



Dr. T. THIMMAIAH INSTITUTE OF TECHNOLOGY

(Estd. 1986) Oorgaum, Kolar Gold Fields, Karnataka – 563120

(Affiliated to VTU, Belgaum, Approved by AICTE - New Delhi)

NAAC Accredited 'A' Grade, NBA Accredited for CSE, ECE & Mining Engg Programs

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ZByte – CP NEWS 2024-25

PRESIDENT MESSAGE



It is indeed a proud moment that the Computer Science and Department have initiated to bring out its Seventh edition of “Zbyte-CP”. I would like to see very active student participation and also more activities to be covered in the coming editions. I wish all students to excel in the coming examinations. I wish this newsletter to continue and attain the heights of excellence. My best wishes to everyone associated with this newsletter, and special thanks to the editorial team.

FROM PRINCIPAL DESK



It gives me immense joy to share that “Zbyte-CP” is doing very well. I appreciate the hard work of all students; faculty and whole heartedly thank them for presenting the Seventh edition of Newsletter in a very informative and attractive way. This Newsletter consists of various articles on current trends meticulously curate by our editorial team. We hope it will inspire you and enrich you with practical knowledge in the field of Computer Science and Engineering. Once again, deepest gratitude to everyone for making the newsletter a great source of learning.

FROM CHIEF EDITOR'S DESK



I am delighted to share that "Zbyte-CP" is thriving and making remarkable progress. I want to take a moment to acknowledge the hard work and dedication each one of you brings to our department. Our collective progress this past term has been remarkable, marked by innovative projects, collaborative efforts, and consistent growth in our goals. Your commitment continues to push our department forward, and I am grateful for the energy, creativity, and resilience you demonstrate daily.

AT A GLIMPSE

Activities Conducted
Webinar/ FDP Attended
Publications
Patent Filed And Published
Faculty Achievements
Faculty Publications
Faculty Presentations
Faculty Certification
Initiation of Digital Automation
Students Achievements
Sports Activities
Students Certifications
Department Club Activities

ABOUT THE DEPARTMENT

The department of Computer Science and Engineering (CSE) was established in the academic year of 1988 with an intake of 60 and further enhanced to 240 seats in BE. The department has well equipped laboratories with updated software and hardware with an emphasis on practical learning in addition to curriculum. The department has well qualified and experienced faculties having extensive expertise and experience in their chosen fields. Faculties are actively involved in researching core areas of Computer Networks, Cloud Computing, Image Processing, Machine Learning, Data Mining and Artificial Intelligence.

The department endorses Industry-Institute Interactions under a governed MHRD's IIC. Department is associated with pioneer industry players like, TCS under CSR scheme for TCS-IT Employability Program since 2016, CISCO Networking Academy and Red Hat Academy for global certification in-campus touching beyond the syllabus limits. A well-furnished and established training and placement facilities are provided under various firms like Seventh Sense, FACE Academy and regular assessments are assessed from AMCAT and Co CUBES, for the year 2017-18 and 18-19, the Training and Placement department has offered 80+ placement opportunities and support to students in various MNC companies such as TCS, Accord, Wipro, Infosys, Mphasis, Tech Mahindra and many with a success rate of 75% students landing in jobs, 20% of Higher studies and rest as entrepreneurs.

The department is recognized under the MHRD established institutional level's Institute Innovation Council (IIC) since November 2018 by Govt. of India. The IIC encourages students and faculties to emerge and innovate recent developments in research and technology. The department has organized two national level conferences and one international level conference (ICRTTEAS - 2024) and the research outcomes are streamlined and published under various peer reviewed journals. The department's contribution in research and publications is recorded and archived in various prestigious indexing services such as Science Citation Index (SCI), Web of Science (WOS) and SCOPUS. The publications are supported and published by IEEE, Springer Nature, WILEY, Elsevier and Index science.

EDITORIAL BOARD

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Dr. Syed Ariff
Principal, Dr.TTIT

CHIEF EDITOR

Dr.Geetha C Meghraj
Professor & Head

EDITOR

Prof. Ashwini S
Assistant Professor

MEMBERS

Dr.Kharmega Sundararaj
Associate Professor
Prof. Vinutha B A
Assistant Professor

VISION OF THE DEPARTMENT

“To produce highly competent and innovative Computer Science professionals through excellence in teaching training and research.”

MISSION OF THE DEPARTMENT

- To provide appropriate infrastructure to impart need-based technical education through effective teaching and research.
- To involve the students in innovative projects on emerging technologies to fulfill the industrial requirements.
- To render leadership skills and ethical responsibilities in students that leads them to become globally competent professionals.

PROGRAM EDUCATIONAL OBJECTIVES (PEO)

PEO1: To succeed in computing industry through effective analysis, design and development skills.

PEO 2: To acquire new skills to work in multidisciplinary areas with strong focus on innovation and entrepreneurship.

PEO3: To collaborate as team members and team leaders with ethics and good communication skills.

PROGRAM SPECIFIC OBJECTIVES (PSO)

PSO 1: To design and apply standard practices and strategies in software project development to solve real world problem.

PSO 2: To adapt to the future technology, to fill the research gap and become entrepreneurs.

ACTIVITIES CONDUCTED

- Organized one day panel discussion on topic “**Panel Discussion on Innovation and Startups Ecosystem Enablers in India!**” in association with the Institution's Innovation Council (IIC), Dr.TTIT September 13, 2024.
- Organized Three days Student Development Program on “**Hands-On Workshop on Internet of Things and its Application**” in association Institution Innovation Council Cell of Dr.TTIT from 28th to 30th November 2024.
- The department organised one day seminar on “**Tips for Writing Research/Technical Article**” ,in association with **Computer Society of India** and the **Institution Innovation Council Cell, Dr.TTIT**, on 6.12.2024.Dr.Shantaram Nayak, professor from RV College of Engineering, Bangalore delivered the session.
- The department organized five days faculty development program on “**Internet of Things (IoT) and its applications**” in Association with Karunadu Technology Pvt. Ltd., Bengaluru from December 30th 2024 to January 3rd 2025.

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ACCREDITED BY NBA AND NAAC WITH A GRADE

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
IN ASSOCIATION WITH
INSTITUTION'S INNOVATION COUNCIL, DTTIT
ORGANIZES

PANEL DISCUSSION WITH INNOVATION AND STARTUP ECOSYSTEM ENABLERS

ORGANIZERS
DR. GEETHA C. MEGHARAJ
HOD, CSE
PROF. DAPHNY SHALLET M
CONVENER, IIC
IIC MEMBERS
DR. MOHAMED KAREEMULLA
DR. JANSI RANIJ
PROF. SUDHAS

13.09.2024
10:30 AM

MECHANICAL SEMINAR HALL

PANELISTS
DR. NATARAJ S M
REGIONAL RESOURCE OFFICER
ADDIS ABABA
MRS. MARGARET H J
MD, SATU FOODS PVT LTD
MR. TEJASVI NAGARAJ
FOUNDER, ARBO-ENGO
CONSTRUCTION PVT LTD
PRESTIDED BY
DR. SYED ARIF
PRINCIPAL, DR. TTTT, KGP
DR. H G SHENOY
VICE PRINCIPAL OF
PRESIDENT IIC DR. TTTT
PROF. RUCKMANI DIVAKARAN
DEAN, DR. TTTT, KGT



PANEL DISCUSSION ON SEPTEMBER 13, 2024

Golden Valley Educational Trust
Dr. T. THIMMAIAH INSTITUTE OF TECHNOLOGY
Oorgaum, Kolar Gold Fields, Karnataka - 563120
(Affiliated to VTU, Belgaum, Approved by AICTE - New Delhi)
Accredited by NAAC with 'A' Grade & NBA (CSE, ECE & Mining Programs)

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
Organizes

03 Days Hand-on Workshop
Internet of Things (IoT) and It's Applications
In Association with Karunadu Technologies Pvt. Ltd., Bangalore

Er. Mahesh Deginal
Managing Director & CEO
Karunadu Technologies Pvt. Ltd.,
Bangalore

Er. Harish.N
CTO & Co-Founder
Karunadu Technologies Pvt. Ltd.,
Bangalore

Coordinator:
Dr. Kharmega Sundararaj
Associate Professor

Date:
28-11-2024 To
30-11-2024

Time:
FN : 10 AM - 01 PM
AN : 02 PM - 04 PM

Co-venor:
Dr. Geetha C. Megharaj
Professor & Head



Hands-on Workshop on Internet of Things (IoT) and it's Applications



Hands-on Workshop on Internet of Things(IoT) and it's Applications



Tips for Writing Research/ Technical Article

DR. T. THIMMAIAH INSTITUTE OF TECHNOLOGY
Oorgaum, Kolar Gold Fields, Karnataka - 563120
(Accredited By NBA & NAAC with 'A' Grade)

Department of Computer Science and Engineering


Organizes

5 Days FDP

Internet of Things (IoT) and It's Applications

In Association with Karunadu Technology Pvt. Ltd., Bengaluru


Date :
30-12-2024
To
03-01-2025



Er. Mahesh Deginal
Managing Director & CEO
Karunadu Technologies Pvt. Ltd,
Bangalore


Time :
FN: 10 AM - 01 PM
AN: 02 PM - 04 PM

Coordinators:
Dr. Kharmega Sundararaj
Associate Professor
Dept of CSE, Dr.TTIT




Er. Harish. N
CTO & Co-Founder
Karunadu Technologies Pvt. Ltd,
Bangalore

Convenor:
Dr. Geetha C. Megharaj
Professor & Head
Dept of CSE, Dr.TTIT



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WBWX+26K, Band Line Colony, Nethaji Nagar, Kolar Gold Fields, Robertsonpet,
Karnataka 563120, India
Lat 12.945033°
Long 78.248318°
02/01/25 01:10 PM GMT +05:30



FDP And Hands-on session on IoT and its Applications

WEBINAR ATTENDED

- The entire faculty from the Department of CSE participated in the Online webinar on “Lean Startup & Minimum Viable Product, Building a Career in Knowledge Management & Digital Transformation with Modern Tools” Organized by Department of CSE(AI&ML), Dr.T.Thimmaiah Institute of Technology KGF, on 25/07/2024.
- Dr.Jansi Rani J** has attended webinar given on 16 July 2024 in the topic "Principles of outcome based Education" organized by Dr. T. Thimmaiah Institute of Technology.
- Prof. Ashwini S**, has participated in 1-day Webinar on “How AI & ML are shaping the future of Civil Infrastructure Monitoring” organized by IIC-GCE Ramanagar, Karnataka held on 21st September 2024.

FDP ATTENDED

- Dr.Jansi Rani J** has participated in 2-days offline FDP on VTU Internship Program Organized by Rooman Technologies in association with Visvesvaraya technological University, Mysuru from 13th September to 14th September 2024.
- Prof. Thara Devi M** has participated in 5-days online IFDP on Machine Learning and Artificial Intelligence organized by excelr Edtech Pvt. Ltd. From 12 August to 19 August 2024 and also has participated in online course on Introduction to Machine Learning organized by NPTEL-AICTE from 20 July to 20 October 2024
- Prof. Preethi Shas** participated in AI Tools for Research organized by Dr.MGR University held on 26th June 2024. and also participated in MATH EXPO : MATHLAB organized by math works from 13 November to 14 November 2024.
- Prof. Sharmila Kumari N** has participated in 7 Days online FDP on research writing and research methodology Organized by Government College of Education, Jammu, J & K, India in Collaboration with Office of the Internationalization, Mindanao State University-Sulu,

Philippines in association with Cape Comorin Trust, India from 24.6.2024 to 30.6.2024.
Prof. Sharmila Kumari N has participated in 1 day online FDP on “How to get ready for NAAC binary accreditation system” conducted by accreditation ranking and certification network of India on Oct 21st 2024

- **Prof. Velantina V** has participated in 5 Days online FDP on Generative AI, conducted by Infosys Spring board from 18/11/2024 to 22/11/2024
- **Prof. Shalini G** has participated in 5 Day online FDP on Integration of Artificial Intelligence and IoT in agriculture sponsored by SERB in association with Alliance University
- **Prof. Shalini G** has participated in One week FDP on Machine learning and Artificial Intelligence organized by excel R and also participated in One month self paced FDP on Deep Learning organized by AICTE in association with skill dzire from 1/09/2024 to 1/10/2024
- **Prof. Divya Shree V** has participated in 5 Days online FDP on Generative AI, conducted by Infosys Spring board from 18 November to 22 November 2024 and also has participated in one month FDP on IOT organized by AICTE in association with skill Dzire from 01/09/2024 to 30/09/2024.
- **Prof. Mercy Flora Pritheba A** has participated in 5-days online IFDP on Gen AI organized by excelr Edtech Pvt. Ltd. 16 September to 20 September 2024.
- **Prof. Mercy Flora Pritheba A, Prof. Sophia, Prof. Sangeetha V, Prof. Ashwini S, Prof. Jerusha Madhurya P** participated in 5-days online IFDP on cloud architect organized by excelr Edtech Pvt. Ltd. 18 November to 22 November 2024.
- **Prof. Sophia, Prof. Sangeetha V, Prof. Ashwini S, Prof. Jerusha Madhurya P** has participated in 8-days online IFDP on Machine learning and Artificial Intelligence organized by ExcelR from 12th August to 19th August 2024.
- **Prof. Sangeetha V, Prof. Ashwini S**, has participated in 1-day online FDP on research paper writing and publishing organized by Research & development cell, ACE Engineering College, Hyderabad held on 23rd September 2024.
- **Prof. Jerusha Madhurya P** has participated in 5-days online IFDP on Gen AI and Prompt Engineering Using Microsoft Co-Pilot organized by excelr Edtech Pvt. Ltd. 16 September to 20 September 2024.

PUBLICATIONS

- **Prof. Sharmila Kumari N** published paper titled “Holistic Survey on Security in IoT Application Layer: Attacks, Protocols, and Applications” in the Journal IEEE Access on 16.09.2024.
- **Prof. Sharmila Kumari N** published paper titled “Face Recognition Based Attendance System with Effective Time Approach” in the Journal Swanirman Sunirmit Publications of Research in July 2024.
- **Prof. Sharmila Kumari N** presented paper titled “Securing IoT: Designing a Resilient Probing Route Against Sinkhole Attacks” in the International Conference on Data Science & Exploration in Artificial Intelligence (CODE-AI: 2024) from July 3 to 4, 2024.
- **Prof. Sharmila Kumari N** presented paper titled “Enhanced Hybrid Deep Learning Model for Distributed Denial of Service Attack Detection in IoT Environments” in the International Conference on Distributed Systems, Computer Networks and Cybersecurity. From Sept 20th to 21th 2024.

PATENT FILED & PUBLISHED

- **Dr. G. Kharmega Sundararaj, Sharmila Kumari N, Mercy Flora Pritheba A, Parvathi T.R., Preethi S and Velantina.V** published a Design Patent with an Article Name of “IoT Based Device for Measuring Sugar Level”, and also received Certificate for Registration (25-07-2024).

FACULTY ACHIVEMENTS

- **Dr. G. Kharmega Sundararaj** has been in Editorial Board Members for the title of the Book on “Futuristic Trends in Artificial Intelligence”, Volume 3, Book 11, 2024, IIP Series (ISBN: 978-93-6252-446-1).
- **Dr. Jansi Rani J** has presented a webinar on “**Research in Image Captioning**” during a one-week FDP conducted by St. Joseph's College of Engineering and Technology on September 28th, 2024.
- **Prof. Sharmila Kumari N** contributed as Reviewer for 2nd IEEE International Conference on Recent Advance in Information Technology for Sustainable Development- Nov-2024, Organized by Manipal Institute of Technology, Manipal.

FACULTY PRESENTATIONS

- **Prof. Parvathi T.R. and Prof. Jerusha Madhurya** presented a session on “**Introduction to C Programming**” during the first-year induction program on October 14th, 2024.
- **Prof. Ashwini S and Prof. Swetha** presented a session on “**Introduction to IoT**” during the first-year induction program on October 15th, 2024.

FACULTIES CERTIFICATION COURSES

- **Dr. G. Kharmega Sundararaj** Completed the Course on “Micro-controller & Coding (Centrado Kit)” in Infosys Springboard on 11-07-2024.
- **Dr. Jansi Rani** has completed the course “computer vision, cloud computing”, for duration of 12 Weeks offered from SWAYAM National Program of Technology Enhanced Learning.
- **Dr. Jansi Rani** has completed the course “computer vision, cloud computing”, for duration of 12 Weeks offered from SWAYAM National Program of Technology Enhanced Learning.
- **Prof. Thara Devi M** has completed the course “Introduction to Machine Learning”, for duration of 12 Weeks offered from SWAYAM National Program of Technology Enhanced Learning.
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INITIATION OF DIGITAL AUTOMATION

The Department initiated three automation processes under the guidance of Dr. Geetha C Megharaj.

- **Dr. Geetha C Megharaj developed Leave Management System (LMS)**
The Leave Management System (LMS) is automated. The objective is to streamline and automate the process of applying and managing faculty leave. The system covers the entire workflow, starting from the faculty member submitting a leave application to the HOD (Head of Department), then to the Principal, Substitute Faculty, and finally to the establishment. This

automation aims to make the leave application process more efficient, transparent, and manageable.

- **Dr. Geetha C Megharaj developed Students' Progress Report System (SPRS)**

The Students Progress Report System ensures timely communication of academic performance such as attendance, Internal test performance and semester end VTU exam results of students to their parents or guardians.

- **Course Feedback System (CSF) Developed by Dr. M. Kareemulla**

The Course Feedback System (CSF) aims to automate manual process of collecting and analysing course feedback from students through an online system and generating reports. **Memorandum of Understanding (MoU).** Memorandum of Understanding between Dr T Thimmaiah Institute of Technology, KGF and Karunadu Technologies Private LTD Bangalore has been signed for Skill Development, Internships, Workshops and Related services on 4.11.2024

CENTER OF EXCELLENCE

The **Center of Excellence (CoE) for the Internet of Things (IoT)** has been established in our department to foster innovation, research, and skill development in the rapidly evolving IoT landscape. The CoE serves as a hub for cutting-edge projects, interdisciplinary collaboration, and industry partnerships, driving technological advancements and practical applications in IoT.

Objectives of the CoE for IoT:

Innovation & Research: Develop and promote state-of-the-art IoT solutions through advanced research and experimentation.

Skill Development: Provide students, faculty, and professionals with hands-on training, workshops, and certifications in IoT technologies.

Industry Collaboration: Partner with leading tech companies, startups, and research institutions to bridge the gap between academia and industry.

Smart Solutions: Design and implement IoT-based solutions for smart cities, healthcare, agriculture, manufacturing, and other domains.

Incubation & Startups: Support entrepreneurial initiatives by offering mentorship, funding guidance, and prototyping facilities.

Sustainability & Security: Focus on sustainable IoT practices and robust cybersecurity measures to ensure responsible technology deployment.

STUDENTS ACHIVEMENTS

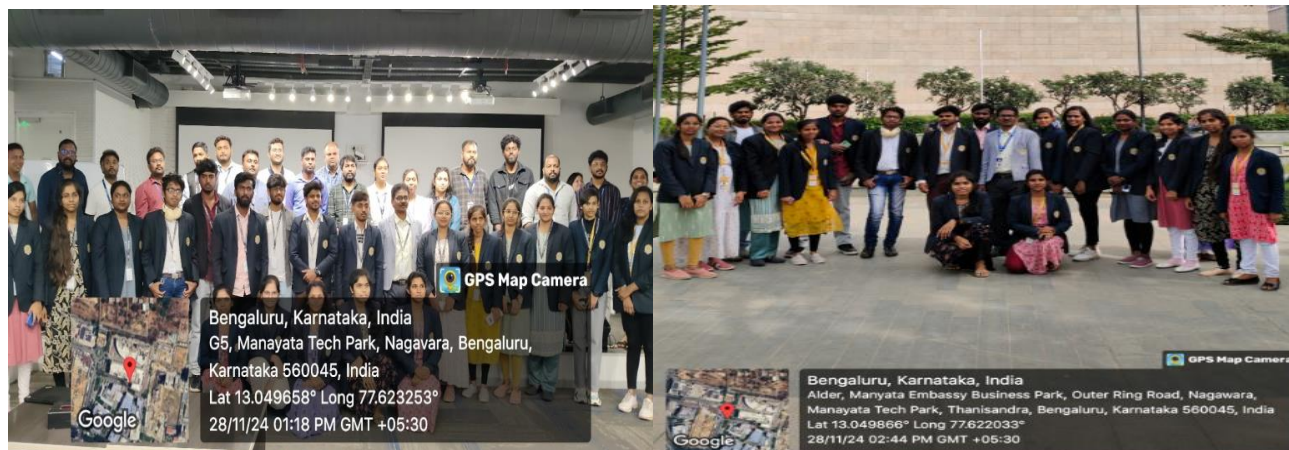
In Academic:

Even Semester VTU Exam Result (June 2024)

Year	Semester	Number of Students Appeared	Number of Students Pass	Students Pass Percentage
2 nd	4	100	78	78%
3 rd	6	101	86	85%
4 th	8	80	80	100%

Industrial Visit

- Organized an industrial visit to Cognizant Technology solutions (CTS, Manyata Tech Park) for the final year students on November 28th, 2024. Total 20 final year students with Dr.Kharmega Sundararaj, Professor, CSE Department visited.



Industrial Visit

Department Club Activities:

INFINOX Technical Club has organized 'Technical Dumb Charades' on 21/11/2024 (Thursday). The event was coordinated by student office bearers Bhavesh S Jain (President), Hemapriya (Vice-President), Vishnu Varshith (Secretary), Lokesh V N (Treasurer), along with CSE faculties and the event coordinators Dr. Kharmega Sundararaj G, and Prof. Tharadevi M, Department of Computer Science and Engineering. Students from the 5th and 7th semester students of department of computer science and engineering and Department of electronics and communication have participated in the event. The event aims to enhance the communication skills and to showcase the technical knowledge on diverse technical topics.



INFINOX Technical Club has organized 'Tech Triathlon' on 06/12/2024 (Friday). The event was coordinated by staff coordinators, Prof. Thara Devi M, Assistant Professor, Department of CSE, Prof. Preethi S, Assistant Professor, Department of CSE and student coordinators, Bhavesh S Jain, Lokesh V N, Vishnu Varshith R, Hema Priya, Firoz Khan. Students from the 3rd, 5th and 7th semester participated in the event.



INFINOX Technical Club has organized 'Project Exhibition (Expo)' on 09/12/2024 (Monday). The event was coordinated by staff coordinators, Prof. Thara Devi M, Assistant Professor, Department of CSE, Prof. Shalini G, Assistant Professor, Department of CSE and student coordinators, Bhavesh S Jain, Lokesh V N, Vishnu Varshith R, Hema Priya, Firoz Khan. Students from the 5th semester participated in the event exhibiting around 20 projects from various domains of CSE.



Students Certification Courses:

Students have registered and completed many courses offered by SWAYAM National Program of Technology Enhanced Learning (NPTEL).

- Swathi R from 5th semester has completed the course “Introduction to Cell Biology” for duration of 8 Weeks.
- Pradeep kumar, and Manjunatha R, from 7th semester has completed the course “Cyber Security” for duration of 12 Weeks.
- Swathi R ,Varsha , Shresta, Shreeya, Sushmitha, Jawad Ahmed, Zubair, Vishwas, Hithesh, Sharan Completed a 12-week NPTEL course on *Cyber Security*, in the Exam conducted during October 2024

Sports Activities:

- Mounika, 3rd sem CSE, participated in the Go - Green Marathon, organized by Rotary Club, KGF on 2nd October.
- Saqeeb Khan ,5th Sem CSE, won the Silver Medal in the 800m event at the District level in Kolar, in the District and Division Level Dasara Sports Meets 2024 held on 27th September 2024
- Sanjay S has been selected as a bowler for the VTU cricket team and will represent VTU in inter-university cricket competitions for the year 2024-25.



Saqueeb Khan, won the Silver Medal in the 800m event at the District level in Kolar



Yuvaraj T - ME

Sanjay S - CSE

Selected Bowlers for VTU Cricket Team 2024-25

Sanjay S has been selected as a bowler for the VTU cricket team