Cluster Innovation Centre

संकुल नवप्रवर्तन केंद्र

...Evolving Senses Dissolving Boundaries...

FACULTY PROFILE

Title	**Dr.**	**First Name**	**Vasantha Gowri**	**Last Name**	**N**	Photograph	
Designation		**Associate Professor in Electronics**					
Address		**#29, Bhai Paramanand Colony, Mukherjee Nagar, Delhi**					
Phone No. Office							
Residence		-					
Mobile		**9052221446**					
Email		**nvgowri@cic.du.ac.in**					
Web-Page		**http://cic.du.ac.in/?People/Faculty-Members**					

Educational Qualifications

Degree	Institution	Year
Ph.D.	Jawaharlal Nehru Technological University, Hyderabad	**2019**
M.E. (Applied Electronics)	College of Engineering, Anna University, Salem	**2004**
B.E. (EEE)	Adhiyamaan College of Engineering, Periyar University, Hosur	**2002**

Career Profile

Organization/ Institution	Designation	Duration	Role
Chaitanya Bharathi Institute of Technology	Associate Professor	2022-2026	Teaching and Research
Chaitanya Bharathi Institute of Technology	Assistant Professor	2009-2022	Teaching and Research
Ellenki college of Engineering	Assistant Professor	2008-2009	Teaching and Research
Saveetha Engineering College	Assistant Professor	2005-2008	Teaching
Paavai Engineering College	Lecturer	2004-2005	Teaching

Administrative Assignments

- Co-Incharge AEC March 2022-March 2026 at CBIT, Hyderabad
- Member Academic Council 2020 –2024 at CBIT, Hyderabad
- Member BoS (Dept of EEE) 2020-2023 at CBIT, Hyderabad
- Department ISO coordinator 2011 to 2017 at CBIT, Hyderabad
- Member -IoT group at CBIT, Hyderabad
- In-charge – Placements 2006-2008 at Saveetha Engineering College
- Ladies Hostel Warden 2005-2007 at Saveetha Engineering College
- Assistant Controller of Examination at Paavai Engineering College

Areas of Interest / Specialization

- Electronics
- IoT
- Renewable Engineering

Subjects Taught

At Under-Graduate Level

- Microprocessors and Microcontrollers
- Digital Electronics and logic design
- Basic VLSI design
- Renewable energy sources
- IoT for Electrical Engineering
- Electrical technology
- Analog, Digital & Data Communication
- Computer Architecture
- Embedded Systems

At Post-Graduate Level

- Advanced Digital design
- Advanced Computer Architecture
- VLSI Design
- Advanced Microprocessors
- Non-conventional energy sources
- Smart Grids

Research Guidance

Publications Profile

BOOKS

- Control and Instrumentation Control and Instrumentation for Industry 4.0
- Guide for simulation of DC- DC converter for Solar PV system
- Partial discharge in power transformer with directed coolant
- Partial discharge in power transformer with non- directed coolant
- Monte-Carlo analsis of particle movement and partial discharge

RESEARCH PAPERS IN JOURNALS

2026: Modified war strategy algorithm for optimal control and design of solar fed UPQC and power system state estimation problems, Journal of the Chinese Institute of Engineers, Transactions of the Chinese Institute of Engineers, Series A

2026 : AI Based Reference Signal Generation for Renewable Source and Energy Storage Incorporated Multilevel UPQC, International Journal of Renewable Energy Research

2025: Construct and Performance Investigation of a Hybrid ANFIS Controlled Islanded Micro-Grid, International Journal of Renewable Energy Research

2023: Sustainable electric vehicles fault detection based on monitoring by deep Learning Architectures in feature extraction and classification Sustainable Energy Technologies and Assessments

2023: Experimental investigation and multi-objective optimization of eco-friendly near-dry electrical discharge machining of shape memory alloy using Cu/SiC/Gr composite electrode, Springer Environmental Science and Pollution Research

2023: Investigation on Incorporation of Zinc-Ferrite Nanocoated Baffles for Improving the Performance of Field Power Electrical Transformer Integrated with a Solar Air Heater, Hindawi Advances in Materials Science and Engineering

2022: Genetic Algorithm Integrated Fuzzy AHP-VIKOR Approach for the Investigation of W-Cut Insert Heat Exchanger for Cooling of Dielectric Fluid Used in Ultra-High Voltage Transformer, Hindawi, Advances in Materials Science and Engineering

2022: Novel Link Establishment Communication Scheme against Selfish Attack Using Node Reward with Trust Level Evaluation Algorithm in MANET Hindawi Wireless Communications and Mobile Computing

2021: Design of Smart Purchase Cart for Commercial Application Using Raspberry PI and RFID, International Journal of Electrical Engineering and Technology

2021: Alternative Approaches for Laboratory Learning and Assessment in Engineering Education - Open-Source Alternatives, International Journal of Electrical Engineering and Technology

2021: Modelling and Development of Controller for BLDC Motor, International Journal of Electrical Engineering and Technology

2021: Performance Comparison of BLDC Motor Based on Conventional and Expert Controllers, International Journal of Electrical Engineering and Technology

2021: An Utilization Of Robot For Irrigation Using Artificial Intelligence" International Journal of Future Generation Communication and Networking

2021: Investigation of Particle Movement and Partial Discharge in The Winding of Power Transformer Using CFD and Monte-Carlo Technique" Journal of Institute of Engineers India Series, B (Springer)

2020: An Internet of Things for Prevention of Security Attack on Cloud Medical Data Using Artificial Intelligence, International Journal of Grid and Distributed Computing

2020: Performance Evaluation of DC Electric Spring Placed in Micro Grid Systems Using Solar PV Emulator, International Journal of Electrical Engineering and Technology

2020: Comparison of Field Augmentation Factor for Different Liquid Insulations In Power Transformer, International Journal of Electrical Engineering and Technology

2020: Analysis of movement of tiny spherical conductor in synthetic ester in power transformer using CFD, International Journal of Electrical Engineering and Technology

2019: Modeling of Solar Electric Propulsion System for UAVs International Journal of Recent Technology and Engineering

2018 : Investigation of partial discharge due to copper spherical particle in power transformer under different oil flow models using CFD", SPRINGER The Smart Innovation, Systems and Technologies

2019 : Thermal analysis on Power Transformer International Journal of Electrical Engineering and Technology

2019 : Finite Element Analysis of Power Transformer, International Journal of Applied Electronics

2019 : Analysis of Partial Discharge due to Movement of Spherical Particle in Power Transformer Using Computational Fluid Dynamics, International journal of Engineering & Technology

2018 : Analysis of Particle Movement and Partial Discharge in OFAF Power Transformers Using Computational Fluid Dynamics, International Journal of Applied Engineering Research

2017 : Monte - Carlo Analysis of Cylindrical particle Dislodgement in Power Transformer International Journal of Electrical Engineering and Technology

2016 : Investigation of Shape factor of Copper Particles in EHV Transformer under Directed Oil Flow, International Journal of Electrical Engineering and Technology

2016 : Investigation of Flow Pattern of Copper And Aluminum Particles in EHV Transformer" International Journal of Electrical Engineering and Technology

2016 : Analysis Of Particle Movement And Partial Discharge In The Winding Of Power Transformer Using CFD, The Journal of CPRI

BOOK CHAPTERS

2021: Intelligent Manufacturing and Energy Sustainability Investigation of Partial Discharge Due to Copper Spherical Particle in Power Transformer Under Various Oil Flow Models Using CFD, Springer

Conference Presentations

PAPER PRESENTED IN INTERNATIONAL CONFERENCES

2026: Applications of Hydrogen Storage System in Hybrid Renewable Energy Sources based Microgrid with Demand-Side Management, International Conference on Renewable Energy and Sustainable E-Mobility

2026: Demand-Side Management Control Aspects of an Off-Grid Renewable Hybrid Power System for Rural Electrification, International Conference on Electrical and Electronics for Sustainable Innovations

2026: Battery Fed Dual-Active Bridge Based Multilevel STATCOM for Renewable Power Grids Springer Lecture Notes in Electrical Engineering

2025: Stator Inter Turn Short Circuit Fault and Voltage Unbalances of Three Phase Induction Motor, International Conference on Computing Technologies & Data Communication (ICCTDC)

2025 : LSTM-ANN Controllers for Grid Integrated DFIG Driven Wind Power Production System, International Conference on Computing Technologies

2025 : Hybrid WOA-ANN based Sliding Mode Control for MPPT of PV-Battery System with DC to DC Bidirectional Converter, International Conference on Computing Technologies

2025 : Design of Battery Storage fed Asymmetrical Multilevel Converter for Enhanced STATCOM Applications, International Conference on Power Electronics Converters for Transportation and Energy Applications

2025 : Converter Topology to Integrate Battery Storage with Modular Multilevel Converter, International Conference on Power Electronics Converters for Transportation and Energy Applications

2025 : Stability Analysis of Photovoltaic Powered Induction Motor Driven Water Pumping System by using Small Signal Analysis, International Conference on Advances in Computer Science, Electrical, Electronics, and Communication Technologies

2024 : Enhancing Sustainability: Exploring the integrity of IoT in Renewable Energy Infrastructure Fourth International conference on Advancement in Research and Development IPGDCW Nampally 30-31 Jan

2023 : Investigating the Integration of IoT in Modern Public International Conference on Recent Trends in Management, Engineering and Technology Vidya Vihar Institute of Technology

2022 : Analysis of Partial Discharge In Power Transformers International conference on Advancements in Management, Engineering & Technology RSP Conference Hub, Coimbatore

2022: Difficulties and Challenges in Online Teaching, International conference on advancements in Management Entrepreneurship Sciences and Engineering Business Institute Noida

2022 : Simulation of Propulsion system for UAV International Conference on Science Management & Engineering Nrupathanga University, Bengaluru

2017 : Simulation and Computational Fluid Dynamics Analysis of Particle Movement and its Effect on Partial Discharge In Power Transformer, 14th International conference on Transformer on "Global Trends in Transformer Technology for International Transformers Manufacturers Association (ITMA)

2017 : Probabilistic Analysis Of Partial Discharge In Power Transformer Due To The Presence Of Spherical Particle, International Conference On Energy, Communication, Data Analytics And Soft Computing 2017, SKR Engg College Chennai

2016: Calculation Of Electrical Stress On Spherical Particle In A Power Transformer Using CFD, International Conference on Smart Structures and Systems, Saveetha Engineering College, Chennai

2015: Analysis Of High Voltage Transformers Using Computational Fluid Dynamics, Finite Element Method And Monte-Carlo Technique, National Conference on High Voltage Engineering, JNTUH CEH, Hyderabad

2015: Occurrence of partial discharge induced by metal particles in high voltage transformer, IEEE International North American Power Symposium (NAPS) UNC, Charlotte, NC, USA 4-6 Oct. 2015

2014: Monte - Carlo Simulation of Particle Movement in an Un-Energized Transformer, IEEE International Conference on Electrical Insulation and Dielectric Phenomena (CEIDP) October 2014, Des Moines, IA, USA 19-22 October

2013: A Novel Bidirectional DC- DC Converter drive, IEEE International Conference on Smart Structures and Systems (ICSSS), 19-23 Saveetha Engineering College

PAPER PRESENTED IN NATIONAL CONFERENCES

2015: Analysis Of High Voltage Transformers Using Computational Fluid Dynamics, Finite Element Method And Monte-Carlo Technique, National Conference on High Voltage Engineering, JNTUH CEH, Hyderabad

2015: Strategies for Loss Management in Distribution System, National Conference on Role of Engineers in the Development of New State of Telangana, CBIT 23-24 Jan

2011: Comparative Analysis of Control Systems for Micro-Hydro Power Plants, National Conference on Power system Planning, JNTU Kakinada

2007: Positive Train Control Programme, Conference of Information and communication Techniques, Saveetha Engineering College

Research / Consultancy Projects

- AI based Transformer monitoring systems – Kernelsphere Technologies Pvt Ltd - 3,00,000
- Centre for Solar Photovoltaic System Research - Cares Renewables, Coimbatore – 20,00,000

Patents Published

- Method and Apparatus for Analyzing Electrical Energy Conservation Measure Impact for Building Retrofit
- Techno Environmental Feasibility of assessment of a standalone Photovoltaic System
- Hybrid Power Energy Management System
- IoT Based Automation Of Industry Using Optimized Robotics Process
- An IoT Based System For Security And Door Access Control
- IoT and Machine Learning Based Power Quality Improvement System for Micro-Grid

Awards, Fellowships and Distinctions (From 1st July 2021 onwards)

- Best Presentation Award IPGDCW, Nampally 2024
- Best Presentation Award VVIT Purnea 2023
- Fellow of Institution of Engineers(I) Institution of Engineers (I) 2023
- Innovative Professor GETA 2022
- Best Paper Union Ministry of Energy 2022
- Best Researcher Award Nature Science Foundation 2022
- Best Research Award University of Malaisia 2019
- Adarsh vidya Saeraswathi Rashtriya puraskar Global Management Council 2020
- Best Paper Award IEEE 2013

Association With Professional Bodies

- Certified Chartered Engineer Institute of Engineers (I) 2023 National
- Fellow of Institution of Engineers(I) Institution of Engineers (I) 2023 National
- Life Member ISTE
- Member Academic council -Sustainability and Energy Practitioners Association (SEPA)

Other Activities

- Conducted National Energy Conservation Week during14-20 December for last 11 years at institute with the financial support of TSREDCO
- Received a sponsorship of Rs.1,00,000 from TSREDCO to conduct Energy Conservation Week activities during December 2022
- Organized Energy Campaign in nearby hamlets of the Gandipet Hyderabad
- Number of NPTEL courses completed- 4
- Conducted Students training programmes in C, C++ and JAVA in collaboration with NIIT
- Conducted students training programmes in VLSI design in association with International Education

Dr. N. Vasantha Gowri
Signature of Faculty Member