LIST OF CHAIRS

"AdaPtive beHavioRal mODels of robotic systems based on brain-inspired AI cogniTivE architectures (APHRODITE)"

Main organiser

Laura Fiorini
the BioRobotics Institute, Scuola Superiore Sant'Anna, Viale Rinaldo Piaggio 34, 56025, Pontedera (Pisa), Italy
050 883478 - laura.fiorini@santannapisa.it

Dr. Laura Fiorini is a post-doc fellow at the BioRobotics Institute of Scuola Superiore Sant'Anna. Previously she was appointed as Visiting Scholar at Bristol Robotics Laboratory (UK) from April to October 2015. She received the Laurea (MSc Biomedical) with honours at the University of Pisa, Italy, on April 2012 and the PhD in BioRobotics (with honours) from the Biorobotics Institute of Scuola Superiore Sant'Anna on February 2016. Her research interests include Ambient Assisted Living, Cloud Service Robotics, ICT system for dual-task cognitive activation, pattern recognition, signal processing and experimental protocol definition. She is the coordinator of the Italian pilot site of the PHARAON project (H2020 on social robotics for active and healthy ageing). Additionally, she is a senior investigator in interdisciplinary research in healthcare projects, e.g. the H2020 ACCRA project (2016-2019) for the development of assistive robotics solution for personal mobility with a co-creative approach. FP7 ROBOT-ERA project (2012-2015) concerning the implementation and evaluation of 3D robotic services for supporting the elderly in daily life activity. Other European and national projects where she is/was actively involved are SI-ROBOTICS, CloudIA and AALIANCE2. She serves the scientific community as editor of informatics (MDPI), Frontiers on Robotics and AI and as advisory board member of Sci (MDPI). Additionally, she is a programme committee member of International Conference On Ubiquitous Computing And Ambient Intelligence (UCAmi) from 2016.

Co-organisers

Filippo Cavallo
The BioRobotics Institute, Scuola Superiore Sant'Anna, Pisa, Italy, filippo.cavallo@santannapisa.it

Filippo Cavallo, MScEE, Phd in Bioengineering, is Assistant Professor at the BioRobotics Institute of Scuola Superiore Sant'Anna, (Pisa, Italy), focusing on cloud and social robotics, wireless and wearable sensor systems, biomedical processing, acceptability and ICT roadmapping. He participated in various National and European projects and currently is principal investigator for Scuola Superiore Sant'Anna of the ACCRA, PHARAON projects (H2020 on social robotics for active and healthy ageing) and Suma, CloudIA, Capsula and Corsa projects (Tuscany Region on service robotics for industry 4.0) and SI-Robotics project (National PON for social robotics). Recently he was also project manager of Robot-Era, AALIANCE2 and Parkinson Projects. He was visiting researcher at the the EndoCAS Center of Excellence, Pisa, Italy working in Computer Assisted Surgery (2005-2007); at the Takanishi Lab, Waseda University, Tokyo, Japan working on wireless sensor network (2007); at Tecnalia Recerch Center, Basque Country, Spain working on wearable sensor system for AAL. He was granted from the International Symposium of Robotics Research Committee as Fellowship Winner for best PhD thesis in Robotics (2007); from the Regional POR FSE 2007-2013 for a 3-years Research position at The

BioRobotics Institute, Scuola Superiore Sant'Anna, Pontedera, Italy (2010-2013); from the ACCESS-IT 2009 for the Good Practise Label in Alzheimer Project (2009); from the Well-Tech Award for Quality of Life with the Robot-Era Project (2014); from the SMAU Award for Quality of Life with the Robot-Era Project (2014), from iNEMO Challenge from STMicroelectronics (2015) and different best papers. In 2016 he was also chair of the Italian Forum of Ambient Assisted Living and related Summer School in Italy. He is author of various papers on conferences and ISI journals.

Gabriella Cortellessa
Conisiglio Nazionale delle Ricerche,Istituto di Scienze e Teconologie della Cognizione, Rome, Italy,
gabriella.cortellessa@istc.cnr.it

Gabriella Cortellessa [M.S. Engineering Computer Science 2001, PhD Cognitive Psychology 2005] is a research scientist at ISTC-CNR. In 2003, she spent one year at Carnegie Mellon University working at the synthesis of user-oriented explanations within mixed-initiative solvers. Her research spans mixed-initiative problem solving, methods for evaluating intelligent systems, evaluation methods for HCI and HRI, user studies. She designed the user interaction front end the deployed tools developed for ESA and led the WP on Dynamic User Modelling in the EU PANDORA project. She has worked in the AAL area since 2007 addressing user evaluation in the RoboCare project. She led the WP on evaluation methodology of the ExCITE project developing a long-term evaluation protocol for the telepresence robot Giraff, specifically to study its impact on the quality of life of older adults. She was Technical Manager for GiraffPlus, which developed an innovative environment integrating a telepresence robot for social interaction with sensors for physical and psychological health monitoring. She worked at SPONSOR and MAESTRO, two projects of the AAL program. She is now PI for CNR in TV-AssistDEM, that aims to develop a TV-based application to monitor and cognitively stimulate people with Mild Cognitive Impairment. She was among the promoters of a series of workshops called SPARK (Scheduling and Planning Applications) co-located with ICAPS, the IPS workshop (Italian Workshop on Planning & Scheduling) and the AI*AAL (Artificial Intelligence for Ambient Assisted Living) held in conjunction with the AI*IA conference being co-chairs for several editions. She is also regularly in the Program Committee of international conferences including IJCAI, AAAI, ICAPS, ECAI, ICAART, AI*IA. She was Workshops Chair at ICAPS'13 and Track Chair of the Novel Applications Track at ICAPS 15&16 and co-chair of the 1st and 2nd Workshop on Social Robotic Telepresence in conjunction with HRI 2011 and Ro-man 2012.

Artur Serrano
the Faculty of Medicine and Health Sciences, Norwegian University of Science and Technology (NTNU), Norway
artur.serrano@ntnu.no
Professor in Assistive technologies at the Faculty of Medicine and Health Sciences, Norwegian University of Science and Technology (NTNU). His main research interests are on new approaches to dementia treatment based on immersive technologies, social robots for care and the general area of user involvement in research. Has been the Primary Investigator on over ten research projects including seven EU-funded projects. He is the leader of the Immersive Technology and Robotics lab (ImRo-lab) at NTNU. Reviewer in several scientific conferences and journals (Computer Journal, IEEE Journal on Selected Areas in Communications, International Journal of Medical Informatics, International Journal of E-Health and Medical Communications, Journal of Telemedicine and Telecare). Author of over 100 publications and he participated as speaker in more than 50 scientific workshops and congresses. Member of the IEEE SSIT (Society on Social Implications of Technology).

Marek Bundzel
Dept. of Cybernetics and Artificial Intelligence, Technical University of Košice, Slovakia,
marek.bundzel@tuke.sk
Marek Bundzel specializes mainly on the methods of computational intelligence such as Artificial Neural Networks (ANN, supervised and unsupervised learning), Support Vector Machines (SVM,

Evolutionary algorithms (EA). Previously he has worked on the methods for structural and parametric learning, gradient and evolutionary optimization of ANN's. Applications from this time include urban runoff prediction during storm events, error correction of a physical model of a water system, financial predictions, land use identification in satellite images. He has spent two years at Waseda University, Tokyo where he has worked on the implementation of the memory-prediction framework designed specifically for the purposes of object recognition in a mobile robot. The resulting model uses unsupervised learning to discover objects in the robot's world, identifies spatial and temporal patterns in the visual data sensed by a moving robot.
Presently he dedicates his time to two main research domains: collective intelligence and adaptive rehabilitation. In his group he researches the possibilities to aggregate opinions of people and/or intelligent systems using methods of artificial intelligence so that the collective acts smarter than the individuals. His group also works on computer games and robots that are used in the process of rehabilitation of motoric impairments. The goal is to incorporate the element of adaptation into the process so that the rehabilitation system learns the best stimuli for the individual subject at the given time.

Joao Quintas
Instituto Pedro Nunes, Coimbra, Portugal
jquintas@ipn.pt
Eng.D João Quintas (M) is a Principal Researcher of ICT for Health and Healthy Ageing at IPNlas. He has a PhD in Electrical and Computer Engineering (specialization in Automation and Robotics) from University of Coimbra (UC), 2018. Since 2011, he is a project manager and principal researcher for the domain of Active and Assisted Living (AAL) and ICT for Health and Healthy Ageing in Instituto Pedro Nunes (IPN) - Laboratory of Automatic Systems (IPNlas). He has more than 10 years of expertise acting as technical manager, project manager and researcher in European and national projects including (Large scale and national projects: AAL4ALL (QREN), TICE.HEALTHY (QREN), ROSE (P2020); AAL projects: CaMeLi (AAL-JP-C5), CogniWin (AAL-JP-C6), CogniViTra (AAL-2018) - coordinator; H2020 projects: DIATOMIC (H2020), SmartWork (H2020) LIFEBOTS Exchange (H2020-MSCA)). He is a member of the Autonomous Robotics (AuR) Ontology working group developing IEEE 1872.2 Standard and The IEEE Global Initiative on Ethics of Autonomous and Intelligent Systems developing IEEE 7000 related standards. He is a published author in specialised magazines and conferences and books. His PhD thesis addressed "Context-based Human-Machine Interaction Framework for Artificial Social Companions". He is also a Research Associate at the Artificial Perception for Intelligent Systems and Robotics of Institute of Systems and Robotics - University of Coimbra (ISR-UC). His main areas of research interest are related to artificial social companions, intelligent environments, robotics, human-machine interaction, context recognition and human behaviour analysis.