

# Ambient Assisted Living 13° Forum - Firenze 2024

Summer School Program
25-26 June 2024



# **Program Overview**

# TUESDAY 25 June Centro Didattico Morgagni, Room 102

10:00	Registration Open		
10:45	Opening Summer School		
11:00 - 12:00	Architecture and Technology Integration in healthcare spaces to promote health  Prof. Nicoletta Setola, University of Florence  Dr. Elena Bellini, University of Florence		
12:00-13:00	ICTs for social- and health-care tele-monitoring applications Prof. Lorenzo Mucchi, University of Florence		
13:00 - 14:00		Light Lunch	
14:00 - 15:00	<b>Robotics and Al</b> Dr. Alessandra Sorrentino, University of Florence		
15:00 - 16:30	Lessons learnt from Pharaon Italian pilots Dr. Laura Fiorini, University of Florence		
16:30 - 17:00	Tour of the Biomedical and Robotics Lab - UNIFI		

WEDNESDAY 26 June Istituto degli Innocenti, Sala Brunelleschi

(see details in ForItAAL Program)

09:00	Open Ceremony		
09:30	Innovation in Action: Pharaon pilot results		
11:00		Coffee Break	
11:30 Transforming care and lives: Pharaon's journey towards			



# **Invited Speakers**



# **Prof. Nicoletta Setola**

#### University of Florence

Nicoletta Setola, architect, since 2019 Associate Professor in Architectural Technology at the Department of Architecture, UNIFI. She is a member of the TESIS Centre & and Technologies for Health and Social Facilities & Member of European Network Architecture for Health (ENAH), and

co-founder member of Global Birth Environment Design Network (GBEDN). Her research focuses on the relationship between the built environment and human health, and how architecture can promote the people physical, psychological and social wellbeing in different spatial environments (urban environment and socio-healthcare buildings). She is expert in methodology and tools for spatial analysis Space Syntax. Currently she is involved in the PNRR projects PE8 AGE-IT "Aging Well in an Aging Society" and "THE-Tuscany Health Ecosystem". She collaborates with foreign universities - Tonji University (CH), Chalmers University (SW), Notre Dame University (USA), OCAD Toronto (CA). She is teaching the Architectural Technology Laboratory and Environmental Design courses at the School of Architecture in Florence.



# Dr. Elena Bellini

#### University of Florence

Architect, PhD in Architectural Technology. With the doctoral thesis "ASD: architecturAbility. "Therapeutic" sensory environments to make able. A lifespan project for people with Autism Spectrum Disorders" won the awards: FUP 2018 and Arch Giovanni Neri Serneri (ed XIII). Currently research

fellow at the Department of Architecture of the University of Florence (DIDA-UNIFI) in the project "Sensory design for spaces of territorial socio-health structures for healthy and active aging" - PNRR project PE8



AGE-IT "Aging Well in an Aging Society". She has contributed to many researches, including: "Health promoting buildings and healthy neighborhoods. Territorial socio-health structures in the Tuscan health ecosystem" - PNRR project "THE-Tuscany Health Ecosystem" (2023); "Methods and tools to support healthcare institutions in the definition of the requirements framework and the analysis of design layouts" for Terni Hospital (2022-23); "Transformational Change for Birth Environment: Knowledge mobilization for a new architectural paradigm" for OCAD University Toronto (2021); "A.I.CARE Art, Identity and Care in public spaces of Santa Maria Nuova Hospital in Florence" (DIDA-UNIFI) (2018). Adjunct professor since 2019 in Building Systems Design, international i-Cad Architecture course, DIDA-UNIFI. Co-founder, co-CEO, R&D coordinator since 2015 of DU IT, an innovative startup of sensory environments in hospitals, schools, social and healthcare buildings, in Italy and Europe; today DU IT is an engineering company who designs inclusive and sensorial architecture, such as: Humanization Project for the New Children's Hospital of Padua; Co-housing for independent living, day center and sensory rooms for the Turati Foundation Onlus; Campus for Autism for USL Central Tuscany-Empolese Valdarno. She also coordinated for DU IT the Ho2020-RISE project "MinD - Designing for People with Dementia" (2016-9) and "P.I.S.T.A. - Sensory-perceptive integrated design approach for birth spaces " (DIDA-UNIFI, Tuscany South-East health trust board, Grosseto Hospital, Tuscany Region, 2018-20). Member of the Order of Architects of Florence, the TESIS Research Center, the SITdA-Italian Society of Architectural Technology, the CNETO-National Center for and Technology, and the Italian Society of Hospital Construction Technology.



# **Prof. Lorenzo Mucchi**

#### University of Florence

Lorenzo Mucchi is an associate professor in the Department of Information Engineering at the University of Florence, with experience in various fields: from the Internet of Medical Things (IoMT), to cybersecurity, from visible light communications, to molecular communications

within the human body. He has published more than 200 papers in



international journals and conferences, and is a senior member of the IEEE and chair of the Smart Body Area Networks group of the European Telecommunication Standardization Body (ETSI). He has carried out several national and international research and development projects, especially in the field of e-health. He is the scientific coordinator of the Joint Research Laboratory on ICT technologies for medical-healthcare applications, which includes six departments of the University of Florence, the Azienda Sanitaria Locale (USL-TC), the Società della Salute di Firenze (SdS) and private companies.



### **Dr. Alessandra Sorrentino**

# University of Florence

Alessandra Sorrentino is a PostDoc Research Fellow at the University of Florence (Florence). She received a master's degree in Artificial Intelligence and Robotics from the University of Rome "La Sapienza", Italy, in 2018, and a Ph.D. (cum laude) degree in BioRobotics from the BioRobotics Institute, Scuola Superiore Sant'Anna, in 2022. Her

research focuses on developing socially intelligent robots, aiming at adapting their behaviors according to their users, for establishing trustworthy interactions, and to end-users' needs, for providing personalized assistance. She is interested in socially assistive robotics, human-robot interaction, affective computing, and Al-based control. Over the years, she collaborated on national and international projects, such as ACCRA, CloudIA, Pharaon. Currently, she is Task leader with AGE- IT project.



Dr. Laura Fiorini

#### University of Florence

Laura Fiorini is an assistant professor at the University of Florence, Department of Industrial Engineering, Florence, Italy. She received the M.Sc. Degree in Biomedical Engineering at the University of Pisa in 2012 (full marks, cum laude). She obtained a Ph.D. in Biorobotics (full marks, cum

laude) at the BioRobotics Institute of Scuola Superiore Sant'Anna, in 2016. In



2015 she visited the Bristol Robotics Labo- ratory at the University of West England (Bristol, UK). From 2016 to 2020, she was a postdoc researcher at the BioRobotics Institute and she collaborated on different EU and national projects such as Robot-Era, ACCRA, CloudIA, and SI-ROBOTICS. Currently, she is the coordinator of the Italian pilot site of the Pharaon Project.