



Advanced Technologies for Enhanced Quality of Life

AT-EQUAL 2009

July 22-26, 2009, Iasi, Romania



<http://www.atequal.info/atequal09.html>



Organizers

Organized by

European Centre for Secure Information and Systems (ECSIS)
The University of Edinburgh, United Kingdom

Co-organized by

University of Medicine and Pharmacy "Gr. T. Popa", Iasi, Romania (UMF Iasi)
Romanian Academy, Iasi Branch, Romania
Institute for Computer Science, Iasi, Romania
Technical University of Iasi, Romania
Bio-Inspired Tech. and Systems, NASA-JPL, USA
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Aim and scope

The confluence of two converging phenomena is set to dramatically transform the society in the next decades. The first is the ageing of the world population, which is reaching unprecedented levels. The second is the accelerated development of advanced technologies, from assistive robotics to breakthrough genetic therapies, that are revolutionizing healthcare, and that offer promises in assistance to elders, and cures for previously incurable diseases. This is the dawn of a new age in using advanced technologies to dramatically enhance quality of life.

AT-EQUAL 2009 will be the first event in a series that aims to foster scientific exchange within this confluence field. Intended as a yearly set of international meetings, it proposes to bring together technical scientists, life scientists and medical doctors to share latest knowledge, present new techniques, and discuss future avenues in using technology to enhance quality of life. An international committee of specialists has been assembled to secure the success of this flagship meeting.

AT-EQUAL 2009 will take place in Iasi, Romania. The capital of the medieval principality of Moldavia, Iasi is a city immersed in history and culture, yet trendy and vibrant due to the tens of thousands of university students that live in Romania's oldest (and second largest) university city. The social program will include Iasi sightseeing as well as a tour to the famous painted monasteries of Northern Moldavia.

AT-EQUAL 2009 consists of the following meetings:

LAB-RS July 22-24, 2009

2nd ECSIS Symposium on Learning and Adaptive Behaviours in Robotic Systems.

<http://www.labrs.info/labrs09.html>

ARTIPED July 23-25, 2009

The Exploratory Workshop on Assistive and Recuperative Technologies for Injured, ill, Pregnant, Elderly and people with Disabilities

<http://www.artiped.info/artiped09.html>

ISRIS July 22-26, 2009 The International School on Robotics and Intelligent Systems, with the theme: *Assistive robots and systems for healthcare and rehabilitation*

<http://www.isris.info/isris09.html>

LAB-RS selected topics:

Technologies: robot learning, Dynamics of learning, Learning in real environments, Adaptive behaviors, Bio-inspired algorithms and technologies, Neural networks, Evolutionary algorithms, Adaptive information processing, Cooperative and collaborative robotics, Collaborative learning, Soft computing techniques, Dynamic and reinforcement learning, Legged locomotion, Flying robots, Hybrid and adaptive architectures, Adaptive multi-robot behaviors, Adaptive information processing, Socially adaptive robots, Sensory-control for learning/adaptive robots. **Applications:** Autonomous ground vehicles, Unmanned Aerial Vehicles, Unmanned Underwater Vehicles, Industrial Robots, Construction Robots, Humanoids and Actroids, Human-centric systems, Security robots, Training systems (modelling, simulation, virtual environments), Cooperative and collaborative robotics, Entertainment robots, Educational robots, Agricultural robots, Medical robots, therapy and surgical applications, Space robotics

ARTIPED selected topics:

Therapeutic and surgery robots for minimally invasive and remote operation procedures, Assistive and caregiving robotics and systems, Prosthetic technologies and exoskeletons, Recuperative systems -in all areas - from restoring locomotion to restoring hearing, speech, vision, New techniques and technologies in neuro/brain-machine interfaces and control, neuro-robotics, Biofeedback devices, Computerized diagnostic, monitoring and therapy, Novel medical devices and systems, Bioinformatics, Human genetic engineering, Genetic therapies and enhancement, Stem cell engineering, Tissue engineering, Artificial and bio-artificial organs, Organ/tissue/blood/marrow preservation /banks

ISRIS selected topics:

The school will focus in the following track areas:

- Prosthetic Technologies, Recuperative Systems, Exoskeletons, Therapeutic/Surgery Robotics, Assistive and Caregiving Robotics,
- Neuro-Machine Interfaces & Control, Neuro-robotics, Bio-signal collection and information processing,
- Intelligent Systems for Health Monitoring, Diagnostic and Therapy.