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## Editors Message

**T**here is a saying that “If you believe in yourself anything is possible” Wishing all the students Best of Luck for exams.....

Faculty of various Departments have published their research paper in various reputed Scopus journals and have presented papers in various International Conferences.

Congratulations to the faculty on achieving their Ph.D, delivering talk at various colleges , reviewing papers for various journals, receiving National Awards and participating in Faculty Development Program and workshops, taking students for various industrial visits, conducting outreach activities for participating in sports event and what not..... Happy to put all achievements in single frame.

Focus on FOCUS and be a part of it

| **Dr. Vidyalakshmi K**, Chief Editor



## Publications and Conferences

- **Dr. Suma R**, Prof., Dept. of ISE presented a paper titled “Evolution in Prostate Cancer Diagnostics: Traversing the Deep Learning view” in the first edition of International Conference on Data Science and Exploration in Artificial Intelligence, CODE AI 2024 organized by Manipal Academy of Higher Education, Manipal Institute of Technology, Bengaluru in association with MITB ACM Student Chapter, powered by CGI on 3<sup>rd</sup> and 4<sup>th</sup> July 2024.

- **Dr. K R Jagadisha**, Asst. Prof., Dept. of EEE has published a paper in IJCRT Journal on “Smart Augmented reality glasses using aurdino” on 5<sup>th</sup> July 2024.

- **Mrs. Likhitha U N**, Asst. Prof., Dept. of EEE has published a paper in IJCRT Journal on “IoT Based Automation System With WI-FI and ESP8266” on 9<sup>th</sup>

July 2024.

- **Dr. C D Guruprakash**, Prof., Dept. of CSE, has presented a paper entitled “Reliable Ontology based Data Access Control Mechanism for Improved Security in Healthcare Data” in 2nd World Conference on Communication & Computing (WCONF-2024) during 12<sup>th</sup> to 14<sup>th</sup> July 2024.

- **Mrs. Sowmya K R**, Asst. Prof., Dept. of EEE has published a paper in IJCRT Journal on “Dual Axis Sun Tracker Solar Panel Without Arduino” on 17<sup>th</sup> July 2024.

- **Mrs. Swarnmaba S**, Asst. Prof., Dept. of ETE has published a paper entitled “Efficient Examination method for blind people using MATLAB and Embedded System” in IJERT, Vol 13, Issue 07, July- 2024.

- **Dr. G T Sreenivasa** Asst. Prof., Dept.

of Maths has published a research article entitled “Two-Dimensional Landsberg Space with a Generalized (A, B)-Metric” in scopus indexed journal “Journal of Propulsion Technology” ISSN: 1001-4055, Vol. 45, No. 1, Page No: 2694-2704 (2024).

## Faculty Achievements



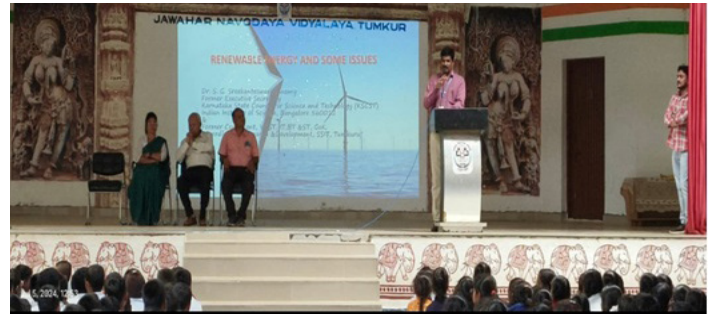
**Dr. Ashwini K**, Asst. Prof., Dept. of BME received her Convocation of Ph.D., Degree from VTU, Belgaum for her Thesis on “Design and development of an Efficient algorithm for biomedical authentication using ECG and Iris” under the guidance of Dr. Keshava Murthy G N, SIT-Tumakuru in July 2024.



**Dr. Yogananda B S**, Asst. Prof., Dept. of EEE invited as a speaker to delivered a talk on “Student Role in Nation Building” on 5th July 2024 at Sid-daganga Polytechnic, Tumkur.

- Dr. Renukalatha S**, Prof. & Head, Dept. of CSE was invited as a Subject Expert for Teacher Selection Interview at Jawahar Navodaya Vidyalaya, Gollahalli, Tumakuru district on 5th July 2024.

- Mr. Jeevith S H** Asst. Prof., Dept. of ETE reviewed a paper titled “Alert Prioritization Techniques in Security Monitoring: A Focus on Severity Averaging and Alert Entities” in the Asian Journal of Research in Computer Science, July 2024.



**Dr. Pradeep N**, Assoc. Prof., Dept. of EEE & co-ordinator of Energy Club has organized an energy conservation program in Jawahar Navodaya Vidyalaya, Tumakuru on 5th July 2024.



**Dr. Yogananda B S**, Asst. Prof., Dept. of EEE invited as a chief guest to deliver a technical talk on “Energy Efficient Motors, BEE and Energy Conservation” on 10th July 2024 at Government Polytechnic, Tumakuru.



**Mrs. Champakamala S**, Asst. Prof., Dept. of ISE under the guidance of Dr. Karunakara K, Prof, Dept. of ISE successfully defended her Ph.D. viva voice on research topic “Semantic Segmentation and Grading of MRI Brain Glioma Images using Deep Learning Technique” on 19th July 2024.



**Mr. Praveen Kumar C**, Asst. Prof., Dept. of EEE received “Vishwa Chethana National Award-2024” on 28th July 2024 at Kala Grama, Marathalli, Bangalore.



**Mrs. Prathibha S B**, Asst. Prof., Dept. of CSE has delivered a special lecture on the topic “Network Security” to the students of Library and Information Science in the “Saturday Mirror Lecture Series Program” organized by the Department of Library and Information Science, Tumakuru University, Tumakuru on 20<sup>th</sup> July 2024.



**Mrs. Usha S** Asst. Prof., Dept. of Civil Engineering, has successfully completed her PhD viva voce on July 27<sup>th</sup> on “Explanatory Studies on Strength Properties of Sustainable Bricks” under the guidance of Dr. T V Mallesh former HOD, Department of Civil engineering, SSIT, Tumakuru from SSAHE university.



**Mrs. Babitha M N**, Asst. Prof., Dept. of CSE has successfully defended his Ph.D thesis on 29<sup>th</sup> July 2024 under the guidance of Dr. Siddappa M, Prof., Dept. of CSE, SSIT, thesis titled “Design of Secure Data Protection Model for Fog Computing”.

**Mrs. Sushma M**, Asst. Prof., Dept. of ISE got 1<sup>st</sup> place in sports Disc Throw, Shotput and Ball in the Basket organized by Department of Physical Education and Sports for teaching and non teaching staff on 22<sup>nd</sup> and 23<sup>rd</sup> July 2024.

**Dr. Guruprakash C D**, Prof., Dept. of CSE was the reviewer for 2<sup>nd</sup> IEEE International Conference on Data Science and Network Security (ICDNS-2024) organized by Kalpataru Institute of Technology, Tiptur during 26<sup>th</sup> to 27<sup>th</sup> July 2024.

**Dr. Vidyalakshmi K**, Asst. Prof., Dept. of CSE(DS) was the Reviewer for International Conference on Emerging Research in Computing, Information, Communication and Application (ERCICA – 2024) during 16<sup>th</sup> to 17<sup>th</sup> July 2024.

**Mr. T.S. Bharath**, Asst. Prof., Dept. of CSE, has been awarded as the Best Paper Presenter for the paper entitled “A Key-Value pair Schema based Message Digest-5 Hash Algorithm for the Dynamic Data Masking” for 2<sup>nd</sup> IEEE International Conference on Data Science and Network Security (ICDNS-2024) organized by KIT, Tiptur from 26<sup>th</sup> and 27<sup>th</sup> July 2024.

**Dr. Vidyalakshmi K**, Asst. Prof., Department of CSE(DS), has been nominated as coordinator for E-content Development SSAHE.

## Student Achievements

**Mrs. Nisarga N M**, 2024 passed out batch Student from Dept. of BME, got selected for GE Healthcare, Bangalore.

## College Events

**Cop Connect Certification Program: Our Institute is in the process of establishing a “Cop Connect Café” in collaboration with Information Sharing and Analysis Centre (ISAC), Bengaluru. This Café will be working as a connect between general public and Cyber Crime wing of Karnataka Police to help those who might have suffered with a cyber-security breach.**

**UGC CSIR exams** was conducted at SSIT from 25-07-2024 to 27-07-2024



**MOU was signed between SSIT and ISAC-Mysuru on 29-07-2024.**



**Sports Event was conducted in the month of July-2024 for teaching and non-teaching faculty.**

## Faculty Participation

- **Dr. C K Raju** Prof., and Head, **Mr. Kantharaju**, Asst. Prof., Dept. of BME have completed five-day FDP on “Documentation & Article Writing using OVER-LEAF-LaTeX” held at Reva University from 11<sup>th</sup> to 15<sup>th</sup> July 2024.

- **Mrs. Sahana S Rao** Asst. Prof., Dept. of ETE attended one day workshop on “Net sim and Moku” on 12th July 2024 organized by department of ECE, SSIT, Tumkur

- **Dr. Supriya M C**, Prof. & Head Dept. of CSE(DS), **Dr. Vidyalakshmi K**, Asst. Prof., Dept. of CSE(DS) and **Mrs. Bhoomika N**, Asst. Prof., Dept. of CSE has Participated in 5 Days International Faculty Development Program on “AI and Gen AI with industry application” organized by MIT Academy of Engineering (MIT AOE) Autonomous, Maharashtra, The National Institute of Engineering, Mysore, Narasaraopeta Engineering college Autonomous, Andhra Pradesh, Matrusri Engineering College Autonomous, Telangana in collaboration with ExcelR Edtech Pvt. Ltd from 16th July to 24th July 2024.

- **Dr Asha KR**, Assoc Prof., **Mrs. Babitha MN**,

**Mrs. Prathibha SB**, **Mrs. Madhumala G**, **Mrs. K. Noor Fathima**, **Mrs. Veena ND**, **Mrs. Dhanya PM**, **Mrs. Bharathi N**, **Mrs. Bhoomika N**, **Mrs. Shwetha MK**, **Mr. Sharath Babu C G**, **Mrs. Sree Bhargavi M**, **Mrs. Bhagya Jyothi M**, Asst. Prof., Dept. of CSE, **Mrs. Shamsiya Parveen**, **Ms. Navyashree R** and **Mrs. Asha H R**, Asst. Prof., Dept. of CSE(DS), **Mrs. Sumaya Banu** Asst. Professor, Dept. of EEE have participated in three days National Level Faculty Development Program on “Data Analytic Tools and Natural Language Processing” organized by Department of Information Science and Engineering, SSIT, Tumakuru in collaboration with DLitthe Consultancy Service Pvt.Ltd. Bengaluru from 18th to 20th July 2024.

- **Mrs. Dhanya P.M**, **Mr. Sharath Babu C G**, **Mrs. Shwetha M K**, **Mrs. Sree Bhargavi M**, Asst. Prof., Dept. of CSE and **Mrs. Likhitha U N**, **Mrs. Sowmya K R** and **Mrs. Sumaya Banu** Asst. Prof., Dept. of EEE have participated in National Level One-Week Faculty Development Program on “Research Methodology” organized by IQAC, Kamala Nehru Mahavidyalaya, Nagpur from 22nd July to 27th July 2024.

## Student Participation

- **Ms. Disha Bhargavi B S**, **Ms. HL Srilaxmi**, **Ms. Neha Acharya** and **Ms. Prathuasha K B** UG students of Dept. of CSE published paper titled “Maldefender a Comprehensive Malware Detection System Using Machine Learning and Real Time Analysis” in International Journal of Engineering, Management and Humanities under the guidance of Dr. Renukalatha S Prof. & Head, Dept. of CSE with ISSN 2584-2145, Volume 5, Issue 4.

- **Ms. A E Yogita**, **Ms. Daniya Naaz**, **Ms. Hadiya Sultana** and **Ms. S.Javeria Banu** UG students of Dept. of CSE published paper titled “Design and Development of Smart Mattress Using Iot Functionalities for sleep Apnea Management” in International Journal of Engineering, Management and Humanities under the guidance of Mrs. Sindhu T N Asst. Prof., Dept. of CSE with ISSN 2584-2145, Volume 5, Issue 4.

- **Ms. Arfain Akhil N**, **Ms. Haritha T**, **Ms. Nisha H.R** and **Ms. Sneha V Goudar** UG students of Dept. of CSE published paper titled “Multipurpose Agricultural Robot-AgriBot” in International Research Journal of Engineering and Technology under the guidance of Mrs. K.Noor Fathima Asst. Prof., Dept. of CSE with ISSN 2395-0056, Volume 11, Issue 7.

- **Ms. Ashika Jayachandran**, **Ms. Yamuna N**, **Ms. Afreen taj** and **Ms. Lavanya M** UG students of Dept. of

CSE published paper titled “Background Verification of Mark’s Card” in International Journal of Innovative Research in Technology under the guidance of Mrs. Bhoomika P Asst. Prof., Dept. of CSE with ISSN 2349-6002, Volume 11, Issue 2.

- **Mr. M Tamilarasan**, PG student of Dept. of CSE published paper titled “Human Sound Base Disease Detecting System Using Enhanced Deep Convolutional Neural Network” in The International Journal of Analytical and Experimental Modal analysis under the guidance of Dr. Channakrishnaraju Prof. & Head, Dept. of AI & ML with ISSN 0886-9367, Volume 16, Issue 2. Published another paper titled “Human Sound Base Disease Detecting System Using Convolutional Neural Network” in Journal of Information and Computational Science with ISSN 1548-7741, Volume 14, Issue 2. Published one more paper titled “Human Sound Base Disease Detecting System Using RESNET 18” in Strad Research with ISSN 0039-2049, Volume 11, Issue 2.

- **Ms. Dhanushree C** PG students of Dept. of CSE published paper titled “Human Sound Base Disease Detecting System Using Enhanced Deep Convolutional Neural Network” in the International Journal of Analytical and Experimental Modal analysis under the guidance of Dr. Sujataha Prof., Dept. of CSE with ISSN 0886-9367, Volume 16, Issue 7.

## Department Activities



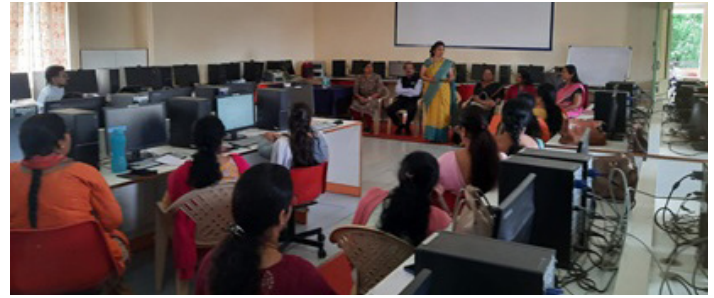
2<sup>nd</sup> Sem M. Tech students of Product Design and Manufacturing in Mechanical Engineering visited Lakshmi Enterprises at Yallapura, Antharasanahalli Industrial area, Tumakuru on 6<sup>th</sup> July 2024. Mr. Kemparaju K, Manager, addressed the students and took around the shop floor and explained the mass production of Turning, Milling, Centre Less grinding, Spark erosion, EDM Machine & Jigs and Fixtures, Department of Mechanical Engineering staffs of SSIT, Dr. B. S. Ravikiran, Prof., and Dr. Batluri Tilak Chandra, Asst. Prof., were also present for the industrial Visit.



2<sup>nd</sup> Sem M. Tech students of Product Design and Manufacturing in Mechanical Engineering Visited 4 industries 1) Accutech Laser Pvt Ltd 2) SKR CNC center 3) Shiva Industries 4) Sri Manjunatha Profiles at peenya Industrial area, Bangalore on 13<sup>th</sup> July 2024, Saturday, Department of Mechanical Engineering staffs of SSIT, Dr. B. S. Ravikiran, Professor and Dr. Batluri Tilak Chandra, Asst. Prof., were also present for the industrial Visit.



Department of CSE(Data Science) and AI&ML had organized One Day Industrial Visit to Infosys, Mysore, for the students of 4<sup>th</sup> Sem on 6<sup>th</sup> July 2024. (Co-ordinator: Dr. Manjula Y (AI&ML), Mrs. Shamsiya Parveen(CSE(DS))).



Dept. of ISE had organized three days National Level Faculty Development Program on “Data Analytic Tools and Natural language Processing” in collaboration with DLithe Consultancy Services Pvt. Ltd. Bengaluru, from 18<sup>th</sup> to 20<sup>th</sup> July 2024.



A Three days Value Added Course on “Full Stack Web Development” was organized by Department of CSE(Data Science), for 4<sup>th</sup> sem CSE(DS) students during 3<sup>rd</sup> to 5<sup>th</sup> July 2024. (Co-ordinator: Navyashree R)



SSIT-IEEE-WIE conducted Rural Outreach activity (funded by WIE Bangalore Section)- Awareness program on Sensor and its application in daily routine and branches of Engineering at Government High School, Alkere.

## Placement News

- 23 students from Dept. of CSE, ISE, ECE, ETE have been recruited by Teachnook Edutech company as Business Development Associate through campus placement drive held on 22<sup>nd</sup> and 23<sup>rd</sup> July 2024.
- 10 Seconds ,10 Days Training program conducted from 13<sup>th</sup> Jul 2024 to 22<sup>nd</sup> Jul 2024.
- Ms. Niharika R, Ms. Rakshitha and Ms. Disha M.S, students of final year Dept. of Civil Engineering are selected for Internship at L&T Company with stipend of Rs.10,000/-.

## Person of the month

# Mahendra Singh Dhoni (7 July, 1981 )

**Mahendra Singh Dhoni** born on 7th July 1981 in Ranchi, Bihar, commonly known as MS Dhoni, is a former Indian International cricketer and captain of the Indian National team. He is widely regarded as one of the greatest wicket-keeper batsmen and captains in the history of cricket. Dhoni is known for his calm demeanour, exceptional leadership skills, and his ability to finish matches under pressure. Mahendra Singh Dhoni has received several awards and recognitions throughout his career.

Some notable awards include:

Padma Bhushan - received in 2018 for his contributions to cricket, Padma Shri - received in 2009, Rajiv Gandhi Khel Ratna - awarded in 2007-08, ICC ODI Player of the Year - awarded in 2008



and 2009 by the International Cricket Council (ICC), MTV Youth Icon of the Year- awarded in 2006, Honorary Doctorate - awarded honorary doctorates by several universities for his outstanding contributions to cricket and sports in general.

These awards reflect Dhoni's significant impact and achievements in the world of cricket and sports leadership

## Quote of the month



“Optimize is the faith that leads to Achievement. Nothing can be done without Hope and Confidence ”

| **Helen Keller**



## Technical Article

# Mechanical Engineering: Embracing AI and Robotics for Future Innovation

**M**echanical engineering, traditionally known for its ability in designing machines and structures, is undergoing a profound transformation with the integration of artificial intelligence (AI) and robotics. These advanced technologies are not just enhancing efficiency and precision but are also opening up new frontiers in industries ranging from manufacturing to healthcare. Let's delve into how AI and robotics are reshaping the landscape of mechanical engineering and what lies ahead for this dynamic field.

### The Role of AI in Mechanical Engineering

Artificial intelligence has revolutionized how mechanical engineers approach design, analysis, and optimization tasks. AI algorithms can quickly analyse vast amounts of data, identify patterns, and optimize designs for improved performance and efficiency. In manufacturing, AI-powered systems can predict equipment failures, optimize production schedules, and even autonomously control robotic assembly lines.

### Enhancing Precision and Efficiency with Robotics

Robotics, on the other hand, has significantly enhanced precision and efficiency across various mechanical engineering applications. Industrial robots are now capable of performing complex tasks with high repeatability and accuracy, thereby reducing human error and increasing productivity. In manufacturing, robots are deployed for tasks such as welding, painting, and assembly, where they can operate 24/7 without fatigue, leading to cost savings and improved quality control.

### Applications in Advanced Manufacturing

One of the most prominent areas where AI and robotics intersect in mechanical engineering is advanced manufacturing. Additive manufacturing, commonly known as 3D printing, has been revolutionized by AI algorithms that optimize the printing process and improve the mechanical properties of printed parts. Robotics are also integrated into 3D printing systems for tasks such as material handling and post-processing, further automating the production workflow.

### Advancements in Biomedical Engineering

In biomedical engineering, AI and robotics are transforming the design and production of medical devices

and prosthetics. AI algorithms analyse medical imaging data to assist in surgical planning and personalized implant design. Surgical robots, guided by AI algorithms, enable minimally invasive procedures with unparalleled precision, reducing recovery times and improving patient outcomes.

### Towards Smart Manufacturing and Industry 4.0

The integration of AI and robotics is propelling mechanical engineering towards the era of Smart Manufacturing and Industry 4.0. These concepts involve interconnected systems where machines, products, and processes communicate with each other autonomously. AI-powered analytics enable predictive maintenance of machinery, minimizing downtime and optimizing operational efficiency. Robots collaborate with human workers in collaborative workspaces, known as cobots, enhancing safety and productivity.

### Challenges and Opportunities Ahead

The integration of artificial intelligence and robotics marks a pivotal moment in the evolution of mechanical engineering. These technologies are not merely tools but catalysts for innovation, enabling engineers to push the boundaries of what is possible in design, manufacturing, and beyond. As AI continues to evolve and robots become more sophisticated, mechanical engineers are poised to lead the way in creating a future where efficiency, precision, and sustainability converge seamlessly. The future of mechanical engineering with AI and robotics is bright, promising exciting advancements across industries and contributing to a more connected, efficient, and technologically advanced world. As we navigate this transformative journey, one thing is clear: the synergy between mechanical engineering and advanced technologies will continue to drive innovation and shape the future of global industries.



**| Roopashree C R**  
**Assistant Professor**

Dept. Mechanical Engineering

## August Notifications

- i) Counselling of DCET, CET
- ii) Faculty of various Department s to complete their Ph.D viva-voce
- iii) Enrolment to Cop connect Certification Program
- iv) Sports Day for faculty
- v) Industrial Visits for students
- vi) Value Added Courses and FDPs to be conducted
- vii) Conduction of UGC CSIR exams.

## PHOTO GALLERY

