTRIX</p>              |  <p><b>PENDEM VAMSI</b><br/>20F01A0580<br/>CONCENTRIX</p>                           |  <p><b>PERALI CHARITH</b><br/>20F01A0581<br/>TCS</p>               |

|                                                                                                                                                                        |                                                                                                                                                     |                                                                                                                                                                                          |                                                                                                                                                                         |                                                                                                                                                                |
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| <br><b>PERUGU GNANA<br/>PRAVALLIKA</b><br>20F01A0582<br>ADIT                          | <br><b>POTTURI<br/>VAMSI</b><br>20F01A0585<br>TACHYON              | <br><b>PULUGU SIVA<br/>JYOTHI</b><br>20F01A0587<br>PRASTHANA                                            | <br><b>PUPPALA DEVI SRI<br/>SAI PRIYANKA</b><br>20F01A0588<br>CONCENTRIX              | <br><b>RACHUMALLU<br/>JYOTHI SRI<br/>LAKSHMI</b><br>20F01A0590<br>PRASTHANA |
| <br><b>RAVALA<br/>RAVITEJA</b><br>20F01A0591<br>CONCENTRIX                            | <br><b>SALAGALA<br/>ABHINA</b><br>20F01A0592<br>PRASTHANA          | <br><b>SHAIK AYESHA</b><br>20F01A0599<br>ADIT                                                           | <br><b>SHAIK FATHIMA</b><br>20F01A05A1<br>CONCENTRIX                                  | <br><b>SHAIK IBRAHIM</b><br>20F01A05A3<br>TECH MAHINDRA                     |
| <br><b>SHAIK<br/>KARIMULLA</b><br>20F01A05A5<br>CONCENTRIX                           | <br><b>SOWDAGAR<br/>SAMEERA</b><br>20F01A05A7<br>TECH<br>MAHINDRA | <br><b>SURAGANI<br/>AKHILA</b><br>20F01A05B0<br>WIPRO                                                  | <br><b>SYED FOUZIA<br/>FARHEEN</b><br>20F01A05B1<br>CONCENTRIX                       | <br><b>SYED KALESHA<br/>TANVEER</b><br>20F01A05B2<br>CONCENTRIX            |
| <br><b>THADIVAKA<br/>RAGA DEEPTHI</b><br>20F01A05B3<br>ADIT                         | <br><b>VARUN<br/>MOPARTHI</b><br>20F01A05B8<br>AMAZON            | <br><b>YAKKALA<br/>VENKATA<br/>LAHARI</b><br>20F01A05B9TCS                                            | <br><b>VEPURI BYULA<br/>GRACE</b><br>20F01A05C0<br>PRASTHANA                        | <br><b>VINNAKOTA<br/>ARAVIND BABU</b><br>20F01A05C1<br>ADIT               |
| <br><b>VURATA<br/>JAGADEESH</b><br>20F01A05C2<br>HALLMARK<br>GLOBAL<br>TECHNOLOGIES | <br><b>YALAVARTHI<br/>NATARAJ</b> 20F01<br>A05C4AMAZON           | <br><b>YARASU SAI<br/>SIVA RAMA<br/>AYYAPPA<br/>CHANDU</b> 20F01<br>A05C5INNOVAS<br>PHERE<br>INFOTECH | <br><b>AGNIHOTRAM<br/>HANUMATHSATYA<br/>SRINIVAS</b> 20F01A0<br>5C6TECH<br>MAHINDRA | <br><b>AKURATHI DEVI<br/>KANAKA<br/>DURGA</b> 20F01A05C<br>7COGNIZANT     |

|                                                                                                                                                                    |                                                                                                                                                                     |                                                                                                                                                                |                                                                                                                                                                      |                                                                                                                                                                            |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <p><b>AKURATHI SIVA<br/>PARVATHI</b><br/>20F01A05C8<br/>ECOLAB</p>               |  <p><b>AMANCHI<br/>PRAVEENA</b><br/>20F01A05C9<br/>CONCENTRIX</p>                  |  <p><b>ANNAPAREDDY<br/>V R N JYOTHI</b><br/>20F01A05D1<br/>TECHMAHINDRA</p>   |  <p><b>BEJAWADA PHILIP</b><br/>20F01A05D2<br/>TECH MAHINDRA</p>                    |  <p><b>BHEEMISETTY SAI<br/>SATWIKA</b><br/>20F01A05D3<br/>INNOVASPHERE<br/>INFOTECH</p> |
|  <p><b>BINGINENI VENI</b><br/>20F01A05D4INN<br/>OVASPHERE<br/>INFOTECH</p>        |  <p><b>BOPPUDI INDU<br/>SRI</b><br/>20F01A05D5<br/>ECOLAB</p>                      |  <p><b>CH JYOTH</b><br/>I20F01A05D6<br/>AMAZON</p>                            |  <p><b>DAMARLA SYAM<br/>KUMAR</b><br/>20F01A05D7INNO<br/>VASPHERE<br/>INFOTECH</p> |  <p><b>DESABOINA NAGA<br/>PRAVALLIKA</b><br/>20F01A05D8<br/>TCS</p>                     |
|  <p><b>DEVANA<br/>HEMASRI</b><br/>20F01A05D9<br/>ECOLAB</p>                      |  <p><b>DEVISETTY<br/>ESWAR SAI<br/>GANESH</b><br/>20F01A05E0<br/>AMAZON</p>       |  <p><b>DHULIPALLA<br/>MADHUPRIYA</b><br/>20F01A05E1<br/>CONCENTRIX</p>       |  <p><b>GOLI<br/>VIDYULLATHA</b><br/>20F01A05E4<br/>TECH MAHINDRA</p>              |  <p><b>GORLA<br/>RAJYALAKSHMI</b><br/>20F01A05E6<br/>CONCENTRIX</p>                    |
|  <p><b>GOVADA L<br/>THIRUPATHAMM<br/>A</b><br/>20F01A05E7<br/>TECH MAHINDRA</p> |  <p><b>INGUVA V N L<br/>SAI SARWANI</b><br/>20F01A05E8<br/>TECH<br/>MAHINDRA</p> |  <p><b>JALAGAM N S S<br/>ROHITH</b><br/>20F01A05E9<br/>AMAZON</p>           |  <p><b>KAKARAPARTHI<br/>MANI DEEPIKA</b><br/>20F01A05F1<br/>TACHYON</p>          |  <p><b>KARRI PRAVEEN<br/>KUMAR</b><br/>20F01A05F2<br/>HEXAWARE</p>                    |
|  <p><b>KUNCHALA<br/>YAGNA SRI<br/>LAKSHMI<br/>NARAYANA<br/>REDDY</b></p>        |  <p><b>KUNISETTY V S<br/>MAHESWARI</b><br/>20F01A05F7<br/>TECH<br/>MAHINDRA</p>  |  <p><b>CHUNDURI L<br/>PRIYANKA</b><br/>20F01A05F8<br/>TECH<br/>MAHINDRA</p> |  <p><b>MAVURI<br/>BHAVANI</b>20F01A0<br/>5GOINNOVASPHER<br/>E INFOTECH</p>       |  <p><b>MOLABANTI JAYA<br/>LAKSHMI</b><br/>20F01A05G1<br/>CONCENTRIX</p>               |

|                                                                                                                                                               |                                                                                                                                                               |                                                                                                                                                                  |                                                                                                                                               |                                                                                                                                                                     |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 20F01A05F6<br>AMAZON                                                                                                                                          |                                                                                                                                                               |                                                                                                                                                                  |                                                                                                                                               |                                                                                                                                                                     |
| <br><b>NAJANI SIVA<br/>SRAVANI</b><br>20F01A05G2<br>INNOVASPHERE<br>INFOTECH | <br><b>NALLURI ANJALI</b><br>20F01A05G3<br>TECH<br>MAHINDRA                  | <br><b>NARAYANAM<br/>LAKSHMI<br/>SUDHESHNA</b><br>20F01A05G4<br>ACCENTURE       | <br><b>OGIRALA<br/>BHARGAVI</b><br>20F01A05G5<br>ACCENTURE  | <br><b>PINJALA BHAVANA</b><br>20F01A05G8<br>CONCENTRIX                           |
| <br><b>PONDUGALA<br/>PUJITHA</b><br>20F01A05G9<br>INNOVASPHERE<br>INFOTECH   | <br><b>PULLAKANAM<br/>POOJITHA</b><br>20F01A05H0<br>INNOVASPHERE<br>INFOTECH | <br><b>PULLAKANAM<br/>RUKMINI</b><br>20F01A05H1<br>CONCENTRIX                   | <br><b>SANAKA<br/>HARIPRIYA</b><br>20F01A05H2<br>CONCENTRIX | <br><b>SHAIK ASIF</b><br>20F01A05H4<br>TECH MAHINDRA                             |
| <br><b>SHAIK JAMEER<br/>BASHA</b><br>20F01A05H5<br>SUTHERLAND              | <br><b>SOMANA NAGA<br/>LAKSHMI</b><br>20F01A05H9<br>GENPACT                | <br><b>SRIPATHI MAHA<br/>LAKSHMI</b><br>20F01A05I0<br>ECOLAB                  | <br><b>SUDANA<br/>ANUPAMA</b><br>20F01A05I1<br>ECOLAB     | <br><b>SYED SHAFIA<br/>KAUSER</b><br>20F01A05I2<br>TECH MAHINDRA               |
| <br><b>TADIKONDA<br/>BHARGAVA<br/>KALYAN</b><br>20F01A05I3<br>AMAZON       | <br><b>TALLURI VASAVI</b><br>20F01A05I4<br>CONCENTRIX                      | <br><b>UPPUTURI<br/>TARUN KUMAR</b><br>20F01A05I5<br>INNOVASPHERE<br>INFOTECH | <br><b>VARI SAILAJA</b><br>20F01A05I7<br>TECH MAHINDRA    | <br><b>VINUKONDA<br/>VENKATA BHAGYA<br/>SRI</b><br>20F01A05I9<br>TECH MAHINDRA |

|                                                                                                                                                     |                                                                                                                                                                     |                                                                                                                                                                 |                                                                                                                                                    |                                                                                                                                                |
|-----------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
|  <p><b>YADA KAVYA</b><br/>20F01A05J1<br/>ECOLAB</p>                |  <p><b>YANAMALA SWATHI</b><br/>20F01A05J2<br/>CONCENTRIX</p>                       |  <p><b>BURAGA CHAITANYA</b><br/>21F05A0501<br/>AMAZON</p>                      |  <p><b>CHINNAPOTHULA VENKATESH</b><br/>21F05A0503<br/>ECOLAB</p> |  <p><b>DESURI BRAHMANAIDU</b><br/>21F05A0504<br/>ECOLAB</p> |
|  <p><b>GUTTI VINAY KUMAR</b><br/>21F05A0508<br/>ECOLAB</p>         |  <p><b>KAMPARAJU PARVATHI</b><br/>21F05A0510<br/>AMAZON</p>                        |  <p><b>MACHERLA YOGAMBIKA</b><br/>21F05A0511<br/>INNOVASPHERE<br/>INFOTECH</p> |  <p><b>MIRIYALA SAI BHAVYA</b><br/>21F05A0512<br/>AMAZON</p>     |  <p><b>PEDAKAPU SOLOMON</b><br/>21F05A0514<br/>NEC</p>      |
|  <p><b>RISHITHA GUNUKULA</b><br/>21F05A0516<br/>TECH MAHINDRA</p> |  <p><b>THALLAPANENI JASWANTH</b><br/>21F05A0517<br/>INNOVASPHERE<br/>INFOTECH</p> |  <p><b>VOLETI LEELA SAI RAGHAVA</b><br/>21F05A0518<br/>ECOLAB</p>             |                                                                                                                                                    |                                                                                                                                                |

## Alumni Spotlight

### Abhinaw Choudary Prathipati

- **Batch:** 2007–2011
- **Current Role:** Senior Consultant
- **Organisation:** CGI



#### Could you share your experience at our institution?

I was part of the CSE department in college for my Bachelor's degree from **2007 to 2011**. It remains **one of the most memorable journeys** of my life. During those years, I **developed strong communication skills**, learned **effective problem-solving techniques**, and **built friendships** that I truly value.

#### How did you start your professional journey after graduation?

I got placed through an **on-campus drive** organized by the college, and that's where my professional journey truly began.

#### Any milestone projects or roles you'd like to share?

A milestone project I would like to share is the **payments application** I am currently **Leading on a team** which deals with **real-time payment transfers** and **wire transactions** across the country. I have also worked on some insurance projects like **State Farm**, which has a wide range of customers across the country, and we dealt in **building claims and premium systems** efficiently.

#### What skills do you think students should focus on to succeed today?

To succeed today, students should focus on problem-solving skills, strong communication skills, and AI literacy. Problem-solving helps analyze challenges and develop practical solutions, communication ensures ideas are shared effectively, and AI skills allow leveraging emerging technologies to innovate and stay ahead.

*The best four years of my life is as a student of CSE. The support we received from our HOD Dr. P. Harini is unforgettable. I am forever indebted to my college, CSE Department & Faculty for everything I have and for who I am today! CSE department is part of my personality.*

--- An Interview by  
**S. Manikanta (21F01A0599)**

## Nune Mounica

- **Batch:** 2016 – 2020
- **Current Role:** Senior Software Engineer
- **Organisation:** TEKsystems Global Services



### Could you share your professional journey with us?

I'm currently working as a **Senior Software Engineer at TEKsystems Global Services**, with **years of experience** in ETL (*Extract, Transform, Load*) processes using SQL and cloud technologies. My journey has been one of continuous learning, adapting to change, and growing along with the evolving technology landscape.

### What technologies do you currently work with?

My current technology stack includes **Matillion** as an ETL tool and **Snowflake** as a cloud data warehouse. Earlier in my career, I worked with on-premise data using **Informatica PowerCenter**, along with technologies and databases such as **Salesforce, Hive, Oracle, and MySQL**.

### How have you continued to upgrade your skills in this competitive industry?

In today's competitive technology landscape, continuous learning is very important. I have upskilled myself through learning platforms such as **Udemy and Degreed** and earned certifications in **AWS and Azure**. These learning opportunities have helped me stay updated and build confidence in working with emerging technologies.

### What advice would you like to give to aspiring tech professionals?

My advice would be to **stay motivated and never stop learning**. Embrace emerging skills and technologies, especially areas like **Artificial Intelligence**, and make the best use of the numerous online learning resources available today. Technology is constantly changing, and being adaptable and willing to learn can help you grow and thrive.

*Stay motivated, embrace new technologies, keep upgrading your skills, and believe in your ability to grow. Make use of every learning opportunity that comes your way and prepare yourself for the ever-changing world of technology.*

---- An Interview by

**A. Bhanu Deepthi (21F01A0513)**

## MOUs

### Building Bridges Between Academia and Industry

The Department of **Computer Science & Engineering** continues to strengthen its industry partnerships to bridge the gap between **academia and industry**. These collaborations facilitate **industry-oriented training, internships, workshops, certification programmes, recruitment support, and practical learning opportunities**, thereby enhancing students' technical competencies and industry readiness.

#### A. Newly Signed MOUs In 2023

| S.No | Industry Partner                    | Date of Signing | Nature & Scope of Collaboration                             | Expected Benefits                                                     |
|------|-------------------------------------|-----------------|-------------------------------------------------------------|-----------------------------------------------------------------------|
| 1    | Manac Infotech Pvt. Ltd., Hyderabad | 12-03-2023      | Industry training, workshops and internships                | Certification completion and improved industry readiness              |
| 2    | TR Tech Solutions, Hyderabad        | 23-08-2023      | Training, recruitment assistance, workshops and internships | Certifications, internships and software development project exposure |

#### B. Active MOUs Supporting Student Development

The department also continued to benefit from its existing industry collaborations, which provide sustained opportunities for **training, workshops, internships, FDPs, projects, certifications, and experiential learning**.

| S.No | Industry Partner            | MoU Validity             | Major Areas of Collaboration                                             |
|------|-----------------------------|--------------------------|--------------------------------------------------------------------------|
| 1    | Brain 'O' Vision, Hyderabad | 05-09-2016 to 05-09-2026 | Training, workshops, internships, FDPs and projects                      |
| 2    | Indian Servers, Vijayawada  | 10-08-2017 to 10-08-2027 | Training, workshops, internships, cybersecurity, FDPs and AI/ML projects |
| 3    | Make Skilled, Vijayawada    | 08-08-2020 to 08-12-2030 | Training, workshops, internships, projects and hackathons                |
| 4    | ExcelR, Hyderabad           | 10-10-2022 to 10-10-2024 | Training, workshops, internships and FDPs in AI, Data Science and Cloud  |

#### Together Towards Greater Opportunities

Through these collaborations, the Department of CSE continues to connect **academic learning with industry expectations**, creating meaningful opportunities for students to learn, innovate, gain practical exposure, and prepare themselves for successful professional careers.

**Stronger Partnerships | Brighter Opportunities | A Better Tomorrow**

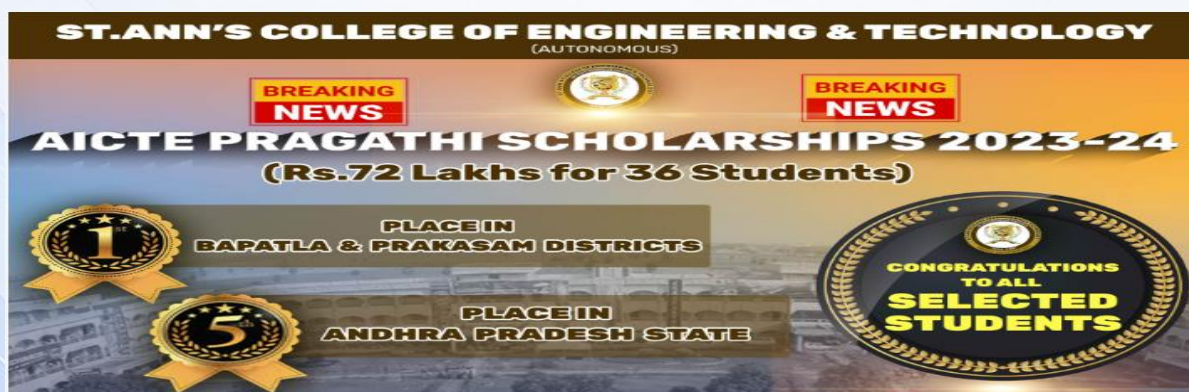
## Scholarship Achievers

The Department of **Computer Science and Engineering** takes pride in supporting and celebrating the academic aspirations of its students. During the **Academic Year 2023–2024**, several students from the department benefited from the **Pragathi Scholarship Scheme**, receiving valuable support in pursuing their higher education.

The scholarship initiative reflects the commitment towards **Educational Empowerment, Academic Excellence, and Inclusive Growth**. By providing financial assistance and encouragement, such opportunities help deserving students continue their educational journey with greater confidence and determination.

During the academic year, **23 students from the Department of CSE** were included among the scholarship beneficiaries. Their achievement reflects the importance of providing opportunities that enable students to overcome challenges and focus on building a successful academic and professional future.

| Student Name                     | Student Name         |
|----------------------------------|----------------------|
| Bonigala Sindhura                | Devarapalli Sara     |
| Thirumalasetty Kamakshi          | GDSVNS Mani Deepika  |
| Kothamasu Lakshmi Venkata Mythri | Ghali Sai Sri Bhavya |
| Kurmapu Madhuri Kavitha          | Goli Deepthi         |
| Lukka Pujitha                    | Hechina Harshini     |
| Salagala Sravanthi               | Degala Meghana       |
| Savanam Hemakshi                 | Morapakula Triveni   |
| Vallampatla Siva Mani Durga      | Jidugu Sowjanya      |
| Eega Pushpa                      | Lanka Madhu Sree     |
| Bingineni Lavanya                | Ganji Vineela        |
| Chatrasi Yamini                  | Pittu Triveni        |
| Dabbakuti Jaswitha               |                      |



## IIT Bombay Spoken Tutorials

The Department of Computer Science and Engineering has consistently encouraged students to strengthen their technical competencies through the **IIT Bombay Spoken Tutorial Project**, a national initiative supported by the **Ministry of Education, Government of India**. The project offers **self-learning and industry-relevant courses** that enable students to acquire practical programming and software skills while earning nationally recognized certifications.

### CERTIFICATION HIGHLIGHTS

| Achievement                 | Highlights                                                                       |
|-----------------------------|----------------------------------------------------------------------------------|
| Programme                   | IIT Bombay Spoken Tutorial Certification Programme                               |
| Academic Year               | 2023–2024                                                                        |
| Total Certifications Earned | 1302                                                                             |
| Student Participation       | Enthusiastic participation from <b>II and III Year CSE students</b>              |
| Skill Domains Covered       | Programming, Web Development, Software Technologies and Database Technologies    |
| Certification Courses       | <b>C, C++, Java, HTML, PHP &amp; MySQL</b> (based on your final data)            |
| Learning Outcome            | Enhanced practical skills, coding proficiency and industry readiness             |
| Recognition                 | National-level certification under the <b>IIT Bombay Spoken Tutorial Project</b> |



## NPTEL Certification Excellence

The Department of Computer Science & Engineering continues to foster a culture of **continuous learning** by encouraging students to pursue industry-recognized certifications through the **NPTEL (National Programme on Technology Enhanced Learning)** and **SWAYAM** platforms.

During the **Academic Year 2023–2024**, an impressive **204 students registered** for various NPTEL/SWAYAM courses, out of which **188 students successfully earned certifications**, achieving an overall **92.16% certification rate**. The certifications covered a wide spectrum of emerging and core computing domains, including **Python, Database Management Systems (DBMS), Machine Learning (ML), Computer Networks (CN), Deep Learning (DL), and Blockchain**.

These achievements reflect the department's commitment to **enhancing technical competence, promoting self-paced learning, and preparing students with industry-relevant skills** beyond the regular curriculum.

### NPTEL Certification Snapshot

| Particulars         | Details                                                                            |
|---------------------|------------------------------------------------------------------------------------|
| Academic Year       | 2023–2024                                                                          |
| Students Registered | 204                                                                                |
| Students Certified  | 188                                                                                |
| Certification Rate  | 92.16%                                                                             |
| Key Domains         | Python, Java, DBMS, Machine Learning, Computer Networks, Deep Learning, Blockchain |



## Elite NPTEL Online Certification

(Funded by the MoE, Govt. of India)

This certificate is awarded to  
**MUNNANGI AKASH**  
for successfully completing the course  
**Programming in Java**

with a consolidated score of **66** %

|                    |       |                |          |
|--------------------|-------|----------------|----------|
| Online Assignments | 25/25 | Proctored Exam | 41.33/75 |
|--------------------|-------|----------------|----------|

Total number of candidates certified in this course: **14693**

Jan-Apr 2024  
(12 week course)



*Haimanti Banerji*  
**Prof. Haimanti Banerji**  
Coordinator, NPTEL  
IIT Kharagpur



Indian Institute of Technology Kharagpur



Roll No: NPTEL24CS43S1051700234

To verify the certificate 

No. of credits recommended: 3 or 4

## ISTE and CSI Student Chapters

The **Indian Society for Technical Education (ISTE)** and the **Computer Society of India (CSI) Student Chapters** of the Department of Computer Science & Engineering serve as dynamic platforms for nurturing **technical competence, professional excellence, leadership, innovation, and ethical values** among students.

The department has been an active institutional member of **ISTE**, with the **ISTE Student Chapter (Code: AP119)** providing students with opportunities to participate in a wide range of **technical, academic, and professional activities**. Complementing this, the **CSI Student Chapter** promotes industry-oriented learning and encourages students to engage with emerging technologies, computing practices, and professional networking.

During the **Academic Year 2023–2024**, the ISTE and CSI Student Chapters actively organized a diverse range of programmes, including **workshops, guest lectures, seminars, hackathons, coding contests, technical competitions, and skill-development activities**. These initiatives provided students with valuable opportunities to enhance their knowledge and practical exposure in contemporary areas of computer science.

### Highlights of Professional Chapter Activities

| Date           | Chapter | Event                                                  |
|----------------|---------|--------------------------------------------------------|
| 26–27 Jul 2023 | ISTE    | Two-Day Workshop on Cloud Computing                    |
| 08 Aug 2023    | CSI     | Guest Lecture on Entrepreneurship and Venture Creation |
| 17–18 Aug 2023 | CSI     | Two-Day Full Stack Bootcamp                            |
| 12 Sep 2023    | ISTE    | Guest Lecture on Article Writing                       |
| 29 Sep 2023    | ISTE    | Seminar on Cyber Security & Ethical Hacking            |
| 11 Oct 2023    | CSI     | Meme Coding Contest                                    |
| 04 Jan 2024    | ISTE    | Seminar on Full Stack Development                      |
| 09 Jan 2024    | CSI     | Workshop on DSA                                        |
| 12 Feb 2024    | CSI     | Seminar on Cyber Shield                                |
| 23 Feb 2024    | ISTE    | Bright Ideas Hackathon                                 |
| 13 Mar 2024    | ISTE    | Mini Project Contest                                   |
| 19 Apr 2024    | CSI     | Escape The Bug – Puzzle Event                          |

## Cruisers Elite

**Cruisers Elite** serves as the **creative and innovative hub of the Department of Computer Science and Engineering**, providing a vibrant platform for students to explore their talents, express their ideas, and transform creativity into meaningful learning experiences. The club brings together students with diverse interests and encourages them to think beyond conventional boundaries.

As a **central student platform** within the CSE Department, Cruisers Elite promotes **innovation, creativity, technical exploration, and collaborative learning** through a variety of engaging activities. It creates opportunities for students to showcase their abilities in **technical quizzes, coding challenges, idea presentations, group discussions, and other innovation-oriented programmes**.

The club encourages students to develop their **creative thinking, problem-solving abilities, communication skills, and technical confidence**. By participating in its activities, students learn to exchange ideas, work effectively in teams, approach challenges from different perspectives, and develop innovative solutions.

Cruisers Elite also nurtures a strong culture of **peer learning, knowledge sharing, healthy competition, and teamwork** within the department. It acts as a space where students can learn from one another, discover new interests, and develop both their technical and personal capabilities.



# Tech, Think & Tickle

*A vibrant blend of technical insights, brain-teasing puzzles, and hilarious memes—all in one exciting corner!*

## Tech Trends

### Retrieval-Augmented Generation (RAG)

Traditional **Large Language Models (LLMs)** can generate outdated or inaccurate responses because they rely on pre-trained data. **Retrieval-Augmented Generation (RAG)** improves AI by retrieving relevant information from external sources before generating responses, making them more accurate, reliable, and context-aware.

**Applications:** Powering modern **AI Chatbots, Virtual Assistants, Research Tools,** and **Knowledge Management Systems** with accurate, context-aware responses

#### Advantages

- ✓ Improved accuracy and reliability
- ✓ Access to up-to-date information
- ✓ Reduced AI Hallucinations
- ✓ Better domain-specific performance

#### Limitations

- ✗ Depends on retrieval quality
- ✗ Requires additional infrastructure
- ✗ Slightly higher response time

#### Try It Yourself

**Website:** [Google AI Studio](#)

**Access:** Free signup with Gmail or Google Account.

Article by



**A. V. G. Karthik**  
21F01A0504



## Streamlit

### From Python Code to Interactive Applications

Python is widely used by students for **Data Science, Machine Learning, Artificial Intelligence, and Data Analysis**. However, converting Python programs into interactive applications traditionally requires knowledge of web technologies. **Streamlit** makes this process simpler by enabling developers to build interactive web applications directly using **Python**.

With simple Python code, students can transform their projects into **interactive dashboards, data visualizations, machine learning demonstrations, and web-based applications**, making their technical projects easier to present and use.

#### Applications:

Creating **Data Dashboards, Machine Learning Applications, AI Demonstrations, Data Visualization Tools, Educational Applications, and Interactive Python Projects**.

#### Advantages

- ✓ Easy to learn for students familiar with **Python**
- ✓ Converts Python programs into interactive applications quickly
- ✓ Useful for **Data Science and Machine Learning projects**
- ✓ Supports interactive **charts, graphs, tables, and visualizations**
- ✓ Helps students create attractive project demonstrations without extensive web development knowledge

#### Article BY



**R. Sushma Sri**  
21F01A0510

#### Limitations

- ✗ Primarily focused on Python-based applications
- ✗ Limited flexibility compared with fully customized web development
- ✗ Complex applications may require additional tools and infrastructure

#### Try It Yourself

Students can begin by installing Streamlit and creating a simple application using Python.

**Website:** [Streamlit](https://streamlit.io)

## Brain Bytes

### THE COMPLEXITY TRAP

#### Theory vs Reality — Who Wins?

A company needs to process a dataset containing **1,000,000 records**.

Three candidates develop different solutions:

**Candidate A:** Algorithm with  $O(n)$  complexity

**Candidate B:** Algorithm with  $O(n \log n)$  complexity

**Candidate C:** Algorithm with  $O(n^2)$  complexity

**Theoretically, Candidate A wins because  $O(n)$  grows slower than  $O(n \log n)$  and  $O(n^2)$ .**

But during actual testing on the same computer, the results are:

| Candidate         | Actual Execution Time |
|-------------------|-----------------------|
| A — $O(n)$        | 8 seconds             |
| B — $O(n \log n)$ | 5 seconds             |
| C — $O(n^2)$      | 120 seconds           |

#### WHO WINS IN REALITY, AND WHY?

### The Weight of Intelligence

You have **8 identical-looking balls**.

One ball is slightly heavier than the others.

You have a **balance scale** and can use it only **two times**.

**How do you find the heavier ball?**

By

A. Akash Reddy  
(21F01A0509)

## THE COMPLEXITY TRAP

### **Practical Winner: Candidate B — $O(n \log n)$**

Although **Candidate A** theoretically has the better time complexity, Candidate B's implementation performs faster on this particular system and input.

This can happen because of:

- Lower constant factors
- Better cache and memory usage
- More efficient implementation
- Hardware optimization

*Big-O predicts how performance grows as input size increases—it does not guarantee the fastest execution time for every real-world situation*

## The Weight of Intelligence

### **Step 1: Divide the 8 balls into three groups**

**Group A:** 3 balls    **Group B:** 3 balls    **Group C:** 2 balls

**First Weighing:** Weigh **Group A (3 balls)** against **Group B (3 balls)**.

#### **Case 1: They balance**

The heavier ball must be among the **remaining 2 balls** in Group C.

**Second Weighing:** Weigh the two remaining balls against each other.

**The heavier side contains the heavier ball!**

#### **Case 2: They do not balance**

The heavier ball is among the **3 balls on the heavier side**.

#### **Second Weighing**

Take **2 of those 3 balls** and weigh them against each other.

- **If one side is heavier:** That ball is the answer.
- **If they balance:** The **third ball** is the heavier one.

**The heavier ball can always be identified in just TWO weighing's!**

"Think  
Decode  
Solve  
Repeat" ♥



# CSE CROSSWORD

Test Your CSE Knowledge!"

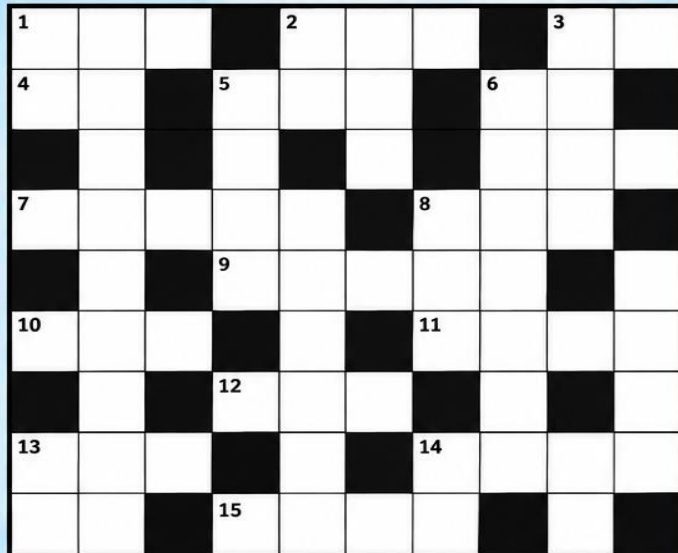
Fill in the grid using the clues given below.

Same  
Concepts  
Bigger  
Horizons ! 😊

CODES  
IDEAS  
LOGIC  
PEOPLE  
IMPACT



"More Than  
Answers...  
It's a Way of  
Thinking!" ♥



## Across →

1. A step-by-step set of instructions to solve a problem. (9)
4. A collection of related data stored and managed efficiently. (8)
5. The process of finding and fixing errors in a program. (6)
7. A network that covers a large geographical area. (3)
8. A high-level programming language developed by Guido van Rossum. (6)
10. Short for Operating System. (2)
12. A way to organize data in a linear manner. (6)
14. A field of study that enables machines to learn from data. (2)
15. The process of converting high-level code into machine code. (8)

## Down ↓

1. A technology that provides on-demand computing resources over the internet. (5)
2. A measure of how quickly an algorithm runs. (10)
3. A set of rules that govern data communication between devices. (9)
6. A non-linear data structure with nodes connected in a hierarchy. (5)
9. A specialized type of computer designed to perform complex calculations. (8)
11. A technique to protect systems and data from unauthorized access. (8)
13. A markup language used to create web pages. (4)



Good  
Developers  
Ask Better  
Questions! 😊

KEEP SOLVING...  
KEEP GROWING... ♥

Logic  
Lives  
Here!



COMPUTER SCIENCE ♥ CREATIVITY ♥ PROBLEM SOLVING ♥ A BRIGHTER TOMORROW

## ANSWERS

(Turn  
Upside Down  
to Check!)



**Across**  
1. ALGORITHM  
4. DATABASE  
5. DEBUG  
8. WAN  
8. PYTHON  
10. SS  
12. ARRAY  
14. AI  
15. COMPILER

**Down**  
1. CLOUD  
2. COMPLEXITY  
3. PROTOCOL  
5. TREE  
6. SUPERCOMPUTER  
11. SECURITY  
12. HTML

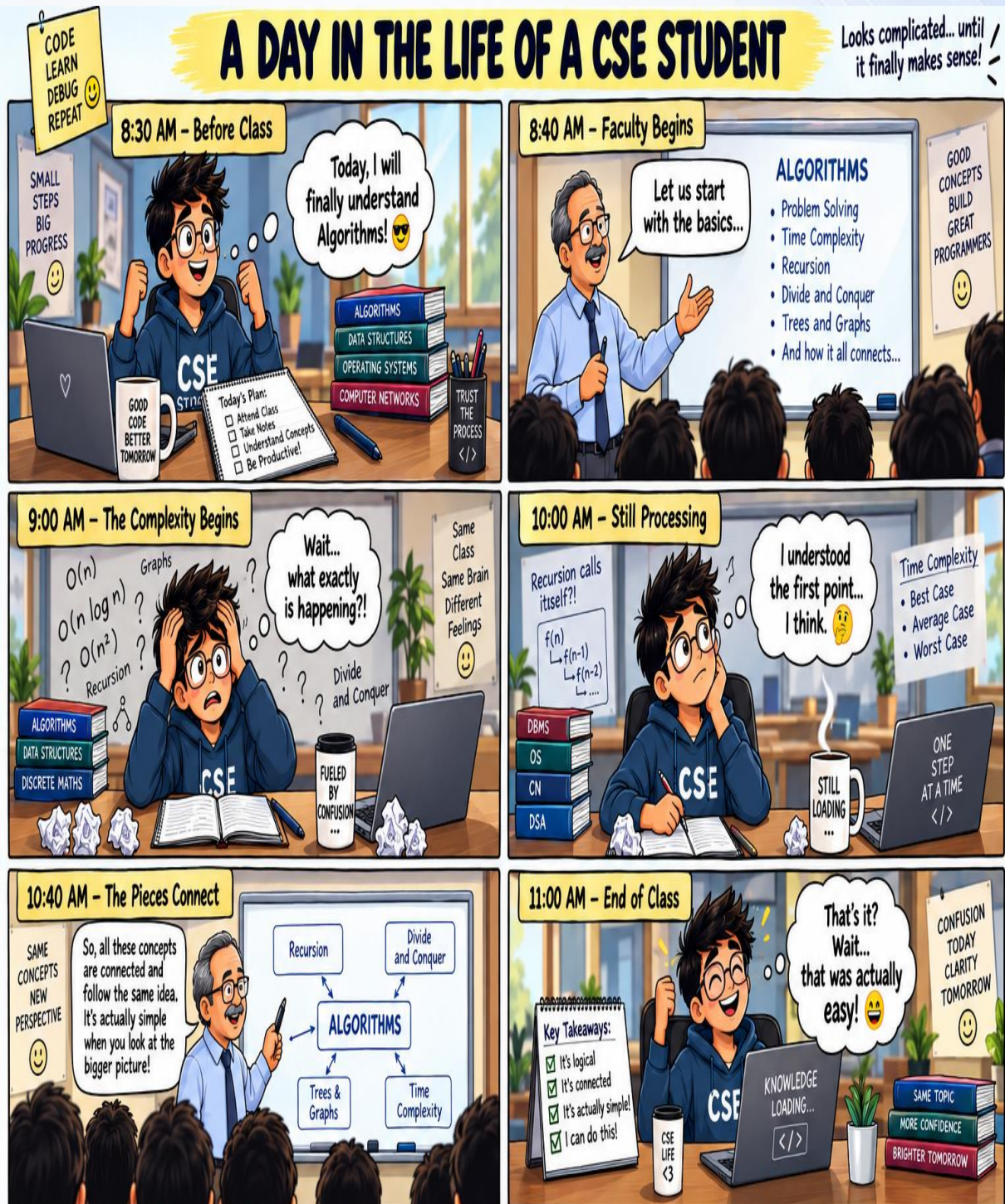
Knowledge  
Looks Better  
from Every  
Angle! 😊

By  
A. Pavani Gangotri  
(21F01A0501)

## The Humour Corner

# A DAY IN THE LIFE OF A CSE STUDENT

Looks complicated... until  
it finally makes sense!



LEARN  
PRACTICE  
IMPROVE  
GROW

Sometimes, CSE concepts look complicated while learning them... until everything finally connects!



GOOD  
STUDENTS  
GREAT  
PROGRAMMERS

By  
**P. Vignesh**  
(21F01A05J5)

## The Sporting Pulse

At the Department of Computer Science & Engineering, student life goes beyond academics and laboratories. Students actively participate in a variety of **sports and games**, fostering qualities such as **teamwork, discipline, leadership, resilience, and physical fitness**. These activities provide a refreshing balance to academic pursuits while encouraging friendship and a healthy competitive spirit.

From exciting matches of **Cricket and Volleyball** to challenging games like **Throwball, Kho-Kho, Kabaddi, and Badminton**, students enthusiastically showcase their sporting abilities throughout the academic year. Whether participating in **inter-departmental tournaments or college-level competitions**, they demonstrate determination, coordination, and true sportsmanship.





## The Editorial Team's Closing Note

As we close the pages of **TechVista 2024**, we look back with pride on a year filled with learning, innovation, achievements, creativity, and unforgettable memories.

We sincerely thank our respected **Principal, Dr. K. Jagadeesh Babu**, for his constant encouragement and support, and our **Professor & Head of the Department, Dr. P. Harini**, for her inspiring guidance and leadership.

Our heartfelt gratitude also goes to the **Management, Faculty Members, Students, and everyone who contributed** to making this journey memorable.

*TechVista 2024 is not just a magazine—it is a reflection of our journey, our memories, and the spirit of CSE.*

— Student Editorial Team  
Department of Computer Science & Engineering

### Student Editorial Team



**S. Manikanta**  
(21F01A0599)  
Chief Editor



**U. Sathwika**  
(21F01A05C0)  
Associate Editor



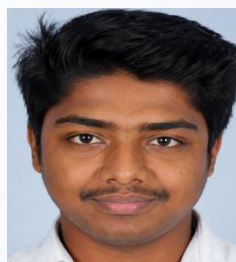
**P. Vignesh**  
(21F01A05J5)  
Design & Technical Editor



**A. Bhanu Deepthi**  
(21F01A0513)  
Content & Documentation Editor



**A. Akash Reddy**  
(21F01A0509)  
Proofreading Editor



**A. Venkata Gopi Karthik**  
(21F01A0504)  
Creative Editor

### Faculty Mentor



**Mrs. M. Anusha**  
Assistant Professor





“ The way to build a nation is to  
build a good citizen. The citizens  
should be efficient, of good  
character & possess a reasonable  
high sense of duty ”

Bharat Ratna  
Mokshagundam Visvesvaraya

1860 – 1962

*The Father of Indian Engineering*

H A P P Y  
**NATIONAL  
ENGINEERS' DAY**

15<sup>TH</sup> SEPTEMBER



INNOVATE



CODE



COLLABORATE



IMPACT