DR.T. THIMMAIAH INSTITUTE OF   TECHNOLOGY

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(Affiliated to VTU, Belgaum, Approved by AICTE - New Delhi , ISO 21001-2018 Certified)

DEPARTMENT OF COMPUTER SCIENCE & ENGINERRING

Zbyte-CPNews   2020 -21

PRESIDENT MESSAGE

It is indeed a proud moment that the Computer Science and Department has initiated to bring out its Third edition of "Zbyte-CP". When the world is witnessing the deadly Covid-19 pandemic, timing of the newsletter becomes increasingly important. The students also are facing the challenge of the new normal of "Online teaching and learning mode" of education. 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 wholeheartedly thank them for presenting the Third edition of Newsletter in a very informative and attractive way. This Newsletter consists of various articles on current trends meticulously curated by our editorial team. We hope it will inspire you and enrich you with practical knowledge in the field of Computer Science and Engg. Once again, deepest gratitude to everyone for making the newsletter a great source of learning.

AT A GLIMPSE

Webinar / FDP Attended

E-Quiz and Webinar Conducted

Publications

Faculty Achivements

Students Achivements

PATRONS

Dr. T Venkat Vardhan

President, GVET

Sri. Raoul Kengal Vardhan

Vice President, GVET**Dr.**

Syed Ariff Principal, Dr.

TTIT

EDITORIAL BOARD

Prof. Hamsalatha

Assistant Professor

HEAD OF THE DEPARTMENT

Dr. S Sreedhar Kumar

 Professor & HOD

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 90 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 research in 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 CoCUBES, 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 - 2019) 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 Inderscience.

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)

PEO 1: 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.

PEO 3: To collaborate as team members and team leaders with ethics and good communication skills.

PROGRAM SPECIFIC OBJECTIVES (PSO)

PSO1 : To design and apply standard practices and strategies in software project development to sole real world problem.

PSO2 : To adapt to the future technology, to fill the research gap and become entrepreneurs.

WORKSHOP / FDP ATTENDED

- 3rd National Level three days Interactive Webinar "Latest Trends in Data Science & Cyber Security" was conducted from 9th – 11th July 2020.
- 4th National Level four-day Webinar on: Emerging Trends in IT Industry "was conducted from 3rd – 6th August 2020.
- Organized two days 3rdInternational Conference on Recent Trends in Technology, Engineering and Applied Science (ICRTTEAS-20), Dr. T Thimmaiah Institute of Technology, KGF, 19th-20thJuly 2021.
- Dr. Sreedhar Kumar S has participated in the one-month Innovation Ambassador training (Foundation Level) program conducted by MoE's Innovation Cell & AICTE during the period from 30th June - 30th July 2021 in online mode.
- Dr. Sreedhar Kumar Shas participated in the One-day seminar on "IPR's and IP Management for Startup" conducted by Dr.TThimmaiah Research & Innovation Council in association with IIC held on 26th Feb 2021.
- Dr. Sreedhar Kumar Shas participated in the webinar on "How to plan for Startup Legal and Ethical steps" conducted by Dr. T. Thimmaiah Research & Innovation Council in association with Institution's Innovation Council held on 26th March 2021.
- Prof.Manjunath Singh H. has attended Two day FDP on "MOBILE APPLICATION DEVELOPMENT" from 8th-9th March 2021 at Cambridge Institute of Technology, Bangalore.
- Dr. Sreedhar Kumar Shas participated in the IETE sponsored One Day online Webinar on "FPGA Based Array Controller for Active Phased Array Radar" organized by the Departments of Electrical and Electronics Engineering and Electronics and Communication Engineering, Dr TTIT, held on 10th April 2021
- Dr. Sreedhar Kumar Shas participated in the online seminar on "Successful startup Founder ("Entrepreneur In- Campus")" conducted by Dr. T. Thimmaiah Research & Innovation Council in association with IIC Scheduled on 16/04/2021.
- Prof.Shalini G. has also attended ATAL online FDP on "cyber security" from 18-1-2021 to 22-1-2021 at university college Engineering,Osmania University.
- Prof.Leelavathy S.R. has attended online webinar on "Teaching the impact of vaccine roll-out for Business & International Relations -Asia pacific" on 24th June by Emerald Publishing.

- Prof.Revathi S. has attended ATAL online FDP on "Data Sciences " from 1-2-2021 to 5-2-2021 at Dr.Ambedkar Institute of Technology.
- Prof.Sudha V. has attended ATAL online FDP on "Cyber Security" from 18-1-2021 to 22-1-2021 at St.Joseph's college of Engineering.
- Dr. Sreedhar Kumar S has participated in the one-month Innovation Ambassador training (Foundation Level) program conducted by MoE's Innovation Cell & AICTE during the period from 30th June - 30th July 2021 in online mode.
- Dr. Sreedhar Kumar S has participated in the two days national level FDP on "Pedagogy of Research Writing" organized by KhandelwelVaish Girls Institute of Technology, Jaipur, from 3rd to 4th Dec 2021
- Dr. Sreedhar Kumar Shas participated in the One-day seminar on "IPR's and IP Management for Startup" conducted by Dr.TThimmaiah Research & Innovation Council in association with IIC held on 26th Feb 2021.
- Dr. Sreedhar Kumar Shas participated in the webinar on "How to plan for Startup Legal and Ethical steps" conducted by Dr. T. Thimmaiah Research & Innovation Council in association with Institution's Innovation Council held on 26th March 2021.
- Dr. Sreedhar Kumar Shas participated in the IETE sponsored One Day online Webinar on "FPGA Based Array Controller for Active Phased Array Radar" organized by the Departments of Electrical and Electronics Engineering and Electronics and Communication Engineering, Dr TTIT, held on 10th April 2021

E-QUIZ AND WEBINAR CONDUCTED

- 4th National Level four-day Webinar on: "Emerging Trends in IT Industry "was conducted from 3rd – 6th August 2020.

- 4th National Level one-day Webinar on: "CSI chapter inauguration "was conducted on 2nd November 2020.

- Department of CSE has organized three days national level virtual workshop for students and faculty members with entitle **"Overview of machine Learning & Artificial Intelligence"** in association with CSI Student Branch and IIC Cell of DrTTIT from 11th to 13th November 2020 including two resource persons namely Dr.Andhe Dharani, Professor & Director Dept. Of MCA, RV College of Engineering, Banglore and Dr Vijaya Lakshmi Associate Professor,Dept. Of MCA, RV College of Engineering ,Banglore have presented their respective topics in this workshop.

- Department of CSE has organized three days national level virtual workshop for students and faculty members with entitle **"Data Structures and Applications"** in association with CSI Student Branch and IIC Cell of DrTTIT from 25th to 27th November 2020 including two resource persons namely Prof. Ravi Kumar, Associate Professor, Department of CSE East Point College of Engineering, Bangalore and Prof.Gayathri, Assistant Professor, Department of Mathematics East Point College of Engineering, Bangalore have presented their respective topics in this workshop.

- "Computing Systems" from 17/05/2021 to 19/05/2021

- "Programming Languages" from 09/05/2021 to 11/05/2021

- "Computer basics" from 20/05/2021 to 22/05/2021

- Dr.S Sreedhar Kumar .HOD, has published a research paper on "A New Approach of Multilevel Unsupervised Clustering for Detecting Replication Level in Large Image Set", Procedia Computer Science (Elsevier), vol. 171, April 2020, Indexed in Scopus, Impact Factor: 0.683.
- Dr. S. Sreedhar Kumar HOD, has published a research paper on "Two Phase Cluster Validation Approach Towards Measuring Cluster Quality in Unstructuredand Structured Numerical Datasets", in the journal of Ambient Intelligence and Humanized Computing (Springer), Indexed in SCI, Impact Factor: 4.85, Q1 Journal, September 2020.
- Dr.S Sreedhar Kumar S, has published his research paper with entitle"Real Time Investigation Model on Unstructured Oncological MR Image Cluster Identification Using Different Improved Unsupervised Clustering Technique", Computer, Materials & Continua, Indexed **in SCI**, Impact Factor: 4.853, ISSN: 1546-2226, **Accepted on 10 Dec 2021**
- Dr.S Sreedhar Kumar , has published his research paper with entitle "Two Phase Cluster Validation Approaches Towards Measuring Cluster Quality in Unstructured and Structured Numerical Datasets", Journal of Ambient Intelligence and Humanized Computing (Springer), vol.12, pp. 7581–7594, Indexed **in SCI, Impact Factor: 7.04**, ISSN: 1868-5145, Jan 2021.
- Dr.S Sreedhar Kumar , has published his research paper with entitle "Comparative Study of Feature Extraction Using Different Transform Techniques in Frequency Domain", Advances in Automation, Signal Processing, Instrumentation and Control, Springer LNEE, vol. 700, pp. 2835-2846, Indexed in **Scopus**, March 2021.

Paper Presented @ International Conference by Faculties:

- Dr.S Sreedhar Kumar , has presented his research paper with entitle "Improving Medical Image Pixel Quality Using MICQ Unsupervised Machine Learning Technique", International Conference on Computing, Communications & Cyber Physical System", Reva University, Bangalore, 18th – 19th November 2021.
- Dr.S Sreedhar Kumar , has presented his research paper with entitle, "An Improved Technique for Identifying Fake News on Social Media Network Using Supervised Machine Learning Concepts", 3rd International Conference on Recent Trends in Technology, Engineering and Applied Science (ICRTTEAS-2019), Dr. T Thimmaiah Institute of Technology, KGF, 19th to 20th July **2021.**
- Dr.S Sreedhar Kumar , has presented his research paper with entitle, "Human Activity Recognition System", 3rd International Conference on Recent Trends in Technology, Engineering and Applied Science (ICRTTEAS-2019), Dr. T Thimmaiah Institute of Technology, KGF, 19th to 20th July **2021.**
- Dr.S Sreedhar Kumar , has presented his research paper with entitle, "An Improved Hand Written Digits Recoganition Using Histogram and Machine Learning Techniques, 3rd International Conference on Recent Trends in Technology, Engineering and Applied Science (ICRTTEAS-2019), Dr. T Thimmaiah Institute of Technology, KGF, 19th to 20th July **2021.**
- Dr. S Sreedhar Kumar , has presented his research paper with entitle, "An Enhanced Approach of Identifying Distinct Clusters Over the Color Image Using Agglomerative Clustering Technique", 3rd International Conference on Recent Trends in Technology, Engineering and Applied Science (ICRTTEAS-2019), Dr. T Thimmaiah Institute of Technology, KGF, 19th to 20th July **2021.**

Funding Project Details

- Funding Project Proposal with entitled " Artificial Intelligence, Machine Learning   Integrated Advanced Internet of Things (IOT)" with budget   (Rs. 19.74L) **submitted** to Modrop (AICTE), Government of India on January 2021.

- Funding Project Proposal with entitled "An Improved System for Video Retrieval From Large Video Set Through Image Key Frame Using Improved Machine Learning Concepts" with budget (Rs. 14.50L) **submitted** to VTU Karnataka, Research Grants Scheme 2021.

- Funding Project Proposal with entitled "An Investigation of Effectively Utilizing the Memory Space in Various Systems for Identifying and Ignoring Highly Replicated Images Over the Large Image Set Using Multilevel Improved Unsupervised Clustering Techniques " with budget (Rs. 14.50L) **submitted** to VTU Karnataka, Research Grants Scheme 2021.

FACULTY ACHIVEMENTS

- Dr.S Sreedhar Kumar , has Won the Best **Paper Excellence Award** @ 3rd International Conference on Recent Trends in Technology Engineering and Applied Science (ICRTTEAS-2021)with entitle of "**An Improved Technique for Identifying Fake News on Social Media Network Using Supervised Machine Learning Concepts**", Organized by Dr T Thimmaiah Institute of Technology, KGF, and 19th-20th July 2021.
- Prof.Shalini G. has completed NPTEL course on "Cloud computing and Distributed Systems" and has secured Elite certification.
- All faculty members participated in various roles in International conference on Recent Trends in Technology, Engineering and Applied Science- ICRTTEAS 2021 held virtually on 19th and 20th July 2021.
- Prof.Manjunath Singh H presented a webinar on "Features and significance of server side programs" in Dr.TTIT Lecture series 2021 on 17th June.
- Prof.Punitha F. presented a webinar on "ADAS – Advanced Driver Assistance Systems" in Dr.TTIT Lecture series 2021 on 24thJune.
- Prof.Thara Devi M. presented a webinar on "Importance of Graph Data Structures" in Dr.TTIT Lecture series 2021 on 8th July.

Awards Received by Faculties

- Dr. S Sreedhar Kumar , has Won the Best **Paper Excellence Award** @ 3rd International Conference on Recent Trends in Technology Engineering and Applied Science (ICRTTEAS-2021)with entitle of "**An Improved Technique for Identifying Fake News on Social Media Network Using Supervised Machine Learning Concepts**", Organized by Dr T Thimmaiah Institute of Technology, KGF, and 19th-20th July 2021.

STUDENTS ACHIVEMENTS

- The Final year students they have presented their 24 projects in our 3rdInternational Conference on Recent Trends in Technology, Engineering and Applied Science (ICRTTEAS-2019), Dr. T Thimmaiah Institute of Technology, KGF, 19th to 20th July 2021.
- The final year students namely Ms. Mamtha CH, Mr. Avinash, Mr. ShoaibNumaanulla and Ms. Vaishnavi have been presented their project under the guidance of Dr. Sreedhar Kumar S with entitle "An Improved Technique for Identifying Fake News on Social Media Network Using Supervised Machine Learning Concepts" and won the first prize at the department level in the Inter College Project Expo-2021 was organized by DrTTIT, KGF on 4th August 2021.