

WHO CAN ATTEND

Faculties, research scholars, students and industrial experts can attend the programme.

REGISTRATION FEE

No registration fee for participating in FDP.

DATES TO REMEMBER

Participants Registration Deadline: **15 Nov 2022**

Notification of Acceptance : **17 Nov 2022**

SESSION DETAILS

- Week-1 **Online Session** (7:00 pm - 9:30 pm)
From: 21st Nov – 26th Nov 2022
- Week-2 **Offline Session** (9:00 am - 5:00 pm)
From: 28th Nov – 02nd Dec 2022

KEYNOTE SPEAKERS

- Dr. V. Prithiviraj, (Former Principal Pondicherry Engineering College), Chairman, CSR, Govt. of Puducherry, Puducherry.
- Dr. Shankar prakriya, Professor, Indian Institute of Technology, Delhi
- Dr Shajulin Benedict Professor, Dept.of ECE IIT Kottayam.
- Dr. A. Mercy Latha, Principal Scientist, CSIR-CEERI, Chennai centre.
- Dr. Surendar M, Assistant Professor, NIT Puducherry.
- Dr.Prabu K, Assistant Professor, NIT, Surathkal.
- Dr. P. Samundiswary, Associate Professor, Pondicherry Central University, Puducherry.
- Dr. M. Manikandan, Associate Professor, MIT Chennai
- Dr. Madhan, Senior Scientist, Central Electronics Engineering Research Institute, CSIR - Chennai.
- Mr. V. N. Premanand, Vice President, Cyber Society of India
- Mr .J Santhanakrishnan, Rtd Deputy General Manager, BSNL Chennai
- Mr. Krishna Mouli, Data Science – Manager, BOSTON India Limited, Bangalore.
Renowned resource persons from various Institutions and Industries like Cyber Society of India.

ORGANIZING COMMITTEE

CHIEF PATRONS

Col. Prof. Vel Dr. R. Rangarajan
Founder President & Chancellor

Dr. Sagunthala Rangarajan
Foundress President

Mrs. Rangarajan Mahalakshmi Kishore
Chairperson and Managing Trustee

PATRON

Prof. Dr. S. Salivahanan
Vice Chancellor

CO- PATRON

Prof. Dr. E. Kannan
Registrar

ADVISORS

Prof. Dr. M. J. Carmel Mary Belinda
Dean Academics

Prof. Dr. V. Jayasankar
Dean School of Electrical and Communication

Dr. E Balasubramanian
Dean R&D

Dr. P. Chandrakumar
Dean Industry Relations / TBI

CONVENER

Dr.P. Esther Rani
Professor & HoD/ECE

CO-ORDINATORS

Dr.E.D Kanmani Ruby
Professor/ ECE

Dr. S. Oudaya Coumar
Associate Professor/ ECE

CONTACT DETAILS

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Vel Tech
Rangarajan Dr. Sagunthala
R&D Institute of Science and Technology
(Deemed to be University Estd. u/s 3 of UGC Act, 1956)

School of Electrical and Communication

*Department of
Electronics & Communication
Engineering*

Organizes

*All India Council for Technical
Education (AICTE) Training and
Learning (ATAL) Academy
Sponsored FDP*

on

**“Artificial Intelligence Driven
5G/6G Networks”**

21 Nov 2022 - 02 Dec 2022



**Vel Tech Rangarajan Dr. Sagunthala R&D
Institute of Science and Technology
No.42, Avadi-Vel Tech Road,
Poonamallee - Avadi High Rd, Vel Nagar,
Chennai, Tamil Nadu-600062.**

<https://www.veltech.edu.in/>

ABOUT THE INSTITUTION

Vel Tech offers UG, PG and Ph.D. programmes in both Engineering and Management. The Institution has made distinctive progress since the founding in 1997, by adopting the unique and trending educational methodologies. Vel Tech is the first member from India to be part of CDIO, an innovative educational framework for producing the next generation of engineers. Vel Tech has been recognized as the Best Engineering Institution and ranked as First in India and 74th in the world by Times Higher Education World Young University Ranking 2016-2017 and 43rd in Asia by Times Higher Education Asia University Ranking 2017. The TBI (Technology Business Incubator) of Vel Tech is recognized as the Center of Excellence under NIDHI by the Government of India.

ABOUT THE SCHOOL

The School of Electrical and Communication at Vel Tech imparts knowledge in electrical, electronics and communication engineering and all other allied areas. The students of the school actively participate in nationally reputed clubs such as robotics club and small device programming club, to enthuse and bring out their skills from them. Many of the faculty members of the school are doctorates from reputed institutions from India and abroad. The students of the School are involved in nationally significant projects namely Small Satellite projects in collaboration with International Industries in France, Germany etc. The department has been consistently producing illustrious engineers of fine calibre and enabling them to occupy the prestigious position in the academics and the industrial fields. The PG programmes are designed and developed in close interaction with Industry partners like C-DAC, FRCI, RAI, NAASCOM etc.

ABOUT THE DEPARTMENT

The inception of the Department of Electronics and Communication Engineering was in the year 1997. Over the time, the department has emerged in diverse dimensions and affords a spellbound ambience for teaching and learning. The department offers B.Tech. in Electronics and Communication Engineering, M.Tech. in Embedded Systems and Technologies and Ph.D. in ECE Degree Programmes with technology-oriented courses that creates industry ready personnel in the prudent fields of Electronics and Communication Engineering. All the programmes are approved by AICTE and the B.Tech. ECE program has received Tier I NBA accreditation for 3 years in the year 2022. The department has well equipped curriculum based laboratories and state of the art facilities for research and development vis-a-vis Texas Instruments powered IoT & Signal processing laboratory Xilinx powered System on Chip laboratory, eYantra Embedded systems and Robotics laboratory supported by MHRD and IIT Bombay and France Col laboratory in collaboration with France Col Technology, France. Several initiatives in alliance with International Universities and Core Electronics Industries are also given cardinal importance in the department.

ABOUT THE FDP

FDP on Artificial Intelligence Driven 5G/6G Networks aims at bringing together leading academicians, scientists, researchers and scholars to exchange their ideas focusing upon the recent advances in electronic communication, devices, circuits and systems. This FDP will be a forum for the presentation and exchange of ideas in the field of electronics, and will be of interest to academic pioneers, researchers and the industry practitioners. Each session will be addressed by outstanding experts who will highlight the recent advances in various facets of Electronics and

Communication Engineering. It will also offer the budding researchers an opportunity to learn from the eminent experts of their fields. Discussion on the latest innovations, trends and practical concerns and challenges faced in these fields are also encouraged. Innovation will bring added value and widen the employment base. The FDP attempt to establish some robust and mutual interactions and cooperation with scientific educational, governmental and non-governmental organizations, and industries across local, national and international levels to meet the following objectives:

-) Creating contacts as possible to provide a means for scientific and industrial exchanges.
-) Promoting the basic and applied research in Electronics and Communication Engineering, identifying the top ideas and turning them into productive projects.
-) Strengthening the interaction and communication between educational institutions and the industries
-) Finding out the latest scientific achievements and research methods
-) To encourage academicians for doing more research work and innovations

CONTENTS

-) Introduction to Next Generation Mobile Networks and 5G-Global initiatives
-) 5G wireless propagation model and Radio access techniques
-) AI in Wireless Communication
-) Introduction to 6G Networks
-) Scope of AI in 5G/6G Networks
-) Research Challenges and Issues in 5G/6G Networks
-) 5G (O-RAN) architecture and related network interfaces and Leverage 5G/6G for AI
-) 5G-IoT-EDGE-ML/AI: Transformations
-) Security and privacy in 5G networks
-) Role of 5G/6G in digital health care
-) AI based IoV Safety services in 5G Networks
-) Implementation and strategies for AI based 5G/6G networks-hands on.
-) Real Time AI enabled 5G/6G -hands on.