



VIT®

Vellore Institute of Technology
(Deemed to be University under section 3 of UGC Act, 1956)
CHENNAI

Contributory Talks: ICNCS 2024 (Virtual Mode)

*as per the IST (GMT + 05:30)

DAY 01 (07 FEB, 2024)

Contributory Talks (16:15–17:45) - Panel - 01

GMeet Link: <https://meet.google.com/osi-kbep-noi>

Session Chairs: Dr. Ramasamy S, Madanapalle Institute of Technology & Science,
Andhra Pradesh, India

Dr. Mini Ghosh, Vellore Institute of Technology, Chennai

- ID:05 **Dang Thi Kiem Hong**, University of Finance and Accountancy, Vietnam
State estimation for the permanent magnet synchronous motor using a recurrent neural network learning algorithm and an event-triggered state observer
- ID:36 **Karuppusamy M**, Bannari Amman Institute of Technology, Erode
An Enhanced Delay-Dependent Criterion and H-Infinity Filters for Continuous-Time Systems with Time-Varying Delays
- ID:47 **Revathi V M**, Bannari Amman Institute of Technology, Erode
A Novel H-Infinity Filtering Design for Continuous-Time T-S Fuzzy Systems with Time Delays
- ID:50 **T. Elizabeth Jeyanthi**, Bharathiar University, Coimbatore
Stability of stochastic systems driven by Poisson process

Contributory Talks (16:15–17:45) - Panel - 02

GMeet Link: <https://meet.google.com/pif-xxps-rhg>

Session Chairs: Dr. Mathiyalagan K, Bharathiar University, Coimbatore, India

Dr. Vijay Kumar P, Vellore Institute of Technology, Chennai

- ID:169 **Shahid Abdullah**, Vellore Institute of Technology, Bhopal
A Novel Optimal Eight-Order Three-Point Iterative Method for Solving Non-Linear Equations with Applications

- ID:11 **P Vaidehi** , SRM Institute of Science and Technology, Kattankulathur
Analysis of Entropy Generation on MHD Oscillatory Jeffrey Fluid Flow in a Tapered Wavy Channel
- ID:14 **Kailash Chand Swami** , BITS Pilani, Hyderabad
Scattering of Water Waves by Thick Porous Breakwater in the Presence of Ocean Current
- ID:56 **S. Selvi** , Bannari Amman Institute of Technology, Erode
Elastic Waves in a Layered Medium

Contributory Talks (16:15–17:45) - Panel - 03

GMeet Link: <https://meet.google.com/nva-jkew-uyyn>

Session Chairs: Dr. Govindharaj V, National Institute of Technology, Pondicherry, India
Dr. Sowndar Rajan PT, Vellore Institute of Technology, Chennai

- ID:04 **Dao Thi Hai Yen**, Phu Yen university, Vietnam
State estimate intervals for a class of fractional-order interconnected systems
- ID:46 **Vinoth Seralan**, Chennai institute of Technology, Chennai
Fractional-order dynamics and fear-induced bifurcation in delayed food chain model
- ID:79 **P. Umamaheswari** , Chennai institute of Technology, Chennai
Solvability of Stochastic Fractional Differential Equations With Deviating Arguments
- ID:82 **K. Anukiruthika** , GRI (Deemed to be University), Dindigul
Optimal Control System of Multi-Term Fractional Stochastic Inclusion with Clarke's Subdifferential

Contributory Talks (16:15–17:45) - Panel - 04

GMeet Link: <https://meet.google.com/gbo-jdbo-juj>

Session Chairs: Dr. Gowrisankar A, VIT, Vellore, India
Dr. Radha S, Vellore Institute of Technology, Chennai

- ID:144 **Manju John** , Catholicate College, Pathanamthitta
gsl-Groups and some of its properties
- ID:08 **Santanu Nandi** , Vellore Institute of Technology, AP
Study of fractals generated by $\sin(zk+1 + c)$ using Picard-Mann Iteration

- ID:29 **R.Sowndariya**, Kongunadu Arts and Science College
Application of Genetic Matrix via bms Topological Spaces
- ID:44 **Malathi M** , Bannari Amman Institute of Technology, Erode
Planarity of combination of graphs in Commutative Ring
- ID:99 **Mahadeer A** , SRM Institute of Science and Technology, Kattankulathur
Partial Petri Net Languages and their Properties
- ID:123 **Gargi Patel**, Ramanujan Institute for Advanced Study in Mathematics,
Chennai
Moduli Space of Projective Sheaves on Smooth Projective Surfaces
- ID:207 **C. Thangaraj**, Vignan's Foundation for Science, Technology and Research,
Andhra Pradesh
*Multifractal Analysis in Age Based Classification for COVID-19 Patients'
CT-Scan Images with Different Noise Levels*

Contributory Talks (16:15–17:45) - Panel - 05

GMeet Link: <https://meet.google.com/rto-sbvr-ukw>

Session Chairs: Dr. Reegan J, Sathyabama Institute of Science and Technology,
Chennai, India

Dr. Kaliyappan M, Vellore Institute of Technology, Chennai

- ID:152 **Pranav. V** , Vellore Institute of Technology, Vellore
Cancer classification based on Single cell RNA Sequence
- ID:198 **Afla A S**, Indian Institute of Information Technology, Kottayam
*Exploring the Dynamics of Van der Pol equation: A Physics-Informed Neural
Network Approach*
- ID:58 **Sangeetha Alias Sheeba M** , V. V. Vanniaperumal College for Women,
Virudhunagar
Handwritten Text Recognition with Deep Learning and Data Augmentation
- ID:111 **S.Narmadha** , Kongunadu Arts and Science College, Coimbatore
*Deep Learning based Imputation and Prediction Model for Vehicle Traffic
Congestion*

DAY 02 (08 FEB, 2024)

Contributory Talks (14:00—15:30) - Panel - 01

GMeet Link: <https://meet.google.com/osi-kbep-noi>

Session Chairs: Dr. Arthi G, PSGR Krishnammal College for Women, Coimbatore, India

Dr. Durga Nagarajan, Vellore Institute of Technology, Chennai

- ID:51 **N. Soundarya Lakshmi** , Bharathiar University, Coimbatore
Passivity based boundary control design for reaction-diffusion equations with delays
- ID:112 **K. Sri Raja Priyanka** , GRI (Deemed to be University), Dindigul
Exponential Function Projective Synchronization of Delayed Discrete-Time Neural Networks via Saturation-based Feedback Controller
- ID:163 **M. Antonyronika**, PSGR Krishnammal College for Women, Coimbatore
 H_∞ control for discrete-time coupled interconnected systems with stochastic disturbances and time-varying delay
- ID:172 **A. Karnan**, GRI (Deemed to be University), Dindigul
Design of event-triggered extended dissipative state estimator for neural networks with multiple time-varying delays
- ID:211 **G.Brundhashree**, Gobi Arts & Science College, Gobichettipalayam
Fault-tolerant T-S Fuzzy synchronization control for complex dynamical networks with coupling delay

Contributory Talks (14:00—15:30) - Panel - 02

GMeet Link: <https://meet.google.com/pif-xxps-rhg>

Session Chairs: Dr. V.P.M. Senthil Nayaki, PSNA College of Engineering and Technology, Dindigul, India

Dr. Sudip Debnath, Vellore Institute of Technology, Chennai

- ID:80 **N Ramya** , Karpagam Academy of Higher Education, Coimbatore
Analysis of Thermophoretic and Brownian Motion along with Casson Micropolar Fluid Flow Over an Inclined Surface
- ID:135 **Rahul Choudhary** , University of Rajasthan, Jaipur
Investigation of Melting Heat Transfer in Viscous Nanofluid Flow including Micro-Organisms and Entropy Generation due to an Inclined Exponentially Stretching Sheet

ID:137 **Mukesh Kumar**, University of Rajasthan, Jaipur
Entropy Analysis in Second Grade Non-Newtonian Fluid Flow and Heat Transport in a Channel with Thermal Radiation

ID:143 **A. Vanav Kumar**, National Institute of Technology, Arunachal Pradesh
Unsteady fractional time derivative of nanofluid past a stretching sheet with time varying temperature and concentration

Contributory Talks (14:00—15:30) - Panel - 03
GMeet Link: <https://meet.google.com/nva-jkew-uyn>

Session Chairs: Dr. Kokila J, Central University of Tamil Nadu, Thiruvavur, India
Dr. Padmaja N, Vellore Institute of Technology, Chennai

ID:96 **K.S. Priyendhu**, Amrita Vishwa Vidyapeetham, Coimbatore
On the solutions of coupled system of time-fractional reaction-diffusion equations with time delays

ID:121 **V. Padmapriya**, New Prince Shri Bhavani Arts and Science College, Chennai
Adomian Decomposition Method and Homotopy Analysis Method for Fuzzy Fractional Differential Equations through 1-cut and 0-cut equations

ID:125 **B. Krithika**, Amrita Vishwa Vidyapeetham, Coimbatore
Exploring Tumor-Induced Immunosuppression dynamics by Myeloid-Derived Suppressor Cells: Insights via a fractional order mathematical model with time delay

ID:141 **Ramasamy Subramaniam**, Madanapalle Institute of Technology and Science, Andhra Pradesh
Passivity Based Sampled-Data Controller for T-S Fuzzy System with the Refined Fractional Delayed-State

Contributory Talks (14:00—15:30) - Panel - 04
GMeet Link: <https://meet.google.com/gbo-jdbo-juj>

Session Chairs: Dr. Manimaran A, VIT, Vellore, India
Dr. Balamurugan BJ, Vellore Institute of Technology, Chennai

ID:13 **Arathy K D**, Sree Narayana College, Kerala
On reciprocal distance spectrum of neighbourhood corona of graphs

ID:66 **V. R. Sunil Kumar**, Rajalakshmi Engineering College, Chennai
Detour simplicial graphs

ID:78 **S. Sherly Jasmin** , Scott Christian College (Autonomous) , Nagercoil
Note on "Edge geodesic number of a fuzzy graph"

ID:103 **R Pavithra** , Kongunadu Arts and Science College, Coimbatore
On Grundy Number of Ladder Graph Families

ID:175 **S. Sowmya**, Sree Devi Kumari Women's College, Kuzhithurai
On various Zagreb indices of the drug Trimethoprim

Contributory Talks (14:00—15:30) - Panel - 05

GMeet Link: <https://meet.google.com/rto-sbvr-ukw>

Session Chairs: Dr. Vidhusha S, Shiv Nadar University, Chennai, India

Dr. Somnath Bera, Vellore Institute of Technology, Chennai

ID:216 **Utkarsh Kedia**, Vellore Institute of Technology, Chennai
Predictive Modelling for Life Expectancy Classification: A Comprehensive Comparative Analysis of Ensemble Learning and Neural Network Approach

ID:147 **Johnsi. R** , Vellore Institute of Technology, Chennai
A Comprehensive Survey on Methodologies for Automatic Essay Scoring

ID:157 **Sujithra Sankar** , Hindustan Institute of Technology and Science, Chennai
Transfer Learning in Thyroid Malignancy Prediction Explained with Grad-CAM

ID:116 **Johnson B** , Thiagarajar College of Engineering, Madurai
MetaOptiRice: A Metaheuristic Approach to Elevate Imaging Precision in Paddy Disease Detection

Contributory Talks (14:00—15:30) - Panel - 06

GMeet Link: <https://meet.google.com/pwq-otjm-xsp>

Session Chairs: Dr. Devi Priya, Sri Krishna Adithya College of Arts & Science, Coimbatore, India

Dr. Vidhya V, Vellore Institute of Technology, Chennai

ID:35 **Sukhwinder Singh Rawat**, Doon University, Dehradun
Continuous Archimedean Triangular Norms based Intuitionistic Fuzzy Hamy Mean Operator

ID:55 **M.Parimala** , Bannari Amman Institute of Technology, Erode
Neutrosophic $\alpha\psi$ supra compactness in neutrosophic supra topological space

- ID:113 **Anitha G** , SRM Institute of Science and Technology, Kattankulathur
Solving fuzzy non-linear fixed charge transportation problems using modified gauss elimination technique
- ID:174 **Rajeshwari S**, Annamalai University, Chidambaram
On Half range Fourier Cosine and sine series of Octagonal Fuzzy number
- ID:43 **Premkumar Munusamy A**, Sathyabama Institute of Science and Technology, (Deemed to Be University), Chennai
A New Constrains of Doubt $\kappa - Q$ Group Operating on Fuzzy Algebraic Structures

Contributory Talks (15:30—17:00) - Panel - 01

GMeet Link: <https://meet.google.com/wpq-nmvw-hyh>

Session Chairs: Dr. Baranibalan N, Central University of Tamil Nadu, Thiruvarur, India
Dr. Prabhakar V, Vellore Institute of Technology, Chennai

- ID:212 **R. Preetha**, Bannari Amman Institute of Technology, Erode
Synchronization analysis of switched neural networks with time-delays
- ID:203 **B. Ram Kumar**, GRI (Deemed to be University), Dindigul
QGA based Reliable sampled data control for T-S fuzzy systems with applications
- ID:27 **Stephen Arockia Samy**, Kunsan National University, South Korea
A memory state-feedback controller scheme for multi-agent systems on time scale and its application to circuit network
- ID:84 **Humaira Aslam**, Adamas University, West Bengal
Optimal intervention strategies for Visceral Leishmaniasis model -A case study in South Sudan

Contributory Talks (15:30—17:00) - Panel - 02

GMeet Link: <https://meet.google.com/jmo-wtuu-eks>

Session Chairs: Dr. Sivaraj, PSG Arts & Science College, Coimbatore, India
Dr. Durga Prasad P, Vellore Institute of Technology, Chennai

- ID:15 **Santanu Kumar Dash** , BITS Pilani, Hyderabad
Iterative boundary element method for modeling an inverted T-type porous barrier in presence of ocean currents

- ID:136 **Subhendu Paul** , BITS Pilani, Hyderabad
Effect of ocean current on interaction of water waves with perforated barriers placed over undulated seabed
- ID:06 **Nitish Gupta** , National Institute of Technology, Warangal
Impact of Magnetic Field at the Entrance Region of Porous Filled Duct under the LTNE Model with Viscous Dissipation and Axial Conduction
- ID:165 **Sanjit Das**, Vellore Institute of Technology, Chennai
LRS Bianchi II in higher order teleparallel gravity
- ID:160 **Karthik** , National Institute of Technology, Warangal
Modeling of COVID-19 with Vaccination and Optimal Control

Contributory Talks (15:30—17:00) - Panel - 03
GMeet Link: <https://meet.google.com/weu-geej-cpw>

Session Chairs: Dr. Easwara Moorthi D, VIT, Vellore, India
Dr. Devi Yamini S, Vellore Institute of Technology, Chennai

- ID:131 **Indumathi S M** , Amrita School of Physical Sciences, Mysuru
Optimizing Edge Coloring in Undirected Graphs through Efficient Adjacency Matrix Representation
- ID:162 **R. Ponraj** , Sri Paramakalyani College, Alwarkurichi
Pair Mean Cordial Labeling in the Context of Vertex Switching of Path, Cycle, Shell and Wheel Graphs
- ID:164 **D.Anusha** , Sree Devi Kumari Women's College, Kuzhithurai
The upper and the forcing geodetic hop domination numbers of a graph
- ID:206 **K.S. Nithiya**, Vellore Institute of Technology, Vellore
Enumeration of Multi-Variate Independence Polynomial for Iterations of Sierpinski Triangle Graph

Contributory Talks (15:30—17:00) - Panel - 04
GMeet Link: <https://meet.google.com/pec-jofp-rxo>

Session Chairs: Dr. Shanger Ganesh L, National Institute of Technology, Goa, India
Dr. Felix A, Vellore Institute of Technology, Chennai

- ID:190 **S. Sumathi**, Vellore Institute of Technology, Chennai
Performance assessment of Fuzzy Inference System on Medical data

- ID:85 **S. Vanitha**, A.E.T College, Salem
On Nano Soft $s(I)$ Topological Space and its Application in Decision Making for Medical Diagnosis in the Risk Factors for Cancer
- ID:86 **G. Tamilarasi**, Kalasalingam Academy of Research and Education, Virudhunagar
A Hybrid Approach of Neutrosophic TOPSIS and LINMAP Method for Developing Enterprise Selection Criteria
- ID:184 **A Anna Sheela**, Saradha Gangadharan college, Puducherry
Modified Approach for Multi-Objective Integer Linear Programming Problems
- ID:81 **G. Nithyakala**, Thiagarajar College of Engineering, Madurai
Integrating Fuzzy Promethee 2 Language Modelling Method for Detecting Intrinsic Plagiarism

DAY 03 (09 FEB, 2024)

Contributory Talks (11:50—13:00) - Panel - 01 GMeet Link: <https://meet.google.com/osi-kbep-noi>

Session Chairs: Dr. Gunasekaran N, Beibu Gulf University, China
Dr. Kalyan Manna, Vellore Institute of Technology, Chennai

- ID:07 **J. Vimala**, Alagappa University, Karaikudi
Revolutionizing Wind Energy: A Novel Approach to Site Selection Employing $Lq^ q$ -Rung Orthopair Multi-Fuzzy Soft Matrix*
- ID:42 **Ramasamy Saravanakumar**, Shenzhen MSU BIT University, China
Memory Sampled-data Control for Fuzzy Chaotic Systems: An Extended Looped Functional Approach
- ID:181 **Girija P**, Vellore Institute of Technology, Vellore
Coupling memory sampled data control for PMSM model with stochastic disturbances
- ID:65 **Kavitha.P**, Theivanai Ammal College for Women (Autonomous), Villupuram
Application Of Butcher'S Seventh Order Rk Methods In Magdm Using Itrfs

Contributory Talks (11:50—13:00) - Panel - 02

GMeet Link: <https://meet.google.com/pif-xxps-rhg>

Session Chairs: Dr. Nagamani G, Gandhigram Rural Institute, Gandhigram, Dindigul, India

Dr. Dhivya M, Vellore Institute of Technology, Chennai

- ID:69 **Praveen Kumar Lagisetty** , JNTUH College of Engineering, Hyderabad
Fixed points of Additive Cellular Automata in General Systems
- ID:114 **Kamatchi A** , SRM Institute of Science and Technology, Kattankulathur
Modeling SEIR Epidemics with a Finite Automaton
- ID:117 **M. Suguna** , Saveetha Institute of Medical and Technical Sciences, Chennai
Comparison of homotopy perturbation method and new analytical method for solving nonlinear equations in the enzymatic reaction of glucose in a Spherical matrix

Contributory Talks (11:50—13:00) - Panel - 03

GMeet Link: <https://meet.google.com/nva-jkew-uyy>

Session Chairs: Dr. Tamilalagan P, Amrita Vishwa Vidyapeetham, Coimbatore, India

Dr. Rajivganthi C, Vellore Institute of Technology, Chennai

- ID:149 **Gandhimathi R** , Vellore Institute of Technology, Vellore
Numerical Scheme for Attractors of Dynamical Systems with Fractal Fractional Derivatives
- ID:59 **R Sivasangari** , PSGR Krishnammal College for Women, Coimbatore
Controllability of impulsive fractional damped integrodifferential systems with distributed delays
- ID:204 **T. Sathiyaraj**, UCSI University, Malaysia
Finite time stability of non-instantaneous impulsive large-scale neutral fractional stochastic system
- ID:156 **A. Vanav Kumar** , National Institute of Technology, Arunachal Pradesh
Fractal fractional unsteady time derived Casson fluid flow past the parallel plates with top plate oscillating in the direction of flow

Contributory Talks (11:50—13:00) - Panel - 04

GMeet Link: <https://meet.google.com/gbo-jdbo-juj>

Session Chairs: Dr. Vinay Madhusuthanan, MIT, Manipal, India

Dr. Uma Maheswari S, Vellore Institute of Technology, Chennai

- ID:64 **J. Suja** , Holy Cross College, Nagercoil
The Steiner Global Domination Number of a Graph
- ID:118 **Vinodhini K** , SRM Institute of Science and Technology, Kattankulathur
Generative power of Hyper-edge replacement graph P system
- ID:105 **Mariya C Joy** , Bharata Mata College, Kerala
On Some Bounds of Fuzzy Secure Domination Number
- ID:148 **D. Abisha** , Scott Christian College (Autonomous), Nagercoil
The geodetic and the Steiner numbers of a hollow coronoid $HC(C1, C2, C3)$

Contributory Talks (11:50—13:00) - Panel - 05

GMeet Link: <https://meet.google.com/rto-sbvr-ukw>

Session Chairs: Dr. Veeramani S, Shiv Nadar University, Chennai, India

Dr. Ramesh Babu N, Vellore Institute of Technology, Chennai

- ID:68 **Pushpa Nb** , JSS Medical College, Mysore
Automated Detection of Breast Lump or Masses through Mammogram Image Analysis
- ID:199 **Ansmol George A**, Indian Institute of Information Technology, Kottayam
A Comprehensive Analysis on Regularisation Techniques in Image Denoising Autoencoder
- ID:217 **Thomas Abraham J V**, Vellore Institute of Technology, Chennai
Enhancing Disease Identification Through Machine Learning and Swarm Intelligence-Based Feature Selection
- ID:72 **Geethika P R**, Vellore Institute of Technology, Chennai
Improving Chemical-Induced Pulmonary Toxicity Prediction with Ensemble Learning and Explainable AI
- ID:192 **B. Ravikumar**, CSIR Central Leather Research Institute, Chennai
Data driven inference to study the relationship between FDI and GDP using multiple mediation model with special reference to leather sector