



ANNUAL CNR IEIT - UNIFI DII WORKSHOP



CNR-UNIFI SYNERGY FOR SCIENTIFIC AND SOCIAL CHALLENGES

7 - 8 July 2025

Aula Magna "Ulisse Dini", Scuola di Ingegneria
Largo Lucio Lazzarino 1 - Pisa



Istituto di Elettronica e di Ingegneria
dell'Informazione e delle Telecomunicazioni



UNIVERSITÀ DI PISA



DIPARTIMENTO DI
INGEGNERIA
DELL'INFORMAZIONE

ANNUAL CNR IEIT – UNIFI DII WORKSHOP

Aula Magna “Ulisse Dini”, Pisa, 7-8 July 2025

Detailed Session Programme

Monday July 7, 14:00 – 17:10

Opening Session (14:00 – 14:40)

- 14:00 **Welcoming: Paolo Ravazzani** (Direttore CNR-IEIT) **Sergio Saponara** (Direttore DII Università di Pisa)
- 14:15 **Institutional Opening Remarks:** **Emilio Fortunato Campana** (Direttore CNR-DIETET), **Riccardo Zucchi** (Rettore Università di Pisa), **Frida Scarpa** (Assessore, Comune di Pisa), **Antonio Mazzeo** (Presidente del Consiglio Regionale della Toscana)

Round Tables (14:40 – 15:45)

- 14:40 **Pisa and research: Voices from leading institutions**

Partecipanti: **Giuseppe Iannaccone** (Pro-Rettore Università di Pisa), **Roberto Scopigno** (CNR-ISTI in rappresentanza dell'Area della Ricerca di Pisa), **Giuseppe Turchetti** (Pro-Rettore Scuola Superiore Sant'Anna), **Pasqualantonio Pingue** (Area manageriale Ricerca, patrimonio e acquisti, Scuola Normale Superiore), **Valter Tamburini** (Presidente Camera di Commercio Toscana Nord-Ovest: Pisa, Lucca, Massa-Carrara)

Moderatore: **Andrea Passarella** (CNR-IIT)

- 15:10 **CNR and University: Research Under the Same Roof**

Partecipanti: **Paolo Ravazzani** (Direttore CNR-IEIT), **Sergio Saponara** (Direttore DII Università di Pisa), **Gaetano Scamarcio** (Direttore CNR-NANO)

Moderatore: **Roberto Scopigno** (CNR-ISTI in rappresentanza dell'Area della Ricerca di Pisa)

- 15:45 Coffee break

ICT for Connected Society (16:15 – 17:10)

- 16:15 *Invited speech* – **Antonio Capone** (Politecnico di Milano)
- 16:30 **Stella Civelli** (CNR-IEIT): “Fiber Nonlinearity Mitigation in Coherent Optical Systems”
- 16:40 **Filippo Giannetti** (UNIFI DII): “Integrated communication and sensing: the amazing potential of satellite signals”
- 16:50 **Barbara Mavi Masini** (CNR-IEIT): “From Connectivity to Cooperation: The Impact of V2X in the Connected Society”
- 17:00 **Gregorio Procissi** (UNIFI DII): “Safe and Efficient Network Functions Programming: eBPF and Beyond”

Tuesday July 8, 9:00 – 14:15

ICT for Smart Communication and Sensing (9:00 – 9:55)

- 9:00 *Invited speech* – **Nicola Blefari Melazzi** (Università di Roma Tor Vergata)
- 9:15 **Francesco Alessio Dicandia** (CNR-IEIIT): “Electromagnetic Wave Manipulation Using Dielectric Transmitarray”
- 9:25 **Andrea Ria** (UNIFI DII): “Smart electronic for next generation sensor systems”
- 9:35 **Fabrizio Dabbene** (CNR-IEIIT): “Cooperation of autonomous systems for agriculture 5.0”
- 9:45 **Maria Sabrina Greco** (UNIFI DII): “Smart use of waveforms for communication and sensing”
- 9:55 Coffee break

ICT for health (10:25 – 11:20)

- 10:25 *Invited speech* – **Emilia Ambrosini** (Politecnico di Milano): “Bioengineering Solutions for Neurorehabilitation: Technology-Driven Recovery”
- 10:40 **Francesca Bontempi** (CNR-IEIIT): “Integrated ICT-Based Sensing Platforms for Environmental and Biological Health Monitoring”
- 10:50 **Nicola Vanello** (UNIFI DII): “From neurons to voices: biomedical signal and image processing in neuroscience”
- 11:00 **Emma Chiaramello** (CNR-IEIIT): “Magnetolectric nanomaterials: new frontiers for bioengineering and neural rehabilitation”
- 11:10 **Giuseppe Barillaro** (UNIFI DII): “Implantable Bioresorbable Sensors for Advanced Clinical Diagnostics”

ICT for Aerospace (11:20 – 12:15)

- 11:20 *Invited speech* – **Carlo Ciancarelli** (Thales Alenia Space Italia): “Overview of research and innovation in the space sector through advanced technologies”
- 11:35 **Salvatore Maresca** (CNR-IEIIT): “Space-borne Hyperspectral Data Exploitation: from Remote Sensing to Surveillance”
- 11:45 **Salvo Marcuccio, Matteo Gemignani, Sergio Saponara** (UNIFI DICI & DII): “The Excite Cubesat Innovative Experiments”
- 11:55 **Giuseppe Virone** (CNR-IEIIT): “From Low Earth Orbits to Mars: Collaboration Opportunities in Space Communication and Sensing at CNR-IEIIT”
- 12:05 *Invited speech* – **Gabriele Meoni** (European Space Agency): “Edge computing in space: the ESA Φ-lab initiatives”
- 12:30 Lunch break

Closing Remarks (14:00 – 14:15)