



1st Capacity Building Workshop AGENDA

Date

26-28.01, 2021

Venue

Online event

Organized by

Gheorghe Asachi Technical University of Iaşi, Romania
Fraunhofer Institute, Germany
University of Salamanca, Spain



Day 1: Tuesday, 26.01.2021

9:00-10:00	Opening Session
(Germany, Spain) 10:00-11:00 (Romania)	Host: Nicolae Lucanu (Project Coordinator; Gheorghe Asachi Technical University of Iaşi, Romania)
	Click here to enter the online room
	> All participants are welcome
10:00-12:00	Session 1: 'Comprehensive analysis of medical imaging'
(Germany, Spain)	Host: David Pérez-González (University of Salamanca, Spain)
11:00-13:00 (Romania)	Click here to enter the online room
	TUIASI presentations: - Professor Iulian CIOCOIU, Electronics, Telecommunications & Information Technology Faculty - Professor Lavinia FERARIU, Automatic Control and Computer Engineering Faculty - Professor Romeo CIOBANU, Electrical Engineering Faculty SPAIN presentations: - Prof. José Luis LANCIEGO, Center for Applied Medical Research (CIMA), University of Navarra, Spain Fraunhofer presentations: - Dr. Stefan Wesarg, Visual Healthcare Technologies, Fraunhofer Institute for Computer Graphics Research IGD (Darmstadt) - Volker Bruns, Medical Image Processing, Fraunhofer Institute for Integrated Circuits IIS (Nürnberg) ZI-Mannheim presentation: - Dr. Emanuel Schwarz, Translational Bioinformatics in Psychiatry, ZI Mannheim Automatic Control and Computer Engineering Faculty (TUIASI) Electronics, Telecommunications & Information Technology Faculty (TUIASI)
	 Electrical Engineering Faculty (TUIASI) Fraunhofer Institute for Integrated Circuits (IIS), Germany Fraunhofer Institute for Algorithms and Scientific Computing (SCAI), Germany

15:30-17:30	 Central Institute of Mental Health (ZI-Mannheim), Germany Fraunhofer Institute for Computer Graphics Research (IGD), Germany Center for Applied Medical Research (CIMA), University of Navarra, Spain Session 2: 'Olfaction in neurosciences and GC-IMS'
(Germany, Spain)	Host: Mircea Tric (Fraunhofer Institute, Germany)
16:30-18:30 (Romania)	Click here to enter the online room
	TUIASI presentation: - Professor Romeo CIOBANU, Electrical Engineering Faculty Fraunhofer presentation:
	- Dr. Jens Langejürgen, Biomedical Sensors, Fraunhofer Institute for Manufacturing Engineering and Automation IPA (Mannheim)
	University Medical Center Mainz presentation: - Professor Wolfgang Kelsch, Psychiatry and Psychotherapy, University Medical Center Mainz
	 Electrical Engineering Faculty (TUIASI) Industrial Design and Business Management Faculty (TUIASI) Department of Psychiatry and Psychotherapy, University Medical Center Mainz, Germany Fraunhofer Institute for Manufacturing Engineering and Automation (IPA), Germany
17:30-19:30 (Germany,	Session 3: 'Separation, purification and detection of bacteria with magnetic beads'
Spain) 18:30-20:30	Host: Mircea Tric (Fraunhofer Institute, Germany)
(Romania)	Click here to enter the online room
	TUIASI presentation: - Professor Lenuta KLOETZER, Chemical Engineering & Environmental Protection Faculty
	Fraunhofer presentation: - Dr. Mircea Tric, Biomedical Sensors, Fraunhofer Institute for Manufacturing Engineering and Automation IPA (Mannheim)
	 Chemical Engineering & Environmental Protection Faculty (TUIASI) Fraunhofer Institute for Manufacturing Engineering and Automation (IPA), Germany

17:30-19:30	Session 4: 'Rehabilitation devices'
(Germany,	Host: David Pérez-González (University of Salamanca, Spain)
Spain)	The state of the s
18:30-20:30	Click here to enter the online room
(Romania)	
	TUIASI presentation:
	- Professor Marian POBORONIUC, Electrical Engineering Faculty
	- Professor Ioan DOROFTEI, Mechanical Engineering Faculty
	SPAIN presentation:
	- Prof. José María AZORÍN, Systems Engineering and Automation
	Department, Miguel Hernández University, Spain
	- Dr. Ángel GIL AGUDO (MD-PhD), Biomechanics and Technical Aids
	Department, National Hospital for Paraplegics, Spain
	- Prof. Belén CURTO DIEGO <i>or</i> Prof. Vidal MORENO RODILLA, Group of
	Robotics and Society (GROUSAL), University of Salamanca, Spain
	- MOST LIKELY REPRESENTED BY FORMER GROUP: Dr. Javier NIETO
	BLASCO (MD-PhD), Rehabilitation Department, University Hospital of
	Salamanca, Spain
	Fraunhofer presentation:
	- Dr. Christophe Maufroy, Intuitive interaction with body-worn technology,
	Fraunhofer Institute for Manufacturing Engineering and Automation IPA
	(Stuttgart)
	(Consider 4)
	Electrical Engineering Faculty (TUIASI)
	Mechanical Engineering Faculty (TUIASI)
	Electronics, Telecommunications & Information Technology Faculty
	(TUIASI)
	Fraunhofer Institute for Manufacturing Engineering and Automation
	(IPA), Germany
	Systems Engineering and Automation Department, Miguel
	Hernández University, Spain Biomechanics and Technical Aids Department, National Hospital for
	Biomechanics and Technical Aids Department, National Hospital for Paraplegics, Spain
	Group of Robotics and Society (GROUSAL), University of Salamanca,
	Spain
	 Rehabilitation Department, University Hospital of Salamanca, Spain
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Day 2: Wednesday, 27.01.2021

10:00-12:00 (Germany, Spain)	Session 5: 'Development of specific biomarkers / antibodies' Host: David Pérez-González (University of Salamanca, Spain)
11:00-13:00 (Romania)	Click here to enter the online room
	TUIASI presentations: - Professor Romeo CIOBANU, Electrical Engineering Faculty - Thomas SCHREINER, Ph. D. Student SPAIN presentations: - Prof. José Luis LANCIEGO or Dr. Miguel VALENCIA USTÁRROZ (PhD),
12:00-14:00 (Germany, Spain) 13:00-15:00 (Romania)	Session 6: 'Advanced trans-cranial magnetic stimulation, disposable electrodes for EEG and muscle biosensors' Host: David Pérez-González (University of Salamanca, Spain) Click here to enter the online room
	TUIASI presentations: - Professor Romeo CIOBANU, Electrical Engineering Faculty - Thomas SCHREINER, Ph. D. Student SPAIN presentations: - Prof. Manuel S. MALMIERCA, Institute of Neuroscience of Castilla y León (INCYL), University of Salamanca, Spain - Dr. Antonio OLIVIERO (MD-PhD), Functional Exploration and Neuromodulation of the CNS Department, National Hospital for Paraplegics, Spain

	 Dr. Miguel VALENCIA USTÁRROZ (PhD), Center for Applied Medical Research (CIMA), University of Navarra, Spain Electrical Engineering Faculty (TUIASI) Department of Clinical Neurophysiology, University Hospital of Salamanca, Spain Department of Surgery and Anesthesiology, University of Salamanca, Spain Institute of Neuroscience of Castilla y León (INCYL), University of Salamanca, Spain Functional Exploration and Neuromodulation of the CNS Department, National Hospital for Paraplegics, Spain Center for Applied Medical Research (CIMA), University of Navarra, Spain
12:00-14:00	Session 7: 'Design and mathematical modelling of innovative
(Germany, Spain)	systems for minimally invasive interventions'
13:00-15:00	Host: Mircea Tric (Fraunhofer Institute, Germany)
(Romania)	Click here to enter the online room
	TUIASI presentation: - Professor Ioan DOROFTEI, Mechanical Engineering Faculty
	SPAIN presentations: - Prof. Belén CURTO DIEGO <i>or</i> Prof. Vidal MORENO RODILLA, Group of Robotics and Society (GROUSAL), University of Salamanca, Spain
	 Automatic Control and Computer Engineering Faculty (TUIASI) Mechanical Engineering Faculty (TUIASI) Group of Robotics and Society (GROUSAL), University of Salamanca, Spain
15:30-17:30 (Germany,	Session 8: 'Deep learning techniques for healthcare.
Spain)	Intelligent Data Analysis'
16:30-18:30	Host: Mircea Tric (Fraunhofer Institute, Germany)
(Romania)	Click here to enter the online room
	TUIASI presentations: - Professor Iulian CIOCOIU, Electronics, Telecommunications & Information Technology Faculty - Professor Lavinia FERARIU, Automatic Control and Computer Engineering Faculty

SPAIN presentations: - Dr. Javier PRIETO (PhD), Bioinformatics, Intelligent Systems and Educational Technology Group (BISITE), University of Salamanca, Spain - Prof. José Luis LANCIEGO or Dr. Miguel VALENCIA USTÁRROZ (PhD), Center for Applied Medical Research (CIMA), University of Navarra, Spain Fraunhofer presentations: - Dr. Stefan Wesarg, Visual Healthcare Technologies, Fraunhofer Institute for Computer Graphics Research IGD (Darmstadt) - Christian Hofmann, Medical Communication and Biosignal Processing, Fraunhofer Institute for Integrated Circuits IIS (Erlangen) - Professor Holger Fröhlich, AI & Data Science, Fraunhofer Institute for Algorithms and Scientific Computing SCAI (Sankt Augustin) ZI-Mannheim presentation: - Dr. Emanuel Schwarz, Translational Bioinformatics in Psychiatry, ZI Mannheim Electronics, Telecommunications & Information Technology Faculty (TUIASI) Automatic Control and Computer Engineering Faculty (TUIASI) Fraunhofer Institute for Algorithms and Scientific Computing (SCAI), Germany Fraunhofer Institute for Integrated Circuits (IIS), Germany Central Institute of Mental Health (ZI-Mannheim), Germany Fraunhofer Institute for Computer Graphics Research (IGD), Germany ➤ Bioinformatics, Intelligent Systems and Educational Technology Group (BISITE), University of Salamanca, Spain Center for Applied Medical Research (CIMA), University of Navarra, Spain 17:30-19:30 Session 9: 'Wearable sensors and electromyography' (Germany, Host: Nicolae Lucanu (Project Coordinator; Gheorghe Asachi Technical Spain) University of Iaşi, Romania) 18:30-20:30 (Romania) Click here to enter the online room

(Germany, Spain) 18:30-20:30 (Romania) Click here to enter the online room TUIASI Presentations: - Professor Nicolae BOTEZATU, Automatic Control and Computer Engineering Faculty - Professor Alexandru TRANDABAT, Electrical Engineering Faculty - Professor Romeo CIOBANU, Electrical Engineering Faculty - Professor Dan DOBREA, Electronics, Telecommunications & Information Technology Faculty

SPAIN presentations:

- Dr. María Victoria ALEJOS (MD-PhD), Department of Clinical Neurophysiology, University Hospital of Salamanca, Spain
- Dr. Miguel VALENCIA USTÁRROZ (PhD), Center for Applied Medical Research (CIMA), University of Navarra, Spain

Fraunhofer presentations:

- Christrian Hofmann, Medical Sensors and Analytics, Fraunhofer Institute for Integrated Circuits IIS (Erlangen)
- Professor Holger Fröhlich, AI & Data Science, Fraunhofer Institute for Algorithms and Scientific Computing SCAI (Sankt Augustin)

ZI-Mannheim presentation:

- Dr. Emanuel Schwarz, Translational Bioinformatics in Psychiatry, Zl Mannheim
 - ➤ Automatic Control and Computer Engineering Faculty (TUIASI)
 - Industrial Design and Business Management Faculty (TUIASI)
 - ➤ Electronics, Telecommunications & Information Technology Faculty (TUIASI)
 - Electrical Engineering Faculty (TUIASI)
 - Mechanical Engineering Faculty (TUIASI)
 - Fraunhofer Institute for Algorithms and Scientific Computing (SCAI), Germany
 - Fraunhofer Institute for Integrated Circuits (IIS), Germany
 - Fraunhofer Institute for Manufacturing Engineering and Automation (IPA), Germany
 - Department of Clinical Neurophysiology, University Hospital of Salamanca, Spain
 - Center for Applied Medical Research (CIMA), University of Navarra, Spain

Day 3: Thursday, 28.01.2021

9:30-11:30 (Germany, Spain) 10:30-12:30 (Romania)	Session 10: 'Brain Functional Network Extraction and Analysis' Host: Nicolae Lucanu (Project Coordinator; Gheorghe Asachi Technical University of Iaşi, Romania) Click here to enter the online room
	TUIASI presentations: - Professor Florina UNGUREANU, Automatic Control and Computer Engineering Faculty - Professor Lavinia FERARIU, Automatic Control and Computer Engineering Faculty SPAIN presentations: - Dr. Javier PRIETO (PhD), Bioinformatics, Intelligent Systems and Educational Technology Group (BISITE), University of Salamanca, Spain - Dr. Miguel VALENCIA USTÁRROZ (PhD), Center for Applied Medical Research (CIMA), University of Navarra, Spain Automatic Control and Computer Engineering Faculty (TUIASI) Central Institute of Mental Health (ZI-Mannheim), Germany Bioinformatics, Intelligent Systems and Educational Technology Group (BISITE), University of Salamanca, Spain Center for Applied Medical Research (CIMA), University of Navarra, Spain
9:30-11:30 (Germany, Spain) 10:30-12:30 (Romania)	Session 11: 'Human-robot interaction and simulation' Host: Mircea Tric (Fraunhofer Institute, Germany) (Fraunhofer Institute, Germany) Click here to enter the online room
	TUIASI presentations: - Professor Adrian BURLACU, Automatic Control and Computer Engineering Faculty SPAIN presentations: - Prof. Belén CURTO DIEGO or Prof. Vidal MORENO RODILLA, Group of Robotics and Society (GROUSAL), University of Salamanca, Spain - Dr. Agustín DÍAZ ÁLVAREZ (MD-PhD), Department of Surgery and Anesthesiology, University of Salamanca, Spain Fraunhofer presentation:

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	 Dr. Christophe Maufroy, Intuitive interaction with body-worn technology, Fraunhofer Institute for Manufacturing Engineering and Automation IPA (Stuttgart) Automatic Control and Computer Engineering Faculty (TUIASI) Electronics, Telecommunications & Information Technology Faculty (TUIASI) Mechanical Engineering Faculty (TUIASI) Fraunhofer Institute for Manufacturing Engineering and Automation (IPA), Germany FhG-PAMB Group of Robotics and Society (GROUSAL), University of Salamanca, Spain Department of Surgery and Anesthesiology, University of Salamanca, Spain
12.00.11.00	
12:00-14:00 (Germany, Spain)	Session 12: 'E-instruments for improved communication' Host: David Pérez-González (University of Salamanca, Spain)
13:00-15:00 (Romania)	Click here to enter the online room
	TUIASI presentations: - Professor Radu BOZOMITU, Electronics, Telecommunications & Information Technology Faculty - Professor Robert LUPU, Automatic Control and Computer Engineering Faculty
	 SPAIN presentations: Prof. Belén CURTO DIEGO or Prof. Vidal MORENO RODILLA, Group of Robotics and Society (GROUSAL), University of Salamanca, Spain MOST LIKELY REPRESENTED BY FORMER GROUP: Dr. Javier NIETO BLASCO, Rehabilitation Department, University Hospital of Salamanca, Spain Dr. Miguel VALENCIA USTÁRROZ (PhD), Center for Applied Medical Research (CIMA), University of Navarra, Spain CONFIRMATION PENDING, maybe sends other team member: Prof. José María AZORÍN, Systems Engineering and Automation Department, Miguel Hernández University, Spain
	 Automatic Control and Computer Engineering Faculty (TUIASI) Electronics, Telecommunications & Information Technology Faculty (TUIASI) Systems Engineering and Automation Department, Miguel Hernández University, Spain Group of Robotics and Society (GROUSAL), University of Salamanca, Spain

	 Rehabilitation Department, University Hospital of Salamanca, Spain Center for Applied Medical Research (CIMA), University of Navarra, Spain
17:30-19:30 (Germany, Spain) 18:30-20:30 (Romania)	Closing Session Host: Nicolae Lucanu (Project Coordinator; Gheorghe Asachi Technical University of Iaşi, Romania) Click here to enter the online room
	> All participants are invited