Geethanjali College of Engineering and Technology
(UGC Autonomous Institution)
Cheeryal (V), Keesara (M), Medchal-Malkajgiri Dist., Telangana - 501 301
(Approved by AICTE, Permanently Affiliated to JNTUH,
Accredited by NAAC with 'A+' Grade, Accredited by NBA, ISO 9000:2008 Certified)
Email: info@gcet.edu.in Website: https://www.gcet.edu.in

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

TECH EPISTLE

NEWSLETTER

VOLUME 13, ISSUE 1
JULY - DECEMBER 2024

Volume 13, Issue 1 July 2024 to December 2024

TechEpistle

Newsletter from Department of CSE

Geethanjali College of Engineering and Technology

(UGC Autonomous, Approved by AICTE and Permanently Affiliated to JNTUH)
(Accredited by NAAC with 'A+' Grade and Accredited by NBA)

Chairman: Sri G. R. Ravinder Reddy **Principal: Dr. S. Udaya Kumar**

Dean, School of Computer Science and Informatics:
Dr. V. Madhusudan Rao, Professor

Head of the Department:
Dr. A. SreeLakshmi, Professor

Inside the Issue

Vision of the Department

- To produce globally competent and socially responsible computer science engineers contributing to the advancement of engineering and technology which involves creativity and innovation by providing excellent learning environment with world class facilities.

Mission of the Department

- To be a centre of excellence in instruction, innovation in research and scholarship, and service to the stake holders, the profession, and the public.
- To prepare graduates to enter a rapidly changing field as a competent computer science engineer.
- To prepare graduate capable in all phases of software development, possess a firm understanding of hardware technologies, have the strong mathematical background necessary for scientific computing, and be sufficiently well versed in general theory to allow growth within the discipline as it advances.
- To prepare graduates to assume leadership roles by possessing good communication skills, the ability to work effectively as team members, and an appreciation for their social and ethical responsibility in a global setting.

Department News

- **4th International Conference** on **"Computational Intelligence in Machine Learning (ICCIML-2024)"** was organized by CSE Department during 6th & 7th December, 2024.
- The **External Academic Audit** for the academic year 2023-24 was conducted on 14th December, 2024, by a committee comprising external member **Dr.Sunil Bhutada,** Professor & HoD – IT department at Sreenidhi Institute of Science and Technology, (SNIST), Hyderabad.
- The **Program Assessment Committee (PAC)** meeting was conducted on 12th Dec, 2024, to review the Course Outcomes (COs) attained for the courses offered during the second semester of the 2023-24 academic year and Program Outcomes (POs) achieved by the 2020-24 batch.
- **Memorandum of Understanding (MoU)** was established between the **Department of Computer Science and Engineering at Geethanjali College of Engineering and Technology**, and **Silicon Labs Innovation Centre,** on 4th November, 2024.

Faculty Achievements

- **Dr. S. Radha,** Associate Professor, Department of CSE, was awarded with **Ph.D Degree** in the research area of "Image Processing, Computer Vision and Deep Learning", from Dr. A.P.J. Abdul Kalam University, Indore, on 8th October, 2024.
- **Dr. Puja S Prasad,** Associate Professor, Department of CSE, acted as a **Reviewer** at the Global AI summit 2024 - International Conference on "Artificial Intelligence and Emerging Technology", Organized by school of Computer Science Engineering and Technology, Bennett University, India from 4th - 6th Sept, 2024.
- **Dr. Puja S Prasad,** Associate Professor, Department of CSE, Recognized as an **India Council Student mentor,** organized by IEEE held from 9th Aug to 11th Aug, 2024.
- **Dr. Kamakshaiah Kolli,** Associate Professor, was appointed as a **Review Committee Member** for the Institute for Educational Research and Publication (IFERP) on 9th August, 2024.
- **Dr. Kamakshaiah Kolli,** Associate Professor, was **recognized as a Research Co-Supervisor** at Malla Reddy University, Hyderabad, on 21st Sept, 2024.
- **M. Swapna Rani,** Assistant Professor, Department of CSE, **Qualified for the UGC-NET 2024** as an **Assistant Professor** in Computer Science and Applications.
- **M. Swapna Rani,** Assistant Professor, Department of CSE, **Qualified for the TS-SET 2024** as an **Assistant Professor** in Computer Science and Applications.
- **P. Ushashree,** Assistant Professor, Department of CSE, **certified** as an **Oracle Cloud Infrastructure Generative AI Professional** on 29th July, 2024.
- **Dr. S. Radha,** Associate Professor, Department of CSE, acted as a **Reviewer** at the IEEE Conference on "Recent Advances in Sustainable Engineering and Future Technologies (RASEFT-2024)" organized at MVSREC and MEC, Hyderabad, during 27th - 29th December, 2024**.**
- **Dr. S. Radha,** Associate Professor, Department of CSE, acted as a **Reviewer and Chaired a session** at the 3rd International Conference on "Multifunctional Materials" organized at Geethanjali College of Engineering and Technology, Hyderabad, during 19th - 21st December, 2024.
- **Dr. S. Radha,** Associate Professor, Department of CSE, acted as a **Reviewer** at the International Conference on "Artificial Intelligence, Computer, Data Sciences and Applications (ACDSA 2024), and the International Conference on "Electrical, Computer and Energy Technologies (ICECET 2024).
- **Dr. K. Raghu,** Associate Professor, Department of CSE, acted as a **Reviewer** for the International Conference on "Advancement in Electronics & Communication Engineering (IEEE AECE - 2024)", organized at Raj Kumar Goel Institute of Technology, Ghaziabad, during 22nd - 23rd November, 2024.
- **Dr. K. Raghu,** Associate Professor, Department of CSE, acted as a **Reviewer** for the Journal of Intelligent & Fuzzy Systems and Signal, Image and Video Processing - 2024 (SCI-E).

Faculty Achievements

- **Mrs. T.Jyotsna,** Assistant Professor, CSE Department, has successfully completed the **Wipro Talent Next Certification** Assessment and **Recognized as WIPRO certified faculty and mentor** for Project Based Learning in **DotNet Full stack** on 04th Oct, 2024.

Faculty Qualified in SWAYAM NPTEL Courses during July – Dec 2024

S.No.	Faculty Name	Course Name	Course Duration	Course Offered by	Certificate Type
1.	G. Swapna Rani, Assistant Professor	Introduction To Machine Learning - IITKGP	12 Weeks, July-Dec, 2024	IIT Kharagpur	**Elite+Silver**
2.	Dr. Radha Seelaboyina, Associate Professor	Big Data Computing	8 Weeks, July-Oct, 2024	IIT Patna	Elite
3.	Andavolu Durga Pavani, Assistant Professor	Introduction To Machine Learning - IITKGP	12 Weeks, July-Dec, 2024	IIT Kharagpur	Elite

Faculty Patents Published

S.No.	Faculty Name	Title of the Patent	Application Number	Field Of Invention	National/ Interna-tional	Month & Year of Publication
1.	S. Durga Prasad	Method Of Adaptive Intrusion Detection System Using Machine Learning For Securing Wireless Networks	2024410 61946	Machine Learning	National	Aug, 2024 (Published)
2.	Dr. Neha Nandal	AI-Powered Skin Patch	6386527	Artificial Intelligence	Interna-tional	04-sept-2024 (Granted)
3.	Dr. Neha Nandal	Smart Fitness Tracking Band	6386529	Wearable technology	Interna-tional	07-oct-2024 (Granted)

Sponsored Research and Consultancy Projects

S.No.	Name of the Project Investigator	Project Title	Project Cost (Rs.)	Sponsoring Organization	Start/ End Date & Duration	Project Status
1.	i) Dr. A. Sree Lakshmi, Professor ii) Mr. V. ShivaNarayana Reddy, Associate Professor	Anomaly detection in industrial machinery using IoT devices and Machine learning	Rs. 4,00,000/-	Advaita Global IT Labs Pvt.Ltd	15-06-2024 to 15-11-2024, 6 months	Completed
2.	i) Dr. Kamak-shaiah Kolli, Professor ii) Dr. A. Hari Prasad Reddy, Professor	Biometric-ATM: Ac-cept the Biometric In-put And Complete All Banking Process.	Rs. 6,00,000/-	Convex Consultancy Services	Start Date: 12-11-2024, 6 months	Under Progress
3.	i) Dr. Puja S Prasad, Professor ii) Dr. Neha Nandal, Associate Professor	Live_ID: A frame work for detecting face presentation attack	Rs. 1,90,800/-	Geethanjali College of Engineering and Technology (GCET)	Start Date: 01-09-2024, 7 months	Under Progress

Student Achievements

- A team of four CSE students - **Ms. A.Anjali Reddy (23R11A05J7), Ms. V.Laxmi Priya (23R11A05N9), Mr. V.Shiva Charan Teja (23R11A05P0), and Mr. V.Agasthyan Karthikeya (23R11A05N7) secured the 2nd runner-up position and a cash prize of two lakhs at the "MATHACK 2.0" 36-hour hackathon,** held during the **GLOBAL AI SUMMIT** in Hyderabad. The event was organized by TalentFarm, IdeaLabs, and HYSEA, with support from T-HUB and the Department of Science & Technology, on 4th, 5th September, 2024.

MATHACK 2.0

- **Ms. Sai Shreeja (22R11A0518) and Mr. P. Sainath Reddy (21R11A0312, ME student),** members of the BLITZ team, **secured 5th place and won a cash prize of Rs. 50,000 at the "5G & 6G Hackathon 2024",** Sponsored by the AI School and organized by the Ministry of Communications, the event was held at IIT Hyderabad on 26th and 27th September, 2024.

5G & 6G Hackathon 2024

Student Achievements

- **Ms. Pallavi Kumari (21R11A05Q0)** secured an internship opportunity at **Catalog** with a monthly stipend of **Rs.21,000** and received a placement offer with a **salary package of 25 LPA.**

- **Ms. Nandini Midde (23R11A05R8)** and **Mr. Soma Dheeraaj (23R11A05H9) secured** the **"Elite+Gold" certificate** for completing the NPTEL course titled **"The Joy of Computing using Python"** during June to November 2024.

Student Certification Courses during July - Dec 2024

S.No.	Course Name	Course Offered by	Number of Students Registered	Number of Students Completed the Course
1	Java Fundamentals	Oracle Academy	356	278
2	DataBase Programming	Oracle Academy	356	236
3	DataBase Design	Oracle Academy	356	212
4	Networking Essentials	CISCO	344	125
5	CCNA: Introduction to Networking	CISCO	344	204

Student Achievements

Student Qualified in SWAYAM NPTEL Courses during July – Dec 2024

S.No.	Roll Number	Student Name	Course Name	Course Offered by & Duration	Certificate Type
1	23R11A05R8	Nandini Midde	The Joy of Computing Using Python	IIT Ropar, 12 weeks	**Elite+Gold**
2	23R11A05H9	Soma Dheeraj	The Joy of Computing Using Python	IIT Ropar, 12 weeks	**Elite+Gold**
3	23R11A0562	Gunjari Anoogna	The Joy of Computing Using Python	IIT Ropar, 12 weeks	Elite+Silver
4	23R11A05L0	K Gunjana	The Joy of Computing Using Python	IIT Ropar, 12 weeks	Elite+Silver
5	23R11A05Y0	Nyneeta Rao Surabhi	The Joy of Computing Using Python	IIT Ropar, 12 weeks	Elite+Silver
6	23R11A05W4	K Jayatheerth	The Joy of Computing Using Python	IIT Ropar, 12 weeks	Elite+Silver
7	23R11A0565	Jella Ruthpriya darshini	The Joy of Computing Using Python	IIT Ropar, 12 weeks	Elite+Silver
8	23R11A05Y8	Sainni Sai Sanjana	The Joy of Computing Using Python	IIT Ropar, 12 weeks	Elite+Silver
9	23R11A0552	Annamraj Spandana	The Joy of Computing Using Python	IIT Ropar, 12 weeks	Elite+Silver
10	23R11A05X3	Harshini Mungara	The Joy of Computing Using Python	IIT Ropar, 12 weeks	Elite+Silver
11	23R11A0532	Manogna Pola	The Joy of Computing Using Python	IIT Ropar, 12 weeks	Elite+Silver
12	23R11A05V8	Sai Prasanna	The Joy of Computing Using Python	IIT Ropar, 12 weeks	Elite+Silver
13	23R11A05D8	Priyanka	The Joy of Computing Using Python	IIT Ropar, 12 weeks	Elite
14	23R11A05G7	Neha Nalivela	The Joy of Computing Using Python	IIT Ropar, 12 weeks	Elite
15	23R11A0523	Kankatala Sai Sravanthi	The Joy of Computing Using Python	IIT Ropar, 12 weeks	Elite
16	23R11A05H4	Mohith Kumar Rongali	The Joy of Computing Using Python	IIT Ropar, 12 weeks	Elite

Student Achievements

Student Qualified in SWAYAM NPTEL Courses during July – Dec 2024

S.No.	Roll Number	Student Name	Course Name	Course Offered by & Duration	Certificate Type
17	23R11A0522	Prateek Kandoju	The Joy of Computing Using Python	IIT Ropar, 12 weeks	Elite
18	23R11A0539	Thodeti Umadevi	The Joy of Computing Using Python	IIT Ropar, 12 weeks	Elite
19	23R11A0534	S Mohana Krishna	The Joy of Computing Using Python	IIT Ropar, 12 weeks	Elite
20	23R11A05V0	Athreyi	The Joy of Computing Using Python	IIT Ropar, 12 weeks	Elite
21	23R11A05Q8	Kunchala Shiva-ram	The Joy of Computing Using Python	IIT Ropar, 12 weeks	Elite
22	23R11A05V6	Diddi Sri Laxmi Prasanna	The Joy of Computing Using Python	IIT Ropar, 12 weeks	Elite
23	23R11A0524	Keerti Teja Sri Charan	The Joy of Computing Using Python	IIT Ropar, 12 weeks	Elite
24	23R11A0517	Manikanta Kiran Golla	The Joy of Computing Using Python	IIT Ropar, 12 weeks	Elite
25	23R11A0567	Kancharla Vaishnavi Reddy	The Joy of Computing Using Python	IIT Ropar, 12 weeks	Elite
26	23R11A05W6	Kalidindi Ankitha	The Joy of Computing Using Python	IIT Ropar, 12 weeks	Elite
27	23R11A05X8	Minnekanti Sai Sree Harsha	The Joy of Computing Using Python	IIT Ropar, 12 weeks	Elite
28	23R11A05T1	Nunavath Van-dana	The Joy of Computing Using Python	IIT Ropar, 12 weeks	Elite
29	23R11A05R2	Madireddy Ni-harika Reddy	The Joy of Computing Using Python	IIT Ropar, 12 weeks	Elite
30	23R11A05T6	Pudhicheri Veek-shitha	The Joy of Computing Using Python	IIT Ropar, 12 weeks	Successfully completed
31	23R11A0516	Edunuri Adithya	The Joy of Computing Using Python	IIT Ropar, 12 weeks	Successfully completed
32	23R11A0543	Amrutha	The Joy of Computing Using Python	IIT Ropar, 12 weeks	Successfully completed

Student Achievements

Student Qualified in SWAYAM NPTEL Courses during July – Dec 2024

S.No.	Roll Number	Student Name	Course Name	Course Offered by & Duration	Certificate Type
33	23R11A05G5	Meda Tarun Venkat	Problem Solving Through Programming in 'C'	IIT Kharagpur 12 weeks	Elite
34	23R11A05H9	Soma Dheeraj	Problem Solving Through Programming in 'C'	IIT Kharagpur 12 weeks	Elite
35	22R11A0511	D. Rithika	Cloud Computing	IIT Kharagpur 12 weeks	Elite
36	23R15A0505	S. Bhanu Rekha	Cloud Computing	IIT Kharagpur 12 weeks	Successfully completed
37	23R11A05L0	K. Gunjana	Programming in Java	IIT Kharagpur 12 weeks	Elite
38	22R11A0563	J Balasindhu	Programming in Java	IIT Kharagpur 12 weeks	Elite
39	22R11A0579	Ravula Sai Monisha	Data Base Management System	IIT Kharagpur 8 weeks	Elite+Silver
40	22R11A0571	Madishetti Rachana	Data Base Management System	IIT Kharagpur 8 weeks	Elite+Silver
41	22R11A0575	M. Yashaswini	Data Base Management System	IIT Kharagpur 8 weeks	Elite
42	22R11A0548	Anamalla Nikitha	Data Base Management System	IIT Kharagpur 8 weeks	Successfully completed
43	22R11A0575	M. Yashaswini	Programming, Data Structures and Algorithms using Python	Chennai Mathematical Institute, 8 Weeks	Successfully completed
44	22R11A05V4	Chevitolla Yugandhar Goud	Programming, Data Structures and Algorithms using Python	Chennai Mathematical Institute, 8 Weeks	Elite
45	22R11A05R1	Manchala Lahari	Theory of Computation	IIT Kanpur, 8 Weeks	Successfully completed

ROBOTICS CLUB ACTIVITIES

S.No.	Name of the Event	Date of Event	Total Participants
1	Training Program on "Arduino Programming"	13-09-2024	96 (CSE:41)
2	Training Program on "Python Programming"	20-09-2024	96 (CSE:41)
3	3D Printing Technology	27-09-2024	96 (CSE:41)
4	Project Idea Presentation	27-09-2024	96 (CSE:41)
5	ROBOTICA 2024-Chapter2: National level Competition	21-11-2024, 22-11-2024	342 (GCET:318, other colleges:24)

ROBOTICA 2024-Chapter2 Event Winners:

S.No.	Name of the Event	Student Name	College Name	Prize Won
1	**Ideathon**	V. Saaketh K. Naga Balaji J. Shreesht	Geethanjali College of Engineering and Technology	I
2	**Ideathon**	G.V.N. Sai Hareesh U. Mithresh D. Vaishnavi	MLR Institute of Technology	II
3	**Ideathon**	Samhitha Reddy Hemanth reddy Abhiram Aditya	Geethanjali College of Engineering and Technology	III
4	**Sky Dash**	Shreyansh	MLR Institute of Technology	I
5	**Sky Dash**	Dhanush	MLR Institute of Technology	II
6	**Sky Dash**	Madhavan	KPR Institute of Engineering and Technology, Coimbatore	III
7	**Full Throttle**	K.Lalith	KPR Institute of Engineering and Technology, Coimbatore	I
8	**Full Throttle**	Y. Uday kiran	Geethanjali College of Engineering and Technology	II
9	**Full Throttle**	M. Karthikeya B. Akshitha	Geethanjali College of Engineering and Technology	III

ROBOTICS CLUB ACTIVITIES

ROBOTICA 2024 - Chapter2 Event Winners:

S.No.	Name of the Event	Student Name	College Name	Prize Won
10	**Goal Rush**	F. Harshith B. Ashritha K. vaishnavi	MLR Institute of Technology	I
11	**Goal Rush**	S. Vignesh Y. Naga Teja reddy	SKCT College	II
12	**Circuit chase**	K. Prashanth P. Vimal koushik O. Vasath kumar V. Nandu Reddy	Nalla Narasimha Reddy Group of Institutions and Holy Mary Institute of Technology & Science	I
13	**Circuit chase**	C. Sravani K. Guru Prasad B. Meghana P.Arun Kumar	Geethanjali College of Engineering and Technology	II

ROBOTICA 2024 - Chapter2 Event Photos:

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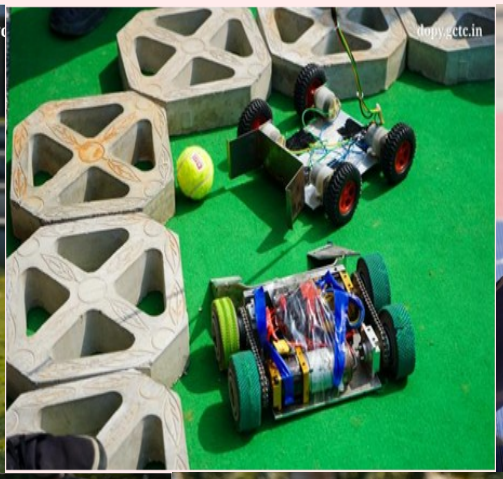
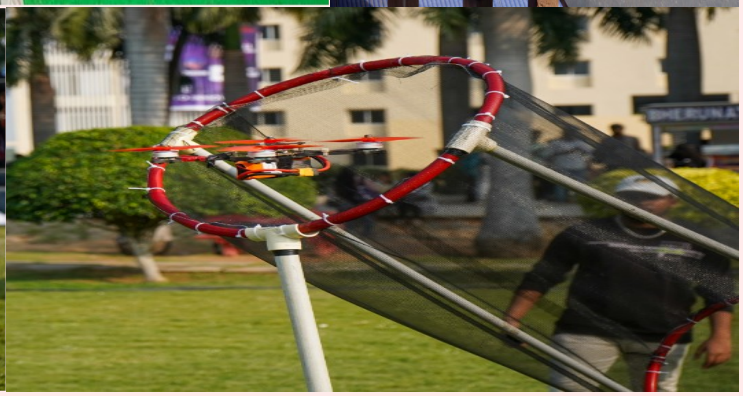
ROBOTICA 2024 Chapter 2





Sky Dash and Goal Rush Event

Cyber Security Club Activities

Cyber Congress 2024: The annual flagship event was conducted by the Cyber Security club of Geethanjali College of Engineering and Technology, held on 7th - 9th November, 2024. A Total of 159 students participated in the cyber congress event. The faculty coordinators for the cyber congress were **Mrs. B. Mamatha,** Assistant Professor, CSE Dept. and **Mrs. G. HimaBindu,** Assistant Professor, CSE-CS Dept. The objective of a Cyber Congress event for students is to educate and empower them with knowledge about cyber security, digital safety, and ethical hacking. It aims to raise awareness about online threats, cybercrimes, and best practices for protecting personal and organizational data. It also fosters an interest in cyber security careers by exposing students to industry trends, expert insights, and real-world challenges. Additionally, it encourages responsible digital behavior and promotes the importance of cyber ethics, ensuring that students understand their role in maintaining a secure online environment.

The following sessions were conducted as part of Cyber Congress 2024:

S.No.	Date	Title of Session	Resource Person
1	07-Nov-2024	Cyber security fundamentals and trends	**Mr. Srinivas Naik,** Cybersecurity Specialist
2	07-Nov-2024	Cyber Crimes & Digital Safety	**Mr. Pragathi Ratan**, Cyber Crimes & Digital Safety Expert
3	08-Nov-2024	Artificial Intelligence & Cyber Security	**Mr.Vinod Babu,** Chief Technology Officer, Blue Cloud Softech Solutions
4	08-Nov-2024	Threat Intelligence & Incident Response: A Ransomware Case Study	**Mr. Pardhasaradhi Chintalapati,** Associate Director, Arete Incident Response
5	08-Nov-2024	Understanding the Defense Mechanisms	**Ms. Pooja and Ashwaq** Team, Kleep Technologies Private Limited
6	09-Nov-2024	Burpsuite Professional (Theory)	**Mr. Pranay,** Tech Lead at WIPRO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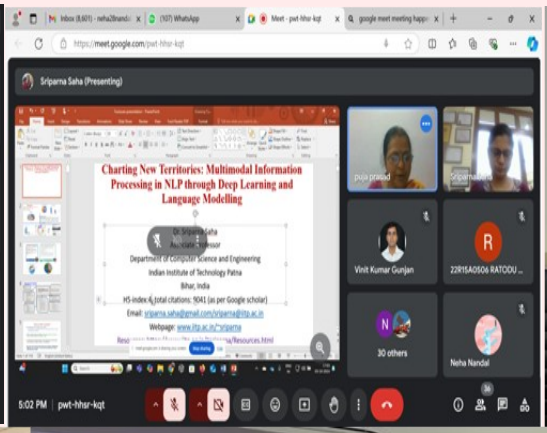
Cyber Congress 2024

Professional Society Activities (IEEE)

S.No.	Event Name & IEEE Society	Date of Event	Resource person	Number of Participants	Faculty Coordinator
1	IEEE WIE DAY (WIE)	20-07-2024	Dr. Aruna Bharthi, GCET Dr.Madhuri Gupta, GCET	Faculty: 15	Dr. Puja S Prasad
2	Seminar on "Advancements and Transformation in Deep Learning" (CS)	06-09-2024	M. K. Pavan Kumar, Lead SE, OpenText	46 (Students: 43, Faculty: 03)	Dr. Neha Nandal
3	IEEE- Day : Talk on "Virtualization Using Cloud Technology (CS+WIE)	01-10-2024	Ms. Akshita Parekh, Scientific Officer from the Computer Division at NFC, Hyderabad	Student: 29	Dr. Neha Nandal / Dr. Puja S. Prasad
4	Online Seminar on "Multimodal Information Processing: Some Recent NLP Applications" (CS+WIE)	03-10-2024	Prof. Sriparna Saha, Indian Institute of Technology, Patna	60 (Students/ Faculty) GCET Students: 18	Dr. Neha Nandal / Dr. Puja S. Prasad
5	Online Seminar on "High Level Synthesis Based Hardware Security and IP core Prediction" (CS+WIE)	04-10-2024	Prof. Anirban Sen Gupta, Indian Institute of Technology, Indore	27 (Students/ Faculty) GCET Students: 12	Dr. Neha Nandal / Dr. Puja S. Prasad
6	Online Seminar on " Computer Architectures for training LLM systems – Past present and challenges of future systems" (CS+WIE)	06-10-2024	Prof. Avi Mendelson, Technion, Israel Institute of Technology, Israel	30 (Students/ Faculty) GCET Students: 05	Dr. Neha Nandal / Dr. Puja S. Prasad
7	Online Seminar on LLM for Fuzzing (CS+WIE)	10-10-2024	Dr. Sangaratna Godoley, NIT, Warangal	26 (Students/ Faculty) Students: 06	Dr. Neha Nandal / Dr. Puja S. Prasad
8	IEEE Xtreme 18.0 (CS)	26-10-2024	—	29 Students	Dr. Neha Nandal

Professional Society Activities (IEEE)

S.No.	Event Name & IEEE Society	Date of Event	Resource person	Number of Participants	Faculty Coordinator
9	Online Seminar on "LionsOS: Towards a Provably Dependable Operating System" (CS+WIE)	04-11-2024	Professor Gernot Heiser, Scientia (Distinguished) Professor and John Lions, Chair of Operating Systems, UNSW Sydney	54 (Students/ Faculty) GCET Students: 18	Dr. Neha Nandal / Dr. Puja S. Prasad
10	Online Seminar on "IEEE Authorship and Open Access Symposium: Tips and Best Practices to Get Published from IEEE Editors" (CS+WIE)	28-11-2024	Prof. Giovanni Ghione, distinguished Life Fellow, IEEE and Professor of Electronics at Politecnico di Torino	77 (Students/ Faculty) GCET Students: 25	Dr. Neha Nandal / Dr. Puja S. Prasad



Professional Society Activities

IEEE Xtreme 18.0 Rankers List

S.No.	Student Name	Roll Number	Team Name	Global Rank	Regional Rank	Country Rank
1	Minnekanti Sai Sree Harsha	23R11A05X8	**Techibrains**	250	133	52
2	Nyneeta Rao Surabhi	23R11A05Y0				
3	Mungara Harshini	23R11A05X3				
4	Erramuri Dhanush RajKumar	21R11A0567	**404 NOTFOUND**	362	204	93
5	Pathuri Sai Vardhan Reddy	21R11A0593				
6	Shivanoor Vignesh	21R11A0597				
7	Naveen Rampa	21R11A0589	**403 Forbidden**	459	256	120
8	Borapureddi Uma Mahesh	21R11A0562				
9	Mourya Birru	23R11A05J9				
10	Mourya Birru	23R11A05J9	**SoulReapers**	542	311	149
11	Gunjana Kachuwah	23R11A05L0				
12	Shreyas Behara	23R11A05N0				
13	Kalidindi Ankitha	23R11A05W6	**Attackon Algorithm**	681	398	194
14	Mandava Roshan	23R11A05X6				
15	Gour Raj Rangappagari Sripad	23R11A05Q1				
16	Kanduri Shruthi	22R11A05L3	**FLASHCODERS**	917	525	266
17	Krishna Chaitra	22R11A05K7				

IEEE Xtreme 18.0 Rankers List

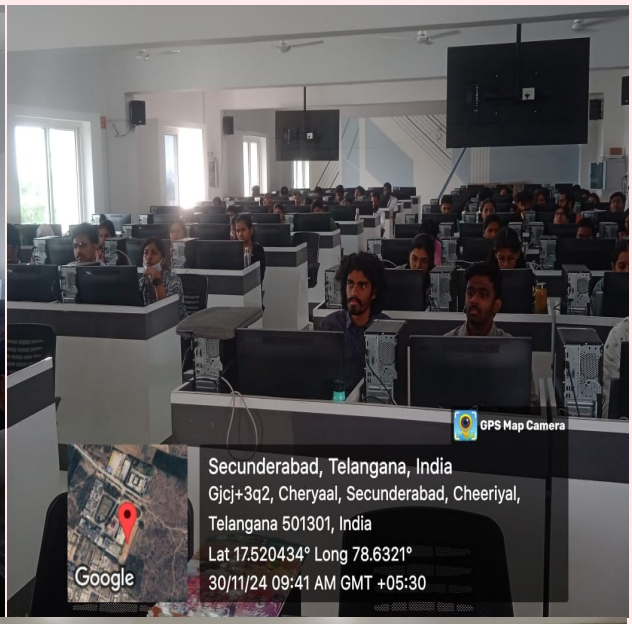
S.No.	Student Name	Roll Number	Team Name	Global Rank	Regional Rank	Country Rank
18	Pendiyala Aditi Sainath	22R11A05M8	Ryzen Coders	937	540	272
19	Manaswini Mananthula	22R11A05M3				
20	Bangi Sathvik	22R11A05K1				
21	Varanasi Harish	22R11A05N7	Hellocoder1	1150	660	326
22	Takur Jhansi Rani	22R11A05N4				
23	Paritala laxmi Yashaswi	22R11A05M7	Expecto	1161	665	330
24	Galigutta Venkat reddy	22R11A05L0				
25	Praneeth Kumar Reddy Addula	21R11A05L6	Dracarys	1569	895	482
26	Prakash Reddy Sama	21R11A05Q8				
27	Sandeep Reddy Boreddy	21R11A05M2				
28	CH.Shashank	22R11A05K4	NBS	1766	997	544
29	K Nanda Kishore Reddy	21R11A05N1				
30	A. Bhavya Sri	21R11A05A5				

CODING CLUB ACTIVITIES

S.No.	Name of the Event	Date of the Event	Total participants	CSE Students participated
1	Coding club Recruitment Round – 1	11-09-2024	158	86
2	Coding club Recruitment Round – 2	27-09-2024	42	29

Value Added Courses / Training Programs conducted for Students

- A Value Added Course on **"Python Programming"** was conducted for the II Year I semester students. A Total of 100 CSE students successfully completed the course titled **"Introduction to Python"** through **Infosys Springboard platform.**
- A Total of 32 students successfully completed **"The Joy of Computing using Python"** course through **Swayam NPTEL.** Among them, a total of 2 students earned **Elite+Gold** certificate, 10 students received **Elite+Silver** certificate, 17 students received **Elite** certificate and 3 students received the successfully completed certificate.
- **A NAASCOM Data Science** Training program was conducted from 14th Nov, 2024. A Total of 64 CSE students attended the training program. The Resource person for the training was **Mr. Raghavendra Swamy,** Freelancer, associated with Cantilever Labs.



NAASCOM Data Science Training program

Guest Lectures/Workshops conducted for Students

S.No.	Title of Guest Lecture	Date	Resource Person	Number of Students attended / Target Audience
1.	Guest Lecture on **"Data Structures – Advanced Hashing Techniques"**	14-11-2024	**Dr. T. Veeraiah,** Assistant Professor, Mahindra University, Hyderabad	80, III Year I Sem Students
2.	Guest Lecture on **"Artificial Intelligence – Generative AI and LLM"**	28-11-2024	**Dr. N. Kalyani,** Professor, Dean-Innovation and Incubation, GNITS, Hyderabad	72, III Year I Sem Students
3.	Workshop on "**Microsoft Azure**"	03-12-2024	**Guru Kumar,** Application development specialist	75, III Year I Sem Students

Guest Lectures/Workshops photos:

Faculty Development Program

A one week Faculty Development Program on **"Exploring the Frontiers of Generative AI and Deep Learning "** was conducted in collaboration with CSI, Hyderabad Section, from 17th to 21st October, 2024, organized by the **Department of Computer Science and Engineering** of Geethanjali College of Engineering & Technology**.**

- The FDP featured distinguished resource persons, including:
  1. **Sandeep Musalgaonkar,** Senior Vice President, Envoy Global**,**
  2. **M.Pavan Kumar,** Lead S/W Engineer, OpenText**,**
  3. **Yadunandan STVSS,** Director - Envoy Global**,**
  4. **Surya Prabha Vadlamani,** Vice President, Centific**,**
  5. **Dr.B.Sandhya,** Professor, MVSR Engineering College**,**
  6. **Sashank Pappu,** CEO, Antz.ai**,**
  7. **Kaila Rajesh Prabhakar,** Founder - Data Advance R Labs,
  8. **VidyaSagar Tejomurtula,** Senior Principal Architect, Zelis.
- A total of 45 faculty members participated in the FDP, including 9 external faculty members and 25 faculty members and 11 M.Tech students from GCET. The program was coordinated by Dr.Puja S Prasad, Associate Professor, CSE Dept., and Dr.Neha Nandal, Associate Professor, CSE Dept.
- This FDP provided an enriching platform for faculty members to enhance their knowledge and expertise in the evolving fields of Generative AI and Deep Learning.

Faculty Development Programs

FDP on "Exploring the Frontiers of Generative AI and Deep Learning"

Faculty Research Seminars conducted during July-Dec 2024

S.No	Name of Speaker	Research Seminar Topic	Date	Number of Faculty attended
1	Dr. A. Hari Prasad Reddy	AI Tools in Research	01-Jul-2024	34
2	Dr. R.V. Sudhakar	Exploring Interactions with Generative AI through Gemini AI	19-Jul-2024	33
3	Dr. K. Raghu	Data Science using Python from scratch to real world problems in research perspective.	31-Jul-2024	31
4	Dr. A. Sree Lakshmi	Generative AI using Langchain	03-Aug-2024	34
5	J. Sudhakar	Exploring Spatial Databases, Spatial Data, and Spatial Queries	21-Sep-2024	17
6	D. Bheekya	Feature Engineering and Visualization in Research perspective	26-Oct-2024	36

Faculty Research Seminars conducted during July-Dec 2024

S.No	Name of Speaker	Research Seminar Topic	Date	Number of Faculty attended
7	Dr. S. Radha	Exploring Image Compression: Current Insights and Future perspectives	04-Nov-2024	20
8	A. Abhilasha	Intrusion Detection in Cyber Security Machine Learning Classifier Performance Evaluation	30-Nov-2024	14
9	G. Krishna Lava Kumar	Optimizing Cardiovascular Disease Prediction using Deep Learning Techniques	28-Dec-2024	16

Faculty Research Seminars photos

ICCIML 2024

- 4th International Conference on **"Computational Intelligence in Machine Learning (ICCIML - 2024)"** was organized by the CSE Department of Geethanjali College of Engineering & Technology, Hyderabad, held on India on 6th & 7th December, 2024.
- The **Program Chair** of the conference were **Dr. V. Madhusudan Rao,** Professor & Dean-SCSI, GCET and **Dr. A. Sree Lakshmi,** Professor & HoD-CSE, GCET. The Conference **Convener** was **Dr. Puja S Prasad,** Associate Professor, CSE Dept., GCET.
- The **Chief Patron** of the conference was **Sri. G. R. Ravinder Reddy,** Chairman, Geethanjali Group of Institutions and **Patron** of the conference was **Dr. S. Udaya Kumar,** Principal, Geethanjali College of Engineering and Technology.
- The **Chief Guest** for the inaugural session of conference was **Mr. Raja Ramkaran Reddy Rudravaram,** Founder and CEO of RCV Innovations Pvt. Ltd & ThinkCloud Inc.
- The **Chief Guest** for the valedictory session of conference was **Mr. Shanthi Kumar Chilmula,** Director Operations, EPAM Systems, and **Dr. Chittaranjan Hota,** Senior Professor, Birla Institute of Technology and Science(BITS), Hyderabad.
- The Key Note Speaker for the conference on DAY 1 was **Dr. Sriparna Saha,** IIT Patna, Bihar.
- The Key Note Speaker for the conference on DAY 2 was **Dr. Chittaranjan Hota,** Senior Professor, Birla Institute of Technology and Science (BITS), Hyderabad.
- List of accepted papers were categorized into Four Different Tracks, such as

  Track 1: Applied Machine Learning

  Track 2: Computational Intelligence

  Track 3: Data Analytics and Optimization

  Track 4: Machine Learning in Inter Disciplinary Areas

ICCIML 2024 Photos:

Volume 13, Issue 1

ICCIML 2024

Faculty Publications during July– Dec 2024

S.No.	Faculty Name	Title of the Paper	Journal Name/ Conference	Volume No., Issue No., Page No., ISSN	Indexing	Month & Year of Publication
1.	Dr. Neha Nandal	Revealing the dynamics of demand forecasting in supply chain management a holistic investigation	Cogent Engineering	Volume 11, Issue No. 1, 2331-1983	SCOPUS	July, 2024
2.	Dr. A.Sree Lakshmi	Air Quality Decentralized Forecasting: Integrating IoT and Federated Learning for Enhanced Urban Environmental Monitoring	Engineering, Technology & Applied Science Research	Volume 14, Issue No. 4, 16077-16082	SCOPUS	July, 2024
3.	D. Savithri Vishwa Jyothi	Next-gen In-vehicle Interaction: wibot`s wireless network edge based gesture recognition by using machine learning	Industrial Engineering Journal	Volume 53, Issue No.8, page 250-260, ISSN: 0970-2555.	UGC	Aug, 2024
4.	J. Sudhkar	Secure aware software development life cycle on medical datasets by using firefly optimization and machine learning techniques	International Journal of Electrical and Computer Engineering	Volume 14, Issue No. 4, page.4195-4203	SCOPUS	Sept, 2024
5.	G. Krishna Lavakumar	An efficient diagnosis of heart disease using optimized cross-layer Densenet121 pyramid mutual attention network	Computers and Electrical Engineering	Volume 119, Part B, page 109578, ISSN: 0045-7906	SCI	Sept, 2024
6.	Thota Rakesh Kumar	Sentiment Analysis of Twitter Tweets	Journal of Computational Analysis and Applications	Volume 33, Issue No.5, 2024, Page153-158, 1521-1398.	SCOPUS	Sept, 2024

Faculty Publications during July– Dec 2024

S.No.	Faculty Name	Title of the Paper	Journal Name/ Conference	Volume No., Issue No., Page No., ISSN	Indexing	Month & Year of Publication
7.	G. Santhoshi	Alzheimer Disease Prediction Using Deep Learning	Library Progress International	Volume 44 Issue No. 3, Page 17030-17038, ISSN: 2320 317X	SCOPUS	Oct, 2024
8.	M.Akhila Reddy	Medical Image Segmentation Using Double U-Net And Deep Learning	Library Progress International	Volume 44, Issue No. 3, Page 17021-17029, ISSN:2320 317X	SCOPUS	Oct, 2024
9.	K. Ashwini	An Efficient And Secure Data Hiding Technique : Video Steganography	Library Progress International	Volume 44 Issue No. 3, page 15912-15924, ISSN :2320 317X	SCOPUS	Oct, 2024
10.	Dr. K. Raghu	Voice to Text Summarization using NLP	International Journal on Computational Modeling Appli-	Volume 1, Issue No. 02, page 1-9	Non-UGC	Oct, 2024
11.	Dr. A. Hari Prasad Reddy, V. Shiva Narayana Reddy	Optimized and Intelligent IDS for detecting the vulnerability of DDoS attacks in cloud environment	Journal of Computational Analysis and Applications	ISSN: 1521-1398, 1572-9206 (Online)	SCOPUS	Oct, 2024
12.	V. Shiva Narayana Reddy	Optimization of Manufacturing Parameters of PLA Components Using Taguchi and Neural Network (NN) Technique	Nanotechnology Perceptions	Volume 20, Issue No.6, page 405-412, ISSN 1660-679	SCOPUS	Oct, 2024

Faculty Publications during July– Dec 2024

S.No.	Faculty Name	Title of the Paper	Journal Name/ Name of the Conference	Volume No., Issue No., Page No., ISSN	Index-ing	Month & Year of Publica-tion
13.	Dr. Radha Seelaboyina	Modified Artificial Bee Colony Optimiza-tion with SVM for Op-timize the Selection and Classification of Heart Disease	The Bioscan, Inter-national Quarterly Journal of Life Sci-ences	Volume 19, S.I.1, Page 338-343, ISSN: 0973-7049,	Web of Science	Nov, 2024
14.	P. Ushashree	CareBot: A Mental Health Chatbot	5th International Conference on In-novative Trends in Information Tech-nology, 2024	979-8-3503-8682-0	IEEE Ex-plorer	July, 2024
15.	Ramanjane-yulu Seggem	Enhanced Rainfall Prediction Leveraging Ensembling Models for Maximum Fore-casting Performance	ICONAT-2024	978-81-972030-2-2	Scopus	Sept,2024
16.	P. Krishna Rao	A Systematic Review of Optimal Task Scheduling Methods using Machine Learn-ing in Cloud Comput-ing Environments	AICTC-2024	978-981-97-6106-7_19	Scopus	Oct, 2024
17.	Dr.RV. Sudhakar	Multi-Objective Rein-forcement Learning Based Algorithm for Dynamic Workflow Scheduling in Cloud Computing	Indonesian Journal of Electrical Engi-neering and Infor-matics	Volume 12, Issue No. 3, page 640-649, ISSN: 2089-3272	Scopus	Sept,2024
18.	G. Niveditha	AI-Driven Predictions: Enhancing Liver Disease Diagnosis through Advanced Machine Learning	Library Progress International	Volume 44 Issue No. 3, Page 1569-21579, ISSN :2320 317X	Scopus	Oct, 2024

CSE Student Placements of 2021-2025 Batch during July 2024 – Dec 2024

S.NO.	Name of the Company	Number of CSE Students Placed	Salary Package (LPA)
1	ZETA TECH LTD	1	16 LPA
2	RINEX TECHNOLOGIES	8	10 LPA
3	EDU VERSITY	2	8 LPA
4	EDVEDHA EDUTECH	9	8 LPA
5	ADVI GROUP	2	7.5 LPA
6	CODE YOUNG	1	7.36 LPA
7	ARCADIS IBI	2	7 LPA
8	INSPIRE LEAP	4	6 LPA
9	KRUTANIC SOLUTIONS	4	6 LPA
10	SERVICENOW SOFTWARE	1	5.4 LPA
11	KI-TECH PVT LTD	20	5.2 LPA
12	SKILL INTERN	3	5.2 LPA
13	ARTECH INFOSYSTEMS	1	4.68 LPA
14	COGNIZANT GENC	13	4.01 LPA
15	ACADEMOR	3	4 LPA
16	ACMEGRADE PVT LTD	1	4 LPA
17	CORIZO EDUTECH	1	4 LPA
18	EDIGLOBE	2	4 LPA
19	INTERNZ VALLEY	14	4 LPA
20	INTRAINZ INNOVATION	4	4 LPA
21	KNACK TECH	5	4 LPA
22	TEACHNOOK EDUTECH	2	4 LPA
23	MUGDHA ART STUDIO	1	3.96 LPA
24	CADSYS INDIA LTD	2	3.43 LPA
25	CATALOG	1	25 LPA
26	AHEX TECHNOLOGIES	2	2.9 LPA
27	ARCADIS IBI	1	2.4 LPA
28	OPLUS INDIA	1	1.8 LPA
29	QTRAMS IT SOLUTIONS	1	1.8 LPA
30	REAL PAGE INDIA	1	1.8 LPA

CSE Student Placements of 2021-2025 Batch during July 2024 – Dec 2024

(SINGLE PLACEMENT OFFER)

S.No.	Roll Number	Student Name	Name of the Company	Salary Package (LPA)
1	**21R11A05Q0**	**PALLAVI KUMARI**	**CATALOG**	**25 LPA**
2	**21R11A05D0**	**MAMILLA RITHIKA**	**ZETA TECH LTD**	**16 LPA**
3	21R11A0510	BURRA KEERTHI	RINEX TECHNOLOGIES	10 LPA
4	21R11A0527	LAKKOJU DHANYA DURGA SIVA PRIYA	RINEX TECHNOLOGIES	10 LPA
5	21R11A0580	KATUKURI VAMSHIDHAR REDDY	RINEX TECHNOLOGIES	10 LPA
6	21R11A05A7	ADULLA SHRIYA	RINEX TECHNOLOGIES	10 LPA
7	21R11A05A9	ANRASA NAGALAXMI	RINEX TECHNOLOGIES	10 LPA
8	21R11A05B4	BOPPANA PRANEETHA CHOWDARY	RINEX TECHNOLOGIES	10 LPA
9	21R11A05E4	SAKSHI CHANDESURYE	RINEX TECHNOLOGIES	10 LPA
10	21R11A05K1	RATHOD POOJITHA	RINEX TECHNOLOGIES	10 LPA
11	21R11A0514	GADDAM THARUN	EDVEDHA EDUTECH	8 LPA
12	21R11A0552	Y VENKATA SAI SARATH CHANDRA	EDU VERSITY	8 LPA
13	21R11A0568	G ANSHUMAN	EDVEDHA EDUTECH	8 LPA
14	21R11A05A6	ABHIRAM VENKATA DAITA	EDVEDHA EDUTECH	8 LPA
15	21R11A05C9	MAMIDALA CHARAN	EDVEDHA EDUTECH	8 LPA
16	21R11A05E5	SATYAM DAS	EDU VERSITY	8 LPA
17	21R11A05F6	GOPALAKRISHNA BANDLA	EDVEDHA EDUTECH	8 LPA
18	21R11A05F9	BODDU KEERTHI	EDVEDHA EDUTECH	8 LPA
19	21R11A05J4	NARRA VENKATANATH PRASAD	EDU VERSITY	8 LPA
20	21R11A05M0	BADUGU JESSY	EDVEDHA EDUTECH	8 LPA
21	22R15A0518	AAKI DEVISRI	EDVEDHA EDUTECH	8 LPA
22	22R15A0522	THUMMA MAHESH	EDVEDHA EDUTECH	8 LPA
23	22R15A0503	JELANELA KRISHNA VENI	ADVI GROUP	7.5 LPA

CSE Student Placements of 2021-2025 Batch during July 2024 – Dec 2024

(SINGLE PLACEMENT OFFER)

S.No.	Roll Number	Student Name	Name of the Company	Salary Package (LPA)
24	22R15A0515	GOPIDI MANASA	ADVI GROUP	7.5 LPA
25	21R11A0534	MD KHALID HASAN ANSARI	CODE YOUNG	7.36 LPA
26	21R11A0504	ATYAM HARSHITH SAI	ARCADIS IBI	7 LPA
27	21R11A0501	ADULA POOJA GOUD	INSPIRE LEAP	6 LPA
28	21R11A0559	AVVARU GURU JAYANTH	KRUTANIC SOLUTIONS	6 LPA
29	21R11A0592	PARANDHA CHANDANA	KRUTANIC SOLUTIONS	6 LPA
30	21R11A05B1	BERELLI PREETHAM RAO	KRUTANIC SOLUTIONS	6 LPA
31	21R11A05J3	NAMPALLY VAISHNAVI	INSPIRE LEAP	6 LPA
32	21R11A05K8	TANNERU GURU LAKSHMI	INSPIRE LEAP	6 LPA
33	22R15A0507	GODA POOJITHA	KRUTANIC SOLUTIONS	6 LPA
34	22R15A0521	MAKTHALA VIGNESH	INSPIRE LEAP	6 LPA
35	21R11A05D2	MANDADI HARSHITHA REDDY	SERVICENOW SOFT-WARE	5.4 LPA
36	20R11A0540	SRINIDHI PASUPULETI	KI-TECH PVT LTD	5.2 LPA
37	21R11A0505	AYYANAGARI SAI CHARAN REDDY	SKILL INTERN	5.2 LPA
38	21R11A0508	BODDU TEJASRI	KI-TECH PVT LTD	5.2 LPA
39	21R11A0509	BONAGIRI BHARGAVI	KI-TECH PVT LTD	5.2 LPA
40	21R11A0513	GADDA ZEENITH	KI-TECH PVT LTD	5.2 LPA
41	21R11A0528	M SAHITHI	KI-TECH PVT LTD	5.2 LPA
42	21R11A0536	MOHAMMED RAFI	KI-TECH PVT LTD	5.2 LPA
43	21R11A0540	PARAMATA DHEERAJ	KI-TECH PVT LTD	5.2 LPA
44	21R11A0541	PULI REENA	KI-TECH PVT LTD	5.2 LPA
45	21R11A0542	RAGIRI SAI TEJA	KI-TECH PVT LTD	5.2 LPA
46	21R11A0546	S PRANEETH KUMAR	KI-TECH PVT LTD	5.2 LPA
47	21R11A0572	HANUMANDLA YESHWANTH REDDY	KI-TECH PVT LTD	5.2 LPA
48	21R11A0579	KARNATI MYSANTHOSH	KI-TECH PVT LTD	5.2 LPA
49	21R11A0591	PAILA ABHINAYA	KI-TECH PVT LTD	5.2 LPA
50	21R11A05E7	SINGAR TEJASVI	SKILL INTERN	5.2 LPA

CSE Student Placements of 2021-2025 Batch during July 2024 – Dec 2024

S.No.	Roll Number	Student Name	Name of the Company	Salary Package (LPA)
51	21R11A05G1	DEVARAKONDA SWATHI	SKILL INTERN	5.2 LPA
52	21R11A05G6	GUJJULA TEJASRI	KI-TECH PVT LTD	5.2 LPA
53	21R11A05J5	NEELA PAVAN KALYAN	KI-TECH PVT LTD	5.2 LPA
54	21R11A05J6	ODDEPALLY PUJITHA	KI-TECH PVT LTD	5.2 LPA
55	22R15A0504	KONDRA POOJITHA	KI-TECH PVT LTD	5.2 LPA
56	22R15A0505	P MADHU PRIYA	KI-TECH PVT LTD	5.2 LPA
57	22R15A0512	MADA SANKA	KI-TECH PVT LTD	5.2 LPA
58	22R15A0520	KOTAGIRI RAMYA	KI-TECH PVT LTD	5.2 LPA
59	21R11A0533	MANGIPUDI PAVAN KALYAN	ARTECH INFOSYSTEMS	4.68 LPA
60	21R11A0506	B NAVEEN	COGNIZANT GENC	4.01 LPA
61	21R11A0526	KUCHULAKANTI SHRUTHI	COGNIZANT GENC	4.01 LPA
62	21R11A0537	PABBA ROHITH	COGNIZANT GENC	4.01 LPA
63	21R11A0544	REGATI VARSHA	COGNIZANT GENC	4.01 LPA
64	21R11A0562	BORAPUREDDI UMA MAHESH	COGNIZANT GENC	4.01 LPA
65	21R11A0589	NAVEEN RAMPA	COGNIZANT GENC	4.01 LPA
66	21R11A0599	SURYA VAMSI CHADARAM	COGNIZANT GENC	4.01 LPA
67	21R11A05C3	G SRINIVAS KOUSHIK	COGNIZANT GENC	4.01 LPA
68	21R11A05C8	KOSURU BHARATH KUMAR	COGNIZANT GENC	4.01 LPA
69	21R11A05D1	MANDA ANJANI	COGNIZANT GENC	4.01 LPA
70	21R11A05D4	MELLACHERVU VARSHITH	COGNIZANT GENC	4.01 LPA
71	21R11A05H3	SHANIGARAPU LAKSHANYA	COGNIZANT GENC	4.01 LPA
72	21R11A05M2	BOREDDY SANDEEP REDDY	COGNIZANT GENC	4.01 LPA
73	21R11A0516	GOLKONDA SAI VARUN YADAV	TEACHNOOK EDUTECH	4 LPA
74	21R11A0521	JANMANCHI DEEKSHITHA	INTERNZ VALLEY	4 LPA
75	21R11A0524	KESIREDDY PRAVALIKA	INTRAINZ INNOVATION	4 LPA
76	21R11A0535	MIDASALA VENKATA SAI SHASHANK	INTERNZ VALLEY	4 LPA

CSE Student Placements of 2021-2025 Batch during July 2024 – Dec 2024

S.No.	Roll Number	Student Name	Name of the Company	Salary Package (LPA)
77	21R11A0539	PAPPULA BENJAMIN	INTRAINZ INNOVATION	4 LPA
78	21R11A0545	RONDLA DHATHRI	CORIZO EDUTECH	4 LPA
79	21R11A0554	ADAPAKALA PRAVEEN	INTERNZ VALLEY	4 LPA
80	21R11A0570	GATTU JAHNAVI	EDIGLOBE	4 LPA
81	21R11A0583	KUNDURU PRAVALIKA	INTRAINZ INNOVATION	4 LPA
82	21R11A0590	NISTALA LAKSHMI SOUJANYA	INTERNZ VALLEY	4 LPA
83	21R11A05A8	AKELLA SAI SRUJANA	INTERNZ VALLEY	4 LPA
84	21R11A05B0	BADDAM VARSHITH REDDY	KNACK TECH	4 LPA
85	21R11A05B8	CHERVIRALA SHIVA KUMAR	INTERNZ VALLEY	4 LPA
86	21R11A05C1	DASARI SAI BHAVANI	INTERNZ VALLEY	4 LPA
87	21R11A05C5	GNANA SWAROOP KAKUMANU	KNACK TECH	4 LPA
88	21R11A05D8	NELLURU KUSUMA	ACADEMOR	4 LPA
89	21R11A05E0	PASUPULETI MOULIKA	INTERNZ VALLEY	4 LPA
90	21R11A05F2	THAMMANA DIVYA MANI KUSUMA	TEACHNOOK EDUTECH	4 LPA
91	21R11A05F4	UNDRU VARDHINI VENKATA SAI	INTRAINZ INNOVATION	4 LPA
92	21R11A05G2	DUMNE VAISHNAVI	ACADEMOR	4 LPA
93	21R11A05L2	VELDAL AKKILESWARI	ACMEGRADE PVT LTD	4 LPA
94	21R11A05M1	BANDARI ARJUN	INTERNZ VALLEY	4 LPA
95	21R11A05N0	GURRAM SREEHITHA	INTERNZ VALLEY	4 LPA
96	21R11A05N6	KOLIKAPONGU KIRAN KUMAR	ACADEMOR	4 LPA
97	21R11A05Q2	PASALA MARY NIHARIKA	INTERNZ VALLEY	4 LPA
98	21R11A05Q4	PERUMANDLA HARSHA-VARDHAN	INTERNZ VALLEY	4 LPA
99	21R11A05Q5	POLAGONI AJAY KUMAR	KNACK TECH	4 LPA
100	21R11A05R6	V ROHAN	KNACK TECH	4 LPA
101	22R15A0502	GILLELLA SWAPNIL	INTERNZ VALLEY	4 LPA

CSE Student Placements of 2021-2025 Batch during July 2024 – Dec 2024

(SINGLE PLACEMENT OFFER)

S.No.	Roll Number	Student Name	Name of the Company	Salary Package (LPA)
102	22R15A0508	GUDIKATI ASHOK	EDIGLOBE	4 LPA
103	22R15A0509	KAMMARI SAI TEJA	KNACK TECH	4 LPA
104	22R15A0516	NADIMPALLY VAISHNAVI DEVI	INTERNZ VALLEY	4 LPA
105	22R15A0525	K REVATHI	MUGDHA ART STUDIO	3.96 LPA
106	21R11A0538	PAILLA SAIKUMAR REDDY	CADSYS INDIA LTD	3.43 LPA
107	21R11A0550	SUNKANNAGARI VENKATESH	CADSYS INDIA LTD	3.43 LPA
108	21R11A0519	GUNDA HARSHIT	AHEX TECHNOLOGIES	2.9 LPA
109	21R11A0586	MOHAMMAD AKBAR ALI	AHEX TECHNOLOGIES	2.9 LPA
110	21R11A0582	KUDUMULA HEMANTH REDDY	ARCADIS IBI	2.4 LPA
111	21R11A0597	SHIVANOOR VIGNESH	OPLUS INDIA	1.8 LPA
112	21R11A05F0	SURAJ KUMAR PANDA	REAL PAGE INDIA	1.8 LPA
113	21R11A05N1	KADIRE NANDA KISHORE REDDI	QTRAMS IT SOLUTIONS	1.8 LPA

Silicon Labs Innovation Centre

- **Memorandum of Understanding (MoU)** was established between the **Department of Computer Science and Engineering at Geethanjali College of Engineering and Technology**, and **Silicon Labs Innovation Centre,** on 4th November, 2024.
- **Silicon Labs,** a global leader in secure and intelligent wireless technology, has partnered with **Geethanjali college Engineeringand Technology**, and established a **Memorandum of Understanding (MoU).** This collaboration aims to drive innovation and enhance skill development in the areas of embedded systems, Internet of Things (IoT), and wireless communications.
- As part of this MoU, students have been working on the following projects:
    1. Drinking Water Quality Monitoring System
    2. Smart Shoe Navigation System
    3. Smart Braille System
    4. Home Automation System
    5. IoT-Enabled Vertical Farming System

Silicon Labs Innovation Centre

- A technical workshop was conducted by trainers from Silicon Labs, where students learned how to establish connectivity between a mobile device and the BRD2605A (SiWx917 Dev Kit), held on 4th Nov, 2024.

MoU with Silicon Labs Innovation Centre

Student Higher Education Details of 2020-2024 Batch

S.No.	Roll Number	Student Name	NAME OF THE INSTITUTE	COURSE NAME
1	20R11A0512	CHINTHAM ARJUN	UNIVERSITY OF NORTH TEXAS	MASTER'S IN MATHEMATICS AND STATISTICS
2	20R11A0516	VIBHAAS CHANDRA	CENTRAL MICHGAN UNIVERSITY	MASTER'S IN COMPUTER SCIENCE
3	20R11A0569	BHARTI PUDI SAKETH RAM	BITS, GOA	M.TECH - COMPUTER SCIENCE AND ENGINEERING
4	20R11A0581	GUDUR LIKITHA	WESTERN SYDNEY UNIVERSITY	MASTER'S IN COMPUTER SCIENCE
5	20R11A0593	KHUSHI JHA	XLRI JAMSHEDPUR	POSTGRADUATE DIPLOMA IN BUSINESS MANAGEMENT
6	20R11A05F1	LAMBU MEDHA REDDY	CLEVELAND STATE UNIVERSITY	MASTER OF COMPUTER SCIENCE
7	20R11A05F5	NAGAPURI ROHITH	VIRGINIA COMMONWEALTH UNIVERSITY	MASTER'S COMPUTER AND INFORMATION SCIENCES
8	20R11A05J7	BATHULA KHUSHI	UNIVERSITY OF NEW HAVEN	MASTER'S IN COMPUTER AND INFORMATION SYSTEMS SECURITY/AUDITING/ INFORMATION
9	20R11A05J8	BOBBA SRESHTA	UNIVERSITY OF CENTRAL MISSOURI	MASTER'S IN COMPUTER SCIENCE
10	20R11A05P1	SRUTHI SINGH	INSTITUTE OF PUBLIC ENTERPRISE	POST GRADUATE DIPLOMA IN MANAGEMENT - MARKETING MANAGEMENT
11	20R11A0504	AKKENAPALLI KRISHNA	UNIVERSITY OF ALABAMA AT BIRMINGHAM	MASTER'S IN COMPUTER AND INFORMATION SCIENCES
12	20R11A0526	VENKATA NEHAVALLI KOLLI	UNIVERSITY OF HERTFORDSHIRE	MSC DATA SCIENCE AND ANALYTICS

Faculty Development Programs/Workshops/Refresher Courses Attended by Faculty

S.No.	Faculty Name	Nature of Program Attended	Name of the FDP/ Workshop/ Refresher Course	Date (s) Held	Held at Institute/ Organization
1.	P. Krishna Rao	FDP	Advancements in Cloud Computing and Security	01-07-2024 to 05-7-2024	RGMCET, Nandyal, A.P
2.	G. Praveen kumar	FDP	Summer School Series AI	01-07-2024 to 07-07-2024	IIITH
3.	G. Praveen kumar	FDP	Hands-On Machine Learning for Communication and Networking	15-07-2024 to 21-07-2024	IIITM-Gwalior
4.	P. KrishnaRao	Refresher Course	Machine Learning and Data Science Algorithms	08-07-2024 to 23-07-2024	JNTUH (UGC)
5.	P. KrishnaRao	FDP	AI, ML and DL	08-07-2024 to 18-07-2024	NIT Warangal & GIETU, Odisha
6.	Dr. Neha Nandal	PDP	Transforming Education: Integrating OBE and NEP	22-07-2024 to 02-08-2024	CVR College of Engineering
7.	D. Venkateswarlu	PDP	Teaching, Learning, Assessment and Evaluation	22-07-2024 to 27-07-2024	NITTTR
8.	Bh. Bhujanga Reddy	PDP	Teaching, Learning, Assessment and Evaluation	22-07-2024 to 27-07-2024	NITTTR
9.	G. Santhoshi	PDP	Teaching, Learning, Assessment and Evaluation	22-07-2024 to 27-07-2024	NITTTR
10.	D.S.V. Jyothi	PDP	Teaching, Learning, Assessment and Evaluation	22-07-2024 to 27-07-2024	NITTTR
11.	A. Durga Pavani	PDP	Teaching, Learning, Assessment and Evaluation	22-07-2024 to 27-07-2024	NITTTR
12.	T. Jyotsna	PDP	Teaching, Learning, Assessment and Evaluation	22-07-2024 to 27-07-2024	NITTTR
13.	D. Jeevan	PDP	Teaching, Learning, Assessment and Evaluation	22-07-2024 to 27-07-2024	NITTTR
14.	T. Neelima	PDP	Teaching, Learning, Assessment and Evaluation	22-07-2024 to 27-07-2024	NITTTR
15.	A. Srinivasa Rao, BH. Bhujanga Reddy	FDP	High performance Computing & Data Science Applications	20-8-2024 to 24-8-2024	Vardhaman College of Engineering
16.	M. Swapna Rani	FDP	Python Programming	05-08-2024 to 09-08-2024	BVRIT, Narsapur
17.	S.Radha	PDP	NLP Unleashed: Cutting Edge Methods and Applications	27-08-2024 to 31-08-2024	Vardhaman College of Engineering

Faculty Development Programs/Workshops/Refresher Courses Attended by Faculty

S.No.	Faculty Name	Nature of Program Attended	Name of the FDP/ Workshop/ Refresher Course	Date (s) Held	Held at Institute/ Organization
18	V.Sravanthi	FDP	Exploring the Frontiers of Generative AI and Deep Learning with CSI	17-10-2024 to 21-10-2024	GCET
19	P. Krishna Rao	FDP	Exploring the Frontiers of Generative AI and Deep Learning with CSI	17-10-2024 to 21-10-2024	GCET
20	M. Swapna Rani	FDP	Exploring the Frontiers of Generative AI and Deep Learning with CSI	17-10-2024 to 21-10-2024	GCET
21	Bollam Srivani	FDP	Exploring the Frontiers of Generative AI and Deep Learning with CSI	17-10-2024 to 21-10-2024	GCET
22	U.Devi	FDP	Exploring the Frontiers of Generative AI and Deep Learning with CSI	17-10-2024 to 21-10-2024	GCET
23	M.Akhila Reddy	FDP	Exploring the Frontiers of Generative AI and Deep Learning with CSI	17-10-2024 to 21-10-2024	GCET
24	P.Prashanth	FDP	Exploring the Frontiers of Generative AI and Deep Learning with CSI	17-10-2024 to 21-10-2024	GCET
25	K.Sravani	FDP	Exploring the Frontiers of Generative AI and Deep Learning with CSI	17-10-2024 to 21-10-2024	GCET
26	P.DurgaDevi	FDP	Exploring the Frontiers of Generative AI and Deep Learning with CSI	17-10-2024 to 21-10-2024	GCET
27	T.Sneha	FDP	Exploring the Frontiers of Generative AI and Deep Learning with CSI	17-10-2024 to 21-10-2024	GCET
28	P.Chandra Sekhar Reddy, M. Prashanth	FDP	Exploring the Frontiers of Generative AI and Deep Learning with CSI	17-10-2024 to 21-10-2024	GCET
29	P.DeepLaxmi	FDP	Exploring the Frontiers of Generative AI and Deep Learning with CSI	17-10-2024 to 21-10-2024	GCET
30	P.Prathima	FDP	Exploring the Frontiers of Generative AI and Deep Learning with CSI	17-10-2024 to 21-10-2024	GCET

Faculty Development Programs/Workshops/Refresher Courses Attended by Faculty

S.No.	Faculty Name	Nature of Program Attended	Name of the FDP/ Workshop/ Refresher Course	Date (s) Held	Held at Institute/ Organization
31	M.Vishwa Shanthi	FDP	Exploring the Frontiers of Generative AI and Deep Learning with CSI	17-10-2024 to 21-10-2024	GCET
32	G. UdayaSri, K.Prathima	FDP	Exploring the Frontiers of Generative AI and Deep Learning with CSI	17-10-2024 to 21-10-2024	GCET
33	Dr. Radha See-laboina	FDP	Exploring the Frontiers of Generative AI and Deep Learning with CSI	17-10-2024 to 21-10-2024	GCET
34	A.Vijaya, J.Meena Sravanthi	FDP	Exploring the Frontiers of Generative AI and Deep Learning with CSI	17-10-2024 to 21-10-2024	GCET
35	Dr.K.Raghu	FDP	Exploring the Frontiers of Generative AI and Deep Learning with CSI	17-10-2024 to 21-10-2024	GCET
36	V.Shiva Narayana Reddy	FDP	Exploring the Frontiers of Generative AI and Deep Learning with CSI	17-10-2024 to 21-10-2024	GCET
37	Ch.Sandhya	FDP	Exploring the Frontiers of Generative AI and Deep Learning with CSI	17-10-2024 to 21-10-2024	GCET
39	Dr.Zubair Ali, M.Nassiruddin	FDP	Exploring the Frontiers of Generative AI and Deep Learning with CSI	17-10-2024 to 21-10-2024	GCET
40	M. Swapna Rani	FDP	Introduction to Machine Learning	July-Sep 2024	NPTEL
41	V.Sravanthi	FDP	The Joy of Computing Using Python	July-Oct 2024	NPTEL
42	G. Krishna Lava Kumar	FDP	Cloud Computing	July-Oct 2024	NPTEL
43	K.Prathima	FDP	Gen-AI and Prompt Engineering Using Microsoft Co-Pilot	16-09-2024 to 20-09-2024	BNM Institute of Technology Banga-lore, D.Y. Patil Agricul-ture and Technical University Tal-sande, Maharastra
44	Sonam Marathe	FDP	AI tool for teaching	23-09-2024 to 29-09-2024	Annamalai University

Faculty Development Programs/Workshops/Refresher Courses Attended by Faculty

S.No.	Faculty Name	Nature of Program Attended	Name of the FDP/ Workshop/ Refresher Course	Date (s) Held	Held at Institute/ Organization
45	Sonam Marathe	FDP	Mastering the Art of Research: Idea to Publication	13-11-2024 to 17-11-2023	SR University
46	Dr.Radha Seelaboina	National level FDP	Recent Advancements in AI & IoT- Industry Perspective	25-11-2024 to 30-11-2024	Periyar Maniammal Institute of Science and Technology
47	P.Krishna Rao	Workshop	Quantum Computing	9-12-2024 to 13-12-2024	AIU-GIET University-AADC, Odisha
48	R.Sukrutha	FDP	AI for Future	16-12-2024 to 21-12-2024	K.G.Reddy College of Engineering
49	S.Ramanjaneyulu	FDP	AI for Future	16-12-2024 to 21-12-2024	K.G.Reddy College of Engineering
50	Dr. S Vishwanath Reddy	Symposium on PBL	Regional Research Symposium on PBL	19-12-2024 to 21-12-2024	Anurag University

Skill Development Program for village community

- **One month skill development programme** on **"Tally Software Tool with Hands-on"**, was conducted by the Department of Computer Science and Engineering & NSS Unit of GCET, for the support staff of GCET and unemployed residents of adopted villages of GCET such as Cheeryal, Narsampally, Godumakunta, Thimmaipally, Yadgarpally, RampallyDayara villages. The SDP program was conductedfrom 3rd July 2024 to 3rd August, 2024. The timing of the training program was 01:30pm to 03:30pm.
- A Total of 65 participants actively attended the training program.
- The **Resource Person** for the one month skill development programme on "Tally Software Tool with Hands-on" was **Mr. B. Ilesh,** Assistant Director, National Academy, ECIL, Hyderabad.
- The Coordinators for the SDP were Mrs. S.Radha, Sr.Assistant Professor, CSE Department and Mr. Y. Siva, Sr.Assistant Professor, CSE Department.
- This program aims to empower unemployed individuals by equipping them with essential accounting and financial management skills through practical knowledge and expertise in using Tally software.

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Skill Development Program for village community

జనంసాక్షి

జనంసాక్షి — హైదరాబాద్ - రంగారెడ్డి - మేడ్చల్ మల్కాజిగిరి - వికారాబ

సమాజాభివృద్ధిలో యువత పాత్ర కీలకం

- గీతాంజలి కళాశాల చైర్మన్ జి. రవీందర్ రెడ్డి
- టాలీ సాఫ్ట్‌వేర్ కోర్సుల్లో ఉచితంగా శిక్షణ.. విద్యార్థులకు ప్రశంస పత్రాలు

కీసర, ఆగష్టు 04 (జనంసాక్షి) : టెక్నాలజీ అనుగుణంగా ఎప్పటి కప్పుడు కొత్త కొత్త విషయాలను యువత నేర్చుకొని ఉన్నత స్థానాలను అధిరోహించి సమాజాభివృద్ధికి భాగస్వాములు కావడంలో యువత కీలక పాత్ర పోషిస్తుందని గీతాంజలి కళాశాల చైర్మన్ జి. రవీందర్ రెడ్డి అన్నారు. ఆదివారం కీసర మండలం చీర్యాల గ్రామంలోని గీతాంజలి అండ్ టెక్నాలజీ కళాశాలలో కంప్యూటర్ సైన్స్ అండ్ ఇజనీరింగ్ విభాగం, ఎన్ఎస్ఎస్ విభాగం ద్వారా సామాజిక భాధ్యతలో భాగంగా నిర్వహించబడిన ఉచిత టాలీ సాఫ్ట్వేరు కోర్సు స్కిల్ డెవలప్మెంట్ ప్రోగ్రాం ముగింపు కార్యక్రమాన్ని ఘనంగా నిర్వహించారు. ఈ సమావేశంలో కళాశాల చైర్మన్ జి.రవీందర్ రెడ్డి మాట్లాడుతూ.. ఈ ఆధునిక సమాజంలో మారుతున్న కాలానికి అనుగుణంగా యువత నైపుణ్య లను పెంపొందించుకోవడం ద్వారా, ప్రపంచస్థాయిలో పోటీ పడి ఉద్యోగాలను పొందగలరు అని, ప్రగాఢంగా నమ్మి ఆచరణలో పెట్టాలనే తలంపుతో, మా కాలేజీ తరుపున నెల రోజులు టాలీ సాఫ్ట్ వేర్ కోర్సుల్లో ఉచితంగా కోచింగ్ అందజేశామన్నారు. కళాశాల తరపున రానున్న రోజులలో ఇలాంటి కార్యక్రమాలు మరిన్నో నిర్వహిస్తామని, నిరుద్యోగ యువతి యువకులకు ఉచిత శిక్షణ ఇస్తూ వారి నైపుణని పెంపొందిస్తామన్నారు. చీర్యాల, యాద్గారపల్లి, గోధుమకుంట, రాంపల్లి దయారా, తిమ్మయిపల్లి, నరసాంపల్లి, నాగారం, దమ్మాయిగూడ గ్రామములకు చెందిన యువతి, యువకులకు, నిరుద్యోగ యువకులకు గతనెల రోజులుగా టాలీ సాఫ్ట్వేరు కోర్సు స్కిల్ డెవలప్మెంట్ ప్రోగ్రాంలో నేషన్ అకాడమీ, ఐబిఎల్ వారి ద్వారా శిక్షణ తరగతులను ఇంటర్, డిగ్రీ, ఆపైన్నించిన 65 మంది యువతీ, యువకులకు సర్టిఫికెట్లు అందజేశారు. ఈ కార్య క్రమంలో కళాశాల ప్రిన్సిపాల్ డాక్టర్ ఎస్.ఉదయ్ కుమార్, ప్రొఫెసర్, డీన్ అప్ సూచెంట్ ఎఫైర్స్ ఏ.మధుసూదన్ రావు, ప్రొఫెసర్ డీన్ ఆఫ్ కంప్యూటర్ సెన్స్ అండ్ ఇని ఫార్మాటిక్స్ వి.మధుసూదన్, హెచ్ఓడి డాక్టర్ ఎ.శ్రీలక్ష్మి, ఎన్ ఎస్ ఎస్ ప్రోగ్రామ్ ఆఫీసర్ ఓదయ్య, కో ఆర్డి నేటర్స్ ఎస్.రాధా, వై.శివ, నేషనల్ అకాడమీ డైరెక్టర్ ఏ.హరిబాబు, రాము, ఇబేష్, ఎం.విజయ భాస్కర్ రెడ్డి, డిపార్ట్ మెంట్ ప్యాకల్టీ సభ్యులు తదితరులు పాల్గొన్నారు.

One month skill development programme on **"Tally Software Tool with Hands-on"**

Student Article

Generative AI and Large Language Models (LLMs): Transforming the Future of AI

Introduction:

The rapid advancements in artificial intelligence (AI) have led to the emergence of generative AI and Large Language Models (LLMs), revolutionizing industries and redefining human-computer interactions. These technologies leverage deep learning and vast datasets to generate text, images, code, and even complex problem-solving strategies. This article explores the capabilities, applications, and challenges of generative AI and LLMs.

Understanding Generative AI and LLMs:

Generative AI refers to artificial intelligence systems that can generate new content, such as text, images, music, and code, based on existing patterns and data. LLMs, a subset of generative AI, are deep learning models trained on vast amounts of textual data to understand, generate, and manipulate human-like text.

Key characteristics of LLMs:

- **Extensive Training Data**: Trained on large corpora of text from diverse sources.
- **Neural Network Architecture**: Typically based on Transformer models (e.g., GPT, BERT, T5, LLaMA).
- **Contextual Understanding**: Ability to understand context and generate coherent, contextually relevant responses.
- **Adaptability**: Fine-tuned for specific tasks such as translation, summarization, and creative writing.

Applications of Generative AI and LLMs:

Generative AI and LLMs are transforming various industries by automating and enhancing creative and analytical tasks:

i. Content Generation

- Automated article writing, storytelling, and creative writing.
- AI-powered chatbots for customer service and virtual assistants.

ii. Software Development

- Code generation and debugging (e.g., GitHub Copilot, OpenAI Codex).
- Automating repetitive programming tasks and enhancing developer productivity.

iii. Healthcare

- Assisting in medical research and drug discovery through AI-generated insights.
- Automating documentation and patient interaction.

iv. Education and Research

- AI tutors providing personalized learning experiences.
- Summarizing academic papers and assisting in research analysis.

v. Business and Marketing

- AI-driven copywriting, ad creation, and market analysis.
- Personalization of customer interactions and recommendations.

Student Article

Generative AI and Large Language Models (LLMs): Transforming the Future of AI

Challenges and Ethical Considerations:

Despite their potential, generative AI and LLMs pose several challenges:

Bias and Fairness: AI models may reflect and amplify biases present in training data.

Misinformation and Deepfakes: Potential misuse in generating fake news and misleading content.

Data Privacy: Concerns over the use of personal data in training AI models.

Intellectual Property: Issues regarding AI-generated content ownership and originality.

Computational Costs: Training and deploying LLMs require substantial computational resources and energy.

Future of Generative AI and LLMs:

The future of generative AI and LLMs lies in responsible development, improved interpretability, and ethical AI governance. Researchers and companies are working towards:

- Developing more transparent and accountable AI models.
- Enhancing efficiency to reduce computational demands.
- Creating regulatory frameworks to prevent misuse and ensure fairness.

Conclusion

Generative AI and LLMs are reshaping the AI landscape, offering immense potential across industries while presenting new ethical and technical challenges. By fostering responsible AI development, we can harness the power of these technologies for positive and transformative advancements.

Mr. RELANGI TARUN KUMAR
(Roll Number: 22R11A05X9),
III Year, CSE - G

Student Article

Spring Boot: Simplifying Java Development

Introduction:

Spring Boot is a powerful framework that simplifies Java-based application development. It provides a production-ready environment with minimal configuration, enabling developers to focus on building applications rather than managing infrastructure. This article explores the key features, benefits, and applications of Spring Boot.

What is Spring Boot?

Spring Boot is an open-source Java framework built on top of the Spring Framework. It simplifies the development of Java applications by offering:

Auto-configuration: Reduces the need for manual configuration.

Embedded Servers: Built-in Tomcat, Jetty, or Undertow for easy deployment.

Microservices Support: Ideal for creating microservices-based architectures.

Spring Boot Starter Packs: Pre-configured dependencies for faster development.

Key Features of Spring Boot:

- **Auto-Configuration**: Automatically configures Spring applications based on dependencies.
- **Spring Boot Starters**: Bundled dependencies to streamline setup.
- **Embedded Web Server**: No need to deploy separately; runs as a standalone JAR.
- **Actuator**: **Built-in tools for monitoring and managing applications.**
- **Spring Boot CLI**: Command-line interface for rapid development.

Why Use Spring Boot?

- Simplifies Development: Reduces boilerplate code and speeds up application setup.
- Microservices-Ready: Easily integrates with cloud platforms and containerized environments.
- Scalability: Supports distributed and scalable application development.
- Community and Support: Backed by a large developer community and extensive documentation.

Applications of Spring Boot:

- **Web Applications**: Build RESTful APIs and full-stack applications.
- **Microservices**: **Develop independent, scalable services.**
- **Enterprise Solutions**: Create large-scale business applications.
- **Cloud Deployments**: Works seamlessly with AWS, Azure, and Kubernetes.

Conclusion:

Spring Boot simplifies Java application development, making it a preferred choice for building scalable, efficient, and cloud-ready applications. Whether you are developing micro services or enterprise solutions, Spring Boot provides the tools needed for rapid and effective development.

Ms. VARANASI HARIKA
(Roll Number: 22R11A05U5),
III Year, CSE - F

IoT in Industry 4.0

Industry 4.0, also known as the **Fourth Industrial Revolution**, is transforming manufacturing and industrial processes through smart automation, data exchange, and connectivity. At the core of this revolution is the **Internet of Things (IoT)**, which connects machines, devices, sensors, and systems to optimize efficiency and decision-making.

Key Roles of IoT in Industry 4.0:

1. Smart Manufacturing & Automation

- IoT-enabled sensors and devices allow real-time monitoring of production lines.
- Automated processes reduce human intervention, increasing efficiency and accuracy.
- Robotics and AI-driven machinery can work alongside IoT to enhance production.

2. Predictive Maintenance

- IoT sensors track machine health, detecting issues before failures occur.
- Reduces downtime and maintenance costs.
- Increases the lifespan of industrial equipment.

3. Real-time Data Analytics & AI

- IoT collects vast amounts of data from connected devices.
- AI and Big Data analytics help in optimizing operations, reducing waste, and improving decision-making.
- Cloud computing integrates IoT data for seamless access and processing.

4. Supply Chain & Logistics Optimization

- IoT enables **real-time tracking** of goods, reducing losses and delays.
- Smart warehouses use IoT for inventory management and automated sorting.
- Blockchain combined with IoT ensures transparent and secure transactions.

5. Energy Efficiency & Sustainability

- Smart energy meters and IoT-based energy management reduce power consumption.
- Optimized resource usage minimizes waste and promotes green manufacturing.

6. Enhanced Worker Safety

- Wearable IoT devices monitor workers' health and safety.
- Automated alerts and emergency responses improve workplace security.

Examples of IoT in Industry 4.0:

Siemens – Uses IoT-driven predictive maintenance in manufacturing.

General Electric (GE) – Employs IoT-based Industrial Internet solutions for smart factories.

Tesla – Uses IoT for remote diagnostics and over-the-air software updates.

Amazon – Smart warehouses utilize IoT for robotic automation and logistics.

Challenges & Considerations:

Cybersecurity Risks – More connected devices mean higher vulnerability.

High Initial Investment – IoT implementation can be costly.

Data Management Complexity – Handling and processing massive data requires advanced infrastructure. **Interoperability Issues** – Different IoT devices may have compatibility challenges.

Mr. B.TANISHQ ANAND
(Roll Number: 22R11A05P7),
III Year, CSE - F

Student Article

Advances in Artificial Neural Networks: Exploring Spiking Neural Models

Introduction:

Artificial Neural Networks (ANNs) have revolutionized the field of machine learning, powering advancements in areas such as image recognition, natural language processing, and robotics. Among the emerging trends in neural network research, **Spiking Neural Networks (SNNs)** stand out for their biological realism and potential efficiency. Inspired by the way neurons communicate in the human brain, SNNs introduce time-dependent processing, making them a promising approach for energy-efficient computing and neuromorphic hardware.

What Are Spiking Neural Networks (SNNs)?

SNNs differ from traditional ANNs by incorporating a concept known as **spike-based communication**. Unlike conventional neural networks that process continuous values, SNNs rely on discrete spikes or pulses to transmit information. This method more closely mimics biological neural activity, where neurons fire only when their membrane potential exceeds a threshold.

Key characteristics of SNNs:

- **Event-Driven Processing**: Neurons remain inactive until they receive a sufficient stimulus, reducing unnecessary computations.
- **Temporal Coding**: Information is encoded in the timing of spikes rather than their amplitude.
- **Energy Efficiency**: Lower power consumption makes SNNs ideal for edge computing and neuromorphic hardware.

Advantages of Spiking Neural Networks:

1. **Biological Plausibility**: More accurately replicates neural processing in the human brain.
2. **Efficient Computation**: Requires fewer computational resources due to event-driven activity.
3. **Better Temporal Data Handling**: Ideal for tasks involving time-series data, such as speech and sensory processing.
4. **Neuromorphic Compatibility**: Compatible with emerging neuromorphic chips like Intel Loihi and IBM TrueNorth.

Challenges in Implementing SNNs:

Despite their potential, SNNs face several challenges:

Training Complexity: Traditional backpropagation does not work well due to non-differentiability of spike functions.

Limited Software Support: Fewer well-developed frameworks compared to deep learning libraries.

- **Hardware Constraints**: Requires specialized neuromorphic processors for optimal performance.

Current Research and Applications:

Recent advances in SNN research are addressing these challenges through:

- **Surrogate Gradient Methods**: Approximating gradients to enable efficient learning.
- **Spike-Timing Dependent Plasticity (STDP)**: A biologically inspired learning rule for SNNs.
- **Hybrid Architectures**: Combining SNNs with conventional deep learning approaches.

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Advances in Artificial Neural Networks: Exploring Spiking Neural Models

Applications of SNNs:

1. **Neuromorphic Computing**: Power-efficient processors for AI applications.
2. **Robotics**: Real-time control and sensory processing.
3. **Brain-Computer Interfaces**: Assisting in medical applications such as prosthetics.
4. **Autonomous Systems**: Enabling smart sensors and low-power AI solutions.

Future of Spiking Neural Networks:

As neuromorphic hardware matures and training techniques improve, SNNs are expected to play a significant role in the next generation of AI systems. Their ability to process temporal and event-driven data efficiently makes them particularly promising for real-time applications and energy-efficient AI.

Conclusion:

Spiking Neural Networks represent a significant step toward biologically inspired AI. While challenges remain in training and hardware compatibility, ongoing research and advancements in neuromorphic computing are paving the way for their broader adoption. As SNN technology continues to evolve, it holds the potential to revolutionize how artificial intelligence systems process information, offering a more efficient and scalable alternative to traditional deep learning models.

Mr. S. VENKATA PAVAN KARTHIK
(Roll Number: 22R11A0586),
III Year, CSE - B

Student Article

Unlocking the Power of MongoDB: A NoSQL Revolution

In the fast-paced world of modern applications, developers need a database that can keep up with growing data demands while offering flexibility and scalability. Enter **MongoDB**, a leading **NoSQL database** that has transformed how we store and manage data.

What is MongoDB?

MongoDB is a **document-oriented NoSQL database** designed for handling large amounts of unstructured or semi-structured data. Unlike traditional relational databases, which store data in tables with fixed schemas, MongoDB uses **JSON-like documents**, making it highly adaptable for various use cases.

Why Choose MongoDB?

1. **Scalability** – MongoDB supports horizontal scaling with **sharding**, allowing databases to distribute data across multiple servers efficiently.
2. **Flexibility** – With a **schemaless structure**, developers can store diverse types of data without predefined columns.
3. **Performance** – Its **indexing and aggregation framework** ensures faster data retrieval and real-time analytics.

Replication & High Availability – MongoDB's built-in **replication** and **failover mechanisms** ensure data integrity and uptime.

Use Cases of MongoDB:

- **Big Data Applications** – Handles massive data loads seamlessly.
- **Real-time Analytics** – Powers dashboards and reporting tools.
- **Content Management** – Ideal for CMS platforms due to its flexible schema.

IoT & Mobile Apps – Efficiently manages sensor and user-generated data.

Getting Started with MongoDB:

If you're new to MongoDB, start by:

1. Installing MongoDB from MongoDB's official site
2. Using **MongoDB Compass**, a GUI for easy data visualization.
3. Learning **MongoDB Query Language (MQL)** for CRUD operations.

Conclusion:

MongoDB's NoSQL architecture makes it an excellent choice for businesses and developers looking for speed, scalability, and flexibility. Whether you're building a startup or scaling an enterprise application, MongoDB provides the tools to manage data efficiently.

Mr. A.K DINESH
(Roll Number:22R11A05U7),
III Year, CSE - G

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