



Rafik Zayani



Présentation

I am professor at the **University of Rennes** and Researcher at the **IETR laboratory** (Institut d'Electronique et des Technologies du numéRique)

Parcours

- 2020 – HDR – CNAM-Paris
- 2009 – PhD - ENIT, Tunis
- 2004 – MSc – ENIT, Tunis
- 2003 – ING – ENIT, Tunis
- Since 2024 – Professor - researcher at the **University of Rennes**
- Since 2021 – Professor at Tunis **ElManar University – Innov'COM at Sup'Com**, Tunis
- 2021-2024 – Senior research scientist & Project Leader at **CEA-Leti**
- 2018-2020 – H2020 MSCA Invited Professor – **CNAM-Paris**
- 2009-2021 – MCF – Tunis ElManar University – Innov'COM at Sup'Com, Tunis

Activités de recherche

Rafik Zayani is an established researcher with long experience in Multicarrier Communications (OFDM), Energy Efficiency (EE) enhancement by: Transmitter linearization techniques (Baseband DPD) and PAPR reduction, High Power Amplifier Characterization, Neural Network, Identification modeling and equalization, MIMO technologies. Moreover, he has worked on enhanced multicarrier waveforms, such as FBMC-OQAM, UPMC, GFDM, BF-OFDM, WOLA-OFDM,

He has contributed in several European (EMPHATIC) and French (WONG5, POSEIDON) projects that aims at designing flexible air-interfaces for future wireless communications (5G and Beyond). He was the coordinator of The Carnot ALEX6 and PEPR PERSEUS projects focusing on cell-free massive MIMO, a technology that eliminates conventional cell boundaries and enables distributed, user-centric connectivity.

Mon apport au sein du projet RIS3



Research :

PHY layer, 5G, 6G, Distributed communications, distributed computing, semantic communications, Stacked Intelligent Metasurfaces, Generative communications, Over-the-air computing.

Teaching :

Digital communications, Advanced digital communications, Networking.

Activities :

- Setting up the research project NEXCOM Passed the first phase (with 1.5 M€ granted by the PEPR Futur Networks)
- Setting up an international Master's program in Intelligent Communicating Systems
- Setting Professional trainings in :
 - Radio interface 5G, 6G,
 - Supervision and management of computer networks,
 - Exploiting Generative AI.

Publications



2025

<http://arxiv.org/abs/2503.17562>

2024 and earlier :

<https://scholar.google.fr/citations?user=8PZ0tL6HeZkC&hl=fr>