ERODE SENGUNTHAR ENGINEERING COLLEGE

DEPARTMENT OF

ARTIFICIAL INTELLIGENCE AND DATA SCIENCE – 2023 - 24

About Us

Data Science basically is an amalgamation of mathematics, programming, statistics and design which are applied in order to successfully manage digital data collection.

Artificial Intelligence (AI) is the simulation of human intelligence by machines. In other words, it is the method by which machines demonstrate certain aspects of human intelligence like learning, reasoning and self- correction.

Vision

Excellence in the domain of Artificial Intelligence and Data Science for sustainable development.

Mission

To impart quality education with regard to existing and evolving AI & DS techniques.

To groom students technologically superior and ethically strong.

To equip students with interdisciplinary skill sets require to cater the needs of the society.

To Collaborating with various Industries to make students industry ready.

Association Activities

The Department of Artificial Intelligence and Data Science has organized a Seminar on Big Data Technologies on 16.06.2023 with the resource person Mr.T.P.Satheesh Product Owner Bank of America, Chennai

The Department of Artificial Intelligence and Data Science has organized a online Seminar on Value Proposition & Business Fit on 26.06.2023 with the resource person Gowtham Krishnamoorthy Founder & CEO Nutz Technovation Pvt. Ltd,Coimbatore.

The Department of Artificial Intelligence and Data Science has organized a Training on College Learning Management System on 01.07.2023 with the resource person Mr.K.Satheeshkumar CEO NxTNew Ton LLP Coimbatore.

The Department of Artificial Intelligence and Data Science has organized on Guest Lecturer on Web Development Career Path on 29.07.2023 with the resource person Mr.RajaRavi Senior Backend and Full Stack Cloud Developer Logitech Engineering and Design,Chennai .

The Department of Artificial Intelligence and Data Science has organized on Guest Lecutre on Augumented Reality and Virtual Reality on 07.08.2023 with the resource person Mr.B.Pradeep Sathya Kumar M.E SCOPIK EDUTECH PVT LTD

The Department of Artificial Intelligence and Data Science has organized on Problem Solving and Competitive Programming on 17.08.2023 with the resource person Mrs.S.Hemalatha M.E..(Ph.D) Sri Shakthi Institute of Engineering and Technology.
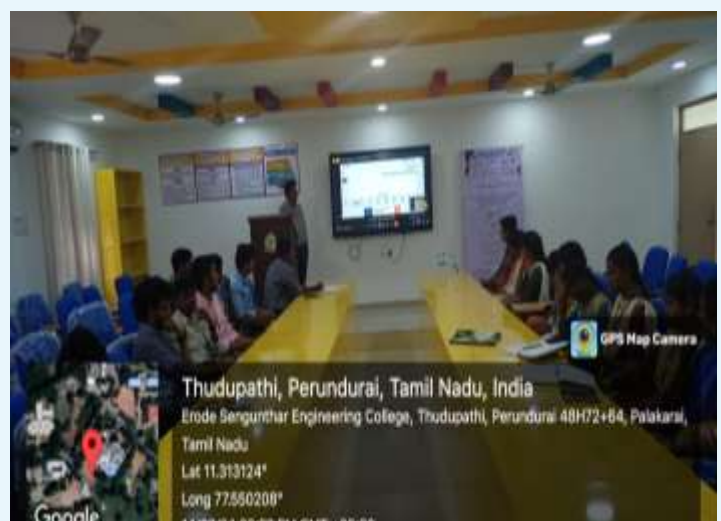
The Department of Artificial Intelligence and Data Science has organized on Workshop on Open AI on 31.10.2023 with the resource person Mr.T.Nandhakumar Web Developer(Senior Grade) Accent Techno Soft (ATS) Coimbatore.

The Department of Artificial Intelligence and Data Science has organized on Guest Lecture on 06.11.2023 with the resource person Mr.Jayasurya Gnanavel Founder and CEO Cybernaut EDU-TECH, Chennai.

The Department of Artificial Intelligence and Data Science has organized on Seminar on Smiles to make them more in AI Technology on 15.12.2023 with the resource person Dr.Senthil Kumar Director Vanjee Multi speciality Dental Care Erode.

The Department of Artificial Intelligence and Data Science has organized on Seminar on Life skill and student Development for Career Advancement on 26.02.2024 with the resource person Ms.Suganya Gladies Founder C Birds Coimbatore.

The Department of Artificial Intelligence and Data Science has organized on Workshop on Data Visualization and NLP on 15.04.2024 with the resource person Mr.Shanthosh kumar Founder ATS Coimbatore.

The Department of Artificial Intelligence and Data Science has organized on International Workshop on Data Science using python on 19.02.2024 to 23.02.2024.

The Department of Artificial Intelligence and Data Science has organized on one day Workshop on Data Science Analytics on 08.03.2024.

The Department of Artificial Intelligence and Data Science has organized on Guest Lecture on 06.11.2023 with the resource person Mr.Jayasurya Gnanavel Founder and CEO Cybernaut EDU-TECH, Chennai.

The Department of Artificial Intelligence and Data Science has organized Guest lecture on Students Goal Planning System to a Balances Life on 13.10.2023 with the resource person Mrs.Suganya Gladies Educator Coimbatore.

The Department of Artificial Intelligence and Data Science has organized a Guest Lecture on Augumented Reality and Virtual Reality (AR-VR) on 07.07.2023 with the resource person Mr.B.Pradeep Sathya Kumar Reginal Head Scopik EduTech Pvt Ltd,Chennai

The Department of Artificial Intelligence and Data Science has organized on Guest Lecturer on Web Development Career Path on 29.07.2023 with the resource person Mr.RajaRavi Senior Backend and Full Stack Cloud Developer Logitech Engineering and Design,Chennai

The Department of Artificial Intelligence and Data Science has organized on Guest Lecutre on Augumented Reality and Virtual Reality on 07.08.2023 with the resource person Mr.B.Pradeep Sathya Kumar M.E SCOPIK EDUTECH PVT LTD

DEPARTMENT FACULITY MEMBERS

S.No	Name of the Faculty	Designation
1.	Dr.G.Saravanan	Professor
2.	Mr.G.Arun	Associate Professor
3.	Mr.C.SenthilKumar	Assistant Professor
4.	Mr.D.Pavun kumar	Assistant Professor
5.	Ms.R.Jamuna	Assistant Professor
6.	Ms.R.Savitha	Assistant Professor
7.	Ms.D. Linett Sophia	Assistant Professor
8.	Ms.D.Viji	Assistant Professor
9.	Ms.D.Savitha	Assistant Professor
10.	Mr.S.Ramakrishnan	Assistant Professor
11.	Ms.T.Vanitha	Assistant Professor
12.	Mr.M.Senthilkumar	Assistant Professor
13.	Ms.P.Rajarajeswari	Assistant Professor
14.	Mr.K.C.Palanisamy	Assistant Professor

ASSOCIATION – OFFICE BEARERS

SATHISH KUMAR
IV – AI&DS
PRESIDENT

DINESH KUMAR S
III – AI&DS
JOINT SECRETARY

MUTHU KUMAR
III – AI&DS
VICE-PRESIDENT

KEERTHIVASAN
III – AI&DS
TREASURER

SUDHARSAN S
IV–AI&DS
SECRETARY

BOOKS/BOOK CHAPTER AUTHORED, EDITED

- M.Senthil Kumar Assistant Professor, Department of Artificial Intelligence and Data Science has published a book on "Cloud Computing – Everything as a Cloud Service in Industry 4.0" ISBN NO: 978-981-99-8117-5.

- G.Saravanan Associate Professor,Department of Artificial Intelligence and Data Science has published a book on "Wireless Sensor Networks" ISBN NO:979-83-60366-53-9 ASIN number B0BK9GWLMF.

- G.Saravanan Associate Professor,Department of Artificial Intelligence and Data Science has published a book on "A study on the landscape of serverless computing:Technologies and Tools for seamless implementation" DOI:10.4018/979-8-3693-1682-5.ch016

- D.Jamuna Assistant Professor,Department of Artificial Intelligence and Data Science has published a book on "Computer Architecture" ISBN 13:978-93-5577-737-9.

PATENTS PUBLISHED BY FACULTY

- Dr.G.Saravanan Associate Professor, Department of Artificial Intelligence and Data Science has published a patent on "Web Based Systems for sign Recongnition and sign Translation" Application No. 202341032621A, 23.06.2023

- Dr.G.Saravanan Associate Professor, Department of Artificial Intelligence and Data Science has published a patent on "Bandwidth Sharing and Resume Mechanism in a Wireless Sensor Network" Application No. 202341019619A

- Dr.G.Saravanan Associate Professor, Department of Artificial Intelligence and Data Science has published a patent on "Artificial Intelligence Framework with machine learning techniques for anomaly detection in IOT networks" Application No.202441017058A, 29.03.2024

- Ms.P.Rajarajeswari Assistant Professor, Department of Artificial Intelligence and Data Science has published a patent on "Deep Learning based Automatic prevention and detection of Brain tumour using Image processing,Data mining and Machine Learning algorithms for smart Healthcare Systems" Application No.

- 202341019619AApplication No. 202441068879 A, Patent Office Journal No. 38/2024 Dated 20.09.2024.

- Ms.R.Jamuna Assistant Professor, Department of Artificial Intelligence and Data Science has published a patent on "Data science and Machine Learning Based System and Method for Enhancing Healthcare Applications" Application No. 202341090063

- Mr.K.C.Palanisamy,Assistant Professor, Department of Artificial Intelligence and Data Science has published a patent on "System and Method for Drug indication and response prediction using deep learning based on convergence of different category data" Application No. 202341088523 Dated 19.01.2024

- G.Arun Assistant Professor, Department of Artificial Intelligence and Data Sciencehas published a patent on "Machine Learning Based Approach To Study The Positive Aspects Of Various Bioenergy Systems" Application No. 202341082970.

- Ms.D.Linett Sophia ,Assistant Professor, Department of Artificial Intelligence and Data science has published a patent on "Dynamic AI-driven sensor coordination and optimization for enhanced data accuracy in smart city IOT infrastructures" Application No:202441003647.

- Ms.D.Viji, Assistant Professor, Department of Artificial Intelligence and Data science has published a patent on "Plant Diseases through Leaf Analysis" Application No:202441010163.

- T.Vanitha Assistant Professor, Department of Artificial Intelligence and Data Science has published a patent on "System and Methods of Image Classification Base Semi- Supervised Deep Learning " Application No:202441005576.

- Mr.M.Senthil Kumar Assistant Professor, Department of Artificial Intelligence and Data Science has published a patent on "Bandwidth Sharing and Resume Mechanism in a Wireless Sensor Network" Application No. 202341019619A

- Mr.M.Senthil Kumar Assistant Professor, Department of Artificial Intelligence and Data Science has published a patent on "R-CNN based face recognition for Smart office automation" Application No. 202344073907A

- Ms.D.Savitha, Assistant Professor, Department of Artificial Intelligence and Data science has published a patent on "Emergency prevention in Hydroelectric dams: A

time- series forecasting approach using machine learning" Application No:202441013969 A, 08.03.2024. Neural Turing Machines and Machine Learning", IEEE Xplore, December 2024.

FDP/STTP/WORKSHOP/NATIONAL AND INTERNATIONAL CONFERENCES/SPECIAL LECTURES ATTENDED BY THE FACULTY

- Mr. G. Saravanan Associate Professor presented his research paper titled "Video Streaming Analytics Based on Deep Learning Detection Using Cloud Computing" at the Second International Conference on Advancements in Science, Management & Engineering (ICSME 2023) organized by the Indian Global Conference Hub and took place on the 24th and 25th of June 2023 at Coimbatore, Tamil Nadu.

- Mr. G. Saravanan Associate Professor presented his research paper titled "An Empirical Investigation of Dockets for Privilege Escalation and Defensive Strategies" at the International conference on innovative data communication technologies and Application (ICIDCA-2024)) organized by the RVS College of Engineering and Technology and took place on the 10th and 11th of January 2024 at Coimbatore, Tamil Nadu

- Mr. G. Saravanan Associate Professor presented his research paper titled "Rustram" at the National conference on recent trends in Artificial Intelligence and soft Computing (NCRTAS-2024) organized by the Bannari Amman institute of Technology and took place on the 24th January 2024 at Satyamangalam,Erode, Tamil Nadu.

- Mr. G. Saravanan Associate Professor presented his research paper titled " Automatic number plate Detection using AWS" at the 8 th International conference on Engineering technology and science(ICETS'24) organized by the Muthayammal college of Engineering and took place on the 20th March 2024 at Namakkal, Tamil Nadu

- Ms.D.Vanitha Assistant Professor presented her research paper titled "Rustram –A Secure And High Performance Ram Analysis Tool For Cyber Security Profession" at the 8th Two Days National Level Conference on Advanced Computing Techniques(NCACT'2023) organized by the Kalaignar Karunanithi Institute of Technology and took place on the 16th and 17th November 2023 at Coimbatore, Tamil Nadu.

- Ms.R.Jamuna Assistant Professor presented her research paper titled "Rustram –A Secure And High Performance Ram Analysis Tool For Cyber Security Profession" at the 8th Two Days National Level Conference on Advanced Computing Techniques(NCACT'2023) organized by the Kalaignar Karunanithi Institute of Technology and took place on the 16th and 17th November 2023 at Coimbatore, Tamil Nadu.

- Ms.P.Rajarajeswari Assistant Professor presented her research paper titled "Rustram –A Secure And High Performance Ram Analysis Tool For Cyber Security Profession" at the 8th Two Days National Level Conference on Advanced Computing Techniques(NCACT'2023) organized by the Kalaignar Karunanithi Institute of Technology and took place on the 16th and 17th November 2023 at Coimbatore, Tamil Nadu.

- Mr.K.C.Palanisamy Assistant Professor presented his research paper titled "Comfort Agri Planting With Power Of AI" at the Two Days National Level Conference on Advanced Computing Techniques(NCACT'2023) organized by the Kalaignar Karunanithi Institute of Technology and took place on the 16th and 17th November 2023 at Coimbatore, Tamil Nadu.

- Mr.G.Arun Assistant Professor presented his research paper titled " Design and Analysis of Deep Learing nased WaterPotability Prediction" at the 6th International Conference on Contemporary Computing and Informatics (IC31-2023) organized by Amity University (IC31-2023) and took place on the 14th and 16th September 2023 at Greater Noida,India

- Mr.G.Arun Assistant Professor presented his research paper titled " Deep Learning Based Smart American Sign Language Detection in Alphabets" at the International Conference on Self Sustainable Artificial Intelligence System (ICssas-2023) organized by MPNMJE Engineering College and took place on the 18th and 20th October 2023 at Erode, Tamil Nadu.

- Ms.Linett Sophia Assistant Professor presented her research paper titled "AI Powerd Educational Assistant With NLP" at the two days National Level Conference on Advanced Computing Techniques(NCACT 2023) organized by Kalaignar Karunanithi Institute of Technology and took place on the 16th and 17th November 2023 at Coimbatore, Tamil Nadu

- Ms.D.Savitha Assistant Professor presented her research paper titled " Comfort Agri Planting With Power of AI" at the Two days national level conference on advanced computing techniques(NCACT 2023) organized by Kalaignar Karunanithi Institute of Technology and took place on the 16th and 17th November 2023 at Coimbatore, Tamil Nadu

- Ms.D.Savitha Assistant Professor presented her research paper titled "Rustram-A Secure and High Performance RAM Analysis Tool for Cybersecurity Professionls" at the Two days national level conference on advanced computing techniques(NCACT 2023) organized by Kalaignar Karunanithi Institute of Technology and took place on the 16th and 17th November 2023 at Coimbatore, Tamil Nadu.

- Mr.K.C.Palanisamy Assistant Professor presented his research paper titled "Facial Recognition Based Student Analysis System Using CNN" at the 8th International conference on Engineering technology and science(ICETS'24) organized by the Muthayammal college of Engineering and took place on the 20th March 2024 at Namakkal, Tamil Nadu.

- Mr.G.Saravanan's research work titled "Workload Prediction for Enhancing Power Efficiency of Cloud Data Centers Using Optimized Self-Attention-Based Progressive Generative Adversarial Network" was published in the International Journal of Communication Systems bearing the DOI: 10.1002/dac.5634, was officially published on 11th September 2023.

- Mr. G. Saravanan published a research paper titled "Big Data Analytics for Healthcare Using Artificial Neural Network" in the International Journal of Advance Research and Innovative Ideas in Education, Volume 9, Issue 3, 2023. The journal is identified by ISSN (Online): 2395-4396.

- Mr. G. Saravanan authored a research paper titled "An Empirical Investigation of Docker Sockets for Privilege Escalation and Defensive Strategies," which was published in Procedia Computer Science, Volume 233, Pages 660–669, in the year 2024.

- Mr. G. Arun presented a research paper titled "Deep Learning-Based Smart American Sign Language Detection in Alphabets" at the 6th International Conference on Contemporary Computing and Informatics (ICCI-2023), organized by Amity University, Greater Noida, India. The conference took place from 14th to 16th September 2023.

- Mr. M. Senthilkumar published a research paper titled "Self-Learning Data Model Designed by Advanced Neural Network" in the Journal of Emerging Technologies and Innovative Research. The paper was published in January 2024, and the journal is identified by ISSN: 2349-5162.

- Mr. C. Senthilkumar published a research paper titled "Dynamic Pricing on Maximum Concurrency for Heterogeneous Instances Using Hyperparameter Optimization in Dueling Deep Reinforcement Learning in a Multi-Cloud Scenario" in the Journal of Intelligent & Fuzzy Systems, Volume: Pre-press, Issue: Pre-press, Pages 1–15. The paper was published on 22nd January 2024.

- Mr. C. Senthilkumar published a research paper titled "Energy Efficient Strategy for Request and Server Consolidation Schemes in Cloud Environment" in the International Multidisciplinary and Multilingual Research Journal, ISSN: 2582-9866, Volume 3, Issue 1, during the period January – March 2023.

- Mr. C. Senthilkumar published a review paper titled "A Review of Dynamic Pricing Methods for Service Providers Under the Multi-Server Cloud Environment" in the International Multidisciplinary and Multilingual Research Journal, ISSN: 2582-9866, Volume 3, Issue 1, for the period January – March 2023

STUDENTS ACHIEVEMENTS

Selvan Joshua Edwin Rajan A, Selvi Vishalini K, and Selvan sharan K K, second year from the Department of Artificial Intelligence and Data Science participated in a paper presentation titled "Music Recommendation System using AI" and won First prize organized by Chennai Institute of Technology 25.09.2023 & 26.09.2023.

Selvan S Bhubalan, Selvan R Adalarasan, Selvi Vishalini K, second year from the Department of Artificial Intelligence and Data Science participated in a paper presentation titled "VR @ Nxgen" and won Second prize organized by Nandha College of Engineering held on 13.10.2023.

Selvi Roja Sri V, Selvi Kavyamohanan, Third year from the Department of Artificial Intelligence and Data Science got Intern in Space Application centre (ISRO), Ahmedabad, Gujarat titled " Navigation and Simulation Division" during 17.07.2023 to 25.09.2023

Selvan Kesavaprasad, Third year from the Department of Artificial Intelligence and Data Science got Intern in Ministry of Electronics and Information and Technology, Defence colony, New Delhi titled " Stress Analysis using Electrooculography (EOG) Signals" during 24.07.2023 to 25.09.2023

Selvi G.Ravina, Selvi G.Saumya, Selvan M S Vishwanath, Third year from the Department of Artificial Intelligence and Data Science participated in a Project Expo titled "Cloud 360" and won First prize organized by : SNS College of Technology held on 13.09.2023..

Selvi G.Ravina, Selvi G.Saumya, Selvan M S Vishwanath, Third year from the Department of Artificial Intelligence and Data Science participated in Startup Tiruvizha – Theerkathon titled "Cloud 360" and Won Silver Category award with 5k cash price held on 20.08.2023.

Selvi G.Ravina, Selvi G.Saumya, Selvan M S Vishwanath and Selvan V Kamalesh Third year from the Department of Artificial Intelligence and Data Science Selected for course training will full sponsorship titled "Engineering optimisation with application in automation and computer vision" in Vishweshwaraya Institute of Technology during 17.07.2023 to 23.07.2023, Nagur

Selvi G.Ravina, Selvi G.Saumya, Selvan M S Vishwanath, Third year from the Department of Artificial Intelligence and Data Science participated in Dr Kalam young achiever award titled "Cloud 360" and Won Price in 2 categories. Dr Kalam young achiever award & Best Young achiever of the year award with 5k cash price organized by Anna University held on 15.10.2023

Selvan Prasanna V, third year from the Department of Artificial Intelligence and Data Science got Project Intern titled "Stress analysis using EOG signals" in Centre for development of advance Computing, Jasola, New Delhi during 24.07.2023 to 25.09.2023.

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Selvi Sneha S, third year from the Department of Artificial Intelligence and Data Science got Research Intern titled "High Performance Computing and Compiler Architecture and Optimization" in Ministry of Electronics and Information Technology, New Delhi along with Stipend Rs:20,000/- during 19.06.2023 to 18.08.2023