

SUMMER SCHOOL ON: MICROWAVES AND mm-WAVES FOR THE DESIGN OF ADVANCED WIRELESS LINKS: COMMUNICATION, SENSING AND POWER TRANSFER

JUNE 15-20, 2026
UNIVERSITY OF PISA, ITALY

PROGRAM AND INFO:



THE SUMMER SCHOOL IS INTENDED FOR UNDERGRADUATE, GRADUATE, AND PHD STUDENTS, AS WELL AS PROFESSIONALS, IN ICT AND STEM FIELDS.

- **TEACHING LANGUAGE: ENGLISH**
- **48 H OF LESSONS WITH FACULTY MEMBERS AND INDUSTRY EXPERTS**
- **HYBRID MODE: ONLINE AND IN-PRESENCE CLASSES**
- **PARTICIPANTS RECEIVE A CERTIFICATE OF ATTENDANCE**
- **6 ECTS GRANTED (REQUIRE PROJECT WORK DUE ON AUGUST 30, 2026)**
- **MAX 50 PARTICIPANTS**

FEES

- **SUBSCRIPTION FEE: 250 €**
- **UP TO FOUR TUITION-FEE WAIVERS ARE AVAILABLE FOR INTERNATIONAL STUDENTS, WITH PRIORITY GIVEN TO WOMEN AND STUDENTS WITH SPECIAL NEEDS FROM DEVELOPING COUNTRIES.**

IMPORTANT DATES

- **APRIL 1, 2026: APPLICATION DEADLINE FOR TUITION-FEE WAIVERS**
- **APRIL 14, 2026: TUITION-FREE WAIVERS ANNOUNCEMENT**
- **APRIL 30, 2026: GENERAL APPLICATION DEADLINE FOR ALL CANDIDATES**
- **MAY 15, 2026: TUITION-FEE PAYMENT DEADLINE**
- **JUNE 15-20, 2026: SUMMER SCHOOL**

MORE INFO [HERE \(WEBSITE\)](#)

SUMMER SCHOOL INCLUDES AN EDUCATIONAL VISIT TO THE INAF MEDICINA RADIO ASTRONOMICAL STATION WITH GUIDED TOURS OF ANTENNAS AND LABORATORIES



SUPPORTED BY:



IEEE AP/ED/MTT NORTH ITALY CHAPTER



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Day	Morning class	Afternoon class
Monday June 15 9.00-18.00	Welcome message Introduction to the Summer School objectives and contents Paolo Nepa, University of Pisa (Summer School Coordinator) Electromagnetic wave propagation: a ray-optical picture Giuliano Manara, University of Pisa	Guided wave modeling in coaxial cables, printed lines and waveguides Alice Buffi, University of Pisa Microwave device modeling Simone Genovesi, University of Pisa Modeling and characterization of mmWave compound semiconductor devices for high power applications Antonio Mordà, University of Milano-Bicocca, Milano
Tuesday June 16 9.00-18.00	The antenna as a system component Paolo Nepa, University of Pisa Analysis and design of passive devices: modeling and numerical simulation Andrea Michel, University of Pisa	Fundamentals of transceivers for communication systems Francesco Pieri, University of Pisa Manipulating microwaves and mm-waves with periodic structures Filippo Costa, University of Pisa
Wednesday June 17 <u>Educational visit</u> <u>and lectures</u> Medicina Radio Astronomical Station (Bologna) 8.00-20.00	Transfer from Pisa to Medicina (by private bus) Antennas for radio astronomy Pietro Bolli, INAF, Florence Radio astronomical receivers Marco Poloni, INAF, Medicina, Bologna Protection of radio astronomy Federica Caputo, INAF, Medicina, Bologna Class-building lunch	Guided tour of the Visitor Center Simona Righini, INAF, Medicina, Bologna Optical fibre in radio astronomy Giovanni Tartarini, University of Bologna Federico Perini, INAF, Medicina, Bologna Guided tour to the antenna sites Simona Righini, INAF, Medicina, Bologna Link a video gallery Return to Pisa (by private bus)
Thursday June 18 9.00-18.00	Advanced Systems for High Throughput Satellite Communications Martina Angelone, European Space Agency, Noordwijk, The Netherlands Advanced Distributed Antenna Systems: RF Propagation Insights and Design Principles Marco Fantuzzi, JMA Wireless, Bologna	Fundamentals of satellite communications: a hands-on approach Filippo Giannetti, University of Pisa Microwaves and High-Speed Photonics: Applications to 6G Systems Roberto Sabella, Ericsson Research, Pisa
Friday June 19 9.00-18.00	Wireless Transport for 5G backhaul ... and more Francesca Rosati, Nokia Italia, Milano 5G mmWave: Industry Perspectives on Design and Deployment Dr. Danilo De Donno, Huawei Italy Research Center, Milano	Devices and architectures for battery-less RF systems Alessandra Costanzo, University of Bologna Wireless communication systems and technologies: from the basics to 5G standards Giacomo Bacci, University of Pisa
Saturday June 20 9.00-16.00	Automotive mm-wave radar sensors Sergio Saponara, University of Pisa Wave propagation in complex environments and multipath models Pierpaolo Usai, University of Pisa	Project-work assignment