

Byte MAGAZINE(2022-2023) Computer Science & Engineering Volume 3,Issue 3



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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

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Principal's Message

Dear Readers,

I am delighted to welcome you to the Third issue of "BYTE" student's Technical Magazine, a technical publication that showcases the latest developments and innovations in Computer Science and Engineering. I would like to congratulate and appreciate the efforts of Dr. S Sreedhar Kumar, Head of the Department, and his editorial team for this magazine. They have done a commendable job in bringing out this issue, which features articles on topics for the overall development for the student's fraternity. The magazine also highlights some of the achievements and activities of our students, faculty and industry partners of Computer Science and Engineering Department. I hope you enjoy reading this magazine and find it informative and inspiring. I urge you to keep learning and exploring new horizons in your field. Computer Science Engineers are well-positioned in using technology to solve crucialengineering issues and improve the living conditions of the modern world making things more efficient. Hence, a great opportunity to make a positive impact on the society and environment.

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Dr. Syed Ariff Principal Dr. T. Thimmaiah Institute of Technology, KGF

HOD of CSE Department Message

From the Editor's Team

Dear Readers,

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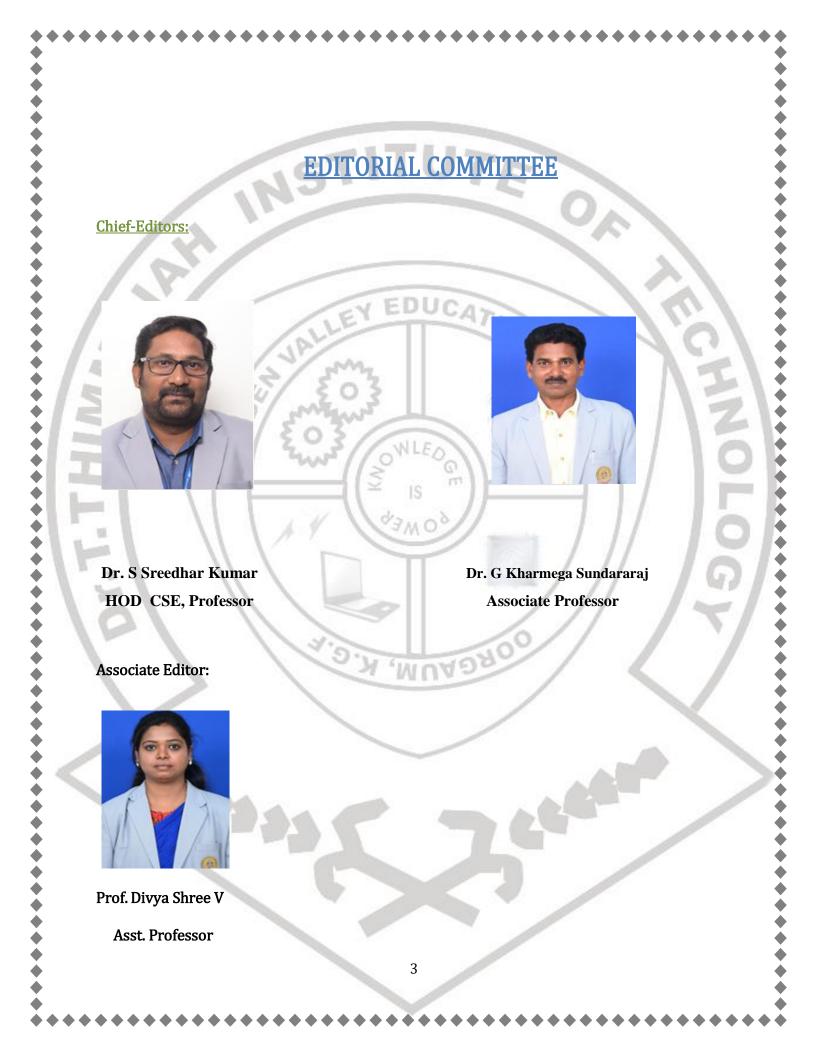
I am delighted to welcome you to the Third Issue of "BYTE" Technical Magazine, a student- led publication that showcases the latest developments in of Computer Science and Engineering field. This magazine is a platform for our students, faculty and industry partners to share their insights, experiences and achievements in of Computer Science and Engineering. In this issue, you will find articles on topics such as Technical publications, students and faculty achievements. You will also learn about some of the exciting projects and activities that our department is involved in, student competitions programs. I would like to thank the editorial team for their hard work and dedication in preparing this magazine. I would also like to thank all the authors who contributed their valuable content to this issue. Without their efforts, this magazine would not have been possible. I hope you enjoy reading this magazine and find it informative and inspiring. I look forward to hearing your feedback and suggestions for future issues. Together, we can make this magazine a success and a source of pride for our department and our profession.

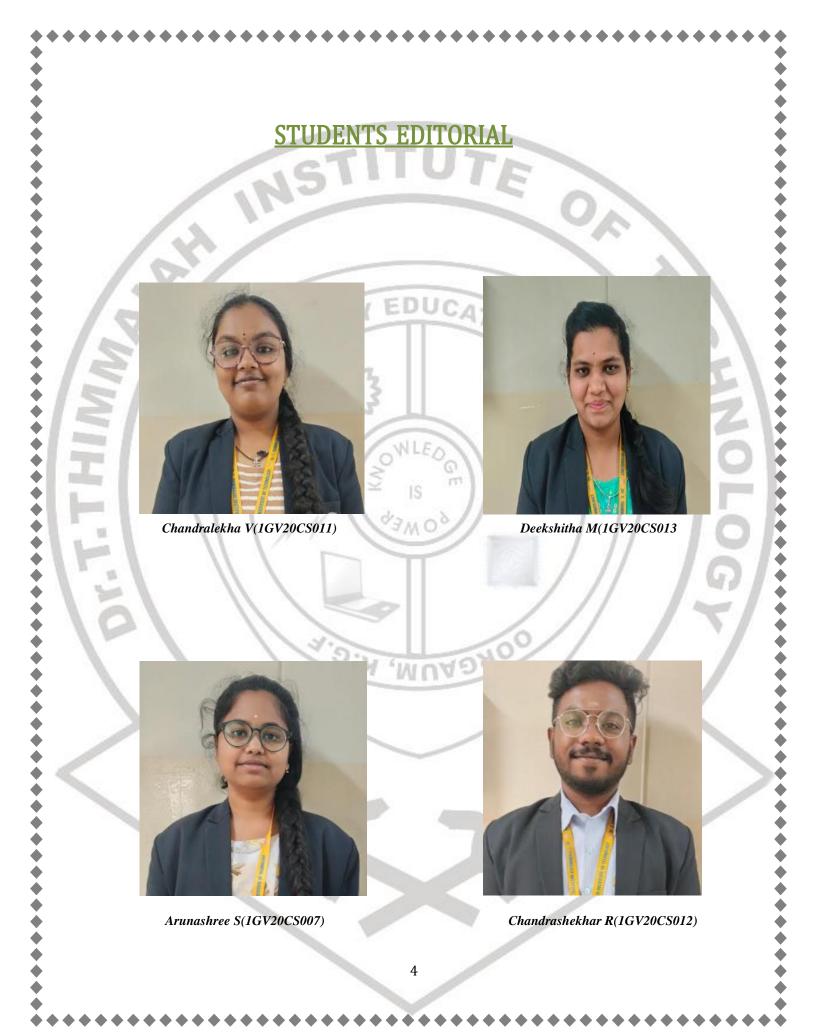
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Sincerely,

Dr. S Sreedhar Kumar

Head, Department of Computer Science and Engineering





DR. T. THIMMAIAH INSTITUTE OF TECHNOLOGY

VISION

To produce technically competent engineers having innovative skills positive attitude, leadership and professional ethics, with a focus on developing sustainable and new technology.

MISSION

• Create a conducive environment for teaching, learning and innovation by providing state of the art infrastructure.

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• Learn sustainable and new technologies through industry institute collaborations.

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• Produce technically competent engineers with ethics, discipline and social consciousness through holistic education.

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

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

VISION

MISSION

To achieve the vision, the department will

- 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.



STUDENTS ACTIVITIES AND THEIR ACHIEVEMENTS

1. Eduskil virtual Internship

- 135 students completed virtual Internship provided by Eduskil cohort5 during May- July 2023 and September-November 2023.
 - Cloud Virtual Internship 12
 - AI-ML Virtual Internship 55
 - Cyber Security Virtual Internship 29
 - Process Mining Virtual Internship 02
 - Robotic Process Automation 05
- Networking Security Associate

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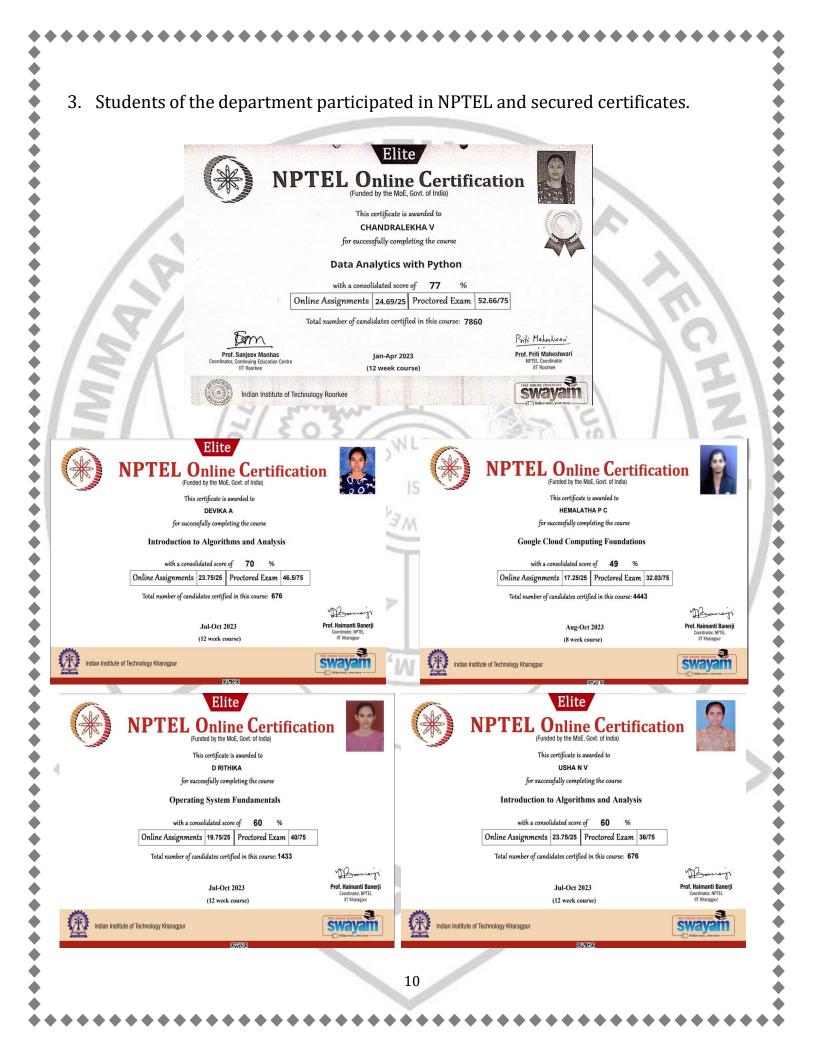
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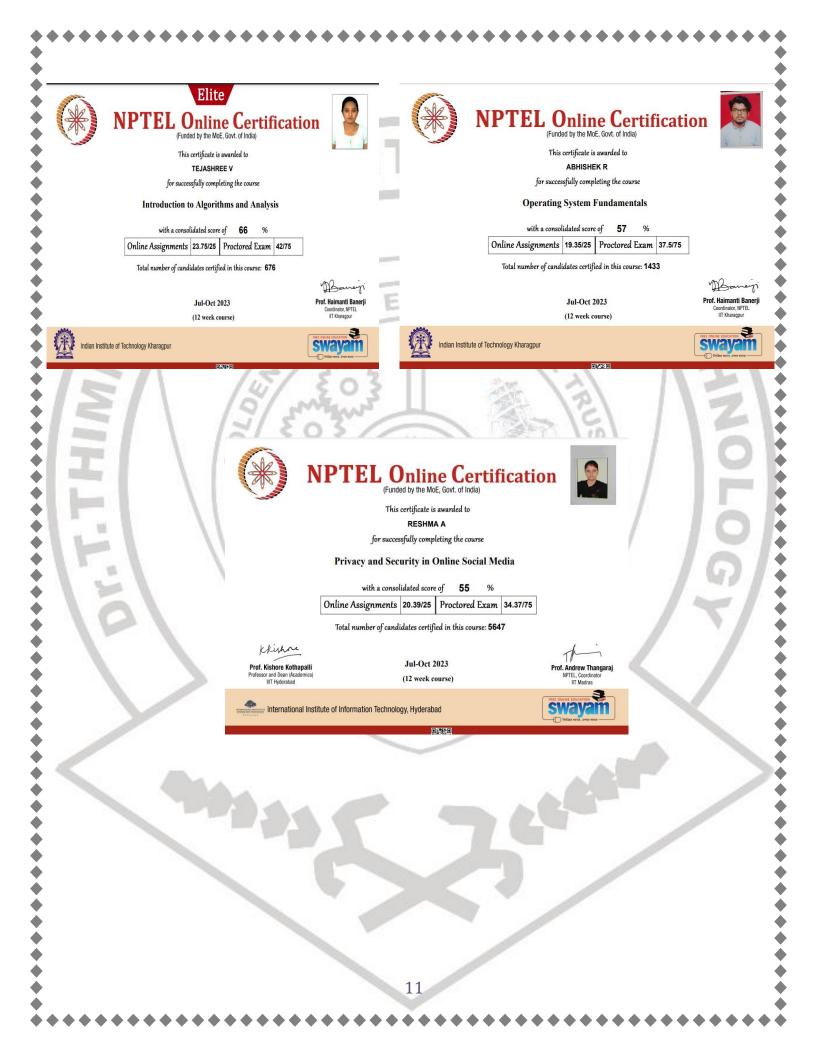
- Professional Internship 10
- Embedded System Developer 04
- Data Analytics Internship 15
- Android Developer -03

Anusha K placed as Associate Analyst for Tech Mahindra through Eduskil Internship.

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5. *Our 3rd/B semester student Mr. Vishwas K P* has participated in 26thNational Karate Event 2022 held at Gurugram, Haryana and won award with entitle "National Sport Karate Championship" which organized by Ashish Martial Arts Academy, Karnataka during period from 1st to 4th of December 2022.

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PLACEMENT DETAILS

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SL.NO	<mark>USN</mark>	NAME	DEPARTMENT	COMPANY	BATCH (2019- 2023)
1	1GV19CS088	SYED IBAD ULLA	CSE	BYJUS	2023
2	1GV19CS067	RUBICA RANI R	CSE	KPMG	2023
3	1GV19CS046	NAGARAJ VASAND	CSE	Code Decoder Developer	2023
4	1GV19CS006	ANUSHA K	CSE	Tech Mahindra	2023
5	1GV19CS066	RITU RANI B	CSE	Oappsnet India Pvt Lt	2023
6	1GV19CS083	SNEHA K	CSE	Sonata	2023
7	1GV19CS093	YASHWANTH SINGH B	CSE	Oappsnet India Pvt Lt	2023
8	1GV19CS055	POORNIMA N	CSE	Accenture	2023
9	1GV19CS045	NAGA SHILPA	CSE	TCS	2023
10	1GV19CS036	KRISHNA PRABHA	CSE	PEPPERL+FUCHS	2023
11	1GV19CS047	NEHA M	CSE	Mphasis	2023
12	1GV19CS024	HARINA SREE M	CSE	Oappsnet India Pvt Lt	2023
13	1GV19CS004	AISHWARYA	CSE	DNA Networks	2023
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Industrial Visit

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1.The Department of CSE has organized two days industrial visit for final year 7thsemester students along with the staff members Dr.G KharmegaSundararaj, Mrs. Sumalathaand Mr. Nandhakumar respectively and they are visited two IT industries in Chennai namely **Imarticus Learning Pvt Ltd and KaaShiv Info Tech respectively from 8th and 9th of December 2022.** Mr. Bharani Kumar, Senior Manager from Imarticus Learning Pvt Ltd and Mr. J. VenkatesanPrabu, Managing Director KaaShiv from Info Pvt Ltd , Chennairespectively they have presented their companies activities and product details to students.





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Department of CSE has organized Two Days Industrial Visit for Final Year 7th Semester Students to IT Industries in Chennai from 8th to 9th of December 2022 with 50 Students and Three Teaching and Non Teaching Staff Members.

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2. The Department of CSE has organized one day industrial visit for 4th semester students along with the Teaching staff members Dr. G Kharmega Sundararaj, Prof. Mercy Flora Pritheba, Prof.Apoorva& Non-Teaching staff members, Mrs. Sumalatha and Mr. Vaidheeshwaran, Mrs. Sharon Princy respectively and they are visited one day IT industries in Imarticus Learning Pvt Ltd, 421, 2nd & amp; 3 rd Floor, Opp. Koramangala Indoor Stadium, 6 th Block, Koramangala, Bengaluru - 560 016

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Department of CSE has organized One Day Industrial Visit for Second Year 4th Semester Students to IT Industries in Koramangala, Bengaluru on 2nd Sept 2023 with104 Students and Three Teaching and Three Non Teaching Staff Member.

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Workshops/FDP

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- Department of CSE has organized five days national level virtual workshop for students and faculty members with entitle "Real Time Application for Block Chain and IOT (RTABC & IOT N22)" in association with CSI Student Branch and IIC Cell of DrTTIT from 6th to 11th of November 2022 including two resource persons namely Dr. R. Uma Mageswari, Associate Professor, Department of CSE, Vardhaman College of Engineering, Hyderabad and Dr. ShanthiMakka, Professor, Department of CSE, Vardhaman College of Engineering, Hyderabadhave presented their respective topics in this workshop.
- Department of CSE has organized five days national level virtual workshop for students and faculty members with entitle "Aspects on Computer Networks, Database Applications Development & Turing Machines" in association with CSI Student Branch and IIC Cell of DrTTIT from 6th to 10th of December 2022 including three resource persons namely Dr.K.Thirumoorthy, Assoc.,Prof.,Dept.of CSE, MepcoSchlenk Engineering College,TN, Dr.N.Umakanth,Asst .Prof.,Dept CSE MepcoSchlenk Engineering College,TN, Dr.B.SelvaKumar,Asst.Prof.,Dept of CSE, MepcoSchlenk Engineering College,TN they 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 "Cloud Computing And It's Industrial Application's" in association with CSI Student Branch and IIC Cell of DrTTIT from 27 th to 29 th of April 2023 including two resource persons namely Dr. Dr. Jayasimha S R, Assistant professor, Department of MCA, RV College of Engineering, Bangalore and Prof. John Bennet Assistant Professor, Department of CSE, Presidency University, Bangalore have presented their respective topics in this workshop.
- Department of CSE has organized five days national level virtual workshop for students and faculty members with entitle "Recent Trends on IT Industry" in association with CSI Student Branch and IIC Cell of DrTTIT from 20 th to 24 th of June 2023 including five resource persons namely Dr. Manju Prasad B, Associate Professor,Department of ISE, GSSSIETW, Mysore, Dr. Meenaksh iMalik, Assistant Professor(Selection Grade),Department to CSE, The North Cap University, Gurugram, Dr.A.Rehash Rushmi Pavitra, Associate Professor, Department of AI and DS, Sri Sai Ram Engineering College, Chennai, TN, Dr. R. Saravanan, Professor & amp; Head Department of CSE,Vel Tech Multi Tech Dr.Rangarajan & amp; Dr. Shakunthala Engineering College, Chennai, TN , Dr. D. Stalin David, Associate Professor Departmentof IT, VelTech Multi Tech , Dr. Rangarajan & amp; Dr.Shakunthala Engineering College, Chennai,TN they have presented their respective topics in this workshop.
- Department of CSE has organized Six days FSDP on title "Recent Trends on Embedded System & OS Development" in association with CSI Student Branch and IIC Cell of DrTTIT from 28thAug to 2nd of Sept 2023 including two resource persons namely Dr. G. Hemanth Kumar, Assistant professor, Department of ECE, Reva College of Engineering, Bangalore and Dr.A.Jaya Mabel Rani, Assistant Professor, Department of CSE,Saveetha University, Chennai have presented their respective topics in this workshop.

TECHNICAL ACHIVEMENTS OF THE FACULTIES

 Dr. Sreedhar Kumar S has published his research manuscript with entitle,"An Approach For Improving MR Image Pixel Quality Using Unsupervised Clustering Methods ",Malaysian Journal Of Computer Science, Indexed In Scopus & Q4, pp. 53-64, Impact Factor : 6th Dec 2022.

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- Dr. Sreedhar Kumar S has published his research manuscript with entitle ,& quot;An Approach For Improving MR Image Pixel Quality Using Unsupervised Clustering Methods ",Malaysian Journal Of Computer Science ,Indexed In Scopus & Q4 , pp. 53-64, Impact Factor : 6 th Dec 2022.
- The faculty members Dr. Sreedhar Kumar S, Prof. Velantina V, Prof. Nishabai and Prof. Sangeetha have joined together and published their research article with entitle "An Intensified System for Identify Distinct Clusters over the Video using Improved Semi-Supervised Clustering Technique & quot;, Procedia Computer Science (Elsevier), Indexed in Scopus, Impact factor :0.64,ISSN :1877-0509, Dec 2022.
- **Dr. Sreedhar Kumar S** has published his research manuscript with entitle,& quot;An **Approach For Improving MR Image Pixel Quality Using Unsupervised Clustering Methods** ",Malaysian Journal Of Computer Science ,Indexed In Scopus & Q4 , pp. 53-64, Impact Factor : 6 th Dec 2022.
- Prof . Preethi S has published her research paper with entitle **"Deep Learning with Block chainTechnology for Secure Data Management in Healthcare Sector using Hybrid Elliptic Curve-Rivest-Shamir-Adleman Cryptography"**, Cybernetics and Systems An International Journal, Vol no. 53, Issue 8 (2022).
- Dr. Sreedhar Kumar S and All Faculty members of CSE Deprtment has participated in the six days days national level virtual workshop on "Real time application for Block chain and IOT (RTABC & IOT N22)" in the association with CSI Student Branch and IIC Cell of DrTTIT from 6th to 11th November 2022.
- Dr. Sreedhar Kumar S and All Faculty members of CSE Deprtment has participated in the five days national level virtual workshop on "Aspects on Computer Networks, Database Applications Development & Turing Machines 2022-2023" in association with CSI student branch and IIC cell of DrTTIT, KGF from 6th to 10th December 2022.

- Dr. S Sreedhar Kumar has participated in one week national level FDP on "Python" organized by E &ICTAcademic,IITKanpur,India,from14thto19thMarch2022.
- Prof. Tharadevi, Prof. Punitha& Prof. PremaLatha, has participated in Five Days Workshop on **"SCILAB and XCOS-FOSS for MATLAB"** conducted ATAL

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- Dr. Sreedhar Kumar S,Hod of CSE Department has Achived Best Paper Certificate, Paper Titled "An Automatic Object Detection System for Motor Bikes to Avoid Accident Using Improved Machine Learning Technique", authored by Dr. Sreedhar Kumar S, Professor of DrTTIT, KGF has been chosen as the Best Paper in CSE track, presented in the 5th InternationalConference on Recent Trends in Technology, Engineering and Applied Science -ICRTTEAS 2023 held virtually on 19th & 20th May 2023.
- Dr. Sreedhar Kumar S, Hod of CSE Department has Achived Best Paper Certificate, Paper Titled "An Automated Medicated System for Rural People to Provide Medication Without Human Interpretation Using Machine Learning Technique", authored by Dr. Sreedhar Kumar S, Professor of DrTTIT, KGF has been chosen as the Best Paper in CSE track, presented in the 5th InternationalConference on Recent Trends in Technology, Engineering and Applied Science -ICRTTEAS 2023 held virtually on 19th & 20th May 2023.
- **Dr. Sreedhar Kumar S,**Hod of CSE Department hasAchived Best Paper Certificate, Paper Titled "Cardless ATM system using IRSI Scan",authored by Dr. Sreedhar Kumar S, Professor of DrTTIT, KGF has been chosen as the Best Paper in CSE track, presented in the 5th International Conference on Recent Trends in Technology, Engineering and Applied Science -ICRTTEAS 2023 held virtually on 19th & 20th May 2023.
- Dr. G Kharmega Sundararaj Advisory Committee Member in "First International Conference on Communication, Computing and Internet of Things" 21st March 2023 Sri Vidya College of Engineering & Technology, Virudhunagar, Virudhunagar District, Tamil Nadu, India.
- Dr. Sreedhar Kumar S has produced 100% result in the course of Introduction to Data Analytics(IDA) for 6th semester .
- Prof. Nisha Bai M has achived 100% result in Introduction to Data Analytics (IDA) for 6th semester.
- Prof. Nisha Bai M has registered for PhD at VTU in Artifical Intelligence & Machine Learning
- Prof .Shalini G has Completed NPTEL Online Certificate in Cloud Computing (Jan-April 2023).
- **Prof .Sophia S** has participated and successfully completed the 5-day Online FDP on the theme "Inculcating Universal Human Values in Technical Education" organized by All India Council for Technical Education (AICTE) from 22 May to 26 to May 2023.

• **Prof. Shalini G** has completed one week live online Industrial Training on Machine Learning &Artificial Intelligence held during 30th October-3rd November 2023.

- Prof. Sophia S has registered for PhD at VTU in Artifical Intelligence & Machine Learning.
- **Prof. Shalini** G has achived 100% result in Cloud Computing for 6th semester.
- Prof.Thara Devi M has completed Educator training on Juniper Networks cloud and automation.

• **Prof.Thara Devi M** has Participated in FDP on Machine learning and Artificial intelligence from 13th November to 17th November 2023.

• **Prof.Preethi S** has achived 100% result in Python Lab for 4th semester.

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• Dr. Sreedhar Kumar S, Prof. Nishabai and Prof. Sophiya have got acceptance to publish their research article with entitle "Medical ChatBot Assistance for Primary Clinical Guidance Using Machine Learning Techniques", in the Scopus indexed Elsevier Journal "Procedia Computer Science" with impact factor (0.854) on October 2023.

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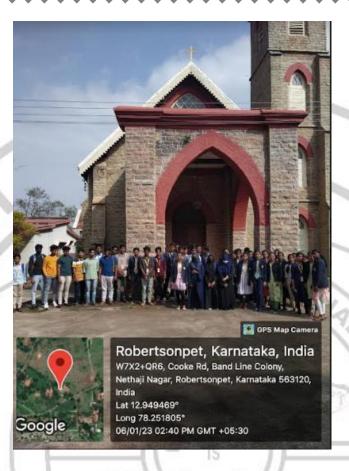
OUTREACH PROGRAMS

Two day industrial visit for 7th semester students along with the Teaching & non staff members.



Our 3rd sem students participated in heritage walk to St. Michael and All Angels Chruch along with Teaching faculties.





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• • One day industrial visit for 4th semester students along with the Teaching & non staff members.

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CSE NEWS

The scope of Computer Science Engineering in 2023 is vast and promising, with endless possibilities for growth and innovation. As technology continues to grow, the demand for skilled computer science engineers will only increase, making it a lucrative and fulfilling career choice.

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PROGRAM EDUCATIONAL OBJECTIVES(PEOs) & PROGRAM SPECIFIC OUTCOMES (PSOs)

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.

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

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

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PROGRAM OUTCOMES (POs)

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At the end of the B.E program, students are expected to have developed the following outcomes: Engineering Knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialisation to the solution of complex engineering problems.

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- 1. Engineering Knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialisation to the solution of complex engineering problems.
- 2. Problem analysis: Identify, formulate, research literature, and analyse complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
- 3. Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
- 4. Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
- 5. Modern Tool Usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.
- 6. The Engineer and Society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilitiesrelevant to the professional engineering practice.
- 7. Environment and Sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of need for sustainable development.
- 8. Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
- 9. Individual and Team Work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
- 10. Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
- 11. Project Management and Finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
- 12. Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

