



Neurons

Insights

2023-2024

Department of Artificial
Intelligence and Data Science



Thiru. K. Shanmugham
CHAIRMAN SRI SHANMUGHA EDUCATIONAL
INSTITUTIONS

Dear Members of the Sri Shanmuga Educational Institutions,

It brings me immense pride to witness the continuous growth and achievements of Sri Shanmuga Educational Institutions. We remain steadfast in our mission to deliver quality education, foster innovation, and empower students to become leaders in their respective fields. I extend my gratitude to the faculty, students, and stakeholders for their unwavering commitment. Together, we will continue to shape a brighter future.

Warm regards,

THIRU.SHANMUGHAM K, Chairman, Sri
Shanmuga Educational Institutions



Thiru. A.Thirumoorthy

**EXECUTIVE DIRECTOR SRI SHANMUGHA
EDUCATIONAL INSTITUTIONS**

Dear Readers, As Executive Director,

Sri Shanmuga Educational Institutions have always aimed at nurturing talent and encouraging holistic development. This newsletter is a testament to the dedication and achievements of our vibrant academic community. Let us strive to set new benchmarks in education and innovation while staying true to our values of excellence and inclusivity.

Warm regards,

Mr. THIRUMOORTHY ARUMUGAM, Executive Director,
Sri Shanmuga Educational Institutions.



Mrs. GOKILA THIRUMOORTHY ARUMUGAM

**JOINT SECRETARY SRI SHANMUGHA
EDUCATIONAL INSTITUTIONS**

Dear Readers,

As Joint Secretary of Sri Shanmuga Educational Institutions,

As we continue on our journey of educational excellence, I am inspired by the enthusiasm and achievements of our students and faculty. This newsletter serves as a platform to celebrate their efforts and successes. Let us keep the spirit of learning and collaboration alive as we aim for greater milestones in the years ahead.

Warm regards, Ms. GOKILA THIRUMOORTHY ARUMUGAM,
Joint Secretary, Sri Shanmuga Educational Institutions.



Dr. N. R. SRINIVASAN
ADVISOR SRI SHANMUGHA EDUCATIONAL
INSTITUTIONS

Dear Members of the SSEI,

Education is the foundation of progress, and Sri Shanmugha Educational Institutions exemplify this through dedication and innovation. It is heartening to see the strides made by our students and faculty in academics and beyond. I urge everyone to continue pushing the boundaries of knowledge and creativity, making us a beacon of excellence.

Warm regards, Dr. N. R. SRINIVASAN,
Advisor, Sri Shanmugha Educational
Institutions.



Dr. G. M. TAMILSELVAN
PRINCIPAL SRI SHANMUGHA COLLEGE OF ENGINEERING AND
TECHNOLOGY

Greetings,

Sri Shanmuga College of Engineering and Technology is committed to fostering a culture of learning, research, and innovation. This newsletter highlights our accomplishments and showcases the talents of our students and staff. I am confident that we will continue to excel and contribute positively to society and the field of engineering.

Warm regards, Dr . G. M. TAMILSELVAN, Principal, Sri Shanmuga College of Engineering and Technology.



Dr. M. SAKTHIVEL
**HEAD OF DEPARTMENT, ARTIFICIAL INTELLIGENCE AND DATA
SCIENCE, SRI SHANMUGHA COLLEGE OF ENGINEERING AND
TECHNOLOGY**

Greetings,

The field of Artificial Intelligence and Data Science holds transformative potential, and our department is dedicated to equipping students with the skills and knowledge needed to excel in this domain. I am delighted to see their progress reflected in this newsletter and look forward to many more achievements from our department in the future.

Warm regards, Dr . M. SAKTHIIVEL, HEAD OF THE
DEPARTMENT AI & DS.

STUDENT OFFICIALS



Naveen S
PRESIDENT



Ms. Rithanya S
VICE
PRESIDENT



Inbarasu
TREASURER



ABOUT US

Artificial Intelligence and Data Science is a fast-growing field, revolutionizing industries worldwide. Established in 2020-21 with an intake of 60 students, the department expanded to 120 in 2023-24, reflecting its growing demand. Students gain theoretical knowledge and practical expertise in cutting-edge technologies such as Machine Learning, Deep Learning, Data Science, Computer Vision, NLP, and Generative AI. The department's mission is to prepare students for diverse career opportunities in this evolving field.

With qualified faculty and advanced infrastructure, including high-end computers, servers, extensive libraries, and high-speed internet, students are well-supported in their learning journey. Training programs like seminars, workshops, and technical events enhance their skills, while personalized mentoring fosters holistic growth and personality development.

VISION AND MISSION OF THE DEPARTMENT

VISION

Envision to have Global recognition by producing high quality, creative and ethical engineers and technologists to contribute effectively through innovations and research excellence in the advancing field of Artificial Intelligence and Data Science.

MISSION

- M1: To empower the cognitive skills of the students in the pioneering domain of Artificial Intelligence and Data Science by providing content based learning with quality teaching and learning opportunities, industry institute interaction activities and centers of excellence.
- M2: To transform professionals into technically competent to contribute to the society positively by inducing entrepreneurship skills through collaborative teaching, innovations and research.
- M3: To Forge partnerships with companies to tackle real-world challenges using AI solutions, facilitating research projects and internships to bridge academia and industry.

PSOs OF THE DEPARTMENT

PSO 1. Ability to identify, design and apply domain knowledge and computational skills to evolve novel intelligent solutions for Artificial Intelligence and Data Science related processes in our ecosystem.

PSO 2. Ability to critique the role of Artificial Intelligence and Data Science in multi-disciplinary areas to transform thoughts into products through research and innovative careers.

PSO 3. Ability to Apply adaptive machine learning algorithms, statistical models, tools and techniques to develop intelligent systems for solving problems from inter-disciplinary domains.

EVENTS

- A.I. Enabled Learning Methods by Mr. R.V.Saravana Prakash, CEO, VIBAEDU Serv Pvt. Ltd. – 20.11.2023
- Android App Development by Ms. Shruthi M, Software Developer, Emglitz Technologies – 22.01.2024
- Big Data and Cloud Computing Workshop by Mr. Baskar, CEO, Linux Xpert, Chennai – 27.02.2024
- Workshop on "Power BI" by Ms. Dhanusri S, Intern, IN22LABS – 20.03.2024
- Advanced Data Structure by Dr. M. Ramakrishna, Professor, Vemana Institute of Technology, Bangalore – 18.09.2024
- Innovate, Incubate, and Accelerate - Engineering Your Startup by Mr. SathyaMurthy V, Head, Sona Incubation, Salem – 19.09.2024
- Engineering Success - HR Representatives in a Tech-Driven World by Mr. Krishivasan S, Director & Head-HR, Pickyourtrail – 05.10.2024
- Redefining IT with Emerging Technologies and Smart Systems by Ms. Rajalakshmi Srinivasan, Director / Product Development, Zoho Corporation – 21.10.2024
- Power BI by Ms. Dhanusri Saravanan, Full Stack Developer, IAgami Technologies Private Limited – 26.10.2024
- Introduction to Blockchain Technology by Dr. M. Sakthivel, Professor & Head / AI & DS, Sri Shanmuga College of Engineering and Technology, Salem – 26.10.2024

ARTICLES - 1

The Future of Artificial Intelligence in Healthcare

Priyadarshini /II
AIDS

Artificial Intelligence (AI) is revolutionizing healthcare, offering solutions that were once the stuff of science fiction. From early disease detection using predictive models to robotic surgeries, AI is transforming the way we approach medical challenges. In Tamil Nadu, initiatives like telemedicine powered by AI have proven invaluable in rural areas.

The integration of AI in diagnostics is particularly exciting. Machine learning algorithms analyze medical images with incredible accuracy, sometimes surpassing human doctors. Moreover, natural language processing enables patient interactions through chatbots, simplifying access to healthcare services.

However, challenges remain, such as data privacy and the ethical implications of AI decision-making. Addressing these issues will require collaborative efforts between technologists, healthcare professionals, and policymakers. The future of AI in healthcare is bright, promising a healthier tomorrow for all.

ARTICLES - 2

Data Science in Tamil Nadu's

Agriculture

Subashree/II Year

Agriculture is the backbone of Tamil Nadu, and data science is emerging as a game-changer in this sector. With unpredictable weather patterns and increasing demand for sustainable practices, farmers are turning to technology for solutions.

Data science applications such as precision farming use sensors and analytics to monitor soil health, optimize water usage, and predict crop yields. Predictive models help farmers make informed decisions about planting and harvesting, reducing losses. In Tamil Nadu, startups are using AI-powered drones to survey fields and assess crop health, making agriculture more efficient.

By leveraging historical data and real-time analytics, farmers can enhance productivity and profitability. As students of data science, we have a responsibility to innovate and create tools that can empower our farmers. After all, technology should benefit even the most traditional industries.

ARTICLES - 3

Data Science in Tamil Nadu's Agriculture

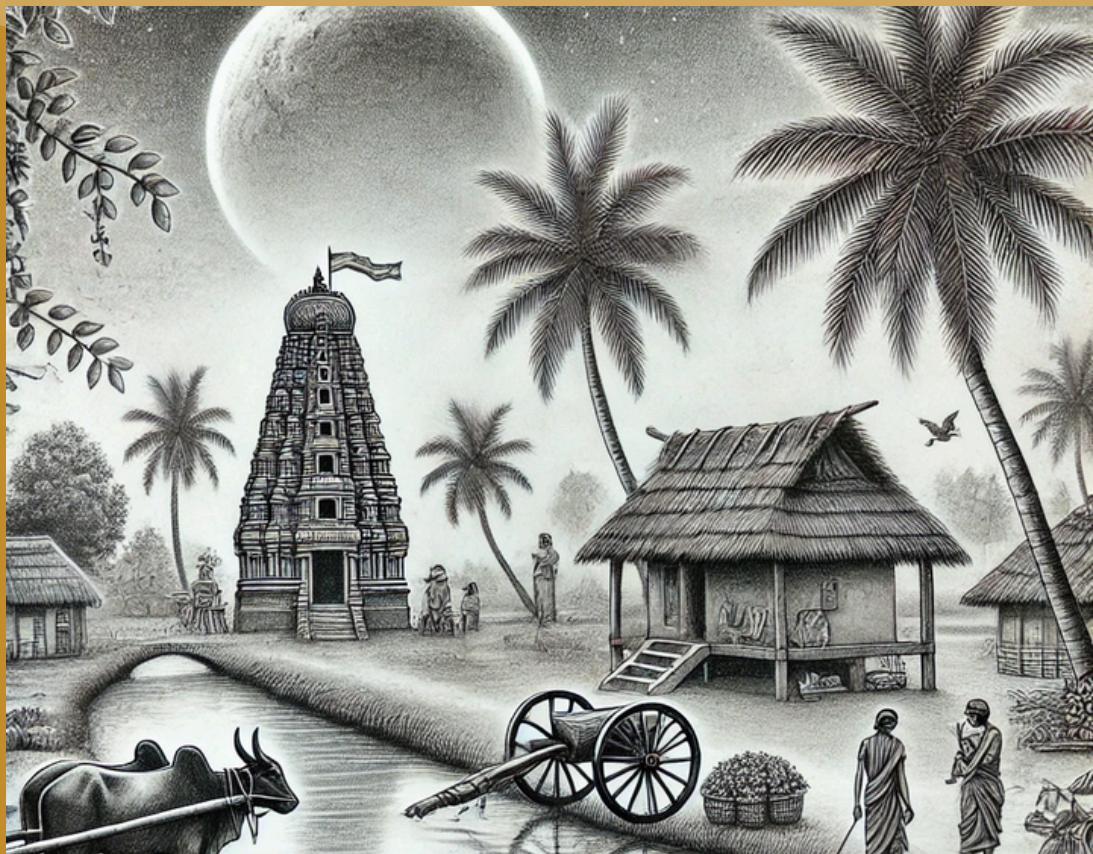
Malini M/II AIDS

Artificial Intelligence (AI) offers immense potential, but it also raises critical ethical concerns. As AI systems become more integrated into our daily lives, questions about bias, transparency, and accountability become unavoidable.

Bias in AI algorithms can lead to unfair treatment in areas like hiring or lending, reflecting the biases present in training data. For example, a recruitment algorithm might favor certain demographics over others, perpetuating inequality. Transparency is another concern—AI models, especially deep learning, are often referred to as "black boxes," where decision-making processes are not easily understood.

In Tamil Nadu, as AI adoption grows in industries like education and governance, it is vital to ensure ethical AI practices. As future engineers, we must prioritize fairness, inclusivity, and accountability in our AI systems to build a better, more equitable society.

STUDENT DRAWING



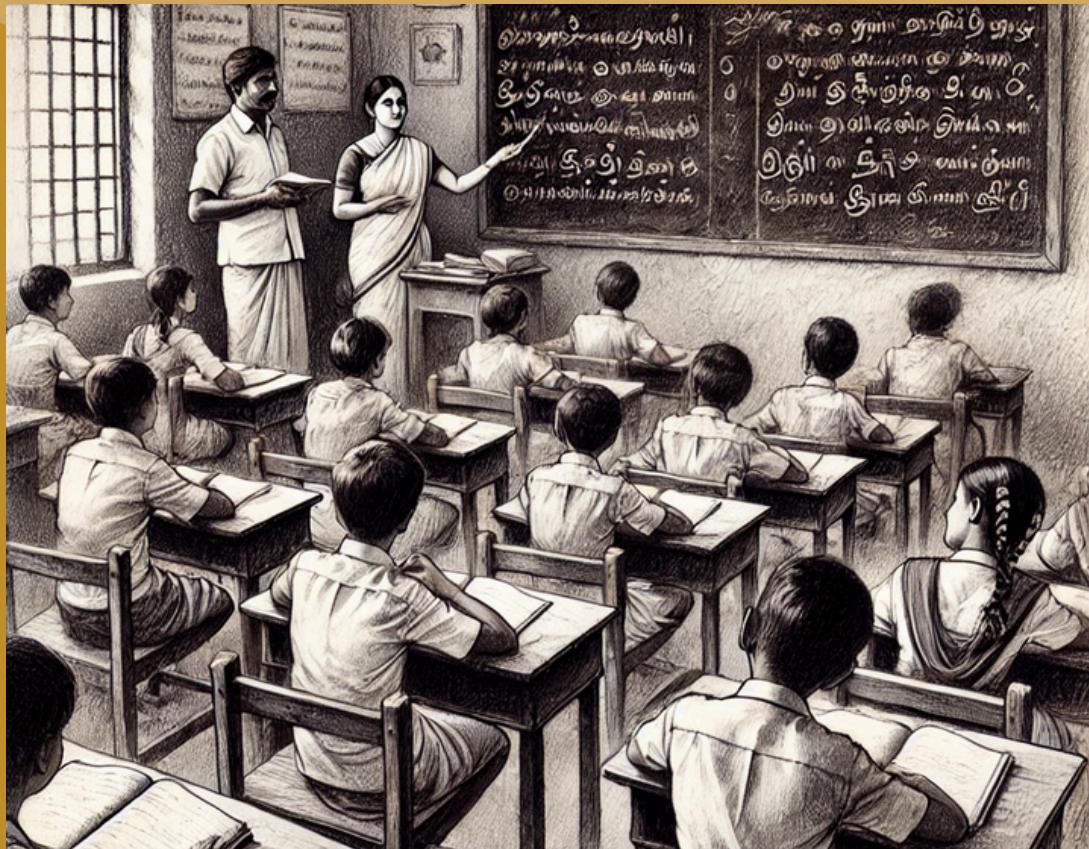
VIKRAM S/ II AIDS

DIGITAL ART



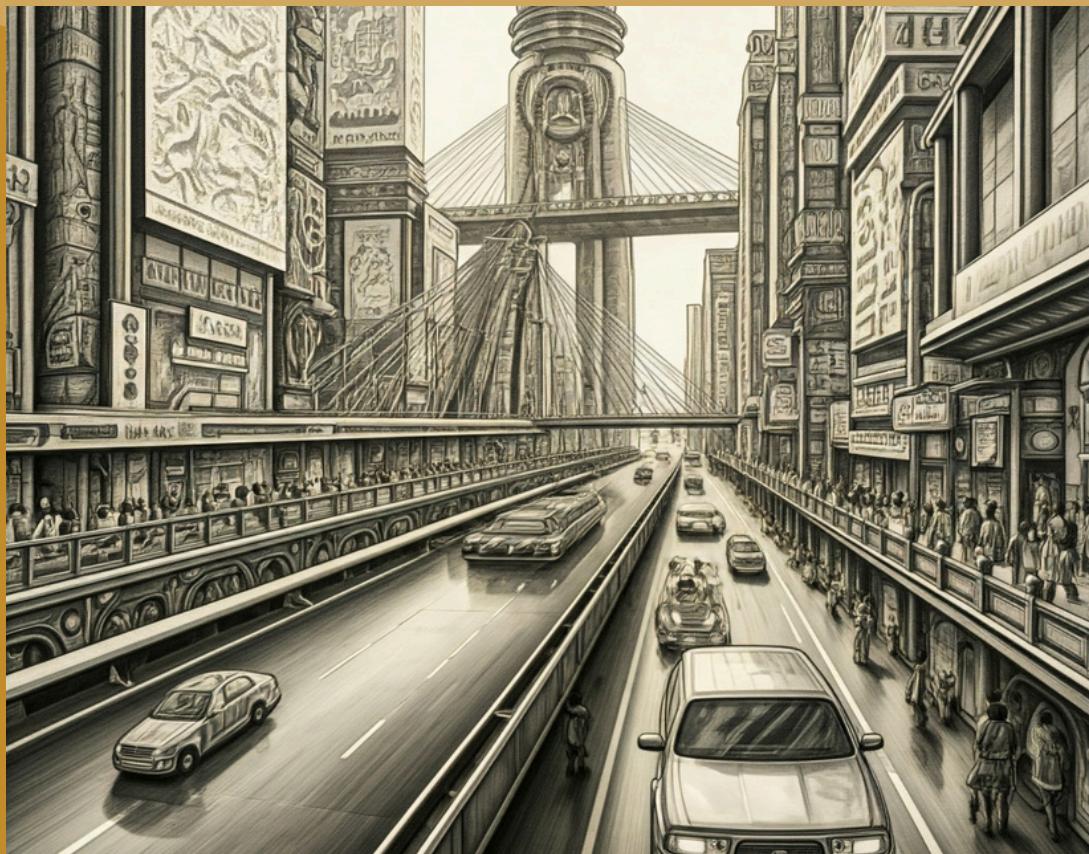
YASWANTH K/ III
AIDS

STUDENT DRAWING



RAJADURAI R/II AIDS

STUDENT DRAWING



BHUVANESHWARI D/ III
AIDS

SYMPOSIUM'23



National Level Technical Symposium
All Department of SSCET
(11/04/2024)