

Message From the Chairpersons

The growing strategic importance of environmental, energy, and structural monitoring boosts the need for flexible, effective and innovative solutions for design methods and implementation technologies with strong adaptation and evolution capabilities. The 2018 IEEE Workshop on Environmental, Energy, and Structural Monitoring Systems aims to discuss the most recent advances in complex monitoring systems from a cross- disciplinary perspective, encompassing technology, methods and applications. The workshop contributes to the international scientific and technological debate about very critical topics at world-level as environmental monitoring, smart structures, sensor and instrumentation, critical infrastructure monitoring, energy and electrical power systems monitoring,safety.

The workshop is sponsored by the IEEE Italy Section, with the support and promotion of the IEEE Italy Section Systems Council Chapter, the IEEE Italy Section Instrumentation and Measurement Society Chapter and the IEEE Environmental Engineering Initiative. This year it has been organized with the support of University of Salerno, Italy.

The workshop is held in the Province of Salerno, one of the gems of the Mediterranean, and specifically in the historical center of Salerno. The city, which in the past was the symbol of one of the most flourishing cultural and commercial center, home to the famous Medical School of Salerno, today is the laboratory of a world-class, urban revamp model, wherein tradition, culture and innovation coalesce, proposing a place of extraordinary beauty and a welcoming community for the visitors from all over the world.

Many people contributed to the realization of IEEE EESMS 2018. We wish to thank those who spent their time and efforts in shaping the technical program, reviewing papers, preparing the proceedings, managing administrative and logistic aspects, and setting up the social functions.

We hope that the 2018 EESMS experience will be interesting and enriching for all the attendees, and that the research achievements presented in the workshop as well as the interactions with the other participants will inspire your future work and collaborations.

Welcome to the IEEE EESMS 2018 in Salerno!

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Keynote speech: Thursday, June 21 | 2:15 PM

Francesco Roca | Research Manager – ENEA DTE Energy Technologies Department Project Innovation
Officer of EEN - Enterprise Europe Network

***“Enterprise Europe Network helping Energy, Environment, Materials, ICT Industry & services,
Nano and Micro technologies companies to innovate and grow internationally”***



Speaker biography:

Francesco ROCA since 1984 in ENEA is a physicist specialized in interaction of ionizing and non-ionizing radiation with organic and inorganic materials.

As scientist, he is involved in growth and characterization of thin film semiconductors, amorphous/crystalline silicon. surface treatment by plasma and Silicon heterojunctions, PV concentrator technology and advanced PV cells; development of smart PV modules with improved functionalities.

As research manager, he coordinates the participation of his organization to National/international Research Projects (2001- to date). He has been project and WP leader of several national/international project on PV (FIRB- FOTOENERGIA, 7FP- SOPHIA & SOPHi@webinar, FP7-CHEETAH, 7FP-ECOSOLE, 7FP-NGCPV, 7FP- COSTRUCT_PV, 7FP-BFIRST, 7FP-HETSI, 5FP-MOPHET, 5FP-ASINET, 5FP-PVECNET). He also promotes R&D activity and networking activities in Solar Energy and their Environmental Impact, assessment in Europe and Mediterranean Area, promotion of personnel Exchange and training of researchers. He is also leading 7FP- CHEETAH WP2 Fostering the use of existing facilities and expertise. In this frame he is also the responsible of CHEETAH Knowledge Exchange Platform, the reference database for CHEETAH project and the European PV community.

He has organized/co-organized national/international workshops. He is author/coauthor and reviewer of scientific papers/chapters of books. Since 2008 member of the Scientific Committee of EU PVSEC. He also acts as ENEA Representative for the participation in Photovoltaics to European Energy Research Alliance EERA-PV and to AIREn the Italian Alliance for the Research on Energy. He is Member of the expert Pool of European PV Technology Platform.

He has worked as adjunct professor on Advanced PV Technologies at MIF-Uni Tor Vergata 2008-2012.

Abstract:

EEN-Enterprise Europe Network <https://een.ec.europa.eu/> partially funded through the EU's Competitiveness and Innovation Framework Programme (CIP) and currently by COSME, the Europe's programme for small and medium-sized enterprises was launched in 2008 by the European Commission by combining the previous Euro INFO-Information desks coordinated by the European Commission with the task of providing companies with financial instruments and any other facilitation of the same nature, with the Innovation Relay Centres, (IRC) the network of trans-national technology cooperation agents offering a gateway for enterprises to access a wider world of innovation and the technological breakthroughs that can make their businesses more competitive.

EEN Network forms the world's largest business and innovation support network having the aim to help small business to make the most of the European marketplace by comprising over 3000 innovation and business advisors in over 600 teams across Europe and beyond spanning more than 60 countries.

EEN Sector groups <https://een.ec.europa.eu/about/sector-groups> join together in 17 key sectors from all across the Enterprise Europe Network international business expertise with local knowledge to help SMEs business grow through tailored support and new partnerships by also advising them on how to find partners to apply for EU- funded joint research projects.

ENEA is actively participating to EEN and EEN Sector group partnership to help SMEs and Research/Academic clients to find co-operation partners, to promote innovative technologies, to support clients in finding innovative technological solutions for the product development, to propose joint cooperative research projects at transnational level, to learn about EU programmes and apply for grants, and last but not least to find potential partners through technology-oriented brokerage events and company missions to turn their innovative ideas into international commercial successes,

The Research and Technical community isn't totally aware of the potential offered by EEN networks to support them in International partnerships, growth and expansion into international markets. This presentation allows to recover this lack, presenting during IEEE Workshop on Environmental, Energy, and Structural Monitoring Systems not only the network and its potential, but also some of best practices and success stories of Sector Group Intelligent Energy, Sustainable Energy, Environment, Materials, ICT Industry & services, Nano and Micro technologies Construction.

About ENEA:

ENEA, the Italian National Agency for New Technologies, Energy and Sustainable Economic Development is a public Research body supporting by research, technological innovation and the provision of advanced services enterprises, public administration and citizens in the sectors of energy, the environment and sustainable economic development. By its highly qualified personnel, advanced laboratories, experimental facilities and excellent instruments distributed in nine Research Centres throughout the country, in addition to five local laboratories performs the realisation of projects, studies, tests, assessments, analyses and training services in the field of energytechnologies (renewable sources, energy storage, smart grids), for which the Agency is also the coordinator of the Energy National Technology Cluster, nuclear fusion and nuclear safety (the Agency is the reference national research coordinator), energy efficiency (with the National Agency for Energy Efficiency), technologies for cultural heritage, seismic protection, food safety, pollution, life sciences, strategic raw materials, climate change. Among the emerging issues, is circular economy, which sees ENEA designated as the National Agency for the efficient use of resources and sustainable mobility.