

25th SET Conference

Science, Engineering and Technology
 25th & 26th April, 2024

Organised by
School of Computer Science and Engineering (SCOPE)



Chief Patron Dr. G. Viswanathan, Founder & Chancellor, VIT

Patrons
 Mr. Sankar Viswanathan, Vice President, VIT
 Dr. Sekar Vlswanathan, Vice President, VIT
 Dr. G. V. Selvam, Vice President, VIT
 Dr. V. S. Kanchana Bhaaskaran, Vice-Chancellor, VIT
 Dr. Partha Sharathl Mallick, Pro-Vice Chancellor, VIT
 Dr. T. Jayabarathi, Registrar, VIT

Advisory Committee
 Deans & Directors, VIT, Vellore

Organising Chairs
 Dr. K. Ramesh Babu, Dean, SCOPE
 Dr. M. Anthony Xavior, Dean, Academics
 Dr. P. Arulmozhivarman, Dean, Academic Research

Conference Chair
 Dr. K. Manikandan, SCOPE

ABOUT VIT

Vellore Institute of Technology (VIT) was established in 1984 as Vellore Engineering College by the founder and Chancellor, Dr. G Viswanathan, at Vellore. In recognition of its excellence in academics and research, university status was conferred in the year 2001 by the MHRD. From its humble beginning, the institution has grown exponentially to have more than 40,000 students. Students from all the states of India and 67 countries are studying at VIT. As per the QS World University Rankings by Subject 2024: Engineering & Technology, VIT stands in the 212th position in the world and the 9th best in India. The institute stands within the 201-250 band in the world and the 7th rank in India under the subject of computer science and information systems. In the same survey, ten subjects of VIT are within the top 500 in the world. VIT is also ranked as the 8th best university, the 11th best research institution, and the 11th best engineering institution per the NIRF ranking, Govt. of India, 2023. The institution has obtained the highest grade of A++ from the National Assessment and Accreditation Council (NAAC) in the fourth cycle.

ABOUT SCOPE

The mission of the School of Computer Science and Engineering (SCOPE) is to strive persistently for excellence in computing disciplines. It is being pursued through its spectrum of academic programmes in computing contemporary standards. The main aim is to produce computing graduates with the potential to design and develop systems that integrate software and hardware devices, employ innovative approaches in programming and problem-solving, create large-scale software systems, and build data and computing infrastructure for an organisation. The history of the computing discipline at VIT dates back to 1993, when the Department of Computer Science and Engineering was established to meet the demand for well-qualified computer professionals. The SCOPE was conceived in 2009. At present, the school, headed by Dr. K. Ramesh Babu, has more than 14748 students and 300 faculty members, apart from many visiting professors, distinguished professionals from industry, eminent researchers, and teaching and research assistants. With an aim to carve a niche for itself in Computer Science and allied domains, the School strives to become a pioneering world-class centre of excellence in education and research through collaborative, consultative and participatory approaches, nurture effective capabilities for the development of high-quality technical and scientific manpower to meet the challenges of the knowledge era, and provide cost-effective Information and Communication Technology (ICT)-based solutions and value-added services to a variety of organisations and to meet the expectations of stakeholders. The school has one of the best infrastructures, including domain-specific labs associated with the technical departments mentioned below. Many of these labs are sponsored by industry leaders, e.g., IBM, Cisco, Sun Microsystems, Red Hat, and Microsoft. The school has a good record of organising seminars, workshops, symposia, and conferences in emerging technological areas.

CHIEF GUEST

Mr. Ritham Sharma
 Sr. Director Engineering, Couchbase, Bengaluru

GUEST OF HONOUR

Mr. T. Prem Kumar
 Senior Advanced System Engineer,
 Honeywell Technology Solutions Pvt. Ltd., Bengaluru

INVITED SPEAKERS

Dr. S. Seshadhri
 Co-Founder, Indigenous Frontier Technology Research Centre, Chennai
 Dr. Bindu Krishnan
 Senior Statistician, Data & AI, IBM, Kochi
 Mr. Srikanth Subramanian
 Senior Director, Twilio Flex, Bengaluru
 Dr. D. Gobiha
 Senior Software Engineer, MathWorks, Bengaluru
 Dr. S. M. Renuka
 College of Engineering, Anna University, Chennai
 Mr. Ashish Negi
 Lead Engineer, AERO E&PS, Honeywell, Bengaluru
 Dr. E. Renold Sam Vethamuthu
 Senior Manager, Microchip Technology, Bengaluru
 Dr. Anokh K. Nair
 Scientist-I, Science Lab Solutions, Merck, Bengaluru
 Dr. M. S. Santhanam
 Professor, IISER, Pune

CONFERENCE COMMITTEE

Dr. M. A. Saleem Durai, Associate Dean, SCOPE
 Dr. K. S. Umadevi, HoD - SS, SCOPE
 Dr. J. N. Swathi, HoD - CI, SCOPE
 Dr. S. Murali, HoD - DS, SCOPE
 Dr. M. P. Gopinath, HoD - IS, SCOPE
 Dr. S. Rajkumar, HoD - Analytics, SCOPE
 Dr. K. Sharmila Banu, HoD - IoT, SCOPE

ORGANISING COMMITTEE

All Associate Deans and HoDs, VIT, Vellore
 Dr. K. Uma Mahendra Kumar, SAS
 Dr. V. Subhashree, SBST
 Dr. Konala S. K. Karthik Reddy, SCE
 Dr. G. Siva Shanmugam, SCOPE
 Dr. P. Jayalakshmi, SCORE
 Dr. M. Geetha, SELECT
 Dr. Anantha Krishna Chintanpalli, SENSE
 Dr. M. Velu, SMEC



ABOUT CONFERENCE

The 25th Edition of Science, Engineering, and Technology (SET) Conference is organised by the School of Computer Science Engineering (SCOPE). The conference is scheduled for April 25th and 26th, 2024. The central focus of the SET Conference is to encourage students to pursue cutting-edge research avenues and promote a core and inter-disciplinary research culture among them. The conference will be the targeted venue for the students to present their findings on niche areas of emerging domains and to attempt good-quality publications in reputed journals. Presentations and discussions at this conference will generate innovative ideas to tackle real-world problems more efficiently.

CONFERENCE THEMES

School of Advanced Sciences (SAS)

Materials and Inorganic Chemistry, Organic Chemistry, Pharmaceutical Chemistry, Environmental & Analytical Chemistry, Photonics, Medical Physics, Material Physics, Crystal Growth, Nuclear Physics, Algebra, Graph Theory, Pure Mathematics, Applied Mathematics, Fluid Dynamics, Operations Research, Quantum Information Computation and Communication, Applied Statistics, Probability and Statistics, Data Science, Machine Learning, Artificial Intelligence, and Business Analytics.

School of Bio Sciences and Technology (SBST)

Nanobiotechnology, Medical Biotechnology, Pharmacology and Toxicology, Bioremediation, Marine Diversity and Resources, Immunology, Biophysics, Nutraceuticals, Probiotics, Cancer Biology, Gene Therapy, Stem Cell Biology, Plant Biotechnology, Plant Metabolites and Pigments, DownStream Processing, Food Technology, Agricultural Biotechnology, Pharmaceutical Biotechnology, Bioinformatics, Drug Designing.

School of Civil Engineering (SCE)

Structures and Sustainable Materials, Geotechnical and Earthquake Engineering, Green Buildings, Structural Health Monitoring, Management of Infrastructure Construction, Aspects of Surveying and Advances in Transportation Engineering, Environmental Monitoring and Assessment.

School of Chemical Engineering (SCHEME)

Sustainable and Clean Technologies, Process Design and Optimisation, Modern Separation Techniques, Process Instrumentation and Control, Process Integration, and Intensification.

School of Computer Science and Engineering (SCOPE)

IoT and its related applications, Big Data Analytics and Big Data Frameworks, Cyber Security, Artificial Intelligence, Machine Learning, Deep Learning, Cloud Application Development and Management, Network Security, Security and Privacy for Big Data, Security and Privacy in Crowd Sourcing, Applied Cryptography, Cryptanalysis, Biometrics Security and Privacy, Authentication and Non-Repudiation, Blockchain Technologies, and Business Systems.

School of Computer Science Engineering and Information Systems (SCORE)

Machine Learning and Blockchain Technology, Cyber Physical Systems, Next Generation 5G Networks, Digital Forensics, Computer Vision, Big Data Analytics, Soft Computing, Cloud Computing, Software Engineering, Communication Networks, Semantic Web, and Digital Image Processing.

School of Electronics Engineering (SENSE)

Advanced Wireless Communication and Networking, Advanced Embedded Computing and Automation, Smart Sensors and Applications, Digital and Analog IC design, Nanotechnology, AI-enabled IoT systems, 5G and Beyond 5G (B5G) networks, AI/ML-based communication modelling, Optics in 5G based networks, Smart Antennas, Signal and Image Processing.

School of Electrical Engineering (SELECT)

Power Electronic Converters and Control, Energy Efficient Electric Drives, Renewable Energy and Microgrid, Industrial Automation and Home Automation, Robotics and Control, Blockchain in Automation, Machine Learning and Artificial Intelligence, Soft Computing and Optimisation, Electrical Machine Design, Intelligent Sensing Techniques and Control, Hybrid Solar PV, Wind, Fuel Cell, and Thermoelectric Generation Systems.

School of Mechanical Engineering (SMEC)

Advanced Materials and Processing, Additive Manufacturing Technologies, Bio-Mechanics, Cleaner Energy Production, Circular Economy, Computational Fluid Dynamics, Control Systems, Digital Manufacturing, Electric and Hybrid Vehicles, IC Engines, Industry 4.0, Noise, Vibration, and Harshness, Product Design, Robotics, Sustainable Energy, Sustainable Manufacturing.

School of Social Science and Languages (SSL)

Role of e-banking in rural India, Challenges for women entrepreneurs, Recent trends in the Indian finance system, Use of technology in language teaching and learning Social media as a communication tool, Gender biases in literature.

VIT Business School (VITBS)

Marketing, Finance and Economics, Information Systems and Operations, Organisational Behaviour and Human Resource Management, Strategy, and International Business.

VIT School of Design (V-SIGN)

Smart products for healthcare, Observational study of medical problems for design intervention, Study of users of medical products, Design of diagnostic tools and devices, Biomedical devices, Design to solve real-life clinical problems.

VIT School of Architecture (V-SPARC)

Design Methodologies, Urban Ecology, New Urbanism, Green Architecture and Urban Planning, Climate Change Adaptation, Interior Architecture, Security in Buildings and Cities, Disaster Risk Management, Landscape Architecture, and Digital Technologies in Buildings.

VIT School of Agricultural Innovations and Advanced Learning (VAIAL)

Agronomy, Soil Science, Entomology, Plant Pathology, Agricultural Microbiology, Plant Breeding and Genetics, Plant Biotechnology, Crop Physiology, Agro Processing, Agricultural Engineering, Geoengineering, Horticulture, Water Technology, and Agricultural Extension.

School of Hotel and Tourism Management (HOT)

Operations in the hospitality sector include star hotels and restaurants, front and back-office operations, housekeeping, culinary, food and beverage, marketing and sales, conferences, financial management, HR and personnel relations, purchasing and storage, sanitation, and tourism marketing and management.

SUBJECT	WORLD RANK 2023	INDIA RANK 2023	WORLD RANK 2024	INDIA RANK 2024
ENGINEERING & TECHNOLOGY - OVERALL	240	9	212	9
• CHEMICAL ENGINEERING	301-350	11	251-300	11
• COMPUTER SCIENCE & INFORMATION SYSTEMS	201-250	7	136	7
• ELECTRICAL & ELECTRONICS	201-250	8	151-200	7-8
• MECHANICAL ENGINEERING	251-300	10	201-250	8-10
BIOLOGICAL SCIENCES	451-500	10	351-400	7-9
NATURAL SCIENCES	-	-	401-450	10
• CHEMISTRY	351-400	9	351-400	9-12
• ENVIRONMENTAL SCIENCES	-	-	451-500	14-15
• MATERIALS SCIENCES	-	-	201-250	7-9
• MATHEMATICS	351-400	11	201-250	7-8
• PHYSICS AND ASTRONOMY	451-500	12	451-500	14-16
BUSINESS & MANAGEMENT	-	-	551-600	21-23

<https://www.topuniversities.com/subject-rankings/2024>

