



**VIT**<sup>®</sup>  
Vellore Institute of Technology  
(Deemed to be University under section 3 of UGC Act, 1956)



**Recent Trends in Advanced Computing (ICRTAC '23)**  
**School of Computer Science and Engineering**  
in Collaboration with  
**VIT Business School**  
Supported by International Relations Division of VIT  
Theme: Cutting Edge Technologies in Computing-SDG

SESSION	SESSION TIMING	NO.OF TRACKS	NO.OF PAPERS
1	02.15PM -03.15 PM	5	25
2	03.15 PM – 04.30 PM	5	25

SESSION NUMBER	SESSION TIMING	AREA OF SPECIALIZATION
1	02.15 PM - 03.15 PM	Networking Security and Machine Learning
		IOT, AI, Deep and Machine Learning
		Blockchain and network computing
2	03.15 PM - 04.30 PM	Machine Learning,IOT and FOG computing
		Computer Vision , IOT and AI
		Machine ,Deep Learning and IOT and FOG Computing
		Cyber Security, Fog Computing and machine learning

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### Paper Presentation – Session 1

Date: 14<sup>th</sup> December 2023  
Time: 02.15 PM – 03.15 PM  
Mode: Online

Track 1: Networking Security and Machine Learning

#### Session Chairs:

1. Dr.Carmel Mary Belinda M J, Professor, Saveetha School of Engineering, Saveetha Institute of Medical And Technical Sciences
2. Dr.E.Sophiya, Assistant Professor, Amrita School of Computing, Amrita Vishwa Vidyapeetham

Mode: **Online**

Join Zoom Meeting : <https://zoom.us/j/93956075367?pwd=bXhpcU9BZjB3bHNXUit4MGNBNHo4UT09>

S.No	Paper ID	Title	Affiliation	Authors
1	395	Performance Enhancement to Improve Accuracy for the Identification of Lyme Disease by using Novel ANN Algorithm by Comparing with K-Mean Algorithm	Saveetha School of Engineering	Dr.Saravanan and Ms. Shakti.S
2	220	Federated Learning-Based Network Intrusion Detection Using Deep Auto Encoder	Vellore Institute of Technology, Chennai	Ms.Jeyavim Sherin and Dr. Parkavi K
3	35	Blockchain Integration for Enhanced Agri-Food Supply Chain Security and Efficiency	Hindustan Institute of Technology and Science ,Chennai	Mr.Mohammed Musthafa &Dr. D.John Aravindhar
4	90	Exploration of Pretrained Models used in Automatic Speech Recognition System: A Review and Analysis	SRM Institute of Science and Technology, Kattankulathur	Dr.Pandiaraj, Dr.S. Suhasini and Dr.N.Ramshankar
5	378	Sentiment Analysis across Modalities: A Comprehensive Review of Text and Audio Approaches	Savitribai Phule Pune University	Ms.Krishna.Ms.Nikita Dhobale,MsPratiksha Deshmukh,MsSakshi Nirne andMsAshwini Jarali

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Date: 14<sup>th</sup> December 2023  
Time: 02.15 PM – 03.15 PM  
Mode: Online

Track 2: Cloud Security and IOT

**Session Chairs:**

1. Dr. Suganya R, Asso. Prof, VIT Chennai
2. Dr. Kumar R, Professor, VIT Chennai

Mode: **Online**

Join Zoom Meeting : <https://zoom.us/j/93956075367?pwd=bXhpcU9BZjB3bHNXUit4MGNBNHo4UT09>

S.No	Paper ID	Title	Affiliation	Authors
1	26	Privacy-Preserving Federated Learning for Brain MRI Analysis	Sardar Patel Institute of Technology	Mr. Gokul Rama Limark Dcunhanan, Larren Dsouza and Sheetal Chaudhari
2	87	Gesture-Driven Virtual Mouse with a Voice Assistant	VIT Chennai	Mr. Rahul Kumar S and Lakshmi Harika
3	415	Automated Printed Circuit Board Inspection: Incorporating YOLOv8 for Efficient Defect Detection	Amrita School of Computing Amrita Vishwa Vidyapeetham Chennai-601103, India	Mr. Rohan Reddy Badugula, Gunti Swathi, Ashish Reddy M and R Prasanna Kumar
4	365	Cloud based Medicine Scheduler	VIT Chennai	Dr. Renukadevi Saravanan and Sarthak Kesari
5	360	Predicting Bankruptcy of Companies in the Pharmacy and Technology Sectors Using Altman's Z-score model	Saint Peters University	Dr. Sharath Kumar Jagannathan, Gulhan Bizel and Hulya Alpogu

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Date: 14<sup>th</sup> December 2023

Track 3: IOT, Deep and Machine Learning

Time: 02.15 PM – 03.15 PM

Mode: Online

**Session Chairs:**

1. Dr. Jaisakthi, Professor, Vellore Institute of Technology, Chennai
2. Dr. Rajakumar, Associate Professor, Vellore Institute of Technology, Chennai

Mode: **Online**

Join Zoom Meeting : <https://zoom.us/j/93956075367?pwd=bXhpcU9BZjB3bHNXUit4MGNBNHo4UT09>

S.No	Paper ID	Title	Affiliation	Authors
1	95	Unsupervised Deep Learning for Plant Disease and Pest Identification: A Comprehensive Approach	VIT-AP UNIVERSITY	Shaik Salma Asiya Begum, Hussain Syed
2	101	Detection Of Pancreatic Cancer Cells at Early Stage And Recommend The Treatment Process	B.Tech Computer Science And Business Systems, Sri Krishna College Of Engineering & Technology, Coimbatore	Margret Sharmila F, Shree Harini R, Vityarubbasiri M, Gopi Krishna S
3	326	Bridging the Gap in Precision Agriculture: A CNN-Random Forest Fusion for Disease Classification	Chitkara University Institute of Engineering and Tecnology, Chitkara University, Punjab, India	Mr.Rishabh Sharma, Mr.Arshleen Kaur, Mr.Vinay Kukreja, Mr.Sushant Chamoli and Mr.Siddhant Thapliyal
4	136	Sentiment analysis on Zomato customer reviews using Random Forest Classifier	JNTUH Student	Nousheen Begum, M. Ruthika, N. Lakshmi Deepika, M. Susanna Sucharitha, V. Punna Rao
5	41	Design And Implementation Of The Smart Charter Web Application	Sri Eshwar College Of Engineering	Mr. Vimalraj G, Mr.Dhamodharan Srinivasan, Ms.Comhemalatha. R, Mr.Kirubhakaran. MsA.V, Shree Shivaani. S Mr.Anabishek. R.P.D



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### Paper Presentation - Session 1

Date: 14<sup>th</sup> December 2023

Track 4: IOT , AI and Deep Learning

Time: 02.15 PM – 03.15 PM

Mode: Online

#### Session Chairs:

1. Dr.Sivakumar.V, Associate Professor,Manipal Institute of Technology
2. Dr.Christopher Columbus C, Professor, Vellore Institute of Technology ,Chennai

Mode: **Online**

Join Zoom Meeting : <https://zoom.us/j/93956075367?pwd=bXhpcU9BZjB3bHNXUit4MGNBNHo4UT09>

S.No	Paper ID	Title	Affiliation	Authors
1	64	Towards Accurate Heart Disease Diagnosis: An Overview of Machine Learning Approaches	Amity University Jaipur	Mr.Varun Deshmukh and Sunil Pathak
2	388	A Comprehensive Review of Machine Learning And Deep Learning Techniques For Addressing Class Imbalance Issues In Network Intrusion Detection Systems.	VIT-AP UNIVERSITY AMARAVATI	Mr.Jalaiah Saikam and Dr.koteswararao Ch
3	422	Power Consumption Forecast for Load Management In Smart Grid	SRM Institute of Science and Technology	Mr.Sarthak Tyagi, Ms.Nidhishri Kaitwade and Mr.B.Ida Seraphim
4	34	Feature Analysis and Automatic Word Segmentation of Natural Language Processing Using Deep Learning	BHARATHIAR UNIVERSITY	Mr.Sugin Lal G
5	236	Revolutionizing Agriculture: Harnessing IOT For Productivity, Sustainability, And Innovation	Chitkara University, Himachal Pradesh	Dr.Ashutosh Kumar Dubey & Mr.Ravita Chahar



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**Paper Presentation - Session 1**

Date: 14<sup>th</sup> December 2023  
Time: 02.15 PM – 03.15 PM  
Mode: Online

**Track 5: Blockchain and network computing**

**Session Chairs:**

1. Dr. Dhanalakshmi R, Associate professor, VIT Chennai
2. Dr. Jeya Mala D, Associate professor, VIT Chennai

Mode: **Online**

Join Zoom Meeting : <https://zoom.us/j/93956075367?pwd=bXhpcU9BZjB3bHNXUit4MGNBNHo4UT09>

S.No	Paper ID	Title	Affiliation	Authors
1	441	Utilizing Convolutional Neural Networks for Object Recognition with Image Filtering and Edge Detection in Deep Learning	Department of Computer Science and Engineering, Veltech University	Dr. Shajeena J, Mr. Vinay Kumar Jarugula Ms.A. Bindhu and Ms.S. Kayalvizhi
2	328	Super resolution imaging based on residual network with generalised unsharp masking	JNTUK	Ms Irfana Begum Khan
3	396	MRI-CT Fusion Based on Phase Congruency of Intrinsic Functions and Laplacian of Residuals	V R SIDDHARTHA ENGINEERING COLLEGE	Mr Nusum Venkata Maheswara Reddy
4	305	Recent Research and Implementation on Various GPS Spoofing Attacks and Prevention	VIT Vellore	Mr Ratan Singh Matharu
5	115	Blockchain-enabled Transcript System integrated with IPFS	Guru Nanak Dev Engineering College	Ms Priyanka Jhamb, Mr. Suryanarayana Gunnam, Ms. Chulika Devi Ch and Mr. Yaswanth Ch

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### Paper Presentation - Session 2

Date: 14<sup>th</sup> December 2023

Track 1: App Development and machine Learning

Time: 03.15 PM – 04.30 PM

Mode: Online

#### Session Chairs:

1. Dr. Venkatraman.S, Associate professor, VIT Chennai
2. Dr. Palani Thanaraj K, Associate professor, VIT Chennai

Mode: Online

Join Zoom Meeting : <https://zoom.us/j/93956075367?pwd=bXhpcU9BZjB3bHNXUit4MGNBNHo4UT09>

S.No	Paper ID	Title	Affiliation	Authors
1	52	Development of an Android-Based Attendance and Academic Progress Tracking System with Parent Interaction	Velagapudi Ramakrishna Siddhartha Engineering College	Ms. Mandapati Ankitha, Ms. Siripalli Neeharika And Mr.S. Ravi Kishan
2	451	Multi-Lingual Sentiment Analysis of Urdu and English Tweets Using RNN with Bidirectional LSTM	Vellore Institute of Technology	Mr. Tarun Jagadish, Mr.Yash Deole, Mr.Md Shabrez , Ms.Premalatha M and Ms.Anusooya G
3	414	Deep Reinforcement Learning for natural language understanding and Dialogue Systems	Amrita Viswa Vidyapeetham ,chennai campus	Mr. Siva Jyothi Natha Reddy B Mr.PrasannaKumar R, Mr.Venkatraman K, Ms.V V V Bhagya Sree, Ms.Vemireddy Anvitha, Ms.Manojna K and Ms.Sudarshan R
4	435	Analyzing Deep Reinforcement Learning Strategies for Enhanced Profit Generation and Risk Mitigation in Algorithmic Stock Trading	Amrita School of Engineering	Ms. Sumash Chandra R Prasanna Kumar, Ms.Snehitha Gorantla and Ms.Swathi Gunti
5	143	Language Detection Model Using Natural Language Processing	JNTUH	Ms. Chaithanya Kotagiri, Mr.P.Bhaskar Rao, Mr.Rishanka Madamshetti, Ms.Abhisree Minkoori and Mr.Sahasra Gande



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### Paper Presentation - Session 2

Date: 14<sup>th</sup> December 2023

Track 2: Machine Learning, IOT and FOG computing

Time: 03.15 PM – 04.30 PM

Mode: Online

#### Session Chairs:

1. Dr.Sivakumar.V, Associate Professor, Manipal Institute of Technology, Chennai
2. Christopher Columbus C, Professor, Vellore Institute of Technology, Chennai .

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S.No	Paper ID	Title		Authors
1	61	Reading Technology for Blind People Using OCR and Neural Machine Learning Method	PSNA College of Engineering and Technology	Dr,shahul hammed S, Mr.C.Preethi,Ms.Haripriya, Mr.S.Pavalarajan, Ms.S.Priyadharshini & Ms.B R Varshambigai achithra
2	60	Radioactive Metal Detection in Dustbin using Metaheuristic with Augmented Reality for Enhanced Safety and Security	PSNA College of Engineering and Technology	Ms.Preethi C, Mr.S.Shahul Hammed, Ms.K.Haripriya, Mr.S.Pavalarajan Mr.V.S.Shree saran Mr.R.Praneshraj Meikannan
3	109	Yoga Pose Detection and Correction Using Computer Vision	National Engineering College	Mr.Hari Ram S, Mr.Ramalingam A, Mr.Ashok A,Ms. Rajarajeswari P,Mr.S.Dheenadhayalan and Ms.V.Gomathi
4	158	Prediction of Chronic Kidney Disease with Artificial Neural Network	Institute of Aeronautical Engineering (IARE)	Dr.Madhavidevi Botlagunta
5	224	Systematic Literature Review on Bio Inspired Algorithms in Cloud Fog Computing	VIT-AP University	M. Santhosh Kumar,Ganesh Reddy Karri,M Shiva Prasad,Rakesh Kumar Donthi,Baji Babu Indurthi





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**Paper Presentation - Session 2**

Date: 14<sup>th</sup> December 2023

Track 3: Computer Vision , IOT and AI

Time: 03.15 PM – 04.30 PM

Mode: Online

**Session Chairs:**

1. Dr.Karmel ,Associate Professor,Vellore Institute of Technology,Chennai
2. Dr.E.Sophiya, Assistant Professor,Amrita School of Computing, Amrita Vishwa Vidyapeetham

Mode: **Online**

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S.No	Paper ID	Title	Affiliation	Authors
1	151	Real-Time Pothole Detection At Night To Prevent Road Accidents Using Yolov5	Saveetha School of Engineering	Dr.Gouranga, Mr.Anurag De, Sudeepthi Gangarapu, Ms.Sharmila Rani Chekuru and MsChekuri Nandini
2	214	Object Based Change Detection On Temporal Multi-Spectral Satellite Imagery	Vellore Institute of Technology, Chennai	Mr.Ajay Kumar Varma, MsSuneetha Manne and MsPallapati Latha Sri
3	70	A Detailed Examination Of Deep Learning Models For Detection Of Attention Deficit Hyperactivity Disorder(ADHD)	Hinsutan Institute of Technology and Science ,Chennai	Ms. zarina and Mr.Kareemulla Shaik
4	198	The Big Data Analytics And Its Effectiveness On Bank Financial Risk Management	SRM Institute of Science and Technology, Kattankulathur	Dr.Venkatesh, Dr.Mathiyarasan M and Dr.Krishnamoorthi M
5	288	AI Enabled Avionics Domain-Specific TTS System	Savitribai Phule Pune University	Mr.Sai Surya Teja, Mr.B. Sai Bharath, Ms.Aishwarya Ms.Virigineni, Radha D, Ms.Amudha J, Mr.Jitender



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### Paper Presentation - Session 2

Date: 14<sup>th</sup> December 2023

Track 4: Machine, Deep Learning and IOT and FOG Computing

Time: 03.15 PM – 04.30 PM

Mode: Online

#### Session Chairs:

1. Dr. Kaviarasan Ramu, Associate Professor, RGM College of Engineering and Technology, Nandyal
2. Dr. Ganesan N, Associate Professor, Vellore Institute of Technology, Chennai.

Mode: **Online**

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S.No	Paper ID	Title	Affiliation	Authors
1	283	Towards Sustainable Mango Cultivation: Automated Severity Classification of Mango Rust Disease using CNN-SVM	Chitkara University of Engineering and Technology, Chitkara niversity, Punjab,	Mr. Rishabh Sharma, Mr.Arshleen Kaur, Mr.Vinay Kukreja, Ms.Nisha Chandran S andMr. Navin Garg
2	56	Smartphone recommendation using popularity and collaborative filtering based models	Vellore Institute of Technology, Chennai, Tamil Nadu	Mr. Savio Moloparambil, Mr.Aniket Kumar Paul , Mr.Trilok Nath Pandev . Mr.Surva Kartheek.
3	379	Review on Age and Gender Detection: Diverse Approach and Algorithmic Insights	School of computer science and engineering, Vellore Institute of Technology, Chennai	Ms. Kumari Deepanshi,Mr. R. Sendhil and Ms.Kriti Gupta
4	152	Exploring Deep Learning Approaches for Colorization: A Galactic Palette Review	VIT-AP UNIVERSITY	Mr.Praveen Abhi Vamsi, Visalakshi Annepu, Kalapraveen Bagadi, Nagendra Panini Challa andBeebi Naseeba
5	206	Exploring the Transformative Convergence of IoT and Fog Computing for Healthcare, Agriculture, Urbanization, and Transportation	S. V. University College of Engineering	Mr. Kotari Suresh and Dr. M. Humera Khanam

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### Paper Presentation - Session 2

Date: 14<sup>th</sup> December 2023

Track 5: Cyber Security, Fog Computing and machine learning

Time: 03.15 PM – 04.30 PM

Mode: Online

#### Session Chairs:

1. Dr. Rukmani P, Associate Professor, VIT Chennai
2. Dr. Janani T, Associate Professor, VIT Chennai

Mode: **Online**

Join Zoom Meeting : <https://zoom.us/j/93956075367?pwd=bXhpcU9BZjB3bHNXUit4MGNBNHo4UT09>

S.No	Paper ID	Title	Affiliation	Authors
1	209	Efficient Regular Expression Matching and Hardware-Accelerated Finite Automata Pattern Recognition in NIDS	Sathyabama Institute of Science and Technology	Mr Krishna Kishore Thota and Dr. R. Jeberson Retna Raj
2	62	Cyber Physical Social Systems for the Blind: A New Way to Connect	3rd year student pursuing electronic and computer engineering in vit Chennai	Mr Ali Asgar Chandanwala, Mr.Shuban M S and Ms.Suseela S
3	281	A Systematic Short Review on Intelligent Fraud Detection Approaches in the Banking Sector using Deep Learning and Machine Learning with Future Trends	Madurai Kamaraj University	Ms Backiyalakshmi Venkatraman and Dr..B.Umadevi
4	204	AES+: A Modified AES Encryption with Enhanced Key Management and Distribution	KalaingarKarunanidhi Institute of Technology – B.Tech	Ms.Elizabeth Rani Mr.G,Sakthimohan Ms.M,Kavitha Mr.S,Vasanthakumar Mr.A,James Mr.Titus,Premkumar S
5	233	Detection of plant disease for paddy crop using an ensemble of CNNs	Saveetha Engineering college	Ms Kanimozhi K, Dr.N.Sugitha and Ms. S.Kirthika Shree