

#### **Supervisor Expression of Interest**

# MSCA domain Information Science and Engineering (ENG)

**1. Giovanni Besio 2. Chiara Calderini 3. Diego Colombara 4. Lucio Marcenaro 5. Michela Robba 6. Gualtiero Volpe** 



## **Supervisor Expression of Interest**

.First Name	Giovanni
Last Name	Besio
Orcid ID	0000-0002-0522-9635
Other information	https://rubrica.unige.it/personale/VUZBX19g
MSCA domain	Information Science and Engineering (ENG)
Research focus area	Coastal Engineering
Department	Department of Civil, Chemical and Environmental
	Engineering - DICCA
Short description of the	The research group is active in the field of Coastal
department/laboratory/r	Engineering, Coastal Morphodynamics and Mixing
esearch group	Processes in the Ocean
Candidate fellows must	giovanni.besio@unige.it
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## **Supervisor Expression of Interest**

First Name	Chiara
Last Name	Calderini
Orcid ID	https://orcid.org/0000-0002-1525-5095
Other information	https://rubrica.unige.it/personale/UkNHX1Nr
MSCA domain	Information Science and Engineering (ENG)
Research focus area	Protection of cultural heritage from natural hazards
Department	Departiment of Civil, Chemical and Environmental Engineering (DICCA)
Short description of the department/laboratory/ research group	Holding a PhD in Structural Engineering and Geotechnics and a Master Degree in Architecture, Chiara Calderini has a multi-disciplinar background. Her research activity is addressed to the hydro-geological and seismic risk of historical constructions. She has pubblished more than 100 paper on the structural behaviour of historical buildings and she is currently member of the Editorial Board of the "International Journal of Architectural Heritage". She is the scientific Responsible of the "Laboratory of Material and Structures". Morevoer, she is Member of the Academic Board of the Doctoral Program in "Architectural and Landscape Heritage" of the Polytechnic University of Turin. She was recently managed the following research projects: - "Seismic Response of Masonry Cross Vaults shake table tests and numerical validations", European Commission, H2020-EU.1.4.1.2 Integrating and opening existing national and regional research infrastructures of European interest by the European Community, INFRAIA-01-2016- 2017, Integrating Activities for Advanced Communities, Seismology and Earthquake Engineering Research Infrastructure Alliance for Europe (SERA) (2019-2022), as Principal Investigator.



	- "Protecting the Cultural Heritage from water-soil
	interaction related threats", MIUR, PRIN 2015 (Prot.
	2015EAM9S5), as Scientific Responsible of the Research
	Unit of the University of Genova.
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## **Supervisor Expression of Interest**

First Name	Diego
Last Name	Colombara
Orcid ID	0000-0002-8306-0994
Other information	https://rubrica.unige.it/personale/UkNEWF9r
MSCA domain	Information Science and Engineering (ENG)
Research focus area	Chalcogenide semiconductors for photovoltaic
	applications
Department	Chemistry and Industrial Chemistry
Short description of the department/laboratory/ research group	Particular interest is devoted to chalcogenide semiconductors for photovoltaic applications, from fundamental to industrial perspectives. This research line encompasses both thermodynamics and kinetics (synthesis, phase stability and compatibility, solid-gas equilibria), as they relate to point defects and device performance, with a special emphasis on extrinsic doping and associated solid state diffusion phenomena. Synthetic and characterization techniques include: thin film electroplating, reactive annealing, chemical vapour transport, liquid ammonia handling and electrochemical photocurrent spectroscopy. Collaborations includes: University of Bath, University of Luxembourg, Luxembourg Institute of Science and Technology, Max-Planck Institut fuer Eisenforschung, University of Versailles, International Iberian Nanotechnology Laboratory and National Renewable Energy Laboratory.
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# **Supervisor Expression of Interest**

First Name	Lucio
Last Name	Marcenaro
Orcid ID	0000-0003-1515-120X
Other information	https://rubrica.unige.it/personale/VUZBU1hs
MSCA domain	Information Science and Engineering (ENG)
Research focus area	Emergent and incremental collective self-awareness in
	multisensor physical agents: this research will study novel
	signal processing techniques based on probabilistic
	graphical models and dynamic Bayesian networks for
	understanding and modeling the dynamics of cognitive
	systems and their interactions and learn how to transfer
	this acquired knowledge to other artificial systems.
Department	Electrical, Electronics and Telecommunication Engineering
	and Naval Architecture Department
Short description of the	The ISIP40 Research Unit (Information and Signal
department/laboratory/	Processing for Cognitive Telecommunications) research
research group	lines are related to theories, methods, and techniques for
	information processing and learning to develop artificial
	dynamic cognitive systems with application in the ICT
	sector.
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# **Supervisor Expression of Interest**

First Name	Michela
Last Name	Robba
Orcid ID	https://orcid.org/0000-0002-0032-9493
Other information	https://rubrica.unige.it/personale/UkNHWFxq
MSCA domain	Information Science and Engineering (ENG)
Research focus area	The research focus is related to sustainable energy and
	transportation systems, with specific reference to the
	development of models and methods for planning,
	management and optimal control.
	In particular, the research should focus on: optimization,
	optimal control, models' identification, simulation.
Department	Department of Informatics, Bioengineering, Robotics and
	Systems Engineering
Short description of the	The laboratory is composed of about ten people that work
department/laboratory/	in the field of sustainable transportation and energy
research group	systems, with specific reference to smart grids, electrical
	mobility, traffic, logistics, manufacturing and energy
	management systems in general. The research group has
	the possibility to test methods and models on the test-bed
	present at the Savona Campus (Smart Polygeneration
	Microgrid: http://www.energia2020.unige.it/en/spm/).
Candidate fellows must	michela.robba@unige.it
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## **Supervisor Expression of Interest**

6.	
First Name	Gualtiero
Last Name	Volpe
Orcid ID	0000-0003-0760-4627
Other information	https://rubrica.unige.it/personale/UkNHWVls
MSCA domain	Information Science and Engineering (ENG)
Research focus area	Research concerns intelligent, affective, and social human-machine interaction. Activities address multimodal interactive systems, i.e., systems that are able to analyze the behavior of their users by capturing and processing data from different sensory channels (e.g., gesture, facial expression, and speech) and that can generate multisensory feedback (e.g., auditory and visual feedback). In this framework, research especially focuses on real-time automatic analysis of nonverbal affective and social behavior, with particular reference to full-body movement and gesture and to social signals in small groups of users. Applications are expected in the area of education, cultural heritage, rehabilitation, and the performing arts.
Department	Department of Infomatics, Bioengineering, Robotics, and Systems Engineering - DIBRIS
Short description of the department/laboratory/r esearch group	Casa Paganini - InfoMus (www.casapaganini.org) carries on scientific research and design, development, and experimentation of multimodal interactive systems. Research addresses computational methods for real-time analysis of nonverbal multimodal expressive and social interaction, with a particular focus on human movement and gesture (e.g., full-body movement and dance) and sound (e.g., music and interactive sonification). Casa Paganini - InfoMus has its premises in the monumental building of S. Maria delle Grazie La Nuova in the historical



	center of Genova. The building is endowed with a 230-seat auditorium. A 16-cameras Qualysis motion capture system is installed on the stage of the auditorium, providing an ecological environment for experiments. The motion capture system is integrated with other sensor systems (including professional video cameras, microphones, activity wearable sensors, and physiological sensors) in the EyesWeb platform and can be used for synchronized recordings of multimodal data. Moreover, the whole monumental building is endowed with a technological infrastructure, including fast network, audio and video connections. Multichannel audio devices, video projectors, and Augmented Reality devices are also available at the research center.
Candidate fellows must send their candidature with a short description of their profile to the following email address	gualtiero.volpe@unige.it