

DATE	TIME	VENUE	FORMAT
24 OCTOBER 2026	1:00-4:00 PM	ACROS FUKUOKA	IN-PERSON + ONLINE

FOUR PERSPECTIVES. ONE RFIC FRONTIER.

Reflectionless front ends | RFIC-PMIC integration | Human-guided AI | Intelligent passive design

WORKSHOP OVERVIEW

RF and millimetre-wave integrated circuits are central to next-generation wireless communication, sensing, and intelligent systems, yet their design increasingly demands tighter integration, higher efficiency, and more systematic exploration of complex design spaces. This workshop brings together complementary perspectives on reflectionless filtering, RFIC-PMIC integration, first-principles circuit innovation, and AI-assisted passive design. The aim is to connect physical insight, practical implementation, and intelligent design methodologies, while examining where AI can genuinely accelerate engineering and where expert judgement remains indispensable.

FEATURED TALKS



Prof. Li Yang, Professor and IEEE Senior Member.

South China University of Technology (SCUT), China.

Research interests include reflectionless, reconfigurable, and multifunctional RF/microwave filtering circuits.

Reflectionless Filtering Circuits for Power-Efficient RF Front-End Chains

Reflectionless networks absorb unwanted out-of-band signals instead of sending them back through the RF chain. The talk explains key circuit concepts and shows how improved impedance behaviour can strengthen efficiency, stability, isolation, and integration in power-sensitive front ends.



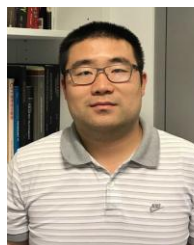
Prof. Ke-Horng Chen, Chair Professor and IEEE Fellow.

National Yang Ming Chiao Tung University (NYCU), Taiwan.

Associate Dean at NYCU. Leads research in mixed-signal and advanced power-management integrated circuits.

When PMIC Meets RFIC: Power Management for Next-Generation RF Systems

The talk examines coordinated PMIC-RFIC design, dynamic power delivery, fast transient control, and advanced integrated-power techniques. It highlights how closer interaction between power management and RF circuitry can enable efficient, responsive, and highly integrated next-generation RF platforms.



Prof. Xi "Forest" Zhu, Associate Professor and IEEE Senior Member.

University of Technology Sydney (UTS), Australia

Research spans RFIC/MMIC, analog and mixed-signal circuits, and AI-assisted design.

From First Principles to Artificial Intelligence: Advancing RF and Millimetre-Wave Integrated Circuit Design

The talk traces a journey from first-principles analysis and expert-led innovation to human-guided AI. Examples from filters, reflection management, broadband and efficient power amplifiers, and intelligent design automation show how physical insight and data-driven search can complement each other.



Dr. Tianqi Chen, R&D Engineer and IEEE Member.

Synwave Pty Ltd, Australia.

Works on practical RF and millimetre-wave circuit development, with a focus on commercialization of AI-assisted design.

AI-Assisted Design of RF and Millimetre-Wave Passive Circuits

The talk presents AI-assisted passive-circuit design, focusing on complex geometry-performance relationships, faster electromagnetic optimisation, and broader design-space exploration while preserving engineering constraints, physical consistency, and final full-wave verification.

FEATURED PANEL

RFIC Design in the Age of AI: Replacing or Amplifying Expert Judgement?

A forward-looking discussion on where AI can accelerate design, where physical knowledge must guide it, and how human expertise remains essential from architecture to measurement.

FREE HYBRID WORKSHOP

No registration required

IN PERSON
ACROS FUKUOKA

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MEETING DETAILS
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