

July-2025



**AMITY
UNIVERSITY**

INNOVATIONS @ Amity Centre for Artificial Intelligence

Building a smarter world with Artificial Intelligence.



OUR MENTORS

DR. ASHOK K. CHAUHAN

Founder President, Ritnand Balved Education Foundation
(The Foundation of Amity Institutions and the sponsoring
body of Amity Universities), Chairman, AKC Group of Companies



DR. ATUL CHAUHAN

Chancellor, Amity University
President, Ritnand Balved Education Foundation
CEO, AKC Group of Companies



PROF. (DR.) BALVINDER SHUKLA

Vice Chancellor
Amity University Uttar Pradesh



DR. W. SELVAMURTHY

President, Amity Science, Technology and Innovation
Foundation (ASTIF), Director General, Amity Directorate
of Science and Innovation (ADSI), Chancellor, Amity University,
Chhattisgarh



AMITY CENTRE FOR ARTIFICIAL INTELLIGENCE

It gives me great pleasure to welcome you to the Amity Centre for Artificial Intelligence (ACAI)—a centre dedicated to advancing knowledge, innovation, and excellence in Artificial Intelligence.

Our goal at ACAI is to nurture future-ready AI professionals, innovators, and scholars by offering cutting-edge education, high-performance computational resources, and an environment that promotes cross-disciplinary engagement.

Equipped with state-of-the-art NVIDIA DGX-2 A100 GPU servers providing nearly 10 petaFLOPS of computing power, and guided by a committed faculty of leading experts, ACAI is pushing the frontiers of AI research and training. We take pride in being among the first in India to launch a comprehensive undergraduate program in Generative AI, LLMs, Multimodal AI. Our students have distinguished themselves—earning accolades in national competitions, excelling at hackathons, and contributing to impactful research publications.

As Artificial Intelligence transforms industries and redefines human–technology interaction, ACAI—embedded within the diverse ecosystem of Amity University spanning Engineering, Life Sciences, Biotechnology, Management, and beyond—offers a unique advantage in bringing AI into meaningful collaboration across disciplines to solve real-world challenges.

Our vision is to position ACAI as a leading national hub for Artificial Intelligence, where world-class education meets pioneering research to shape a more intelligent and sustainable future. I warmly encourage students, researchers, and industry leaders to join hands with us as we unlock the vast possibilities of AI for the benefit of society..

Best wishes



PROF. M.K.DUTTA

Additional Pro-Vice Chancellor
Director, Amity Centre for Artificial Intelligence (ACAI)
Amity University, Noida.

ACAI-LAB - INFRASTRUCTURE

The Amity Centre for Artificial Intelligence has the most advanced Supercomputing facility, NVIDIA DGX2 A100, the world's most powerful AI system to fuel research, development, and innovation with 16 state-of-the-art NVIDIA A100 GPUs and 10 Petaflop computing power. This high-speed AI server delivers unparalleled performance, speed, and precision, allowing you to accelerate AI workloads and unlock new opportunities. Researchers working on machine learning, deep learning, or data science, this NVIDIA DGX2 A100 server is the perfect tool for the job. Its advanced hardware and software stack provides a seamless and efficient environment for training, inference, and deployment, enabling you to achieve breakthrough results and insights.



Key features and benefits:

- Two NVIDIA DGX2 servers with 16 A100 GPUs for unparalleled performance and efficiency.
- 10 Petaflop computing power for lightning-fast processing and high-bandwidth connectivity.
- High-speed AI server for accelerated workloads and improved productivity.
- Advanced hardware and software stack for seamless and efficient training, inference, and deployment.
- Ideal for machine learning, deep learning, and data science applications.
- Unmatched performance, speed, and precision for breakthrough results and insights.
- DGX A100 which is equipped with eight NVIDIA A100 Tensor Core GPUs, providing a combined total of 320 GB GPU memory

Powered with the Most Advanced Supercomputing Facility



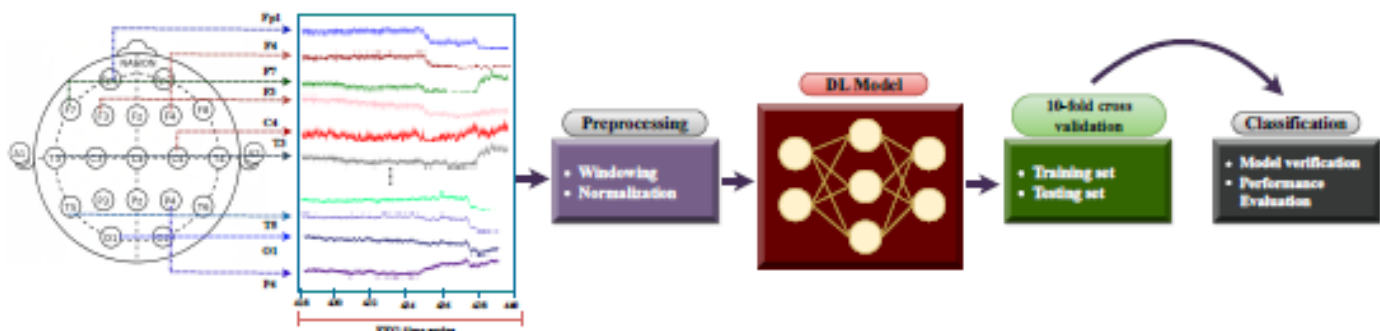
AI Innovations @ ACAI



Advancing Mental Health: AI-Powered EEG Analysis for Depression Detection

Key Highlights:

- **AI for Mental Health:** This research presents an advanced deep learning model, BMFCNet, designed for the accurate identification of Major Depressive Disorder (MDD) using EEG signals.
- **Multi-Level Feature Extraction:** The model integrates high-level (HL) and low-level (LL) EEG features through a Constraint Fusion Network, improving classification accuracy.
- **Innovative Processing:** EEG signals are analyzed using a Residual-Inception module that captures essential discriminative characteristics for effective depression detection.
- **Practical Application:** The model was tested on two benchmark EEG datasets, demonstrating superior accuracy compared to 16 state-of-the-art methodologies.
- **Real-World Impact:** This approach enhances the potential for AI-driven mental health diagnostics, offering a scalable and cost-effective solution for early depression detection.



“Revolutionizing Mental Health Diagnosis: A Deep Learning Model Achieves High Accuracy in Detecting Major Depressive Disorder (MDD) Using EEG Signals”

Relevant Publication: Mohan Karnati, Geet Sahu, Gautam Verma, Ayan Seal, Malay Kishore Dutta, Joanna Jaworek-Korjakowska. "BMFCNet: Blended Multi-Level Features with Constraint Fusion Network for Depression Detection from EEG Signals". IEEE Transactions on Instrumentation and Measurement. 2025. DOI: 10.1109/TIM.2025.3545204

Student

Author :



Gautam Verma

B.Tech. (2020 -2024)

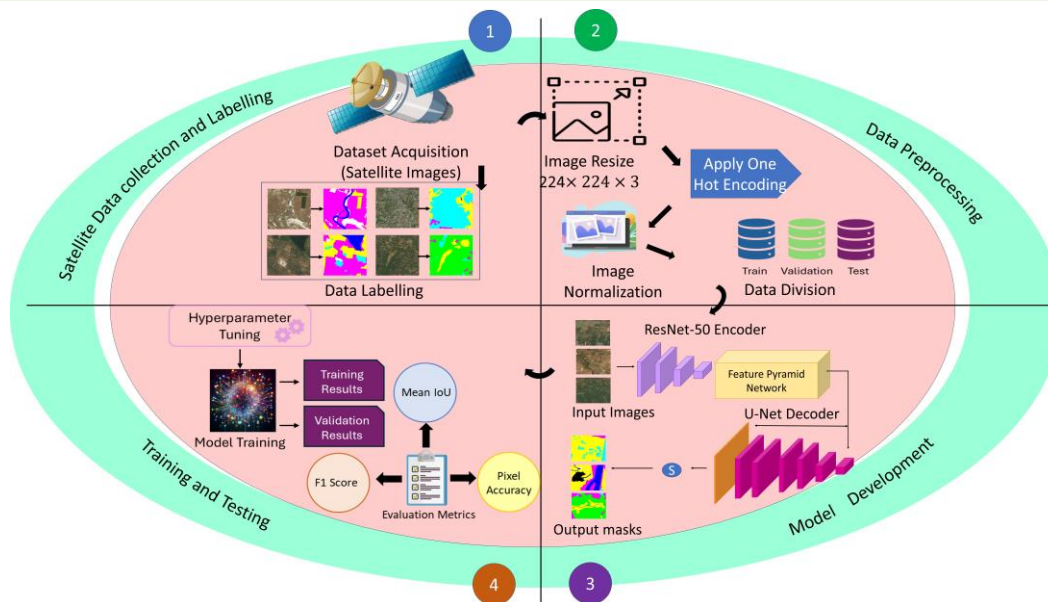
Amity School of Engineering & Technology



Semantic Segmentation of Land Cover using a Deep Hierarchical Encoder-Decoder Framework

Key Highlights:

- ❖ Focuses on automated semantic segmentation of land cover using high-resolution satellite imagery.
- ❖ Proposes a deep learning model combining residual encoder, feature pyramid network, and U-Net decoder.
- ❖ Achieves 55.14% mIoU and 84.4% pixel accuracy, outperforming previous approaches.
- ❖ Utilizes a diverse dataset with various land types like forests, agriculture, urban, and barren areas.
- ❖ Enables scalable and reliable land cover analysis for applications in urban planning, environment, and disaster response.



"Deep learning-driven segmentation for accurate land cover mapping."

Relevant Publication: Suzain Rashid, Rakesh Chandra Joshi, Anshika Chauhan and Malay Kishore Dutta, "Semantic Segmentation of Land Cover using a Deep Hierarchical Encoder-Decoder Framework with Multi-Scale Feature Integration", 16th IEEE International Conference on Computing, Communication, and Networking Technologies (ICCCNT), July 6-11, 2025 at IIT - Indore, Madhya Pradesh, India.

Student
Authors :



Suzain Rashid

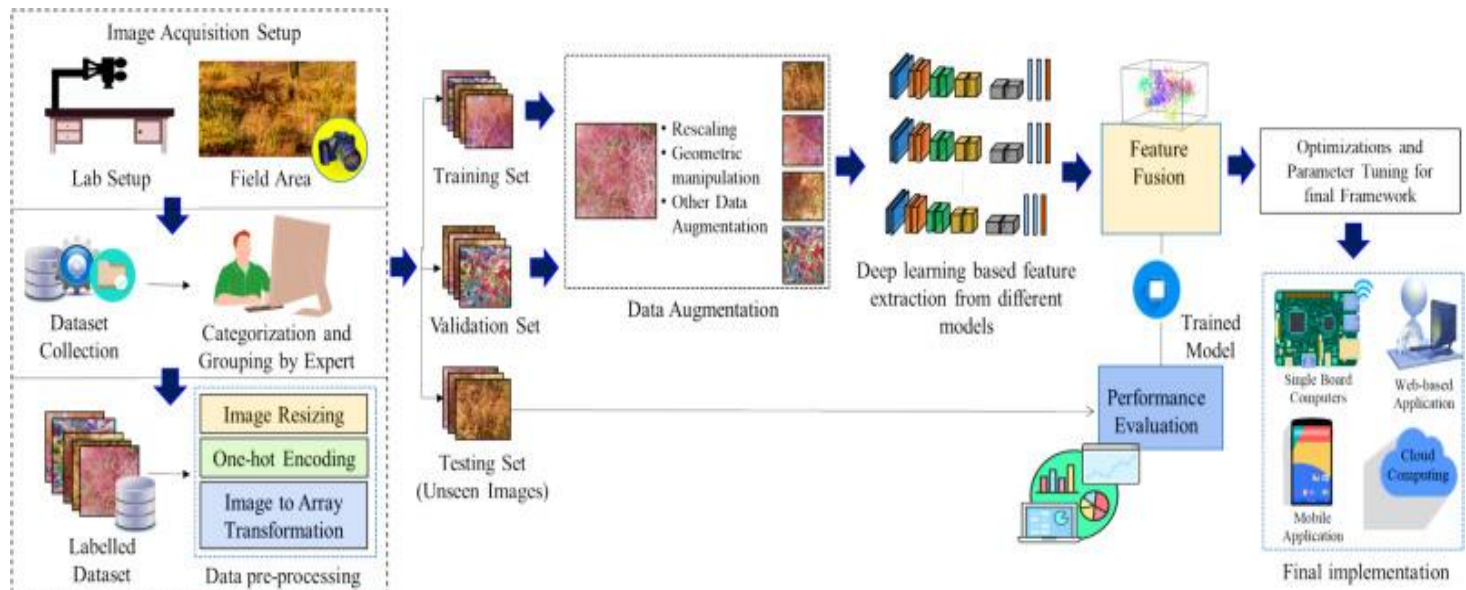
B.Tech Student (2021-25)
Amity School of Engineering &
Technology



Anshika Chauhan

B.Tech. Student (2021-25)
Amity School of Engineering &
Technology

AgriDeep-Net: AI Cultivating Smarter Farms



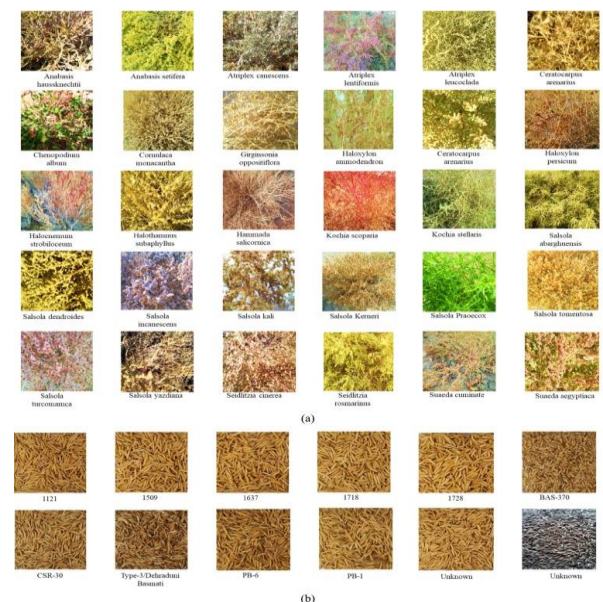
Key Highlights:

- Precision Agriculture Innovation: Introduces AgriDeep-Net, a robust deep learning framework tailored for high-resolution agricultural image analysis.
- Advanced Feature Fusion: Utilizes multi-level deep feature fusion to capture intricate patterns in fine-grain crop and field imagery.
- Enhanced Decision-Making: Enables accurate crop classification, health monitoring, and yield assessment.
- Technological Edge: Demonstrates significant performance gains over existing models, pushing the boundaries of AI in sustainable farming.
- Environmental Impact: Supports eco-friendly agricultural practices through intelligent and data-driven insights.

Relevant Publication:

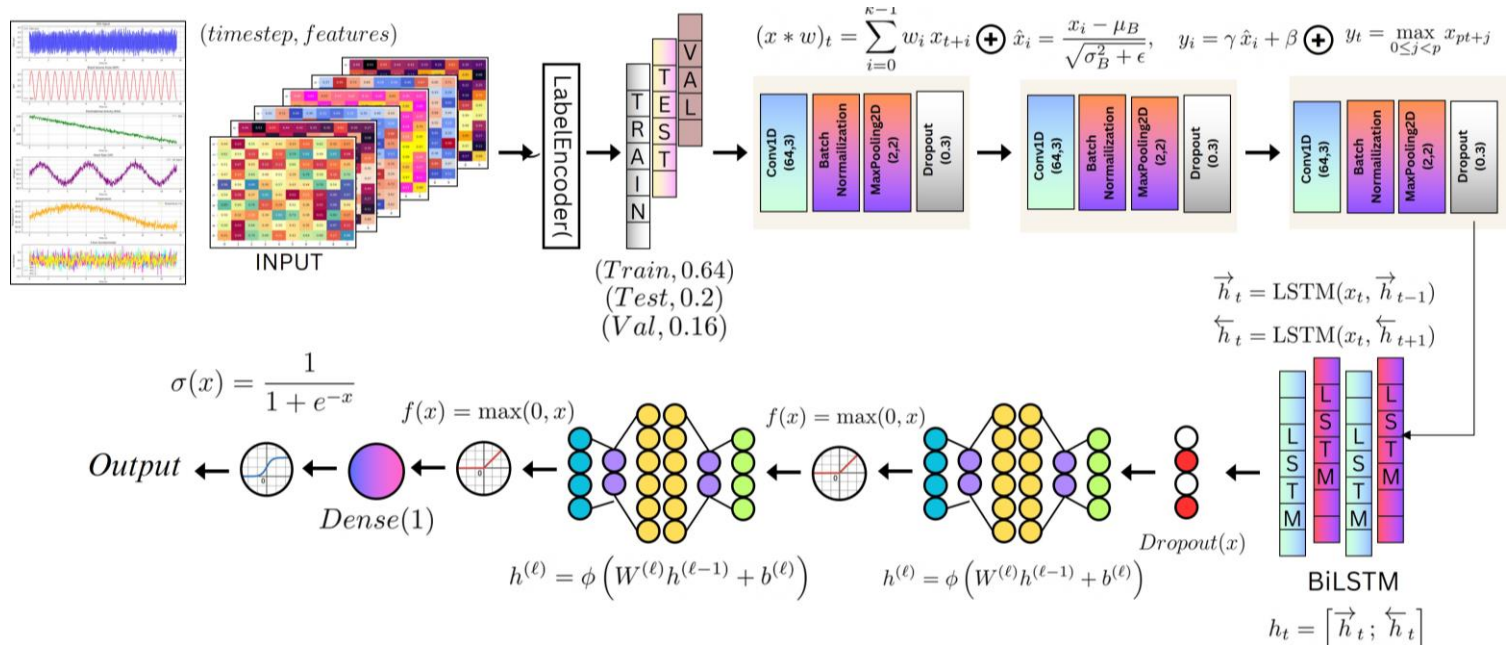
Rakesh Chandra Joshi, Radim Burget, Malay Kishore Dutta. "AgriDeep-Net: An Advanced Deep Feature Fusion-Based Technique for Enhanced Fine-Grain Image Analytics in Precision Agriculture". Ecological Informatics. 2025. DOI: 10.1016/j.ecoinf.2025.103069

"Transforming Smart Farming: Deep Learning Powers Next-Level Image Analysis in Precision Agriculture"



Multi-modal Physiological Signal-based Deep Spectro-Temporal Framework for Mental Fatigue Detection

Overview: The research presents a deep spectro-temporal learning framework for accurately detecting mental fatigue using multi-modal physiological signals such as EEG, EDA, heart rate, body temperature, and blood volume pulse. By extracting features through Mel-Frequency Cepstral Coefficients (MFCCs) and leveraging a hybrid 1D-CNN and BiLSTM architecture, the model effectively captures both local and temporal patterns within the data. Achieving a high classification accuracy of 91.65% on the MEFAR dataset, the framework outperforms traditional methods and demonstrates strong potential for real-time, scalable applications in healthcare, cognitive workload management, and occupational safety.



Relevant Publication: Atishay Jain, Rakesh Chandra Joshi, Abdullah Habib, Jitendra Singh Jadon and Malay Kishore Dutta, “Multi-modal Physiological Signal-based Deep Spectro-Temporal Framework for Mental Fatigue Detection using 1D-Convolutional and Bidirectional LSTM Networks”, 16th IEEE International Conference on Computing, Communication, and Networking Technologies (ICCCNT), July 6-11, 2025 at IIT - Indore, Madhya Pradesh, India.

Student
Authors :



Atishay Jain

B.Tech. Student (2021-25)
Amity School of Engineering &
Technology



Abdullah Habib

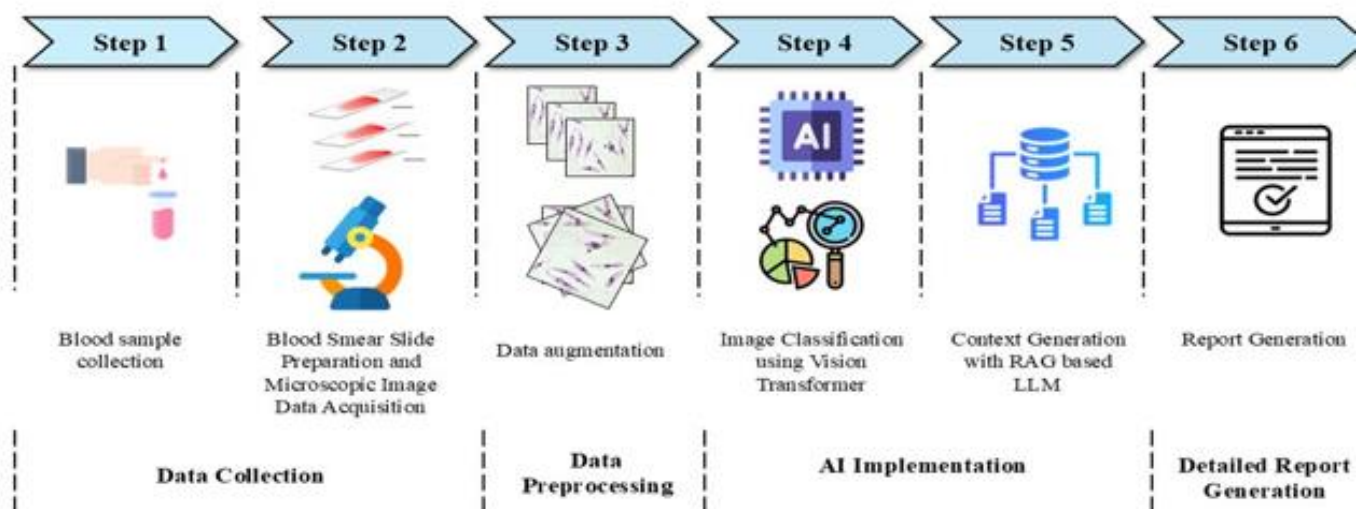
B.Tech. Student (2021-25)
Amity School of Engineering &
Technology

“Smart
Detection of
Mental
Fatigue
through Deep
Bio-Signal
Intelligence.”

Vision Transformers and RAG: Advancing Parasite Diagnostics

Key Highlights:

- **Revolutionizing Diagnostics:** Introduces a dual-mode framework combining Vision Transformer (ViT) models for high-precision image classification with Retrieval-Augmented Generation (RAG) for contextual insight generation.
- **Enhanced Medical Interpretation:** The RAG system bridges the gap between raw predictions and clinical understanding by retrieving relevant medical literature tied to classification outcomes.
- **Exceptional Accuracy:** Achieves 99.30% classification accuracy on a custom parasite and blood cell dataset, outperforming leading baseline models.
- **Resource-Conscious Innovation:** Tailored for use in low-resource medical settings, offering fast, accurate, and explainable diagnostic support.
- **Clinical and Educational Utility:** Enables early diagnosis and supports medical training by providing both image-based decisions and synthesized medical context.



Relevant Publication: Parth Mani Sharma, Aditya Tripathy, Manomay Bundawala, Abhishek Kaushal, Vinay Kumar Pathak, Malay Kishore Dutta. "A Vision Transformer and RAG-Based Framework for Parasite Classification and Insight Generation", 16th International Conference on Computing, Communication and Networking Technologies, 2025.

Student
Author :



Parth Mani Sharma
B.Tech. (2022 -2026)
Amity Institute of
Biotechnology

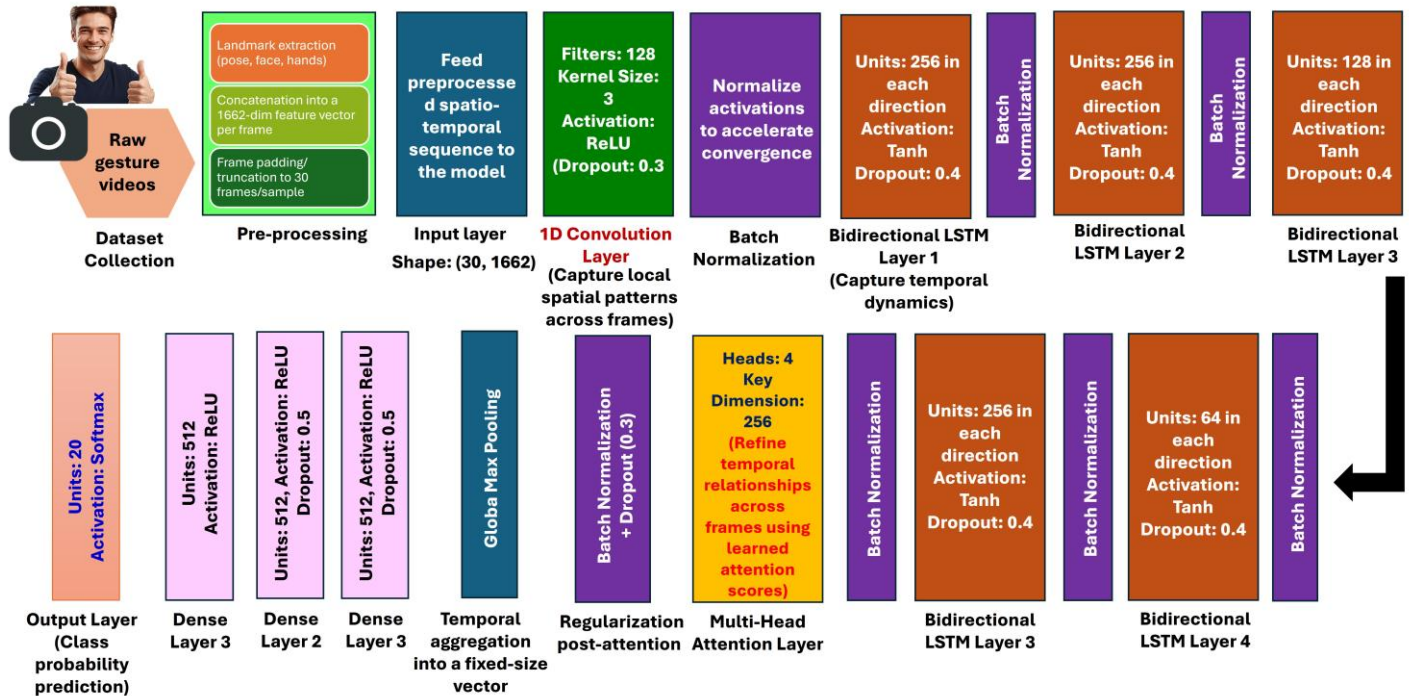


Aditya Tripathy
B.Tech. (2022 -2026)
Amity Institute of
Biotechnology



Manomay Bundawala
B.Tech. (2022 -2026)
Amity Institute of
Biotechnology

SignSpeakNet: Spatio-Temporal Sign Language Recognition using Multi-Head Attention-Guided Bidirectional-LSTM Network



SignSpeakNet is a lightweight deep learning model designed for real-time sign language recognition, integrating spatial landmarks with a multi-head attention-guided Bi-LSTM network. It effectively captures spatial and temporal gesture patterns, achieving 96.39% accuracy on a custom 20-gesture dataset. The attention mechanism enhances focus on key frames, while the Bi-LSTM models bidirectional temporal context. Optimized for low-resource devices, SignSpeakNet offers a scalable and accessible solution for inclusive communication.

Relevant Publication: Vansh Tiwari, Tushar Vij, Rakesh Chandra Joshi, Paurush Bhulania, Malay Kishore Dutta. "SignSpeakNet: Spatio-Temporal Sign Language Recognition using Multi-Head Attention-Guided Bidirectional-LSTM Network". 16th International Conference on Computing, Communication, and Networking Technologies, IIT Indore, (ICCCNT). 2025.

Student
Authors :

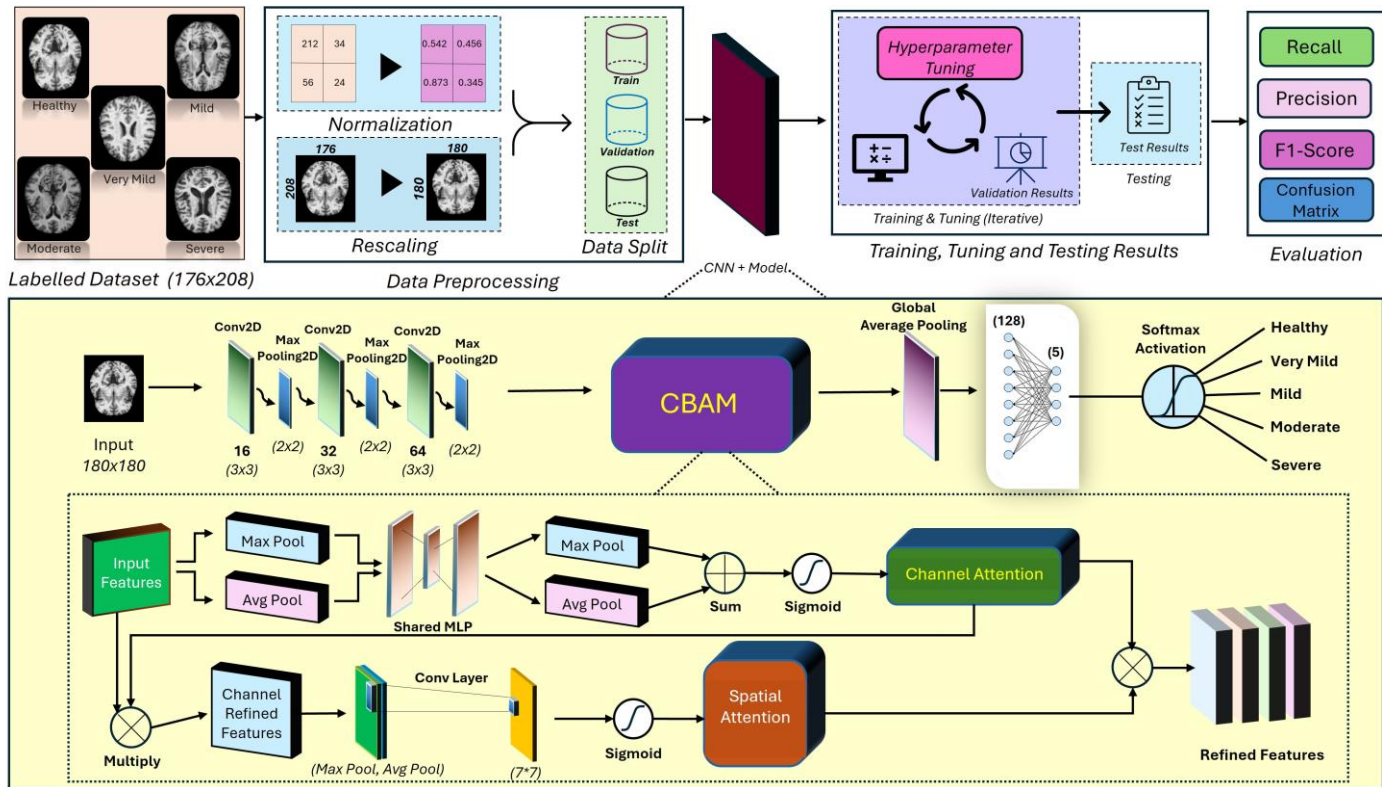


Vansh Tiwari
B.Tech (2021-2025)
Amity School of
Engineering & Technology



Tushar Vij
B.Tech (2021-2025)
Amity School of
Engineering & Technology

DeepDementia: Precision AI for Staging Cognitive Decline

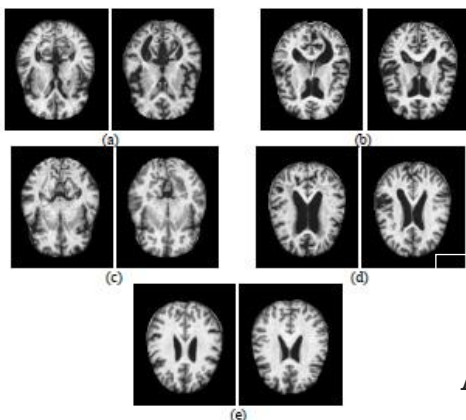


DeepDementia, enhanced with CBAM, accurately classifies five stages of dementia from MRI scans, achieving 95.71% test accuracy. Its fine-grained detection and attention-driven insights enable earlier diagnosis and personalized care.

“Revolutionizing Cognitive Health Diagnostics: Deep Learning Meets Attention Mechanisms in Dementia Staging”.

Relevant Publication: Abhijay, Rakesh Chandra Joshi, Manan Vangani, Abhishek Sengupta, Vinay Kumar Pathak, Malay Kishore Dutta. "DeepDementia: A Deep Neural Network Integrated Convolutional Block Attention Module for Multi-Stage Dementia Classification from Brain Imaging". 16th IEEE International Conference on Computing, Communication, and Networking Technologies (ICCCNT), July 6-11, 2025 at IIT - Indore, Madhya Pradesh, India,

Student Authors :

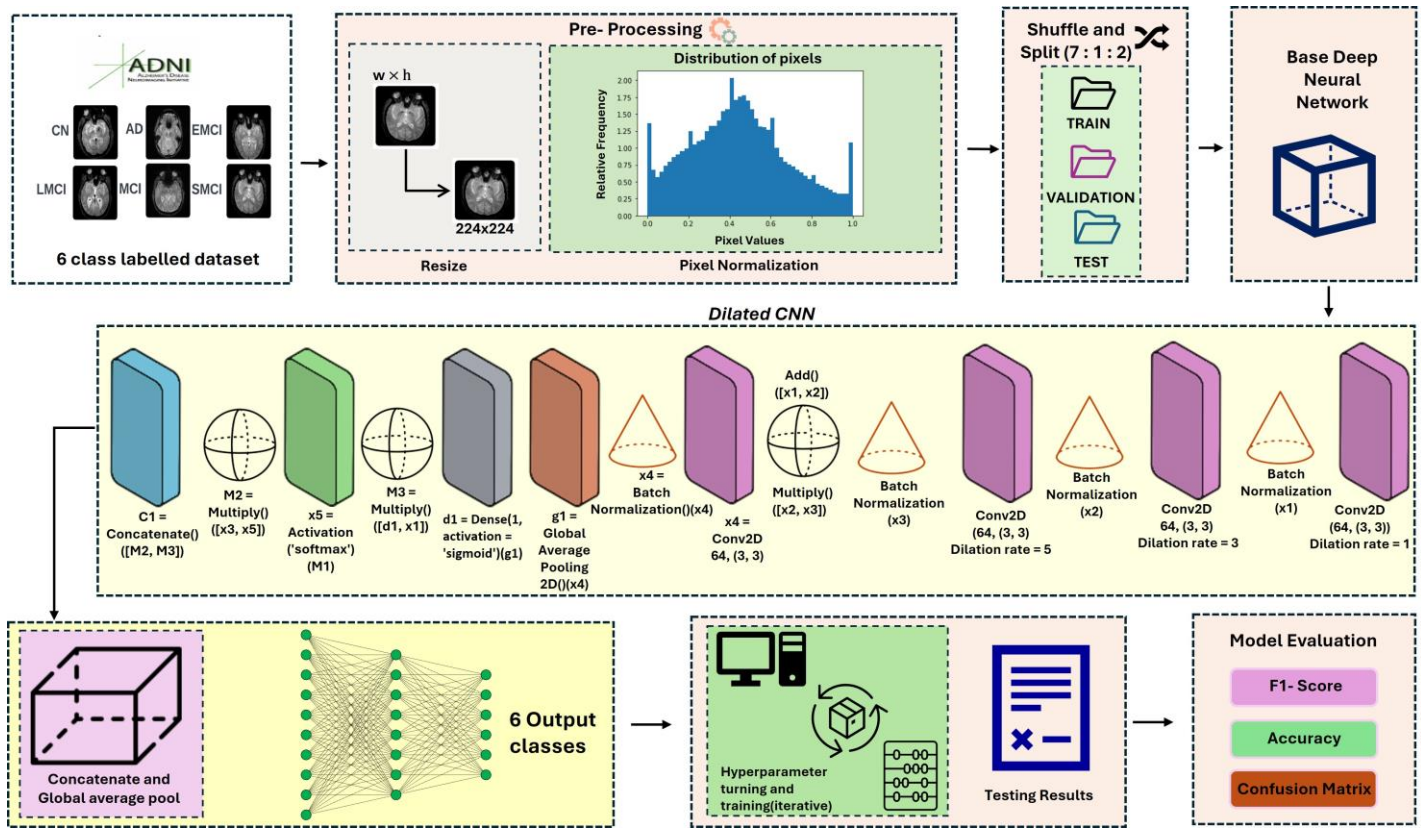


Manan Vangani
B.Tech+ M.Tech Dual Degree
Amity Institute of Biotechnology



Abhijay
B.Tech+ M.Tech Dual Degree
Amity Institute of Biotechnology

Dilated Deep Learning for Alzheimer's Staging



AD Progression Mapping uses dilated convolutions in a lightweight CNN to classify six stages of Alzheimer's with 91% accuracy. It enhances early detection by capturing subtle brain changes and automating MRI analysis for timely clinical intervention.

Relevant Publication: Manan Vangani, Rakesh Chandra Joshi, Abhijay, Abhishek Sengupta, Vinay Kumar Pathak, Malay Kishore Dutta. "Deep Neural Network with Dilated Convolutions and MRI Imaging for Multi-Class Staging Prediction of Alzheimer's Disease Progression". 16th IEEE International Conference on Computing, Communication, and Networking Technologies (ICCCNT), July 6-11, 2025 at IIT - Indore, Madhya Pradesh, India.

Student
Authors :



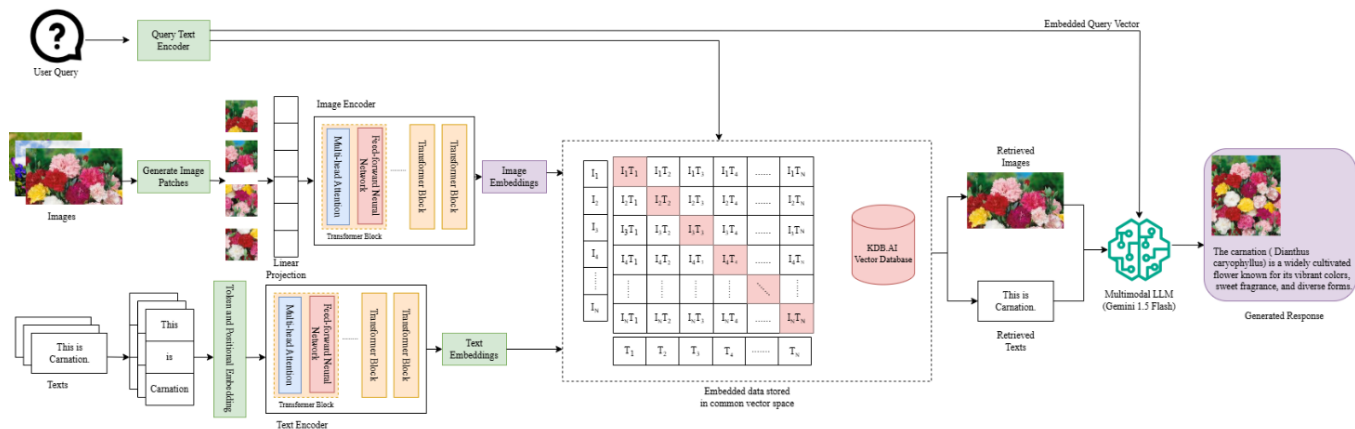
Abhijay
B.Tech+ M.Tech Dual
Degree
Amity Institute of
Biotechnology



Manan Vangani
B.Tech+ M.Tech Dual
Degree
Amity Institute of
Biotechnology

**"Accelerating
Alzheimer's
Diagnosis: Dilated
CNNs Enable Early
Detection and Multi-
Stage Disease Staging
from MRI Imaging"**

Flora-RAG: Transforming Flower Conversations with Multimodal AI



Domain-Specific ExpertiseFlora-RAG uses a specialized floriculture dataset to provide highly accurate and detailed answers about 50 flower classes, tailored for anthophiles.

Multimodal Retrieval-Augmented GenerationCombines text and image data using Meta's ImageBind and KDB.AI vector database, enabling rich, visually descriptive responses through Gemini 1.5 Flash.

Enhanced Engagement & AccuracyOutperforms standard AI models by reducing hallucinations, increasing factual precision, and enriching user interactions with semantically relevant, multimodal content.

Curated collection of images and descriptive texts across 50 flower classes, complete with metadata for effective indexing. Normalization, resizing, and transformer-based embeddings combine with Meta's ImageBind to encode images and text into a shared vector space. Vectors stored in KDB.AI enable fast, accurate approximate nearest neighbor search, ensuring relevant, domain-specific responses.

Relevant Publication: S. Shelley, P. Kaur, G. Aggarwal, A. Kaushal, and M. K. Dutta, "Flora-RAG: Enhancing Conversational AI with Retrieval Augmented Generation for Floriculture," International Conference on Engineering, Technology & Management (USA), 2025

**“Flora-RAG:
Elevating
Floriculture
with Precision
AI”**

**Student
Authors :**



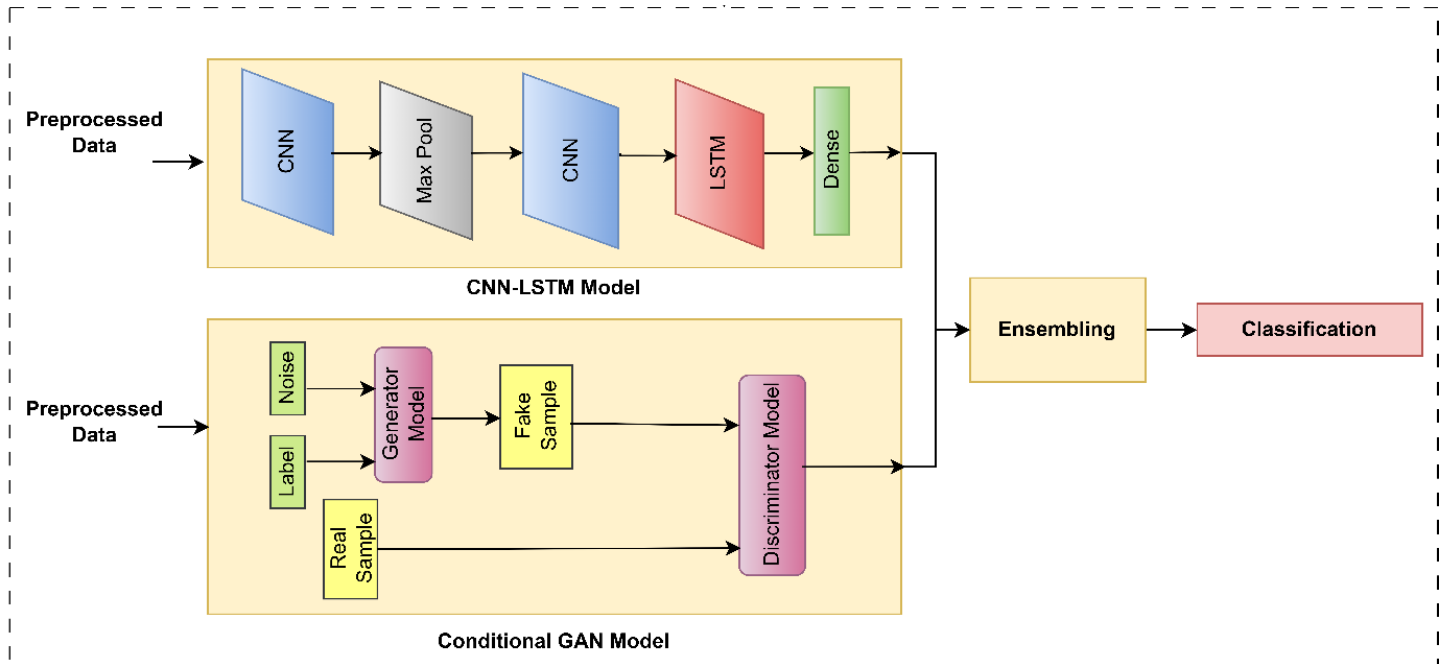
Sayuri Shelley
B.Tech



Prabhjeet Kaur
B.Tech

Amity School of Engineering and Technology Amity School of Engineering and Technology

"Hybrid Deep Learning for Wearable Stress Detection: A CGAN-CNN-LSTM Ensemble Framework"



Innovative Model Architecture: Combines Conditional GAN for synthetic data generation with CNN-LSTM for capturing spatial-temporal patterns.

High Accuracy Performance: Achieves 99.23% across all key metrics (accuracy, precision, recall, F1-score) using k-fold cross-validation.

Rich Multimodal Input: Utilizes diverse wearable data, including EDA, ECG, EMG, temperature, respiration, and accelerometer signals.

Real-Time Ready & Interpretable: Offers both robustness and interpretability, making it suitable for practical real-time stress monitoring applications.

Relevant Publication: Arhina Ghosh, Ritu Tanwar. "Generative Adversarial Networks for Stress Recognition Using Wearables". 3rd IEEE International Conference on Computer, Electronics, Electrical Engineering and Their Applications (IC2E3), 2025

Student
Authors :



Arhina Ghosh

M.Tech (2023-2025)

Amity School of Engineering & Technology

**StressSense-Net:
Enhancing
Wearable Stress
Detection with
Smart Deep
Learning**

"RoBERTa-Guard: Browser-Based Phishing Detection with Transformer Intelligence"

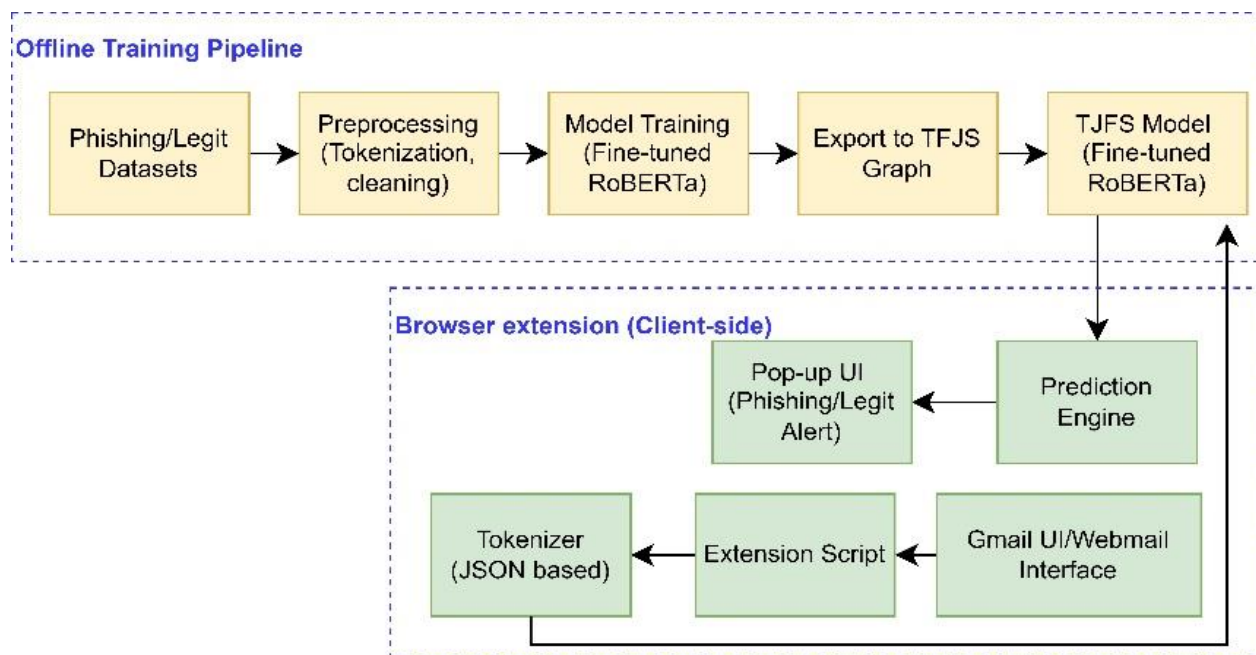
Key Highlights:

Client-Side Deployment: Runs entirely in-browser via TensorFlow.js and WebGPU, ensuring privacy and low latency.

High Accuracy Detection: Achieves 98% accuracy and a 0.9979 ROC-AUC on phishing message classification.

Robust Transformer Backbone: Leverages a fine-tuned RoBERTa model trained on over 59,000 SMS, Telegram, and Enron spam samples.

Practical Browser Extension: No server-side dependency, enabling real-time phishing protection across messaging platforms.



Relevant Publication: Tushar Bhatia, Ritu Tanwar. "Privacy Preserved Phishing Detection using Browser-Based Transformer Models" 16th International IEEE Conference on Computing, Communication and Networking Technologies (ICCCNT), 2025

Student
Author :



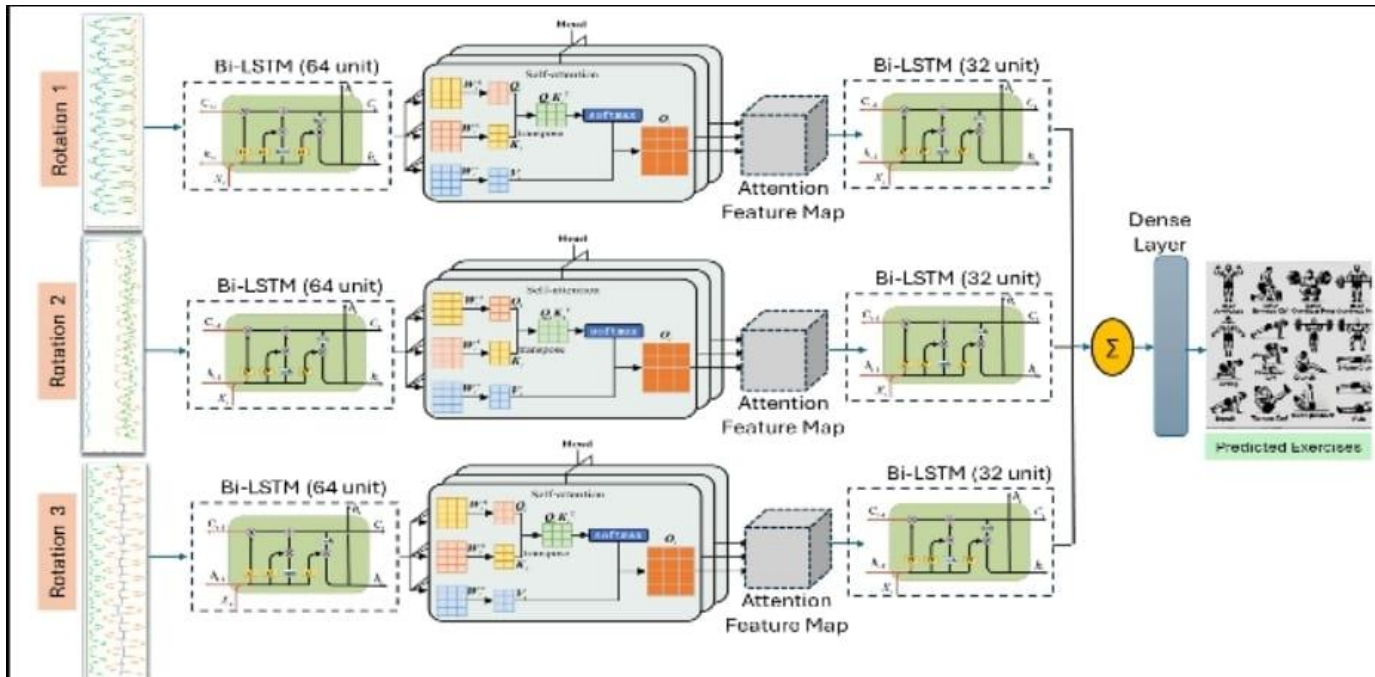
Tushar Bhatia

B.Tech. (2021 -2025)

Amity School of Engineering & Technology

"RoBERTa-Guard: Real-Time Phishing Defense in Your Browser"

"Multi-Head MotionNet: Attention-Powered BiLSTM for Smart Exercise Recognition"



Key Highlights:

Advanced Architecture: Introduces a stacked BiLSTM with multi-scale, multi-head attention to handle motion variability and sensor orientation.

Robust Performance: Achieves 95% accuracy across 2000 sessions, outperforming CNN+LSTM and standard BiLSTM models.

Rich Sensor Input: Leverages IMU data (accelerometer, gyroscope, magnetometer) from 200 participants performing 10 exercise types.

Real-Time Readiness: Demonstrates stable training, minimal overfitting, and precise classification—ideal for wearable health and fitness tech.

Relevant Publication: Janga Bharat Reddy, Sneha Sharma, Sanatan Ratna. "Multi-Scale Multi-Headed Attention Framework for Wearable IMU-Based Exercise Recognition". 3rd International Conference on Data Science and Information System (ICDSIS). 2025.

"MotionNet:
Accurate Exercise
Tracking with
Multi-Scale
Attention
Intelligence"

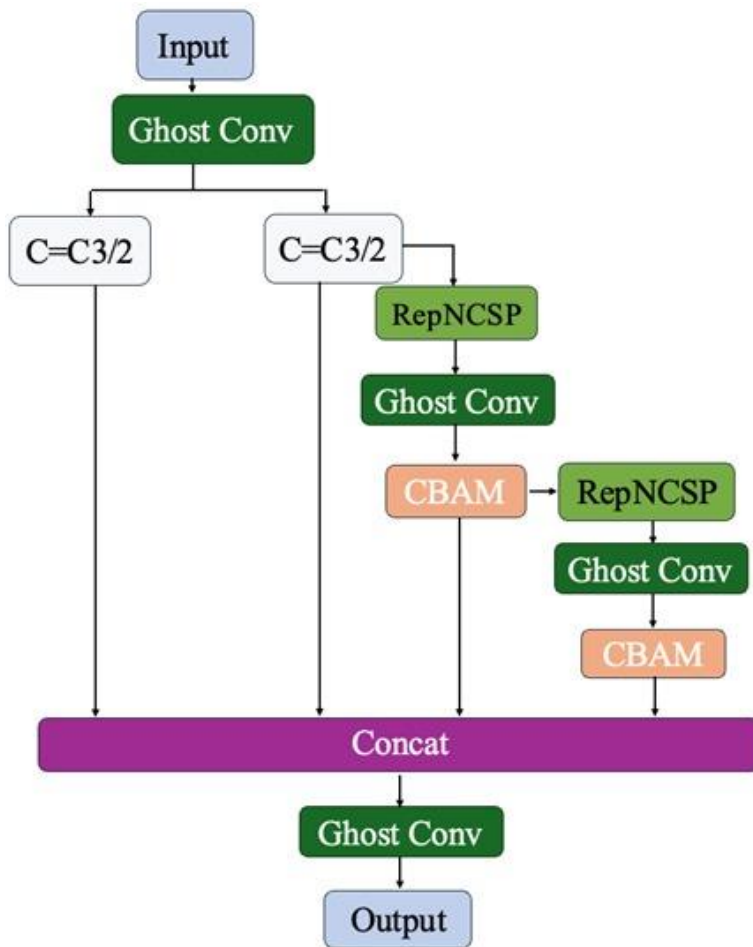
Student
Author :



Janga Bharat Reddy

B.Tech Student (2022-2026) Amity
School of Engineering & Technology

"BlindAssist: Real-Time Indoor Object Detection with Enhanced YOLOv9 for the Visually Impaired"



Key Highlights:

Assistive Real-Time Detection: BlindAssist uses enhanced YOLOv9s architecture to identify indoor obstacles and guide users via directional audio using the pytsx3 library.

Innovative Module Variants: Introduces G-RepNCSP, CBAM-RepNCSP, and GCBAM-RepNCSP to boost detection accuracy and speed.

Performance Boost: CBAM-RepNCSP improves mAP50 by 8.09%, with 13.36 ms inference time, while other variants balance speed and complexity.

Statistically Validated: Achieved significant gains ($p = 0.00026$), confirming effectiveness in assistive object detection for visually impaired users.

Relevant Publication: Athulya Bindu Sujith, Jahanavi Mishra , Ayush Chhikara , Vanshika Berry, Sneha Sharma, Bhupendra Singh. “ BlindAssist: Indoor Object Detection for Visually Impaired using CBAM and Ghost Convolutions”, 3rd International Conference on Data Science and Information System (ICDSIS). 2025.

Student Author :



Jahanavi Mishra

Btech CSE Student, 2021-2025, Amity School of Engineering and Technology, Amity University, Noida



Athulya Bindu Sujith

Btech CSE Student, 2021-2025, Amity School of Engineering and Technology, Amity University, Noida



Vanshika Berry

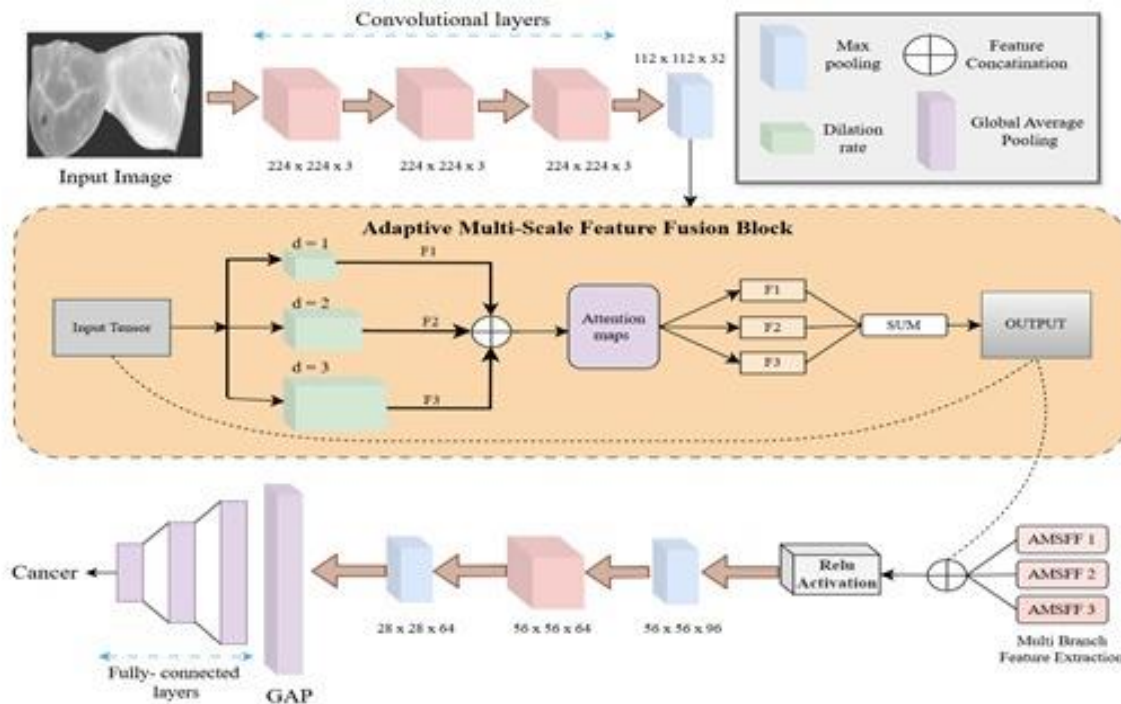
Btech CSE Student, 2021-2025, Amity School of Engineering and Technology, Amity University, Noida



Ayush Chhikara

Btech CSE Student, 2021-2025, Amity School of Engineering and Technology, Amity University, Noida

AMSFFNet: Adaptive Multi-Scale Fusion for Precision Breast Cancer Detection



Advanced Architecture: AMSFFNet integrates dilated convolutions and adaptive attention to capture fine-grained and contextual MRI features.

High Diagnostic Accuracy: Achieves 97.14% and 95.00% accuracy on two public breast MRI datasets, outperforming DCNN, GoogleNet, and DMRBNet.

Robust Clinical Performance: Demonstrates strong sensitivity, specificity, and AUC, confirming its reliability and generalizability.

Early Detection Focus: Designed specifically for early-stage breast cancer recognition, enhancing clinical decision support through automation.

Relevant Publication: Abhisar Bhatnagar, Himanshi Sinha, Sneha Sharma, Bhupendra Singh. "AMSFFNet: Adaptive multi scale feature fusion net for the detecting breast cancer using MRI images". International Conference on Emerging Trends in Defence Technology. 2025.

Student
Authors :



Abhisar Bhatnagar

Btech CSE Student, 2021-2025,
Amity School of Engineering and
Technology, Amity University,
Noida



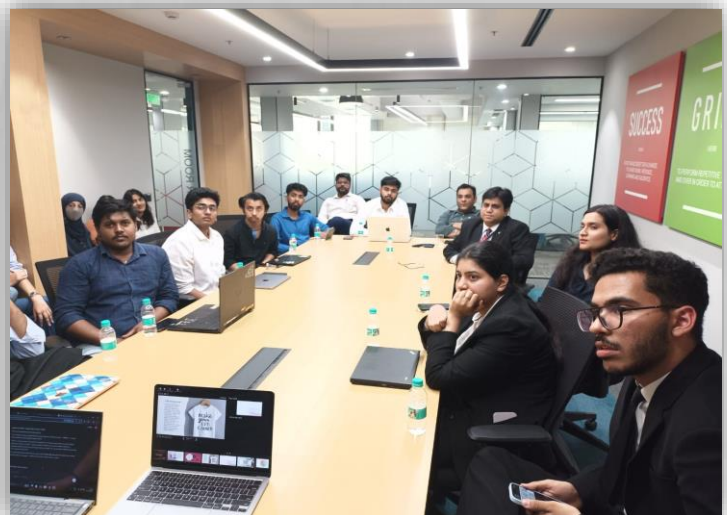
Himanshi Sinha

Btech CSE Student, 2021-2025,
Amity School of Engineering and
Technology, Amity University,
Noida

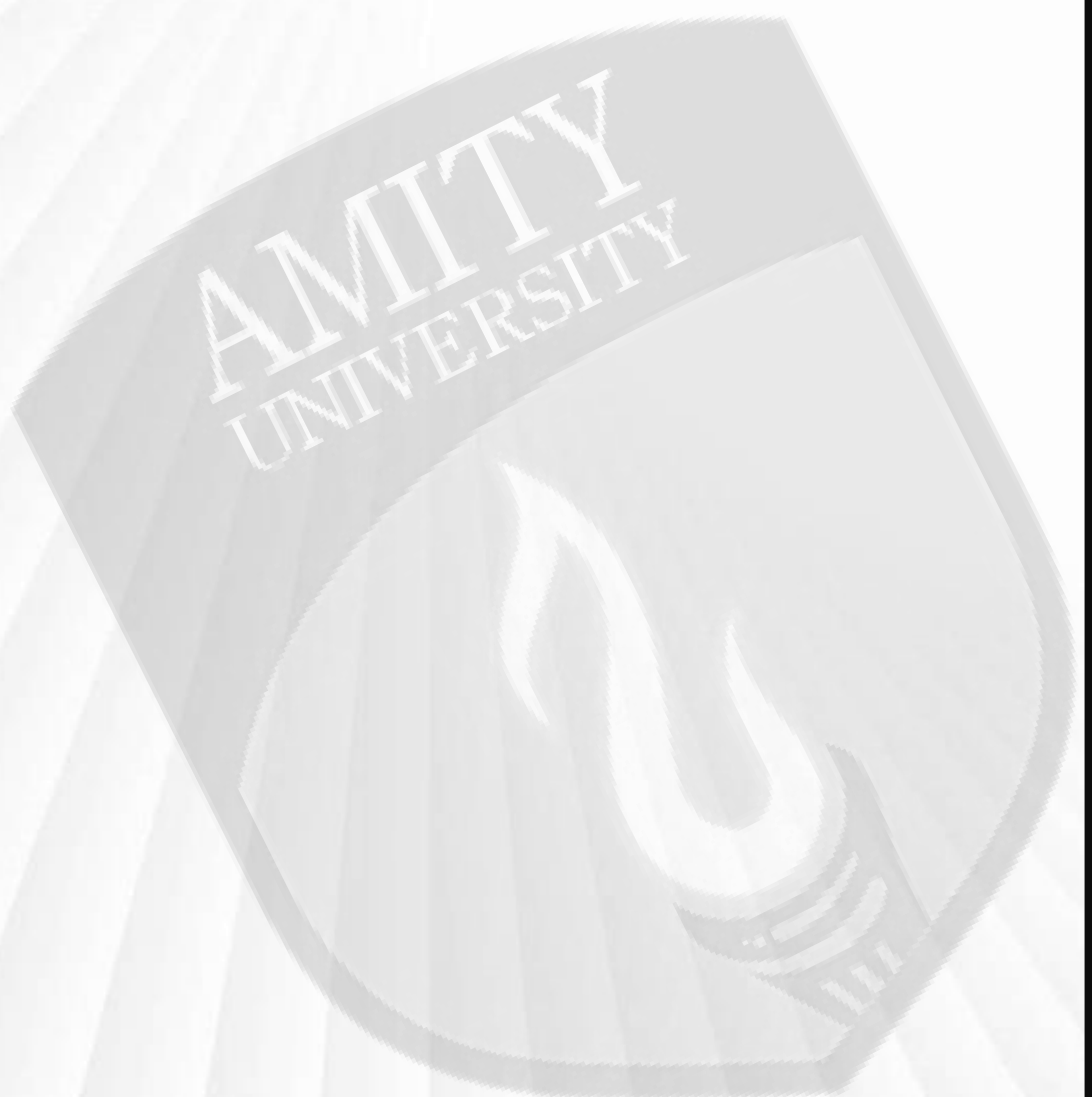
**"AMSFFNet:
Smarter MRI-
Based
Diagnosis with
Multi-Scale
Attention"**

Amity Centre for Artificial Intelligence: Startup Building Efforts

B.Tech Students Showcase AI Innovations at Amity Incubation Centre B.Tech students of Amity University, Noida presented their AI-based innovative projects at the Amity Incubation Centre. The session witnessed a wide range of creative and impactful ideas, reflecting the students' strong foundation in cutting-edge technologies and their ability to address real-world challenges through Artificial Intelligence. The presentations highlighted applications of AI across multiple domains, including healthcare, agriculture, education, and smart technologies. Students demonstrated not only their technical expertise but also their entrepreneurial spirit, aiming to translate research into practical solutions that can benefit society. Recognizing the potential of these projects, the Amity Incubation Centre has agreed to extend support to selected ideas. This support will include mentorship, guidance, infrastructure, and opportunities for industry connect, enabling the students to refine their prototypes and take steps toward commercialization.



Ongoing Projects @ ACAI



Personalized Recommender System for Virus Research and Diagnosis Laboratory Network: Advancing Diagnostic Decision-Making through Artificial Intelligence

Objective:

1. Develop a Smart System to Identify Possible Infections

- Create a machine learning model that analyses patient details and symptoms to provide personalized recommendation for names of probable infections.

2. Optimize Different Methods

- Evaluate the performance of various machine learning algorithms to determine which one most accurately recommends lab tests for diagnosing infections.
- Test and refine multiple models to ensure the highest accuracy and reliability in recommendations.

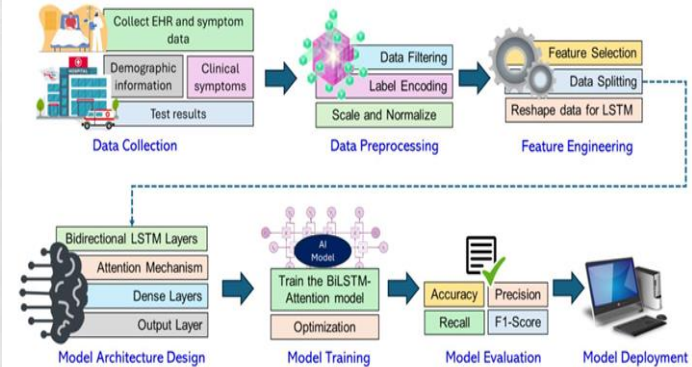
3. Predict Future Outbreaks

- Utilized approx. 30 lakhs patients data from ICMR to forecast potential viral disease outbreaks in specific geographic locations.
- Incorporate patient residence information and historical disease data to develop predictive models.

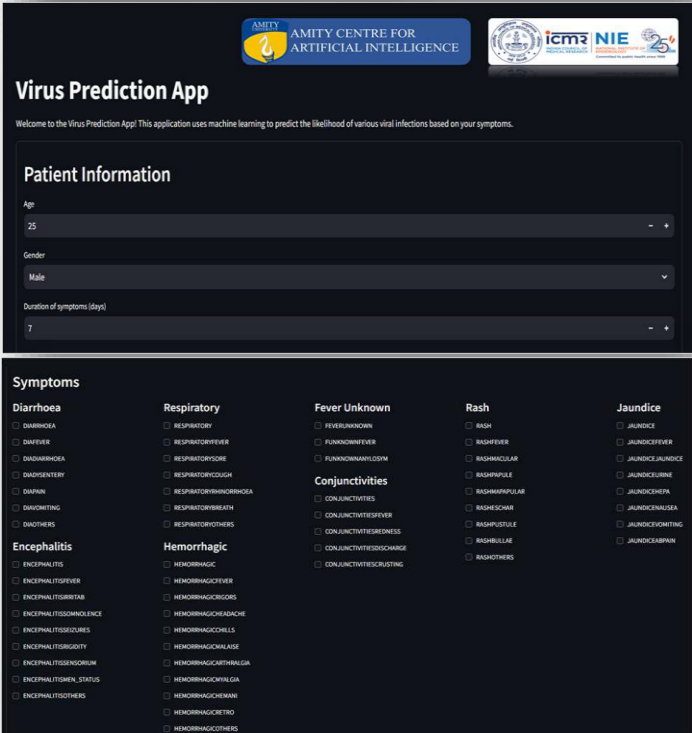
Description:

The implementation plan of this project is Data Collection: Gather historical data from ICMR, Model Development: Develop and train AI models using collected data, Testing to validate model performance and accuracy, Deployment: Deploying AI system in the ICMR network for real-time use, Monitoring: Continuously monitor and refine the system based on feedback and performance with the help of AI-powered Enhanced Diagnostic Decision-Making: AI-enhanced system will analyze data for precise diagnoses, improving patient care outcomes. Optimized Test Selection: The proposed system aids in selecting necessary tests, reducing costs, patient anxiety, and legal liabilities, Efficiency and Resource Allocation: It will streamline processes, ensuring effective resource utilization for patient needs, Utilization of Historical Data: It will utilization accumulated data for evidence-based decisions, enhancing diagnostic capabilities.

Methodology



Prototype Application



Team Members

Principle Investigators



Dr. Rizwan S A
ICMR, NIE



Prof. M. K. Dutta
Amity Centre for
Artificial Intelligence

Co-Principle Investigators



R. Janani Surya
ICMR, NIE



Dr. Rakesh C Joshi
Amity Centre for
Artificial Intelligence

Project Scientist



Dr. Abhishek Kaushal
Amity Centre for
Artificial Intelligence

“AI for Pain Relief: Amity and SGPGIMS Collaborate on ICMR-Funded Chronic Pain Management App”

Amity Centre for Artificial Intelligence (ACAI), in collaboration with SGPGIMS, Lucknow, has launched a prestigious ICMR-funded project focused on improving chronic pain management through artificial intelligence.

Recognizing that chronic pain remains underdiagnosed and poorly managed—especially in primary care settings—this initiative aims to develop an AI-powered mobile application to support frontline healthcare providers in diagnosis and treatment. The project seeks to empower primary care physicians with app-based diagnostic tools while building a comprehensive clinical databank of chronic pain cases to train and continuously improve the AI model. This databank will serve as a foundation for scalable, accurate, and context-specific pain management solutions across India.

Artificial Intelligence-Driven Chronic Pain Management with Mobile App Integration for Empowering Primary Healthcare Physicians

PROJECT FUNDED BY



icmr
INDIAN COUNCIL OF
MEDICAL RESEARCH
Serving the nation since 1911

Investigators

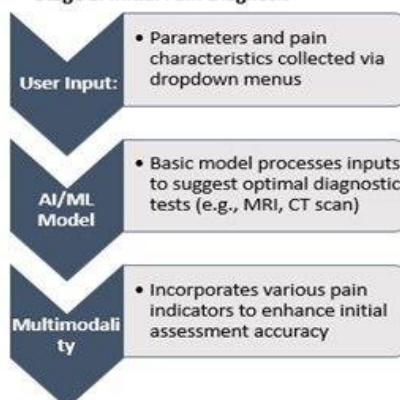


Dr. Sujeet K. Gautam
Dep. of Anaesthesiology
SGPGIMS, Lucknow

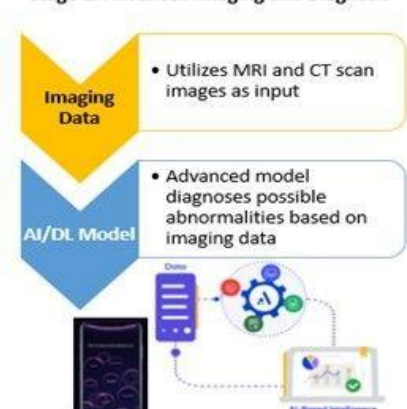


Prof. M. K. Dutta
Amity Centre for
Artificial Intelligence

Stage 1: Initial Pain Diagnosis



Stage 2: Advanced Imaging and Diagnosis



AMITY CENTRE FOR
ARTIFICIAL
INTELLIGENCE



संजय गाँधी स्नातकोत्तर आयुर्विज्ञान संस्थान
Sanjay Gandhi Postgraduate Institute of Medical Sciences

Development of an Artificial Intelligence driven Pharmacokinetics based algorithm as an aid to better management of drug resistance in tuberculosis.

Primary Objectives:

1. To generate and supplement the plasma concentration data of all first line ATDs from the Indian population with detailed PK approach
2. Development of AI incorporated LSS from the collected data to predict detailed PK parameters of first line ATD.
3. To detect association of salivary concentration of the drugs to the changes in plasma concentration.

Secondary Objectives:

1. To develop an AI based tool to estimate drug concentration from photographic images obtained from blood samples and other parameters
2. To compare the early PK prediction with the microbiological outcome after two months of treatment in pulmonary TB.

Rationale:

Conventional therapeutic drug monitoring (TDM) often failed to predict microbiological outcome to first line anti-TB drugs (ATD). Detailed pharmacokinetic information may be more valuable but needs user friendly ways for wider implementation at the field level. Artificial intelligence may be utilized to develop such strategy.

Novelty of the work :

Artificial intelligence incorporated 'limited sampling strategy (LSS)' to derive predictions like 'intensive plasma sampling' for ATDs were never attempted. Saliva is non-invasive but needs validation. Prediction of plasma concentration of AT drugs from image of blood sample is innovative and may have application at the field level.

Investigators



Dr. Sandip Mukherjee
ICMR – NIRBI,
Kolkata



Prof. M. K. Dutta
Amity Centre for
Artificial Intelligence

Funded by : ICMR



icmr
INDIAN COUNCIL OF
MEDICAL RESEARCH

NIRBI

NATIONAL INSTITUTE FOR
RESEARCH IN BACTERIAL INFECTION



**AMITY CENTRE FOR
ARTIFICIAL
INTELLIGENCE**



परा यज्ञं सुवाचि मे

Industry Projects with Thales

**Offensive Content Detection in Doodles & Sketches
Using AI Models**

**Synthetic/Artificial Data Generation for Machine
Learning Models**



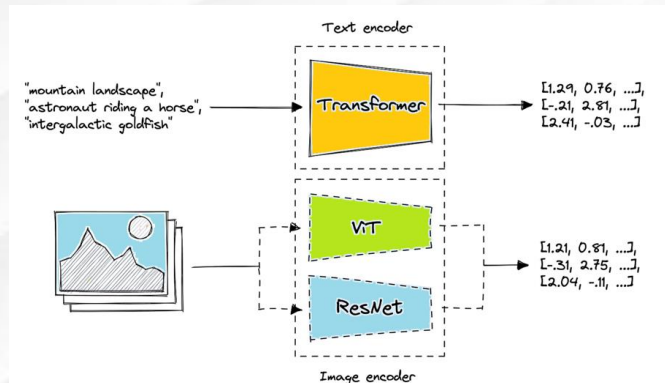
Industry Projects with Thales

Offensive Content Detection in Doodles & Sketches Using AI Models

Methodology Description

Offensive Content Detection in Doodles & Sketches Using AI Models: This project focuses on developing AI models to detect offensive or harmful content in doodles and sketches using advanced computer vision and machine learning techniques.

Student Involved: Nitya Pillai and Akshara Sharma



Status and Expected Outcomes:

- **Offensive Content Detection:** The project is in its advanced testing phase, with early results showing promising accuracy in detecting offensive content. The goal is to deploy a reliable system for real-time content monitoring on digital platforms.

Both projects are set to provide valuable technological advancements for AI applications, with practical implications for both research and industry.

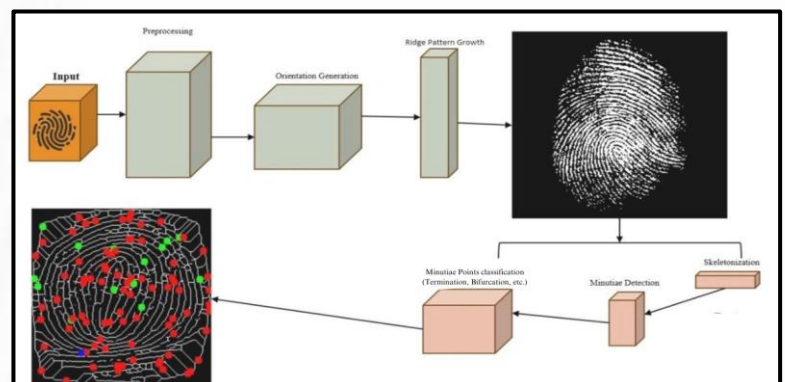
Synthetic/Artificial Data Generation for Machine Learning Models

Methodology Description

Synthetic/Artificial Data Generation for Machine Learning Models: The aim is to generate high-quality synthetic data to train machine learning models, particularly in scenarios where real-world data is scarce or hard to obtain.

Additionally, ACAI students have demonstrated user-friendly graphical interfaces (GUIs) developed as part of their research, receiving positive feedback from Thales India and researchers from France and Singapore.

Student Involved: Amisha Krishna Gupta, Anoushka Ishi Gupta



Status and Expected Outcomes:

- **Synthetic Data Generation:** This project is progressing with successful generation of synthetic datasets. The expected outcome is a toolkit that can create synthetic data to enhance machine learning model training, especially where real data is limited.

Team Members

Faculty Mentors



Prof. M. K. Dutta
Amity Centre for
Artificial Intelligence



Dr. Rakesh C Joshi
Amity Centre for
Artificial Intelligence



Nitya Pillai
B.Tech Student,
(2022-26)
Amity University



Akshara Sharma
B.Tech Student,
(2022-26)
Amity University

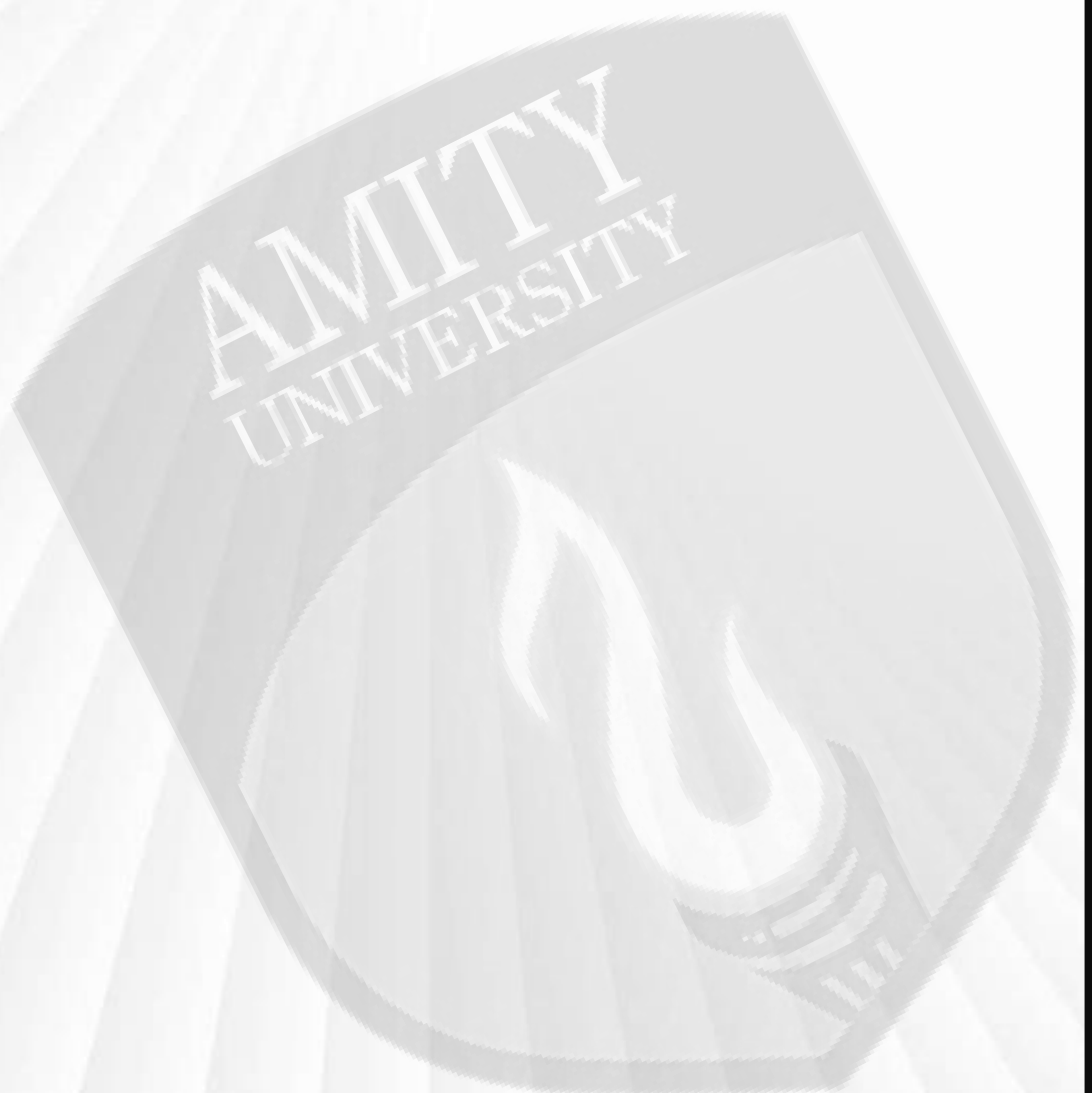


Amisha Krishna Gupta
B.Tech Student,
(2022-26)
Amity University



Anoushka Ishi Gupta
B.Tech Student,
(2022-26)
Amity University

Events @ ACAI





AMITY CENTRE FOR
ARTIFICIAL INTELLIGENCE
With most advanced Supercomputing facility & involved in disruptive
innovations in the area of AI.

Hands-On Workshop on GenAI (LLMs & Multimodal AI)

16th April 2025 to 30th April 2025
(Daily One Session :3:30 PM to 4:30 PM)
Hybrid Mode: Online & Offline.

Areas to be covered:

- Transformers,
- LLMs (Large Language Models)
- RLHF (Reinforcement learning from human feedback)
- LORA (Low-Rank Adaptation)
- VQA (Visual Question Answering)

Free Registration : Limited Seats
Exclusively for Amity Faculty and Students only

In 10 Hands on Sessions Learn 20 Models of Gen AI
For details visit Website: <https://amity.edu/noida/acai>

Venue: ACAI Lab, E3 Block, G-16, Sector-125, Noida (Delhi NCR) * Tel: +91-9599195631 * Email: ai@amity.edu



AMITY
UNIVERSITY



For Registration: SCAN



A Hands-on Workshop on Generative AI (LLMs & Multimodal AI) was conducted from 16th to 30th April 2025, targeting faculty members, PhD scholars, students, and AI practitioners. The workshop covered key topics such as text, image, and audio feature extraction, fine-tuning large language models, multimodal fusion techniques, and performance evaluation using standard metrics. Participants engaged in practical sessions involving tools like BERT, CLIP, Wav2Vec, and Whisper, gaining hands-on experience in building and analyzing AI models across multiple modalities.

A Hands-On Workshop on Deep Learning was held on 6th March 2025, exclusively for academic students and researchers. Organized by the Amity Centre for Artificial Intelligence (ACAI) in collaboration with the NVIDIA Deep Learning Institute (DLI), the workshop was led by Mr. Rakesh Chandra Joshi, an NVIDIA Certified Deep Learning Instructor and University Ambassador. Participants received practical training in deep learning fundamentals, and all attendees were awarded official NVIDIA DLI certification upon successful completion.



DEEP
LEARNING
INSTITUTE



AMITY CENTRE FOR
ARTIFICIAL INTELLIGENCE
With most advanced Supercomputing facility & involved
in disruptive innovations in the area of AI.

FUNDAMENTAL OF DEEP LEARNING



AMITY
UNIVERSITY

Hands-On WORKSHOP



06th March 2025
02:00 PM to 05:00 PM



Course Instructor:
Dr. Rakesh Chandra Joshi
NVIDIA Certified Deep Learning Instructor
and University Ambassador

Amity Centre for Artificial Intelligence (ACAI) and NVIDIA Deep Learning Institute (DLI) are organizing a hands-on workshop, exclusively for academic students and researchers.

* NVIDIA DLI certification will be provided.

For Registration:

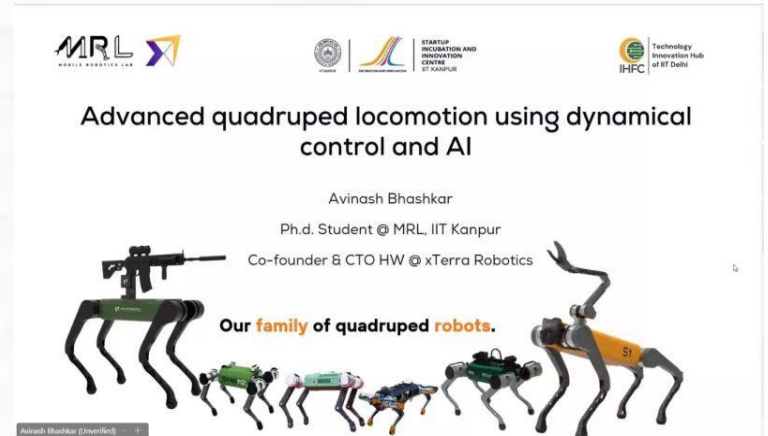
SCAN or Visit

<https://tinyurl.com/jffyjemt>

Only Offline Mode: ACAI Lab,
E3 Block, Ground Floor, G-16
Amity University, Noida.



“AI in Robotics: Powering Intelligent Automation”



"Brains Behind the Bots"

"Smart Machines, Smarter Futures"

On 8th May 2025, Amity Centre for Artificial Intelligence (ACAI), in collaboration with Amity School of Engineering Technology (ASET), a one-day workshop on AI in Robotics brought together students, PhD scholars, scientists, faculty, and professionals to explore the integration of artificial intelligence with robotic systems. The sessions provided insights into how AI enhances decision-making, adaptability, and autonomous performance in robotics. From conceptual overviews to real-world applications, the workshop emphasized the growing synergy between AI and robotics in shaping next-generation intelligent machines.

Workshop: AI in Robotics

29:17

AMITY UNIVERSITY

1 Day Workshop on Artificial Intelligence in Robotics

Role of Artificial Intelligence in Robotics

Presented by:
Dr. Abhishek Kaushal
Research Scientist
Amity Centre for Artificial Intelligence

Amity Centre for Artificial Intelligence, Amity University, Noida, India

AMITY CENTRE FOR ARTIFICIAL INTELLIGENCE

In collaboration with
Amity School of Engineering Technology

1 DAY WORKSHOP ON
AI in Robotics
Learn to Use AI application in Robotics

- Introduction to Artificial Intelligence & Robotics
- Applications of AI in Robotics
- Hands-on Demo session
- Session by Industry Experts

Explore the Future of Intelligent Machines!

Date: **8th May 2025**
Time: **10:00 AM – 4:00 PM**
Mode: **Hybrid Mode**

Who Can Apply :
Students / PhD Scholars / Scientists / Faculty / Professionals.
E-certificate will be given to all participants.

Register by 30th April, 2025

FREE REGISTRATION, LIMITED SEATS


TO REGISTER, SCAN THE QR CODE

For details visit amity.edu/noida/acai
Venue : ACAI Lab, E-3 Block, G-16, Sector-125, Noida (Delhi NCR)

*Tel : +91-9599195631
E-mail : ai@amity.edu


“AI in Business Analytics: Empowering Data-Driven Decisions”

On 21st May 2025, Amity Centre for Artificial Intelligence (ACAI) in collaboration with Amity Business School, conducted a one-day workshop on AI in Business Analytics brought together students, scholars, faculty, scientists, and industry professionals to explore the impact of artificial intelligence on data-driven decision-making. The sessions showcased real-world applications of AI in solving business challenges, with hands-on training that enabled participants to build and apply AI models for generating actionable insights. The workshop served as a practical platform for advancing AI fluency in the business domain.

 **AMITY CENTRE FOR
ARTIFICIAL INTELLIGENCE**

In collaboration with
Amity Business School

1 DAY WORKSHOP ON
**AI IN BUSINESS
ANALYTICS**



- Introduction to Artificial Intelligence and Business Analytics
- Application of AI in Business Analytics
- Hands-on Demo session
- Session by Domain Experts


**AI + Analytics:
The Smartest Business Combo**

Date: 21st May, 2025
Time: 10:00 AM – 4:00 PM
Mode: Hybrid Mode

Who Can Apply :
Students/PhD Scholars/Scientists/
Faculty/Professionals/
E-certificate will be given to all participants.

Register by 15th May, 2025

**FREE REGISTRATION,
LIMITED SEATS**
TO REGISTER,
SCAN THE QR CODE



For details visit amity.edu/noida/acai
Venue : ACAI Lab, E-3 Block, G-16, Sector-125, Noida (Delhi NCR)

+Tel : +91-9599195631
E-mail : ai@amity.edu

“AI Meets Society: Transforming Social Sciences Through Technology”

On 13th May 2025, Amity Centre for Artificial Intelligence (ACAI) in collaboration with Amity Institute of Social Sciences, conducted a one-day workshop on AI in Social Sciences convened students, researchers, faculty, and professionals to explore the expanding role of artificial intelligence across disciplines like sociology, economics, political science, and psychology. The event featured interactive sessions and discussions on real-world applications of AI in social research, highlighting how emerging tools can address complex societal challenges and enhance analytical capabilities in the field.



 **AMITY CENTRE FOR
ARTIFICIAL INTELLIGENCE**

In collaboration with
**Amity Institute of
Social Sciences**

1 DAY WORKSHOP ON
AI in Social Sciences



- Introduction to Artificial Intelligence and Social Sciences
- Application of AI in Social Sciences
- Hands-on Demo session
- Session by Domain Experts

**Unlocking the Time Ahead in
Social Sciences with AI**

Date: 13th May 2025
Time: 10:00 AM – 4:00 PM
Mode: Hybrid Mode

Who Can Apply :
Students/PhD Scholars/Scientists/
Faculty/Professionals/
E-certificate will be given to all participants.

Register by 5th May, 2025

**FREE REGISTRATION,
LIMITED SEATS**
TO REGISTER,
SCAN THE QR CODE

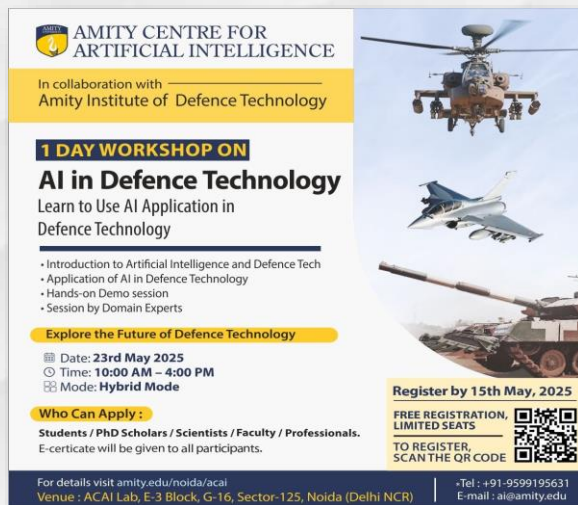


For details visit amity.edu/noida/acai
Venue : ACAI Lab, E-3 Block, G-16, Sector-125, Noida (Delhi NCR)

+Tel : +91-9599195631
E-mail : ai@amity.edu

“AI in Defence: Advancing National Security Through Intelligent Systems”

On 23rd May 2025, Amity Centre for Artificial Intelligence (ACAI), in collaboration with Amity Institute of Defence Technology (AIDT), conducted a one-day workshop on AI in Defence Technology brought together students, scholars, scientists, faculty, and professionals to examine the strategic role of artificial intelligence in enhancing national security. Sessions explored real-world applications of AI in autonomous systems, surveillance, and decision support, addressing critical challenges in the defence sector. The event emphasized the potential of AI to revolutionize defence capabilities through smart, responsive, and data-driven technologies.



AMITY CENTRE FOR ARTIFICIAL INTELLIGENCE
In collaboration with
Amity Institute of Defence Technology

1 DAY WORKSHOP ON
AI in Defence Technology
Learn to Use AI Application in Defence Technology

- Introduction to Artificial Intelligence and Defence Tech
- Application of AI in Defence Technology
- Hands-on Demo session
- Session by Domain Experts

Explore the Future of Defence Technology

Date: 23rd May 2025
Time: 10:00 AM – 4:00 PM
Mode: Hybrid Mode

Who Can Apply :
Students / PhD Scholars / Scientists / Faculty / Professionals.
E-certificate will be given to all participants.

Register by 15th May, 2025

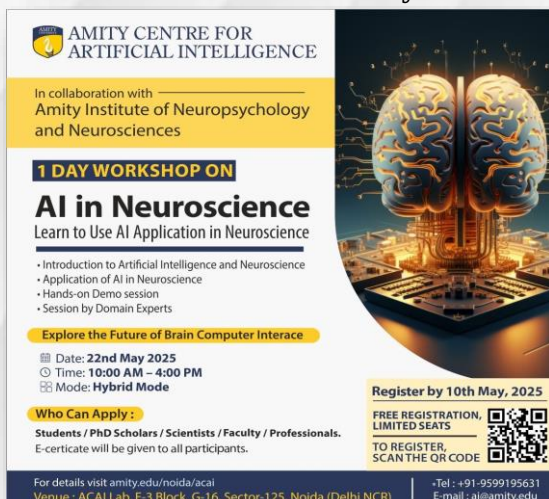
FREE REGISTRATION, LIMITED SEATS
TO REGISTER, SCAN THE QR CODE

For details visit amity.edu/noida/acai
Venue : ACAI Lab, E-3 Block, G-16, Sector-125, Noida (Delhi NCR) | Tel : +91-9599195631 | E-mail : ai@amity.edu



“AI in Neuroscience: Decoding the Brain with Intelligent Algorithms”

On 22nd May 2025, Amity Centre for Artificial Intelligence (ACAI), in collaboration with Amity Institute of Neuropsychology and Neurosciences, conducted a one-day workshop on AI in Neuroscience welcomed students, researchers, faculty, and professionals to explore the intersection of brain science and artificial intelligence. The sessions highlighted how AI is revolutionizing neuroscience through advanced data analysis, predictive modeling, and intelligent diagnostic tools. With a strong focus on real-world challenges and applications, the workshop showcased AI's potential to accelerate discovery and deepen understanding in the field of brain research.



AMITY CENTRE FOR ARTIFICIAL INTELLIGENCE
In collaboration with
Amity Institute of Neuropsychology and Neurosciences

1 DAY WORKSHOP ON
AI in Neuroscience
Learn to Use AI Application in Neuroscience

- Introduction to Artificial Intelligence and Neuroscience
- Application of AI in Neuroscience
- Hands-on Demo session
- Session by Domain Experts

Explore the Future of Brain Computer Interface

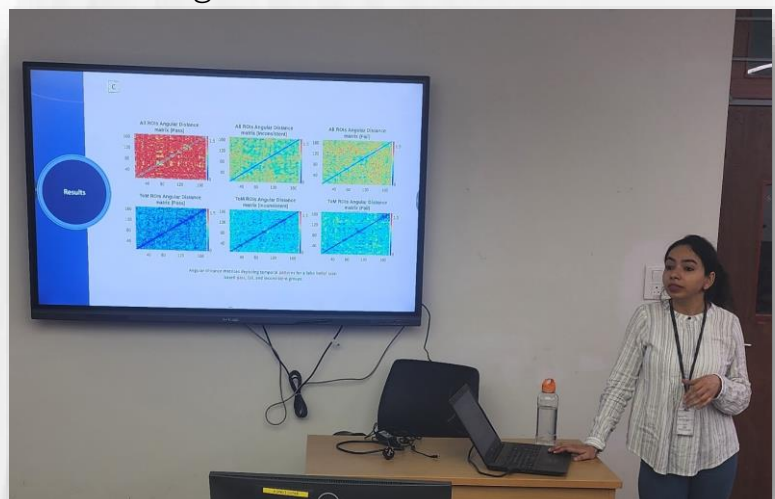
Date: 22nd May 2025
Time: 10:00 AM – 4:00 PM
Mode: Hybrid Mode

Who Can Apply :
Students / PhD Scholars / Scientists / Faculty / Professionals.
E-certificate will be given to all participants.

Register by 10th May, 2025

FREE REGISTRATION, LIMITED SEATS
TO REGISTER, SCAN THE QR CODE

For details visit amity.edu/noida/acai
Venue : ACAI Lab, E-3 Block, G-16, Sector-125, Noida (Delhi NCR) | Tel : +91-9599195631 | E-mail : ai@amity.edu



“Reimagining Creativity: Exploring the Role of AI in Fashion, Fine Arts & Performing Arts”

**AMITY CENTRE FOR
ARTIFICIAL INTELLIGENCE**

in collaboration with
AMITY SCHOOL OF FASHION TECHNOLOGY
AMITY SCHOOL OF FINE ARTS
AMITY SCHOOL OF PERFORMING ARTS

1 DAY WORKSHOP ON
**ARTIFICIAL INTELLIGENCE IN
FASHION, FINE ARTS
& PERFORMING ARTS**

**Bridge the gap between
Technology and Creativity**

- Explore How AI is Revolutionizing Creative Expression
- AI in Fashion & Textile Design
- Generative Art & Visual Creativity
- Performing Arts Meets AI
- Visual Storytelling & AI-enhanced Media
- Hands-on Demos & Case Studies

Theme: Brushes to Bots: Igniting Innovation
Date: **4th June, 2025**
Time: **10:00 AM – 4:00 PM**
Mode: **Hybrid Mode**

Who Can Apply :
Students/Ph.D. Scholars/Scientists/
Faculty/Professionals

E-certificate will be given to all participants.

Register by 1st June, 2025

**FREE REGISTRATION,
LIMITED SEATS**

TO REGISTER,
SCAN THE QR CODE



For details visit amity.edu/noida/acai
Venue : ACAI Lab, E-3 Block, G-16, Sector-125, Noida (Delhi NCR)

Tel : +91-9599195631
E-mail : ai@amity.edu

on 4th June 2025, Amity Centre for Artificial Intelligence (ACAI), in collaboration with Amity School of Fashion Technology, Amity School of Fine Arts & Amity School of Performing Arts conducted a one-day workshop on Fashion, Fine Arts & Performing Arts, bringing together students, PhD scholars, scientists, faculty members, and professionals to explore how artificial intelligence is reshaping the creative landscape. The event showcased the revolutionary impact of AI on artistic expression, with sessions on its applications in fashion and textile design, generative art, and visual creativity.

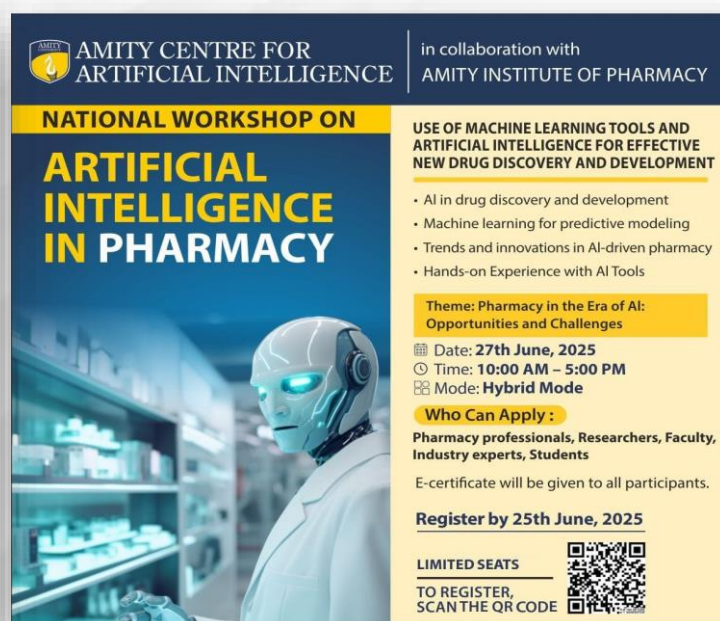
"Where Algorithms Meet Aesthetics"



"Art Meets AI: A New Canvas of Possibilities"

“AI in Pharmacy: Transforming Drug Discovery and Patient Care”

On 27 June 2025, Amity Institute of Pharmacy (AIP), in collaboration with Amity Centre for Artificial Intelligence (ACAI), conducted a forward-looking workshop on AI in Pharmacy, bringing together professionals, researchers, students, and industry experts to explore how artificial intelligence is revolutionizing pharmaceutical research and healthcare. Sessions covered AI-powered drug discovery, predictive modeling, and hands-on demonstrations of machine learning tools that enhance decision-making in pharma. The workshop encouraged dynamic discussions and collaboration, highlighting AI's pivotal role in accelerating innovation, efficiency, and patient outcomes in the pharmaceutical domain.



“AI for Inclusion: Advancing Special Education Through Assistive Innovation”

On 01st July 2025, Amity Centre for Artificial Intelligence (ACAI), in collaboration with the Amity Institute of Rehabilitation Sciences, conducted a one-day workshop on “AI in Special Education.” The event explored how AI-driven tools can support inclusive rehabilitation, assistive innovation, and personalized learning for individuals with special needs. Engaging sessions attracted students, researchers, and professionals, highlighting the transformative role of AI in enhancing accessibility and educational outcomes.

1 DAY WORKSHOP ON
AI IN SPECIAL EDUCATION


Empowering Abilities: Harnessing AI for Inclusive Rehabilitation, Education and Assistive Innovation


- Introduction to AI in Rehabilitation and Special Education
- AI-Powered Assistive Technologies
- Data-Driven Personalization in Therapy and Learning for ASD and others Disorders
- Inclusive Design and Accessibility through AI

Date: 01st July, 2025
Time: 10:00 AM – 4:00 PM
Mode: Hybrid Mode

Who Can Apply :
Students/Ph.D. Scholars/Scientists/
Faculty/Professionals

E-certificate will be given to all participants.

Register by 29th July, 2025

FREE REGISTRATION, LIMITED SEATS
TO REGISTER, SCAN THE QR CODE 

"Empowering Every Learner with AI"



"Inclusive Education Meets Intelligent Innovation"

“Innovating Minds: Advancing Mental Healthcare with AI at ACAI”



"When Technology Listens to the Mind"

On 3rd July 2025, Amity Centre for Artificial Intelligence, ACAI in collaboration with Amity Institute of Behavioural Health & Allied Sciences, hosted a 1-Day Workshop on “AI in Mental Health,” attracting students, PhD scholars, scientists, faculty, and professionals. The workshop focused on how artificial intelligence can augment mental healthcare through innovative approaches such as wearable technology for stress and emotion detection, sensor-based monitoring for real-time mental state prediction, and AI models for recognizing stressed states. Sessions explored both opportunities and challenges in integrating AI into mental health, highlighting the transformative potential of these technologies to revolutionize care and early intervention.



**AMITY CENTRE FOR
ARTIFICIAL INTELLIGENCE**

In collaboration with
**AMITY INSTITUTE OF BEHAVIOURAL
HEALTH & ALLIED SCIENCES (AIBHAS)**

1 DAY WORKSHOP ON
**AI IN
MENTAL HEALTH**



**AI in Augmentation of
Mental Health care**

- Introduction to AI in Mental Health: Opportunities and Challenges
- Wearable Technology and AI for Stress and Emotion Detection
- Sensor-Based Monitoring and Real-Time mental state Prediction
- AI Models for Stressed State Recognition

 **Date: 3rd July 2025**
 **Time: 10:00 AM – 4:00 PM**
 **Mode: Hybrid Mode**

Who Can Apply :
**Students/Ph.D. Scholars/Scientists/
Faculty/Professionals**
E-certificate will be given to all participants.

Register by 1st July, 2025

**FREE REGISTRATION,
LIMITED SEATS**

**TO REGISTER,
SCAN THE QR CODE**



AI for All: Empowering Everyday Professionals to Work Smarter, Create Faster, and Think Bigger



AMITY CENTRE FOR ARTIFICIAL INTELLIGENCE

WORKSHOP ON AI TOOLS AND APPLICATIONS

Date: 30th June to 4th July 2025. (Weekdays Only)
Time: 3:30 PM – 4:30 PM
Mode: Online

AI for All: Tools, Creativity & Productivity Simplified

- Foundations of Generative AI
- Prompt Engineering
- AI Tools for Everyday Applications
- AI Tools for Creative Content
- AI-Enhanced Office Productivity
- Multimodal AI

Who Can Apply:
Non-Teaching Administrative Staff,
Non-Technical Professionals
E-certificate will be given to all participants.

Register by 20th June, 2025

FREE REGISTRATION, LIMITED SEATS

TO REGISTER, SCAN THE QR CODE

For details visit amity.edu/noida/acai
Venue: ACAI Lab, E-3 Block, G-16, Sector-125, Noida (Delhi NCR)

Tel: +91-9599195631
E-mail: ai@amity.edu

From 30th June to 4th July 2025, ACAI hosted a comprehensive five-day workshop titled “AI Tools and Applications”, specifically designed for office staff and non-technical professionals. This unique initiative was part of Amity’s broader mission to democratize artificial intelligence by making its benefits accessible beyond the technical and research communities.

"Revolutionizing Academia, One Prompt at a Time"

“Generative AI in Academia: Automating Workflows, Empowering Minds”

From June 9th to 20th, 2025, the Amity Centre for Artificial Intelligence (ACAI) conducted an intensive training program titled “Generative AI for Academic Workflow Automation.” With over 450 participants from various academic roles, the program focused on practical GenAI applications in teaching, research, and administration. Topics included syllabus and lecture design, assessment generation, academic writing support, and workflow automation. The initiative marked a major step in empowering educators and researchers to enhance efficiency and creativity through AI-driven tools.



AMITY CENTRE FOR ARTIFICIAL INTELLIGENCE

WORKSHOP ON GENERATIVE AI FOR ACADEMIC WORKFLOW AUTOMATION

Date: 9th June-20th June, 2025 (Weekdays Only)
Time: 3:30 PM – 4:30 PM
Mode: Online

Learn to Automate and Enhance Academic Processes with GenAI

- Introduction to Generative AI and Prompt Engg.
- Automating Teaching, Research, and Administrative Workflows
- Syllabus Design, Lecture Planning & Assessment with GenAI
- Document, Email, and Report Generation using GenAI
- Research Support: Literature Review & Paper Structuring with GenAI

Who Can Apply:
Faculty Members/Academic Administrators/
Researchers/PhD Scholars
E-certificate will be given to all participants.

Register by 5th June, 2025

FREE REGISTRATION, LIMITED SEATS

TO REGISTER, SCAN THE QR CODE

For details visit amity.edu/noida/acai
Venue: ACAI Lab, E-3 Block, G-16, Sector-125, Noida (Delhi NCR)

Tel: +91-9599195631
E-mail: ai@amity.edu

"From Classrooms to Research Papers — GenAI at Work"

RESEARCH SEMINARS

AMITY UNIVERSITY
AMITY CENTRE FOR
ARTIFICIAL INTELLIGENCE
With most advanced Supercomputing facility & involved in
disruptive innovations in the area of AI.

Title: Building and training
efficient LLM's: from data
collection to reinforcement
learning

Research Seminar SERIES
Seminar #21
WEDNESDAY
14.05.2025
3:30 – 4:30PM

Speaker:
Dr. Rakesh Chandra Joshi
Amity Centre for Artificial Intelligence.


Online Mode: 
SCAN or Visit
<https://tinyurl.com/5bnhur9a>
Offline Mode: ACAI Lab, G-16,
E3 Block, Amity University, Noida.

AMITY UNIVERSITY
AMITY CENTRE FOR
ARTIFICIAL INTELLIGENCE
With most advanced Supercomputing facility & involved in
disruptive innovations in the area of AI.

Title: Evaluation Metrics for
Multimodal Algorithms

Research Seminar SERIES
Seminar #22
THURSDAY
15.05.2025
3:30 – 4:30PM

Speaker:
Alok Kumar Tiwari
Amity Centre for Artificial Intelligence.

Online Mode: 
SCAN or Visit
<https://tinyurl.com/3uaj9f3x>
Offline Mode: ACAI Lab, G-16,
E3 Block, Amity University, Noida.

AMITY UNIVERSITY
AMITY CENTRE FOR
ARTIFICIAL INTELLIGENCE
With most advanced Supercomputing facility & involved in
disruptive innovations in the area of AI.

Title: Beyond Words and
Pixels: The Future of
Multimodal Intelligence

Research Seminar SERIES
Seminar #23
TUESDAY
20.05.2025
3:30 – 4:30PM

Speaker:
Dr. Dhruv Sharma
Amity Centre for Artificial Intelligence.


Online Mode: 
SCAN or Visit
<https://tinyurl.com/mrxtnwfd>
Offline Mode: ACAI Lab, G-16,
E3 Block, Amity University, Noida.

AMITY UNIVERSITY
AMITY CENTRE FOR
ARTIFICIAL INTELLIGENCE
With most advanced Supercomputing facility & involved in
disruptive innovations in the area of AI.

Title: Concept of Transfer
learning and fine tuning for
LLM's.

Research Seminar SERIES
Seminar #24
WEDNESDAY
28.05.2025
3:30 – 4:30PM

Speaker:
Dr. Bhavna Bajpai
Amity Centre for Artificial Intelligence.

Online Mode: 
SCAN or Visit
<https://tinyurl.com/3dnmbv8m>
Offline Mode: ACAI Lab, G-16,
E3 Block, Amity University, Noida.

AMITY UNIVERSITY
AMITY CENTRE FOR
ARTIFICIAL INTELLIGENCE
With most advanced Supercomputing facility & involved in
disruptive innovations in the area of AI.

Title: Pretraining and Fine-
Tuning in LLM's.

Research Seminar SERIES
Seminar #25
THURSDAY
29.05.2025
3:30 – 4:30PM

Speaker:
Dr. Ritu Tanwar
Amity Centre for Artificial Intelligence.

Online Mode: 
SCAN or Visit
<https://tinyurl.com/57db7y6k>
Offline Mode: ACAI Lab, G-16,
E3 Block, Amity University, Noida.

AMITY UNIVERSITY
AMITY CENTRE FOR
ARTIFICIAL INTELLIGENCE
With most advanced Supercomputing facility & involved in
disruptive innovations in the area of AI.

Title: Integrating external
knowledge to Large Language
Models (LLM's)

Research Seminar SERIES
Seminar #26
FRIDAY
30.05.2025
3:30 – 4:30PM

Speaker:
Dr. Sneha Sharma
Amity Centre for Artificial Intelligence.

Online Mode: 
SCAN or Visit
<https://tinyurl.com/bpta8knc>
Offline Mode: ACAI Lab, G-16,
E3 Block, Amity University, Noida.

AICraft 2.1 – National Level AI Competition & Ph.D. Symposium held on 07th March 2025.



Powered by: **NVIDIA** DEEP LEARNING INSTITUTE

AMITY CENTRE FOR ARTIFICIAL INTELLIGENCE
Powered with DGX2-A100 10 Petaflop Supercomputing

IN COLLABORATION WITH
भारतीय विश्वविद्यालय संघ
ASSOCIATION OF INDIAN UNIVERSITIES

PRESENTS
AICraft 2.1
ARTIFICIAL INTELLIGENCE COMPETITION
FOR RESEARCH AND FUTURE TECHNOLOGIES 2025

National Level Competition
for UG, PG students &
Ph.D. Symposium in the field of
Artificial Intelligence.

EXCITING PRIZES:
First Prize : ₹50,000/-
Second Prize : ₹25,000/-
Third Prize : ₹10,000/-
> Certificate of Participation for all

Knowledge Partners:
• ICAR-NIBSM, Raipur
• ZTMC-ABI of ICAR- CIFT, Kochi
• ICMR-NIE, Chennai

Open for
all UG, PG & Ph.D. Students!

Mode of Presentation:
• AI Model / Project.
(Software Model/Hardware)
• Technical Poster
• Both: Model and Poster
• Start-up Idea

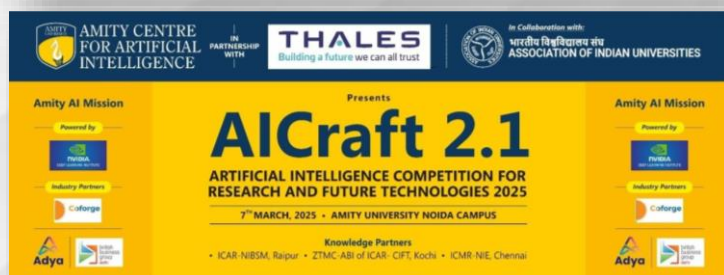
To know more, Scan the QR Code

7th March 2025, Amity University Noida Campus
Extended Deadline: 16th Feb 2025
To register visit : <https://amity.edu/aicraft2.1/> **FREE REGISTRATION**

For more information please contact: Amity Centre for Artificial Intelligence, Amity University, Sector - 125, Noida
Tel: +91-9599195631 | ai@amity.edu | <https://amity.edu/noida/acai/events.asp>

AICraft 2.1 (Artificial Intelligence Competition for Research and Future Technologies), held on 7th March 2025 at E-2 Auditorium, Amity University Uttar Pradesh, Noida, was a national-level showcase of innovation in Artificial Intelligence. Coordinated by the Amity Centre for Artificial Intelligence (ACAI) in association with the Association of Indian Universities (AIU), the event was supported by the NVIDIA Deep Learning Institute (DLI) and saw enthusiastic participation from institutions across India.

Marketing and outreach were carried out through: Amity official website announcements, Direct mailers to universities and institutions, LinkedIn campaigns and personal networks, Internal circulars and academic forums. These efforts attracted 500+ applications, out of which around 170 projects were shortlisted following multiple evaluation rounds.

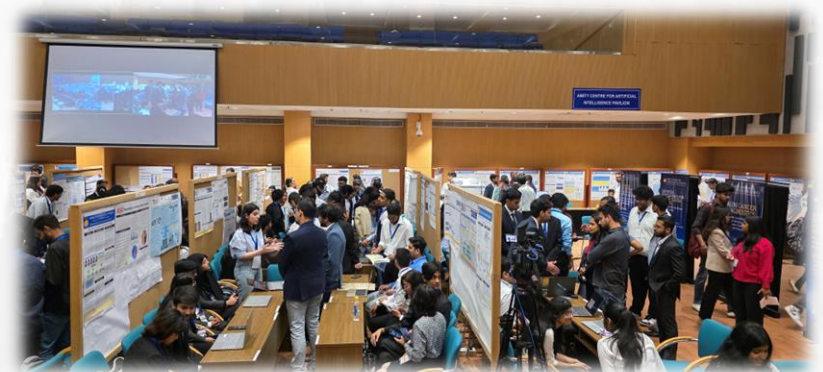


AMITY CENTRE FOR ARTIFICIAL INTELLIGENCE IN PARTNERSHIP WITH **THALES** Building a future we can all trust. In Collaboration with **भारतीय विश्वविद्यालय संघ** ASSOCIATION OF INDIAN UNIVERSITIES

Amity AI Mission Presents **AICraft 2.1** ARTIFICIAL INTELLIGENCE COMPETITION FOR RESEARCH AND FUTURE TECHNOLOGIES 2025
7th MARCH, 2025 - AMITY UNIVERSITY NOIDA CAMPUS

Knowledge Partners
• ICAR-NIBSM, Raipur • ZTMC-ABI of ICAR- CIFT, Kochi • ICMR-NIE, Chennai

Amity AI Mission



AICraft 2.1 – National Level AI Competition & Ph.D. Symposium held on 07th March 2025.



AICraft 2.1 proved to be a vibrant and intellectually stimulating platform for the AI community in India. It strengthened inter-institutional collaboration, brought academia and industry closer, and highlighted Amity University's leadership in cutting-edge AI research. Future editions promise to build further on this strong foundation.

Organizer:



In Partnership With:



Co-organizer:



भारतीय विश्वविद्यालय संघ
ASSOCIATION OF INDIAN UNIVERSITIES

Industry Partners:

Powered by



NVIDIA

DEEP LEARNING INSTITUTE

Coforge



Adya



Knowledge Partners:



(ICAR-NIBSM),
Raipur



(ZTM-ABI) of
(ICAR-CIFT),
Kochi



icmr
INDIAN COUNCIL OF
MEDICAL RESEARCH



(ICMR NIE), Chennai



Inspiring Young Minds at Summer School- AI Domain

ACAI recently hosted an engaging session as part of the Summer School, welcoming enthusiastic school students from distant states. The event was a heartening experience, showcasing the students' remarkable curiosity, confidence, and an impressive understanding of Artificial Intelligence at such a young age. Interacting with these bright young minds proved both refreshing and inspiring. Their questions, insights, and enthusiasm highlighted a promising future for AI, driven by a generation ready to explore and innovate.



ACAI in Media:



Appearance of our Director, Prof MK Dutta in National Television Program Science Park. The discussion was on China's latest interventions in LLM that has shaken the AI market in US.



Our Director, Prof MK Dutta was in a Panel Discussion in National Television around India's National AI mission and the great initiatives taken by the Government that is a significant step in the AI landscape to develop its own foundational Large Language Model (LLM).

“Nurturing Future Innovators: 3rd Batch of USRF 2025 with Students from Premier Institutes Nationwide”



3rd BATCH of USRF-2025 UNDERGRADUATE SUMMER RESEARCH FELLOWSHIP

12 June 2025 Onwards (4 to 8 weeks)

Be among the
chosen few who will

DO INNOVATIVE
RESEARCH WITH
FELLOWSHIP EVEN
BEFORE GRADUATING

A unique opportunity
to work under the
supervision of
Amity University
faculty, in:

- Artificial Intelligence
- Engineering
- Biotechnology
- Pharmacy
- Defence Technologies
- Management
- Science
- Neuroscience
- Space Technology
- Healthcare

Eligibility: Students who have completed at least 2 years of study in a UG Program

For details and to apply, visit <https://amity.edu/usrf2025/>

Apply by:
21st May 2025

Amity University, Noida offered a Unique Undergraduate Summer Research Fellowship Programme (USRF 2025) that started on 12th June 2025. It was a 4 to 8-week program for UG students.

The objective of this fellowship is to provide a unique opportunity to undergraduate students of Artificial Intelligence, Engineering, Science, Pharmacy, Biotechnology, and Management to work on innovative research problems under the supervision of the faculty of Amity University.



USRF 2025 Fellows in Campus



The Undergraduate Summer Research Fellowship (USRF) 2025 at Amity University, Noida, emerged as one of the most sought-after research programs in the country, offering a weekly stipend, travel support, and free hostel stay with meals. The fellowship attracted over 3,000 applications from students across all 28 states, including aspirants from premier institutes like the IITs, NITs, IIITs, IISERs, and leading universities. After a rigorous selection process, 34 meritorious students were awarded the fellowship and engaged in cutting-edge research. The Fellows came from all parts of the Country like IIT Madras, NIT Durgapur, NIT Calicut, IIT Patna, NIT Warrangal, NIT Uttarakhand, IIIT Ranchi, IIIT Kottayam, NIT Agartala, NIT Goa etc.

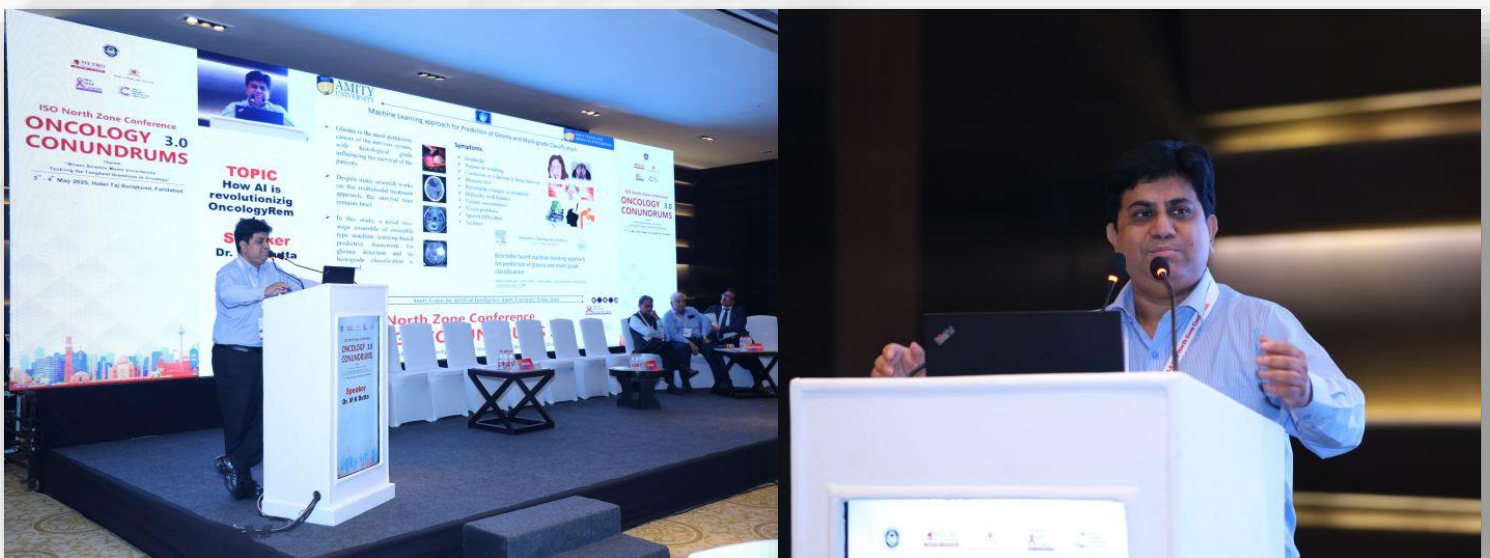
USRF 2025 Fellows in Campus





ACAI in THE WEEK magazine

The Week magazine has ranked Amity University as the top not-for-profit private university in India. The feature article highlights visionary insights from our Chancellor Sir Atul Chauhan, who has been instrumental in shaping the University's forward-looking approach, especially in the integration of Artificial Intelligence (AI) across all academic disciplines.



Our Director, Prof M.K. Dutta was invited as a speaker at Oncology Conundrums 3.0, held on 3rd May 2025 at Hotel Taj, Faridabad. The event brought together some of the leading minds in oncology. He delivered a talk on "Applications of Artificial Intelligence in Cancer Research and Care", highlighting some of the work done in AI-based cancer diagnostics and how AI is transforming early detection, diagnosis, personalized treatment planning, and patient monitoring in Cancer.



Dr. Sandip Mukhopadhyay, Scientist E – Medical (Deputy Director) at ICMR-NIRBI, Kolkata, visited the Amity Centre for Artificial Intelligence (ACAI) on 16th June 2025. The visit marked ongoing collaboration on an ICMR-funded project titled “Development of an Artificial Intelligence-driven Pharmacokinetics-based Algorithm as an Aid for Better Management of Drug Resistance in Tuberculosis.

Dr. Chandan J. Das, Professor of Radiology, and Dr. Baibaswata Nayak, Professor of Molecular Biology, from AIIMS New Delhi visited Amity Centre for Artificial Intelligence (ACAI) on 06th June 2025



A delegation of senior police officers visited our Centre to explore the role of Artificial Intelligence in modern policing. They engaged in discussions on AI-driven solutions for crime detection, resource optimization, and decision-making, while also witnessing live demonstrations in our AI labs. The visit concluded with a shared commitment to future collaborations for building safer, smarter communities.

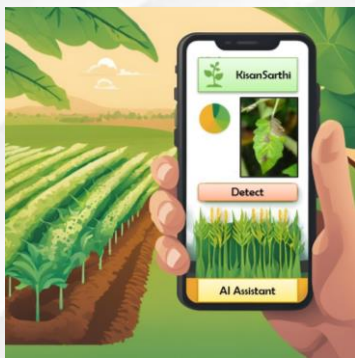
Young Brilliant AI Innovator from Amity University honored by the Hon'ble Chief Minister of Delhi.



Parth Upadhyaya, a B.Tech CSE Student 2021-25 Batch from Amity University, now Co-Founder & CTO @ FlyByHire.ai, Specialized in Agentic AI, recognized as India's first AI-powered recruitment platform, transforming hiring in the private sector and now appears as a potential solution for the government as well.

Amity Centre for Artificial Intelligence (ACAI) is the first in the country to offer a full course in Generative AI for undergraduate B.Tech students in 2023, Parth was among the first batch to pursue this.

"Smart Farming, Simplified: Amity Students Build AI App to Diagnose Plant Diseases"



इंसा। स्यूरी अनुसार यह योजना न सिर्फ एक व्यक्ति बनाया गया है और ऑनलाइन आवेदन बराबर युवकों का राजगार प्राप्त हो सक। लखनऊ समेत कई ब को लिए रोजगार का साधन बनी है, बल्कि को सुविधा भी दी गई है। जखानक समेत कई ब जखानक समेत सत्र होग।

खोज

शहर के रक्षणीक संस्थानों में छात्रों को बनाया जा रहा एआई एक्सपर्ट

किसान एआई एप से चल सकेगा फसल की बीमारी का पता

प्रज्जवल सिंह और गगनदीप सिंह। जोक: कलेक्टर

सिद्धार्थ शर्मा, दिव्यान तिवारी, अवनीश गर्ग। जोक: कलेक्टर

हर फसल की बीमारी की मिलेगी जानकारी

सेक्टर 125 स्थित एमटी विद्यापीठ के एआई सेक्टर के निदेशक य एमटी के ऑफिस व कुलपति प्रोफेसर एमके दत्ता ने बताया कि सेक्टर में प्रशिक्षण या रहे बीटेक के तीन छात्रों सिद्धार्थ शर्मा, दिव्यान तिवारी और अवनीश गर्ग ने मिलकर एआई संचालित किसान एप तैयार किया है। एप स्कैनिंग के बाद उसको बीमारियों के बारे में जानकारी देता है।

कर्मचारियों, विद्यार्थियों को अटेंडेंस एआई पर आधारित सिस्टम के जरिये लगाने में कारगर होगा। इसकी खासियत बताते हुए छात्रों ने कहा कि खाद्योद्योगिक अटेंडेंस के बजाय जा सकेगी। छात्र कब तक संस्थान में हैं, इसकी जानकारी भी मौजूद रहेगी। वहीं कलाउड सिंक डेटा के जरिये जानकारी को लगातार स्टोर किया जा सकेगा। इससे युग्मवातपूर्ण कार्य भी हो सकेगा।

राष्ट्रीय कौशल प्रशिक्षण केंद्र बना रहा एआई एक्सपर्ट : सेक्टर 1 स्थित राष्ट्रीय कौशल प्रशिक्षण केंद्र की प्रधानाचार्या शशि माधुर ने बताया कि एआई कोर्स संचालित किया जाता है। भारत सरकार की यह पहल छात्रों को हर क्षेत्र में आत्मनिर्भर बनाने की है।

युवाओं के सपनों को एआई लगा रहा पंख

शेठर नोएडा (अंकुर त्रिपाठी)। आज हम एक ऐसे युग में प्रवेश कर चुके हैं, जहां आर्टिफिशियल इंटेलिजेंस केवल तकनीकी दृष्टि नहीं, बल्कि जीवन का अधिभूत हिस्सा बनती जा रही है। चर्चे आप एक छात्र हो, स्टार्टअप उद्यमी हो या फिर किसी क्षेत्र के पेशेवर। अब एआई केवल कंप्यूटर साइंस या आईटी का विषय नहीं रहा, बल्कि मानविकी, कृषि, चिकित्सा समेत अन्य क्षेत्रों में भी जरूरी कौशल बन चुका है। छात्र मनीष चौहान ने बताया कि एआई द्वारा समय को बचत न केवल विकास को आसान बनाती है, बल्कि इसे और भी स्मार्ट बनाती है। परंपरिक पाठ्यक्रमों में अब एआई, डेटा विश्लेषण, मशीन लर्निंग और डिजिटल दुनिया को शिक्षा को जोड़ा जा रहा है।

एकेटीयू के अधिकारियों ने बताया कि सेक्टर 62 स्थित उत्तर प्रदेश स्किल डिजाइन (यूपीआईडी) एआई (आर्टिफिशियल इंटेलिजेंस) सेक्टर स्थापित करने जा रहा है। जहां छात्रों को सेक्टर पर कम शुल्क में एआई से संबंधित कोर्स का लाभ प्राप्त करेगा। इसमें एआई का उपयोग पेटेंट खोजने, नई तकनीकी खोजने, भविष्यवाणियां करने, मशीनों और भौतिक वातावरण के साथ बातचीत करने सहित अन्य कार्य में किया जा सकता है। युवाओं के भविष्य को देखते हुए पाठ्यक्रम में कई बदलाव किए गए हैं। एआई का प्रशिक्षण छात्रों के साथ शिक्षकों को भी दिया जा रहा है। हर क्षेत्र में एआई को शामिल किया जा रहा है।

B.Tech students from Amity University—Siddharth Sharma, Avaneesh Garg, and Divyan Tiwari—have developed an AI-powered mobile app that helps farmers detect and manage plant diseases with ease. By combining advanced image recognition with large language models (LLMs), the app analyzes leaf images and provides treatment guidance in simple regional languages, ensuring accessibility for rural communities. Their innovative work, presented at the 16th ICUMT Conference in Spain, earned international commendation and was also featured in Amar Ujala for its real-world impact on sustainable, tech-driven agriculture.



AMITY
UNIVERSITY
---NOIDA (DELHI NCR)---



**AMITY CENTRE FOR
ARTIFICIAL
INTELLIGENCE**

AI FOR ALL

Pioneering the Fusion of AI with Every Discipline

At the Amity Center for Artificial Intelligence, we envision providing world-class education that transforms individuals into intellectual, empathetic, and responsible AI practitioners and citizens. We aspire to create a collaborative ecosystem uniting knowledge institutions, industry partners, government agencies, and community stakeholders to develop both exceptional talent and groundbreaking technology in artificial intelligence.

Powered by NVIDIA DGX2 A100 – one of the world's most powerful AI systems, ACAI offers unmatched computational strength with 16 A100 GPUs delivering 10 PetaFLOPS of processing power. With 640 GB of GPU memory enhanced by Tensor Core GPUs, advanced AI stacks for seamless training and deployment, and high-speed servers for maximum efficiency, ACAI stands among the finest AI computing facilities globally.

