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Editors Message

There is a saying that “Teachers inspire minds, engineers build futures. One nurtures curiosity, the other turns dreams into reality. Together, they shape the world.” I heartily wish you all a very happy Teachers Day and Engineers Day.....

Greetings to the teachers for getting Best Teacher Award-2024 at SSIT and hearty Congratulations and wishes to all the students who got placed this month. ‘September 2024 was a fruitful days for the Institution, with noteworthy achievements in campus placements and internships for the 2025 batch’ quotes the placement team which is showing the increased growth of the Institution. Students are our strength and our strength gets strengthen with good placements. Lets wish the placement team for the same pace ahead. A Consistency of the graph is seen in faculty publications, achievements, participations month by month which shows the qualitative growth of faculty in the Institution. Industrial visits, Value added courses and other activities have brought special shine to the Departments. Hearty welcome to all the 46th batch students to SSIT family and wish you all the very best for your studies at our Institute. May your education go in par with your dreams...

Focus on FOCUS and be a part of it.

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

Publications and Conferences

• **Dr. M.C Supriya**, Professor and Head, Dept. of CSE(DS) published a Research paper titled “Recognition of Logo of Pirated Content Using Deep Learning – Based Regression Classification Algorithm” in International Conference on Intelligent Computing Systems and Applications (ICICSA, LNNS, volume 1010) on 20th Sept 2024

• **Mr Lohith N**, Asst. Prof, Dept. of ME, published the journal paper Title “Production of biodiesel by using UCO with Al₂O₃ blend” in International journal -TIJER, volume 11, Issue 9, Sep 2024.

• **Mr Harish S**, Asst. Prof, Dept. of ME, Preetish K S (22PDM02) published the journal paper Title “Effect of Infill Pattern on Flexural Behaviour and Surface Roughness Behaviour of 3D Printed

Poly Lactic Acid (PLA) Material” in International Journal for Research in Applied Science & Engineering Technology, Volume 12, Issue IX, September 2024.

• **Mr. Meghani Molies Reddy**, Asst. Prof, Dept. of ME, Rohith K A (22PDM03), published the journal paper Title “Machining of Brittle Material Glass by CO₂ Laser using Taguchi L27 Array Approach and Analysing Anova Techniques” in International Journal for Research in Applied Science & Engineering Technology, Volume 12, Issue IX, September 2024.

• **Dr Srinidhi G A** published a paper titled “Quantum Cryptography for Health data security – A review” in international journal of Sci-

ence and Research vol(13) issue-8 September 2024.

- **Dr Srinidhi G A** published a paper titled “Deep learning Architectures” in international journal of Science and Research vol(13), Issue 8 September 2024

- **Mr. Sharath Babu C G**, Asst. Prof., Dept. of CSE published a research article titled “Comprehensive Survey of Image Steganography: Techniques, Challenges and Future Directions” in the journal YMER, ISSN: 0044-0477, Volume 23, Issue 09, September 2024.

- **Mrs. Sahana T.S.**, Asst Prof, Dept of Civil Engg, has published a book chapter titled “Curing and temperature effects of adhesive on aluminium double strap joint specimens subjected to tensile load” in the two day National conference on “Advances in polymer composites, APC-2024” pp:207-214, Jayvee publishing, ISBN-978-81-955644-3-9.

- **Dr. Vidyalakshmi K**, Asst. Prof., Dept. of CSE(DS) published a Research paper titled “Compre-

hensive Analysis on Anomaly Detection in Cyber-security Dataset using Deep Learning Algorithms” for IEEE International Conference on Distributed Systems, Computer Networks and Cybersecurity ICDCSCNC 2024 organized by SKIT-Bangalore on 20th to 21st Sept 2024.

- **Mrs Supriya, C.B**, Asst Prof, Dept of Civil Engg, and **Dr. B H Manjunath**, Prof & Head, Dept of Civil Engg has published a journal paper titled “Fly Ash-Based RAGPC Paver Blocks for Moderate Traffic Volume Roads” in Technologies for Sustainable Transportation Infrastructures- A Lecture Notes in Civil Engineering indexed in Springer Nature Singapore, pp 223-233, vol 529, September 2024.

- **Dr. M. Nagaraja**, Professor, Department of Physics published “Synthesis and electrical properties of Reused-Graphite/Polyaniline composites”, IOP Conference Series: Materials Science and Engineering, 1300 (2024) 012014.

Faculty Achievements

- **Dr.Savita D Torvi**, Prof.& Head, Department of Electronics and Telecommunication Engineering was the reviewer for 28th International Symposium on VLSI Design and Test (VDAT 2024) at VIT, Vellore from September 1-3, 2024.

- **Dr.Babitha M N, Mrs. Sindhu T N, Mrs. Veena N D, Mrs. Dhanya P M Asst. Professors, Dept. of CSE, Dr. Ravi Prasad D, Dr. Nataraja C, Mrs. Shaheena Khanum, Dr. Yogananda B S and Jagadisha K R**, Dept. of EEE, **Dr. Pushpalatha K R, Mrs. Shamsiya Parveen and Ms. Navyashree R** Asst. Professors, Dept. of CSE(DS) have successfully completed the requirements for certification in Professional Ethics at Workplace (CPEW) and become ISAC certified Cyber Crime Intervention Officers(CCIO) on 14th September 2024.

- **Dr. PuneethKumar D N**, was the reviewer for IEEE International Conference on Distributed Systems, Computer Networks and cyber security ICDCSCNC 2024 organized by Sri Krishna Institute of Technology, Bangalore on 20th & 21st September 2024

- **Mrs. Supriya C. B.**, Asst. Prof., Department of Civil Engineering, delivered an expert lecture on the topic “Design of Flexible Pavement” at Aryabharathi Polytechnic, Tumakuru, on 23rd September 2024.

- **Dr. L Sanjeev Kumar**, Professor and Head of EEE department has sanction of the competent authority of the council for payment 10 lakhs of the grant-in-aid under AICTE Inter- Institutional Biomedical Innovations Programme (IBIP) on 24th September 2024.

- **Dr.Venkanagouda M Goudar** has successfully guided his research student Chithra L S,(AIT, Chickmagalur), under SSAHE, with the thesis titled “Some Study On Geodetic And Geomatic Number In Graph” viva held on 14th September 2024.

- **Hareesh K N**, Asst. Prof., Department of Electronics and Telecommunication Engineering has completed his PhD viva successfully on the topic, “Multimodal Fusion of Brain Imaging Data for Detection and Classification of Brain Tumor” under the Guidance of Dr M N Eshwarappa, Professor and HOD, Department of Electronics and Communication Engineering, Sri Siddhartha Institute of Technology, Tumakuru on 11th September 2024.

- **Dr. M. Nagaraja**, Professor, Department of Physics Completed a NPTEL 4-Week (July-2024 to August-2024) Course on “Introduction to Quantum Computing: Quantum Algorithms and Qiskit”

- **Dr. M. Nagaraja**, Professor, Department of Physics was a invited speaker for the IEEE NTC

Sponsored Two-Day hands on workshop on “Nano Technology Design, Computing and Applications” held on September 13th-14th, 2024 organized by Department of Electronics and Communication Engineering, Presidency University, Bengaluru.

- **Dr. Sunil K**, Professor and Head, and **Dr.**

Mrs.Sharath Babu C G, Mrs.SreeBhargavi M, Mrs. Bhagya Jyothi M K, Mrs. Shwetha M K, Asst. Professors, Dept. of CSE, **Mrs.Haripriya R, Mrs. Nandhini T, Mrs. Kavya R**, Asst.Prof., Dept. of AI&ML attended 1 day workshop on “Outcome-based education (OBE)” organized by IQAC-SSIT on 13th September 2024.

Faculty Participation

- **Mrs. Roopashree C R**, Asst. Prof, Dept. of ME, has participated in One Day National Level Faculty Development Programme on Research Paper Writing And Publishing, organized by Research and Development Cell, ACE Engineering College, Hyderabad held on September 23rd, 2024.

- **Dr Batluri Tilak Chandra**, Asst. Prof, Dept. of ME has participated in 2nd International 5-Day Faculty Development Program on “Sustainability and Research in Modern Mechanical Engineering” from 23rd to 27th September 2024, organized by the Department of Mechanical Engineering, Madanapalle Institute of Technology & Science, Andhra Pradesh, India.

- **Mrs. Bharathi N, Mrs.Veena N D, Mrs.Bhoomika P, Mrs.Dhanya P M, Mrs. Sharath Babu C G, Mrs.. SreeBhargavi M**, Asst. Professors, Dept. of CSE, **Mrs. Nandhini T**, Asst. Prof., Dept. of AI&ML, **Mrs. Shamsiya Parveen, Ms. Mrs.Navyashree R, Asha H R**, Asst. Prof., Dept. of CSE(DS) have participated in 5 days International Faculty Development Program on “Gen-AI and Prompt Engineering Using Microsoft Co-Pilot” organized by BNMIT-Karnataka, D.Y. Patil Agriculture and Technical University Talsande- Maharashtra, and Marwadi University Rajkot- Gujarat in Collaboration with ExcelR Edtech Pvt. Ltd. From 16th to 20th September 2024.

- **Mrs.Veena N D**, Asst. Professor, Dept. of CSE has participated a Faculty Enablement Program (FEP) phase 3 on Python Programming offered by Infosys Springboard during 28th August to 3rd September.

- **Mrs. Swarnalatha G L and Mrs.Sharath Babu C G**, Asst. Professors, Dept. of CSE have participated in three days Faculty Development Program on “Computer Vision and Machine Learning using Python” organized by Department of Electronics and Communication Engineering, SSIT Tumakuru in association with Samsung Electro-Mechanics Software India Pvt Ltd, Bangalore from 26th to 28th September 2024.

- **Dr. Renukalatha S**, Prof. & Head, Dept. of CSE, **Dr. Sujatha S R**, Professor, **Dr. Nirmala G, Mrs.Madhumala G, Mrs.Bharathi N, Mrs.K.Noor Fathima, Mrs.Veena N D, Mrs.Bhoomika P, Mrs.Dhanya P M,**

Student Achievements

- **Chandan T O and Anirudh CM**, Final year Students, Dept. of CSE have launched an application called “Oline Voting System” during the 46th batch Fresher’s Day function of Sri Siddhartha Institute of Technology, Tumkur on 21st September 2024.

Department Activities



Dept. of CSE had organized three days Inter College Faculty Development Program on “Django Full Stack Development “in association with Mevi Technologies Ltd, Bangaluru from 11th to 13th September 2024.



A Three days Value Added Course on “Basics of Data Analytics using Python” was organized by Department of CSE(Data Science), for 3rd sem CSE(DS) students during 26th to 28th Sept 2024. The resource persons were Dr Pushpalatha K R and Dr Vidyalakshmi K.



HMS Polytechnic students along with staff visited the Civil Engg. Department's Sewage Treatment Plant on 26th September 2024.



3rd semester students of Department of Cyber security visited Integrated City Management Command and Control Centre, Tumkur Smart City on 28th September 2024.

Placement News

September 2024 was a productive month for the institution, with significant achievements in campus placements and internships for the 2025 batch. A total of 90 students secured opportunities, comprising 81 students placed across various companies and 9 students enrolled in internships. Notable placement highlights include Teachnook, which recruited 23 students, IntimeTec, where 2 students were selected, and Academor, which successfully placed 56 students. Additionally, 9 students secured internships with Technologies Global Pvt. Ltd.

The institution conducted several recruitment drives, including IntimeTec on 17th September 2024, and achieved remarkable results. The recruitment process remains ongoing for esteemed companies such as Global Quest Technologies, KodNest, Q-Spider, I-Exceed, ThoughtFocus, Data Care Systems, and DN Solutions Pvt. Ltd., with registration links already shared with students.

These efforts underscore the institution's commitment to ensuring diverse career opportunities for its students.

September also witnessed impactful placement activities. A significant milestone was the signing of a Memorandum of Understanding (MOU) between SkillSDA and SSIT on 3rd September 2024, signifying a strategic partnership to enhance skill development. On 19th September, the NASSCOM Cybersecurity Training Program was inaugurated at the PG Seminar Hall, further emphasizing the focus on advanced learning opportunities. Additionally, representatives from DN Solutions Pvt. Ltd. visited the campus to address students about their recruitment process.

These achievements highlight the institution's dedication to bridging the gap between academic excellence and professional growth, ensuring a bright future for its students.

NCC



Human Chain formation for International Day of Democracy was held at Tumkur on 15th September 2024 where SSIT NCC cadets had participated.



Sports



Annual Staff Sports Event 2024, Prize Distribution Ceremony was organised on 20th September 2024 from the Department of Physical Education and Sports headed by Mr. Rudresh K R, Physical Education Director, SSIT-Tumakuru.



The 46th batch Freshers Day was conducted on 21st September 2024 and Savyasaachi Dr. G. Parameshwara, Hon'ble Home Minister, Govt. of Karnataka, Hon'ble Chancellor, SSAHE, Hon'ble Secretary, SSES inaugurated the function. Er. L N Prasad, Managing Director, Lakshmi Vacuum Technologies Pvt. Limited, Bengaluru was the chief guest. Dr. K B Linge Gowda, Hon'ble Vice-Chancellor, SSAHE, Dr. M Z Kurian, Registrar, SSAHE, Dr. G Gurushankar, CoE, SSAHE, Dr. Vivek Veeraiah, Advisor to Chancellor, SSAHE were the guest of honour and was presided over by Dr. M S Raviprakash, Principal, SSIT-Tumakuru.

College Events

- ISTE-SSIT Chapter celebrated Teachers and Engineers Day on 18th September 2024. Sri. Rajesh Lobo, Executive Senior Plant Director, LM Wind Power, GE Renewable Energy, Business, Dobbaspeta, Bangalore and Sri. Ravishankar T S, District Best Teacher Awardee-2024, Assistant Teacher, Sri Atavi Siddhaligeshwara Composite pre-University College, Chikkathotlukere were the chief guests. Dr. K B Linge Gowda, Vice-Chancellor, SSAHE, Tumakuru was the guest of honour, presided over by Dr. M S Raviprakash, Principal, SSIT-Tumakuru. The event was celebrated with the supportive hands of Dr. Renukalatha S, Prof., and Head, Dept. of CSE, Dean(Academics), Chairman SSIT-ISTE chapter and team.



IQAC-SSIT organised one day workshop on "Outcome based education" on 13th September 2024 to all the faculty of SSIT, and Dr. H S Guru Prasad, Prof., Dept. of ISE, BMSCE, Bengaluru was the resource person.

Person of the month

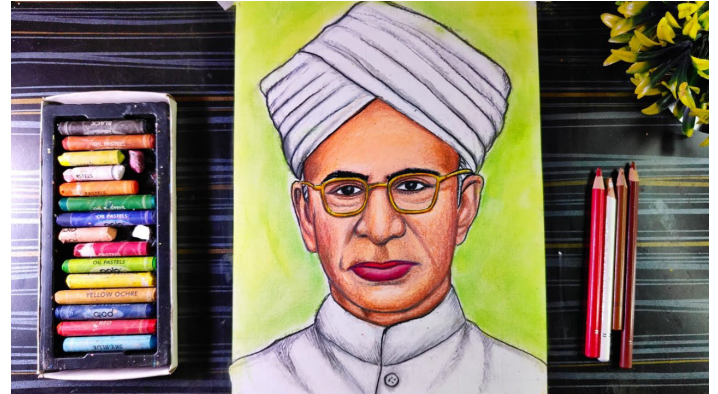
Sarvepalli Radhakrishnan

(5th September 1888 – 17th April 1975)

Sarvepalli Radhakrishnan (1888–1975) was an Indian philosopher, statesman born on September 5th, 1888, in Tiruttani, Tamil Nadu. He Completed his education at Madras Christian College, specializing in philosophy and his academic career began as a professor at Madras Presidency College.

He was an expert in Advaita Vedanta and sought to bridge Eastern and Western philosophies. He Advocated for spiritual humanism, emphasizing the unity of all religions. His works include: The Philosophy of Rabindranath Tagore, Indian Philosophy (a two-volume book), The Hindu View of Life

He Served as India's first Vice President (1952–1962) and later as the second President (1962–1967) and as President, he emphasized education and moral values. His tenure saw significant political challenges, including the India-China War (1962) and India-Pakistan War (1965).



Radhakrishnan's birthday, September 5th, is celebrated as Teachers' Day in India in honour of his dedication to education. He was awarded the Bharat Ratna in 1954.

Radhakrishnan was a distinguished scholar and a prominent advocate of Indian philosophy, particularly Advaita Vedanta.

Radhakrishnan remains a key figure in Indian education, philosophy, and politics, remembered for his wisdom and advocacy for teachers and scholars.

Quote of the month



“ The struggle you are in today is developing the strength you need for tomorrow, don't give up ”

| Robert Tew



Technical Article

APPLICATIONS OF ARTIFICIAL INTELLIGENCE IN CIVIL ENGINEERING

Artificial intelligence (AI) is increasingly finding applications in various fields of civil engineering, enhancing efficiency, accuracy, and revolutionizing how projects are planned, designed, constructed, and maintained. These applications demonstrate how AI is transforming civil engineering by enhancing efficiency, safety, sustainability, and innovation across the lifecycle of infrastructure projects. Some notable applications include:

Design and Planning:

- **Generative Design:** AI can automate the process of generating design options based on specified criteria and constraints, helping engineers explore a wider range of possibilities.
- **Optimization:** AI algorithms can optimize designs for factors such as cost, material usage, and energy efficiency.
- **Predictive Modelling:** Using AI for predictive analytics helps in forecasting outcomes based on historical data, improving decision-making in design phases.

Construction:

- **Project Management:** AI can analyze project schedules, resources, and risks to optimize construction timelines and resource allocation.
- **Safety Monitoring:** AI-enabled sensors and computer vision can monitor construction sites for safety compliance and hazard detection.
- **Robotics and Automation:** AI-driven robots can perform tasks like bricklaying, welding, and site inspection with greater precision and efficiency.

Infrastructure Maintenance:

- **Predictive Maintenance:** AI can analyze sensor data from infrastructure assets (such as bridges, roads, and buildings) to predict maintenance needs and prevent failures.
- **Condition Assessment:** Using AI for image analysis and sensor fusion to assess the condition of infrastructure components.

Smart Cities:

- **Traffic Management:** AI can optimize traffic flow based on real-time data from sensors and cameras, reducing congestion and improving safety.
- **Energy Management:** AI algorithms can optimize

energy distribution and consumption in smart grids and buildings.

- **Waste Management:** AI can optimize waste collection routes and recycling processes based on data analytics.

Environmental Impact Assessment:

- **Simulation Modeling:** AI can simulate the environmental impact of construction projects and suggest mitigation strategies.
- **Natural Disaster Prediction and Response:** AI can analyze historical data to predict natural disasters like floods or earthquakes and plan effective responses.

Resource Efficiency:

- **Material Selection:** AI algorithms can suggest optimal materials based on performance requirements and environmental impact.
- **Energy Efficiency:** AI can optimize building designs for energy consumption and recommend sustainable practices.

Data-driven Decision Making:

- **Big Data Analytics:** AI can analyze large volumes of data from various sources to extract actionable insights for decision-making in civil engineering projects.

Structural Health Monitoring: AI helps in real-time monitoring of structures such as bridges, dams, and buildings. It can detect anomalies, predict maintenance needs, and assess structural integrity using data from sensors and historical records.

Construction Management: AI optimizes construction planning, scheduling, and resource allocation. It analyzes historical data to predict project timelines, cost overruns, and resource needs more accurately.

Design Optimization: AI algorithms can generate and optimize designs based on criteria such as cost, strength, and environmental impact. This includes automated generation of structural designs and configurations.

Risk Management: AI models analyze various risk factors in civil engineering projects, including environmental conditions, geological data, and historical project outcomes. This helps in better risk assessment and mitigation planning.

Smart Cities: AI contributes to the development of smart city infrastructure by managing traffic flow, en-

ergy consumption, waste management, and public safety through real-time data analysis and predictive modelling.

Geotechnical Engineering: AI is used for analyzing soil properties, predicting ground behaviour, and designing foundations. It enhances the accuracy of soil classification and slope stability analysis.

Environmental Impact Assessment: AI models analyze the potential environmental impacts of civil engineering projects, aiding in compliance with regulations and minimizing ecological footprints.

Urban Planning: AI helps in urban growth modeling, land use optimization, and predicting demographic trends. It supports decision-making processes for sustainable urban development.

Material Science and Recycling: AI accelerates research in new construction materials, their properties, and recycling techniques. It facilitates the development of eco-friendly building materials.

Energy Efficiency: AI optimizes energy usage in buildings and infrastructure by analyzing consumption patterns, suggesting improvements, and integrating renewable energy sources.



**| Mrs.Hema H
Asst. Professor**

Dept. of Civil Engineering, SSIT, Tumkur.

October Notifications

- i) Student council to be formed
- ii) Tantra -2024 to be conducted.
- iii) ODD sem classes of all years to be started

PHOTO GALLERY

