

in association with  
**Universiti Teknikal Malaysia Melaka, Malaysia**  
*Second International Online Conference on*

**“ARTIFICIAL INTELLIGENCE FOR IOT – AIIoT 2022”**

**07<sup>th</sup> & 08<sup>th</sup> April 2022**  [www.vit.ac.in/AIIoT2022](http://www.vit.ac.in/AIIoT2022)

**CHIEF PATRON**

Dr. G. Viswanathan, Chancellor, VIT

**PATRONS**

Shri. Sankar Viswanathan, Vice President, VIT  
Dr. Sekar Viswanathan, Vice President, VIT  
Shri. G.V. Selvam, Vice President, VIT  
Shri. Kadhambari S. Viswanathan, Asst. Vice President, VIT

**ADVISORS**

Dr. Rambabu Kodali, Vice-Chancellor, VIT  
Dr. S. Narayanan, Pro Vice-Chancellor, VIT  
Dr. K. Sathiyarayanan, Registrar, VIT

**GENERAL CHAIRS**

Dr. Kittur Harish Mallikarjun, Prof., SENSE, VIT  
Dr. S. Sivanantham, Prof. & Dean, SENSE, VIT  
Dr. M. Jasmin Pemeena Priyadarsini, Prof. & Asso. Dean, SENSE, VIT

**CONFERENCE CHAIRS**

Dr. P. Sasikumar, Asso. Prof. & HoD, DET, SENSE, VIT  
Dr. M. Arun, Asso. Prof. & Asst. Dir., IR, SENSE, VIT  
Dr. R. Sujatha, Asso. Prof., SENSE, VIT

**CONFERENCE CO-CHAIRS**

Dr. Gerardine Immaculate Mary, Asso. Prof., SENSE, VIT  
Dr. B. Karthikeyan, Asso. Prof., SENSE, VIT  
Dr. Sundar.S, Asso. Prof., SENSE, VIT  
Dr. Shanmugasundaram M, Asst. Prof., SENSE, VIT  
Prof. Padmini T N, Asst. Prof., SENSE, VIT

**ADVISORY COMMITTEE**

Dr. Elizabeth Rufus, Prof. & Director Alumni Affairs, VIT  
Dr. T. Gaziyeva Rano, Prof., TIAME Univ., Uzbekistan  
Dr. M. Kannan, Prof., Anna University, Chennai  
Dr. S. Manigandan, Scientist, DRDO, India  
Shri. Mayank Bhargava, Ericsson Tele. Ltd., Delhi  
Dr. G. Ramachandra Reddy, Prof., SENSE, VIT  
Dr. Samuel Rajkumar, Director, CDC, VIT  
Dr. Sardar M. N. Islam, Prof., Victoria Univ., Australia  
Dr. R. Selvakumar, Director, Kerckhoffs Ltd., UK  
Dr. D. Vaithyanathan, Asst. Prof., NIT, Delhi  
Dr. Vesela Radovic, Prof., Univ. of Belgrade, Serbia  
Dr. Xavier Fernando, Prof., Ryerson Univ., Canada  
Dr. Zachariah C Alex, Prof., SENSE, VIT

**STEERING COMMITTEE**

Dr. S. Renuga Devi, Asso. Prof. & Asst. Dir., IQAC, VIT  
Dr. K. Sivasankaran, Asso. Prof. & Asst. Dir., UG Admissions, VIT  
Dr. P. Prakasam, Prof. & Head, DCE, SENSE, VIT  
Dr. R. Sivakumar, Prof. & Head, DSBT, SENSE, VIT  
Dr. S. Kumaravel, Asso. Prof. & Head, DMNE, SENSE, VIT  
Dr. V. Thanikaiselvan, Asso. Prof. & Asst. Dir. DQAA, VIT  
Dr. R. Sivacoumar, Asso. Prof., SENSE, VIT  
Dr. V. Arunachalam, Asso. Prof., SENSE, VIT



**ABOUT VIT**

Vellore Institute of Technology (VIT) is a private deemed university located in Vellore, India. VIT is recognized as an Institution of Eminence (IoE) by MHRD, Government of India. Vellore Institute of Technology has campuses in Vellore, Amaravati, Bhopal and Chennai. VIT has been consistently ranked among the best institutions of the country, and is aspiring to emerge as a global leader. The National Institutional Ranking Framework (NIRF) of the MHRD, Government of India, has identified VIT as the best Private Engineering Institution in India. The National Assessment and Accreditation Council (NAAC) of UGC, Government of India, accredited with highest grade in the last three consecutive cycles. With students from all the states of India and from more than 50 countries, the cosmopolitan VIT provides an appropriate ambience for holistic learning and comfortable living. VIT holds an exemplary placement record by consistently placing more than ninety percentage of the students in good companies. The VIT's international linkages provide ample opportunities for students and faculty to gain global exposure. VIT alumni, spread across the world, are serving the most advanced as well as the most deprived societies.

**ABOUT SENSE**

School of Electronics Engineering – SENSE at VIT was established for imparting state-of-the-art knowledge in Electronics and Communication Engineering and allied areas. B.Tech. Electronics and Communication Engineering is accredited by the Engineering Accreditation Commission of ABET. Students who are eligible are placed on campus and many of them are placed in core companies every year. The school has set up laboratories with excellent infrastructure in the areas of Electronics, Communication, VLSI, Embedded, Sensors and Nanotechnology. The latest simulation tools are used to cater to various specializations and are equipped with facilities for measurement, characterization and synthesis of experimental as well as theoretical results. Students are encouraged to take up their final year projects abroad too. The School has many industry sponsored advanced laboratories for carrying research and development. MoUs with many Foreign Universities, Research Organizations and Industries facilitate student and faculty exchange. Faculty are actively involved in R&D activities and are working on research projects funded by government organizations like DRDO, ISRO (RESPOND), BRNS and agencies like DST.

**ABOUT AIIoT 2022**

Today's world is changing with the adoption of Internet of Things (IoT). IoT is helping in prominently capturing a tremendous amount of data from multiple sources. However, wrapping around the multitude of data coming from countless of IoT devices, makes it complex to collect, process, and analyze the data. Realizing the future and full potential of IoT devices will require an investment in new technologies. The convergence of AI (Artificial Intelligence) and IoT can redefine the way industries, business, and economies functions. While IoT deals with devices interacting using the internet, AI makes the devices learn from their data and experience. International Conference on Artificial Intelligence for IoT aims to bring together leading academicians, scientists, researchers and scholars to exchange and share their experiences, research results on all aspects of Internet of Things and AI. Researchers will present and discuss the most recent innovations, trends, and concerns as well as practical challenges encountered in artificial intelligence for IoT. This conference is to encourage and assist the professionals engaged in the above fields to maintain the integrity and competence of the profession, foster a sense of partnership amongst the International professionals.

**KEYNOTE SPEAKERS**

**Dr. THOMAS CHEN**  
Professor  
City University of London  
United Kingdom



**Dr. BOGDAN GHITA**  
Professor  
University of Plymouth  
United Kingdom



**Dr. A. SATHYANARAYANAN**  
Professor  
Oklahoma State University  
United States of America



**Dr. XAVIER FERNANDO**  
Professor, IEEE Distinguished Speaker  
Ryerson University  
Canada



**Dr. ASOKAN ASHOK**  
CEO  
Unfold Labs  
United States of America



**Dr. SELVAKUMAR R.**  
Director  
Kerckhoffs Ltd.  
United Kingdom



**Dr. S. SIVA KUMAR**  
Professor  
Universiti Teknikal Melaka  
Malaysia



**Dr. SARDAR M. N. ISLAM**  
Professor  
Victoria University  
Australia



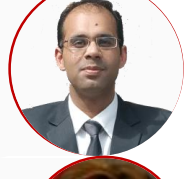
**Dr. MALKA N. HALGAMUGE**  
SMIEEE, Professor  
University of Melbourne  
Australia



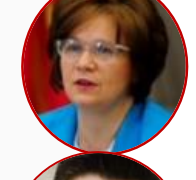
**Dr. NEERAJ KUMAR**  
SMIEEE, Professor  
TIET University  
India



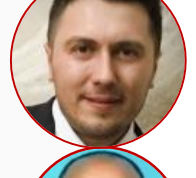
**Dr. ANAND NAYYAR**  
Professor & Scientist  
Duy Tan University  
Vietnam



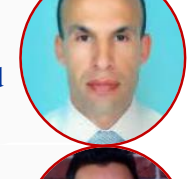
**Dr. VESELA RADOVIC**  
Professor  
University of Belgrade  
Serbia



**Dr. KORHAN CENGIZ**  
SMIEEE, Asst. Professor  
Kadir Has University  
Turkey



**Dr. SALAHDDINE KRIT**  
Founder & CEO  
Center Ibn Zohr of Development and  
Research, Morocco



**Shri. KUSH MISRA**  
CTO & COO  
SenRa Tech. Pvt. Ltd.  
India





## KEYNOTE SPEAKERS



**Shri. S.V. ARUN**  
QA Lead & Test Specialist  
Australian Unity  
Australia



**Dr. S. AISHWARYA**  
AI & ML Innovation Leader  
IBM  
California

## TECHNICAL PROGRAM COMMITTEE CHAIR

Dr. Thomas Chen, Prof., City Univ. of London, UK

## CO-CHAIRS

Dr. Bogdan Ghita, Prof., Univ. of Plymouth, UK  
Dr. S. Siva Kumar, Prof., Univ. Teknikal, Malaysia  
Dr. Vijayakumar Varadharajan, Prof., UNSW, Australia  
Dr. Fausto Pedro García Márquez, UCLM, Spain

## MEMBERS

Dr. Abowd Gregory, Prof., NUCE, USA  
Dr. S. Aishwarya, AI & ML Lead, Columbia Univ., USA  
Dr. Anand Nayyar, Prof., Duy Tan University, Vietnam  
Dr. Alex Khang, Prof., GRITEx. VUST. SEFIX. EDXOPS, Vietnam  
Shri. Arun S. V., Test Specialist, Australian Unity, Australia  
Dr. Asokan Ashok, CEO, Unfold Labs, USA  
Dr. Azizur Rahman, Prof., CU, London, UK  
Dr. Aziz Usmanov, Prof., Tashkent Univ., Uzbekistan  
Dr. Bal Virdee, Prof., London Metropolitan Univ., UK  
Shri. Bhoosan Iyer, Vice-President, ESA India, Bengaluru  
Dr. Brahim Lejdel, Prof., Univ. of El Oued, Algeria  
Dr. Bubathi Muruganatham, Lead, Eaton Corp., Pune  
Dr. Christen Grauman, Prof., Univ. of Texas, USA  
Dr. Franco Ronconi, Director Operations, D-EYE, Italy  
Dr. Jad Matta, Prof., AUB, Lebanon  
Dr. Jahangir Hossain, Prof., UBC, Canada  
Dr. Joao Manuel R S Tavares, Prof., UdP, Portugal  
Shri. Karthikeyan Kadarkarai, Sr. Manager, Cognizant, Chennai  
Dr. Korhan Cengiz, Asst. Prof., Kadir Has Univ., Turkey  
Shri. Kush Mishra, CTO, SenRa Tech., Bengaluru  
Dr. Malka N. Halgamuge, Prof., UM, Australia  
Dr. Neeraj Kumar, Prof., TIET Univ., India  
Dr. Özen Özer, Prof., Kırklareli University, Turkey  
Dr. Palanivel Gurusvareddiar, Platform Architect, Intel, USA  
Dr. Pooja, Prof., & Dean, Sharda University, Uzbekistan  
Dr. Rajasekaran Selvaraju, Prof., UTAS, Oman  
Dr. Ruchi Doshi, Prof., Universidad Azteca, Mexico  
Dr. Salahddine Krit, Founder & CEO, CIZDR, Morocco  
Shri. Santhana Raj, Architect, Pathpartner Tech., Bengaluru  
Dr. Sathish Kumar Selvaperumal, Prof., APU, Malaysia  
Dr. A. Sathyanarayanan, Prof., Oklahoma State Univ., USA  
Dr. SeokbumKo, Prof., Univ. Saskatchewan, Canada  
Dr. Temitayo Matthew Fagbola, Prof., FUEO, South Africa  
Dr. Tzung-Pei Hong, Prof., National Univ. of Kaohsiung, Taiwan  
Dr. Valentina E. Balas, Aurel Vlaicu Univ. of Arad, Romania  
Dr. Vania V. Estrela, Prof, Federal Fluminense University, Brazil  
Dr. Waseem M. Alhasan, Asst. Prof., AS Pvt. Univ., Syria  
Dr. Xiao-Zhi Gao, Prof., UEF, Finland  
Dr. P. Arulmozhivarman, Prof. & Dean, Acad. Research, VIT  
Dr. Modi Pandu Ranga Prasad, Prof., NIT, Kurukshetra  
Dr. D. Elangovan, Dept. Director, TIFAC-CORE, VIT  
Dr. K. Ganesan, Chairperson, VITBS, VIT  
Dr. A. V. Giridhar, Prof., NIT, Warangal  
Dr. Jitendra V. Tembhurne, Prof., IIT Nagpur  
Dr. D. Kalpana, Asst. Prof., Anna University, Chennai  
Dr. G. R. Kanagachidambaresan, Asso. Prof., VTU, Chennai  
Dr. S. S. Karthikeyan, NIT, Tiruchirappalli  
Dr. G. Kavitha, Asso. Prof., Anna University, Chennai  
Dr. Malay Kumar Hota, Prof. SENSE, VIT  
Dr. K. Mariammal, Asst. Prof., Anna University, Chennai  
Dr. G. Nagarajan, Professor, PEC, Puducherry  
Dr. A. Nirmala Grace, Prof. & Director, CNR, VIT  
Dr. B. D. Parameshachari, Prof. & Chair - IEEE BS & IEEE MYSS  
Dr. Partha S. Mallick, Prof. & Director, IQAC, VIT  
Dr. E. Porpatham, Prof. & Director, ARC, VIT  
Dr. M. Ramakrishnan, Prof., MK University, Madurai  
Dr. K. Ramesh Babu, Prof. & Dean, SCOPE, VIT  
Dr. Ranjani Parthasarathi, Prof., Anna University, Chennai  
Dr. V. Sathieshkumar, Asst. Prof., Anna University, Chennai  
Dr. M. D. Selvaraj, Asso. Prof., IIITDM, Kancheepuram  
Dr. M. Senthil Kumar, Principal, SDIES, Hyderabad  
Dr. M. Senthil Sivakumar, Asst. Prof, IIIT Srirangam  
Dr. K. Shambavi, Prof., SENSE, VIT  
Dr. S. Sivabalan, Prof. & Dean, SELECT, VIT  
Dr. M. Sujatha, Prof., KL University, Vijayawada  
Dr. B. Tripathy, Prof. & Dean, SITE, VIT  
Dr. G. Vairavel, SMIEEE & Prof., SRMIST, Chennai  
Dr. J. Valarmathi, Prof., SENSE, VIT

## THRUST AREAS

### Track 01: AI Enabled IoT System & Applications

- ❖ VLSI System Design
- ❖ AI and Evolutionary Algorithms
- ❖ Machine Learning and applications
- ❖ Natural Language Processing
- ❖ Decision Support Systems
- ❖ Deep Learning and Applications
- ❖ Soft computing theory and applications
- ❖ Genetic Algorithms and Generative Models
- ❖ Sentiment Analysis
- ❖ Reinforcement Learning
- ❖ Computational Intelligence
- ❖ Image & Signal Processing
- ❖ Fuzzy Control
- ❖ AI in Internet of Things
- ❖ Integration of AI with other technologies

### Track 02: Intelligent Industrial IoT & Cloud Computing

- ❖ Software Agents for Intelligent Control Systems
- ❖ AI in Control and Precision Engineering
- ❖ AI in Error Prediction
- ❖ Intelligent Fault Detection and Diagnosis
- ❖ Industrial Networks and Automation
- ❖ Supply Chain and Logistics
- ❖ Modelling and Simulation for IIoT
- ❖ Distributed Control and Optimization
- ❖ AI for energy efficient cloud operations
- ❖ AI and ML at the edge and in the cloud
- ❖ AI in Big Data Analytics
- ❖ Micro-services, and Server-less computing
- ❖ Hybrid-clouds & multi-clouds integration
- ❖ Cloud-RAN
- ❖ Wireless HART applications

### Track 03: Robotics & Automation

- ❖ Embedded Systems
- ❖ Robot Design, Development and Control
- ❖ Space and Underwater Robots
- ❖ Human-Machine Interfaces
- ❖ Collective and Social Robots
- ❖ Cognitive Approach for Robotics
- ❖ Mobile Robots & Intelligent Autonomous Systems
- ❖ Vision, Recognition and Reconstruction
- ❖ Control and Supervision Systems
- ❖ Tele robotics and Tele-operation
- ❖ Human-Robots Interfaces
- ❖ Humanoid and Network Robotics
- ❖ Virtual & Augmented Reality
- ❖ Autonomous Agents
- ❖ Automation for remediation and mitigation

### Track 04: 5G for IoT, Security, Privacy & Compliance

- ❖ Communication & Networking
- ❖ AR/VR applications in 5G
- ❖ Edge computing for 5G/6G
- ❖ 5G and beyond Services for Industrial IoT
- ❖ IoT Architecture in 5G networks
- ❖ Latency and Network Slicing
- ❖ Software-Defined Network (SDN)
- ❖ Network Function Virtualization (NFV)
- ❖ Cloud security and privacy
- ❖ Software defined solutions for IoT
- ❖ Trustworthy cloud environments
- ❖ Block chain
- ❖ Anomaly and Intrusion Detection
- ❖ Big Data and Information Integrity
- ❖ Communication Security in 5G

(But Not Limited To)

## CONTACT US

### AIIoT – 2022,

Department of Embedded Technology,  
School of Electronics Engineering (SENSE),  
Vellore Institute of Technology,  
Vellore, Tamilnadu, India – 632014.

[aiiotvit2022@gmail.com](mailto:aiiotvit2022@gmail.com)

**Dr. A. Karthikeyan - +91 7904 203 982**

**Dr. Sumit Kumar Jindal - +91 8603 559 888**

**Dr. R. Sujatha - +91 8610 045 822**

**Dr. Hemprasad Yashwant Patil - +91 9096 019 335**

[www.vit.ac.in/AIIoT2022](http://www.vit.ac.in/AIIoT2022)



## ORGANIZING COMMITTEE

Dr. K. C. Sriharipriya, Asso. Prof., SENSE, VIT  
Dr. P. Venugopal, Asso. Prof., SENSE, VIT  
Dr. S. Usha Rani, Asst. Prof., SENSE, VIT  
Dr. Manish Kumar, Asst. Prof., SENSE, VIT  
Dr. A. Bagubali, Asst. Prof., SENSE, VIT  
Dr. Deepika Rani Sona, Asst. Prof., SENSE, VIT  
Dr. C. V. Ravi Kumar, Asst. Prof., SENSE, VIT  
Dr. N. Sangeetha, Asst. Prof., SENSE, VIT  
Dr. Sumit Kumar Jindal, Asst. Prof., SENSE, VIT  
Dr. Hemprasad Yashwant Patil, Asst. Prof., SENSE, VIT  
Dr. Aparna Mohanty, Asst. Prof., SENSE, VIT  
Dr. E. Konguvel, Asst. Prof., SENSE, VIT  
Dr. G. Sumathi, Asst. Prof., SENSE, VIT  
Dr. A. Karthikeyan, Asst. Prof., SENSE, VIT  
Dr. C. M. Vidhyapathi, Asst. Prof., SENSE, VIT

## AUTHOR INFORMATION

All manuscript submitted to AIIoT-2022 must be original and the content thereof, or substantial parts of it, must not be under consideration / published by any other journal. All submissions to AIIoT-2022 are assessed by the chairs of the respective tracks, who will decide whether they are suitable for peer review based on: less than 15% of similarity index, timeliness, interest and the importance of the topic. Plagiarism of any kind is the Author's sole responsibility. The peer-review process involves the review of the manuscripts by two independent reviewers. The technical committee will make a decision on the acceptance of the manuscript for publication based on the reviewers' reports and the reports will be sent to the authors for suitable modification.

All the accepted, registered and presented papers will be published in conference proceedings with e-ISBN number (978-93-89640-08-3) and certificate will be given to all authors.

## REGISTRATION

Category	Indian Authors	Foreign Nationals
e-ISBN (Certificate)	Rs.2500 (+18% GST)	50 USD (+18% GST)

All the papers must be submitted through <https://tinyurl.com/AIIoT2022>. For detailed paper format instructions and template, visit <https://vit.ac.in/AIIoT2022/>.

## IMPORTANT DATES

Last Date for Submission : 21 March 2022  
Acceptance Notification : 28 March 2022  
Last Date for Registration : 01 April 2022  
Final Submission (CRC) : 01 April 2022

## INDUSTRY PARTNERS



#190	Electrical & Electronic Engineering
#313	Computer Science
#340	Engineering
#432	Chemistry
#471	Biology and Biochemistry
#483	Materials Science

Research	12	nirf	12	Engineering
University	13	India Rankings 2021	21	Overall