



**International Conference on
Future Telecommunications
and Artificial Intelligence**
IC-FTAI'2024



CH08903 IEEE EGYPT
AP-S/MTT-S Joint Chapter

December 31, 2024, to January 2, 2025
Alexandria, Egypt



WELCOME

We are grateful to each and every one of you for your attendance today. We are delighted to extend a warm welcome to both our long-standing guests and those who are new to The International Conference on Future Telecommunications and Artificial Intelligence (IC-FTAI'2024), which will take place at the Grand Plaza Hotel in Alexandria, Egypt, from December 31, 2024, to January 2, 2025.

We are honored to have the opportunity to organize and host our conference today at this exceptional location, with the participation of all attendees.

Before we commence, we would like to extend our heartfelt gratitude to all those who generously contributed to the success of this event.

SPECIAL THANKS

Honorary Chair

Hassan Elkamchuchi, Faculty of Engineering, Alexandria University

General Chair

Yasser M. Madany, Founder and Chair of the IEEE Egypt AP-S/MTT-S Joint Chapter & FCAI, Al Ryada University for Science and Technology

Technical Program Co-Chair

Mohamed Fouad, Faculty of Engineering, Zagazig University

Workshops Co-Chair

Sally Elghamrawy, Head of Comm. & Computers Engineering Depart. – Vice Dean of MET

Tutorials Co-Chair

Mervat M. El-Seddek, Head of Communications Engineering Depart., Horus University

Wageda I. Elsobky, Faculty of Engineering, Benha University

Demonstrations and Young Professional Co-Chair

Ahmed Madian, School of Engineering and Applied Sciences, Nile University

Mohamed Saeed Darweesh, School of Engineering and Applied Sciences, Nile University

Publicity Chair

Ahmad Mahmoud Taha, University of Glasgow, UK

Mohamed Fathy Abo Sree, Arab Academy for Science and Technology, AAST

Publication Chair

Waleed Agmay Elmasry, Alexandria Higher Institute of Engineering and Technology, AIET

Project Poster Chair

Ahmed A. Kabeel, Faculty of Engineering, Delta University for Science and Technology

SPECIAL THANKS

Finance / Treasurer Chair

Abdelazeem Abdelwahab, Institute of Basic and Applied Science, College of Eng., AAST

Track Chairs

Abdelhamid A Shaalan, Faculty of Engineering, Zagazig University

Saber Helmy Zainud-Deen, Prof. in Faculty of Electronic Eng., Menoufia University

Moawad Ibrahiem Dessouky, Faculty of Electronic Engineering, Menoufia University

Mohamed E. Nasr, Faculty of Engineering, Tanta University

Fathi A. Farag, Faculty of Engineering, Zagazig University

Mostafa Nasr Mohamed Nasr, Faculty of Engineering, Menoufia University

Steering Committee

Ahmed Hassan, President of El Sewedy University of Technology

Maha Elsabrouty, Egypt-Japan University of Science and Technology

Hossam El-Din Moustafa, Faculty of Engineering, Mansoura University

Waheed Sabry, Vice Dean of The High Institute of Engineering and Technology

Local Arrangements Committee

Ayman Almahallawy, Vice Chair of the IEEE Egypt AP-S/MTT-S Joint Chapter

ABOUT IC-FTAI'2024

The **IEEE Egypt AP-S/MTT-S Joint Chapter** is organizing the **International Conference on Future Telecommunications and Artificial Intelligence (IC-FTAI'2024)**. The **IEEE AP-S** and **IEEE MTT-S** societies are providing technical support for the conference. The IEEE Egypt Section and IEEE Alexandria Subsection and other IEEE Egypt OUs are technically supporting the IC-FTAI-2024 conference.

The **IC-FTAI'2024 conference** will take place at the **Grand Plaza Hotel, Alexandria, Egypt**, from **December 31, 2024**, to **January 2, 2025**, offering a hybrid format that allows for both in-person attendance and online participation. In addition to contributed sessions, the conference program will include invited sessions on selected tracks. **The conference committees** expect the technical sessions and invited talks to provide in-depth coverage of the most recent advances in the conference tracks. The conference's scope necessitates that all submitted papers describe original work and undergo a double-blind review process. **IEEE Xplore** will judge papers based on their scope and quality.

The **IC-FTAI'2024 conference** indexed in **IEEE Xplore digital library** content, and IEEE has active partnerships with the following abstracting and indexing (A&I) **providers**:

- Scopus (Elsevier)
- Web of Science (Clarivate Analytics)
- ProQuest
- IET (The Institution of Engineering and Technology)
- NLM (US National Library of Medicine)
- CrossRef



Scan Me
Conference Program in Details

IC-FTAI'2024

LOCATION: Pearl Hall

DATE: December 31, 2024

TIME: 09:00 - 18:10 CLT (GMT+2)

1st DAY AGENDA

I. 09:00 - 11:30 **Registrations Open (Tanzanite Hall)**

II. 11:30 - 11:50 **Introduction and Opening Ceremony**

by **Prof. Dr. Yasser M. Madany**, the Founder and Chair of the IEEE Egypt AP-S/MTT-S Joint Chapter, **Chair of the IC-FTAI'2024 Conference**

III. 11:50 - 12:00 **Speech** by **Eng. Tarek El-Nabrawy**, head of the Egyptian Engineers Syndicate, **The Egyptian Engineers Syndicate**

IV. 12:00 - 12:30 **Keynote Speech** "The Future of Education in the Era of Artificial Intelligence" by **Prof. Dr. Reda Hegazy**, Former Minister of Education and Technical Education of Egypt. **President of the Al Ryada University for Science and Technology, Egypt**

V. 12:30 - 12:40 **Refreshments / Coffee Break**

VI. 12:40 - 13:10 **Keynote Speech** "Cloud/Fog Automation: The New Paradigm of Industrial Automation Demands Control-Computing-Communication Co-Design" by **Prof. Dr. Zhibo Pang**, KTH Royal Institute of Technology, Sweden, **Senior Principal Scientist, ABB Corporate Research, Sweden**

VII. 13:10 - 13:40 **Keynote Speech** "Using Machine Learning Transformers for Medical Diagnosis and Prognosis" by **Prof. Dr. Sabah Mohammed**, Chair of the Department of Computer Science, **Lakehead University, Canada**

VIII. 13:40 - 14:40 **Lunch with Table Discussion (Majestic Hall)**

IX. 14:50 - 16:30 **Oral Session I: Artificial Intelligence and Computer Architecture**

X. 16:30 - 18:10 **Oral Session II: Electromagnetic Field, Devices, and Circuits**

IC-FTAI'2024

LOCATION: Conference Halls

DATE: January 1, 2025

TIME: 09:00 - 18:30 CLT (GMT+2)

2nd DAY AGENDA

I. 09:00 - 10:40 **Oral Session III:** Antennas and Emerging Technologies

II. 10:40 - 11:10 **Keynote Speech** "Towards Connecting the Remaining 3-Billion" by **Prof. Dr. Mohamed-Slim Alouini**, King Abdullah University of Science and Technology, **KUST, Kingdom of Saudi Arabia**

III. **Oral Session IV:** Artificial Intelligence and Computer Architecture

11:10 - 12:50

IV. **Oral Session V:** Computer Systems, Security and Robotics

V. 12:50 - 13:00 **Refreshments / Coffee Break**

VI. 13:00 - 13:30 **Keynote Speech** "Quantum Cybersecurity" by **Prof. Dr. Ahmed A. Abd El-Latif**, Prof. at Menoufia University, Egypt, **Prince Sultan University, Saudi Arabia**

VII. **Oral Session VI:** Systems, Applications and Emerging Technologies

13:30 - 15:10

VIII. **Tutorial I:** Design and Implementation of Frequency Estimator Using Filter Bank

IX. 15:10 - 16:10 **Lunch with Table Discussion (Majestic Hall)**

X. 16:20 - 16:50 **Keynote Speech** "Space-Time-Coding Digital Reconfigurable Intelligent Surfaces for Wireless Communications" by **Prof. Dr. Saber H. Zainud**, Faculty of Electronic Engineering, **Menoufia University, Egypt**

XI. **Oral Session VII:** Computer Systems, Security and Robotics
Bioinformatics & Computational Biology
Systems, Applications and Emerging Technologies

16:50 - 18:30

XII. **Oral Session VIII:** Electromagnetics and Materials
Computational, Propagation and Scattering

IC-FTAI'2024

LOCATION: Conference Halls

DATE: January 2, 2025

TIME: 09:00 - 16:00 CLT (GMT+2)

3rd DAY AGENDA

I.		Oral Session IX: Communications Engineering, Networking and Technology
	09:00 - 10:40	
II.		Oral Session X: Communications Engineering, Networking and Technology Power Management and Control
III.	10:40 - 11:10	Keynote Speech <i>Beamforming and Localisation with Compact Antennas of Sub-wavelength Size</i> by Prof. Dr. Adam Narbudowicz , Tyndall National Institute, Dublin, Ireland, Assoc. Prof. at Wroclaw University of Science and Technology, Wroclaw, Poland
IV.	11:10 - 11:40	Keynote Speech <i>"Sustainable Development and Electric Vehicles"</i> by Dr. Consult. Hassan El-Shoubashy , Head of the Mechatronics Engineering Department, Alexandria Higher Institute of Engineering and Technology, Egypt
V.		Tutorial II: CARLA: An Advanced Platform for Autonomous Vehicle Simulation
	11:40 - 12:50	
VI.		Student Project Posters
VII.	12:50 - 13:00	Refreshments / Coffee Break
VIII.	13:00 - 14:00	Closing Ceremony and Awards by Prof. Dr. Yasser M. Madany , the Founder and Chair of the IEEE Egypt AP-S/MTT-S Joint Chapter, Chair of the IC-FTAI'2024 Conference
IX.	14:00 - 15:00	Lunch with Table Discussion (Majestic Hall)
X.	15:00 - 16:00	End of the IC-FTAI'2024 Conference