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<tr>
<th>Date</th>
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<tr>
<td><strong>Wednesday 5 October 2011</strong></td>
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<tr>
<td>8:00 - 8:30</td>
<td>Registration</td>
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<td>8:30 - 8:45</td>
<td>Opening, welcome</td>
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<td>8:45 - 9:30</td>
<td>10th Bioeng Award Presentation</td>
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<td>9:30 - 10:30</td>
<td>Session We.1: Intrabody Communications and Transmission of Patient Data</td>
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<td>10:30 - 11:00</td>
<td>Coffee Break</td>
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<td>11:00 - 12:30</td>
<td>Session We.2: ICT Technologies and Tools for Chronic Disease Management</td>
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<td>12:30 - 14:00</td>
<td>Lunch Break</td>
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<tr>
<td>14:00 - 14:45</td>
<td>Keynote We.1: “Telehealth/Telemedicine Evolution: Driven by Technology or Need?”, Dr Yadin David</td>
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<tr>
<td>14:45 - 16:15</td>
<td>Session We.3: Advances in Wireless Implantable Devices</td>
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<td>16:15 - 16:45</td>
<td>Coffee Break</td>
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<td>16:45 - 18:00</td>
<td>Session We.4: Mobile Devices for Patient Monitoring</td>
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<td>18:00 - 19:00</td>
<td>Workshop We.1: Electromagnetic Issues in Advanced Mobile Healthcare Applications</td>
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<tr>
<td>20:00 - 21:30</td>
<td>Welcome Reception</td>
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<td><strong>Thursday 6 October 2011</strong></td>
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<td>8:30 - 9:15</td>
<td>Keynote Th.1: “Mobile Health: Monitoring and Security”, Dr Nikolaos Bourbakis</td>
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<td>Session Th.1: Healthcare Telemetry and Telemedicine</td>
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<tr>
<td>13:00 - 16:30</td>
<td>Excursion to Asclepeion</td>
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<td>17:00 - 18:15</td>
<td>Session Th.3: Patient Monitoring and Management</td>
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<td>18:15 - 19:45</td>
<td>Session Th.4: Mobile and Wireless Technologies for Healthcare Delivery and Emergency</td>
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<tr>
<td>20:30 - 23:00</td>
<td>Gala Dinner</td>
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<td><strong>Friday 7 October 2011</strong></td>
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<tr>
<td>8:30 - 9:15</td>
<td>Keynote Fr.1: “Antennas and Propagation for Body-Centric Wireless Communications in Healthcare”, Dr Yang Hao</td>
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<td>9:15 - 10:30</td>
<td>Session Fr.1: Measurement and Monitoring Technologies</td>
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<td>14:00 - 14:45</td>
<td>Keynote Fr.2: “AAL: The New Paradigm to Deliver and Consume Health Services”, Dr Sergio Guillen</td>
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<td>14:45 - 15:45</td>
<td>Workshop Fr.1: Mobile Systems and Technologies for Patient Safety, Guidance and Empowerment</td>
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<td>15:45 - 16:30</td>
<td>Short Tutorial Fr.1: The Use of Mobile Technologies and Health Informatics for Disaster and Crisis Management</td>
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<td>16:30 – 17:00</td>
<td>Closing</td>
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Technical Program

Keynote We.1: “Telehealth/Telemedicine Evolution: Driven by Technology or Need?”
Speaker: Yadin David, Biomedical Engineering Consultants LLC, USA
Chair: K. S. Nikita

Keynote Th.1: “Mobile Health: Monitoring and Security”
Speaker: Nikolaos Bourbakis, ATRC, WSU, Dayton OH, USA
Chair: M.-T. Arredondo

Keynote Fr.1: “Antennas and Propagation for Body-Centric Wireless Communications in Healthcare”
Speaker: Yang Hao, Queen Mary University of London, UK
Chair: D. Fotiadis

Keynote Fr.2: “AAL: The New Paradigm to Deliver and Consume Health Services”
Speaker: Sergio Guillen, Polytechnic University of Valencia, Spain
Chair: D. Koutsouris

Session We.1: Intrabody Communications and Transmission of Patient Data
Chairs: O. Wolfson, J. Reina-Tosina

- A Distributed-parameter Approach to Model Galvanic and Capacitive Coupling for Intra-body Communications, A. Callejon, J. Reina-Tosina, L. Roa, D. Naranjo
- An Ultra-Low Power MAC Protocol for In-Body Medical Implant Networks, A. Ghildiyal, B. Godara, A. Amara
- On the Effectiveness of Relaxation Theory for Controlling High Traffic Volumes in Body Sensor Networks, N. Yaakob, I. Khalil, J. Hu
- Design and Validation of a Secure Communication Platform for Mobile Health, B. Martin de Juan, M.A. Valero Duboy, D. Soler, J.M. Azorin, R. Conde

Session We.2: ICT Technologies and Tools for Chronic Disease Management (Special Session)
Organizers: F. Chiarugi, E. Spanakis, A. Prentza
Chairs: F. Chiarugi, E. Spanakis

- Activity Recognition Using Smartphones and Wearable Wireless Body Sensor Networks, D. Koutsouris, I. Kouris
- Decision Support for the Remote Management of Chronic Patients, M. Martinelli, S. Colantonio, G. de Pietro, M. Esposito, A. Machi, O. Salvetti
- Clinical Effectiveness of the “Healthwear” Wearable System in the Reduction of COPD Patients’ Hospitalization, A. Milisis, T. Katsaras, N. Saoulis, E. Varoutaki, A. Vontetsianos
- Towards an Accessible, Personal Health Record Data, I. Basdeakis, V. Sakkalis, C. Stephanidis
- Developing advanced technology services for diabetes management: User preferences in Europe, A. Kouroubali, F. Chiarugi

Session We.3: Advances in Wireless Implantable Devices (Special Session)
Organizer: K.S. Nikita
Chairs: L. Roa, M. Valero-Duboy

- Wireless Microrobotic Oxygen Sensing for Retinal Hypoxia Monitoring, O. Ergeneman, G. Chatzipirpiridis, S. Pane, G. Sotiriou, C. Bergeles, B. Nelson
- Meandered versus Spiral Novel Miniature PIFAs Implanted in the Human Head: Tuning and Performance, A. Kiourti, K.S. Nikita
- A Radio Channel Model for In-body Wireless Communications, K.Y. Yazdandoost
• Parametric Study and Design of Implantable PIFAs for Wireless Biotelemetry, A. Kiourti, M. Tsikalakis, K.S. Nikita
• In Vitro and In Vivo Operation of a Wireless Body Sensor Node, F. Merli, L. Bolomey, F. Gorostidi, Y. Barrandon, E. Meurville, A. Skrivervik
• Recent Results in Computer Security for Medical Devices, S. Clark, K. Fu

Session We.4: Mobile Devices for Patient Monitoring
Chairs: E. Biglieri, M. Martinelli
• Wearable System for EKG Monitoring - Evaluation of Night-Time Performance, A. Vehkaoja, J. Verho, A. Comert, M. Honkala, J. Lekkala
• A Smartphone-Based Healthcare Monitoring System---PHY Challenges and Behavioral Aspects, E. Biglieri, N. Alrajeh, A. Lozano, B. Bounabat
• Phone Based Fall Risk Prediction, V. Guimaraes, P. Teixeira, M. Monteiro, D. Elias
• Infusing Image Processing Capabilities into an RFID-Based Personal Mobile Medical Assistant, K. Sidiropoulos, P. Georgiadis, N. Pagonis, N. Dimitropoulos, P. Asvestas, G. Matsopoulos, D. Cavouras
• Securing Medical Sensor Network with HIP, D. Kuptsov, B. Nechaev, A. Gurtov

Session Th.1: Healthcare Telemetry and Telemedicine
Chairs: T. Korhonen, T. Kakarountas
• Towards Continuous Wheeze Detection Body Sensor Node as a Core of Asthma Monitoring System, D. Oletic, B. Arsenali, V. Bilas
• Reduced Power Consumption for 3GPP-Compliant Continua Health Devices by Deployment of Femtocells in the Home Environment, E. Mutafungwa, Z. Zheng, J. Hamalainen
• A New Platform for Delivery Interoperable Telemedicine Services, F. Andriopoulou, D. Lymberopoulos
• Social Media in Healthcare - User Research Findings and Site Benchmarking, T. Korhonen, M. Pekkola, C. Karaïskos

Session Th.2: ICT Platforms and Technologies for the Daily Management of Chronic Diseases and the Support of the Ageing Population (Special Session)
Organizers: F. Chiarugi, E. Spanakis
Chairs: F. Chiarugi, E. Spanakis
• Diabetes Management: Devices, ICT Technologies and Future Perspectives, M. Spanakis, F. Chiarugi
• Exploring new Care Models in Diabetes Management and Therapy with a Wireless Mobile eHealth Platform, J. Thestrup, T. Gergely, P. Beck
• A Mobile Reasoning System for Supporting the Monitoring of Chronic Diseases, A. Minutolo, M. Esposito, G. de Pietro
• Using SOA for a Combined Telecare and Telehealth Platform for Monitoring of Elderly People, G. Lamprinakos, S. Asanin, P. Rosengren, D. Kaklamani, I. Venieris

Session Th.3: Patient Monitoring and Management
Chairs: C. Menard, N. Serbedzija
Session Th.4: Mobile and Wireless Technologies for Healthcare Delivery and Emergency
Chairs: J. Thestrup, P. Collins
• An ISO-based Quality Model for Evaluating Mobile Medical Speech Translators, N. Tsourakis, P. Estrella
• An Interdisciplinary Approach to Emergency Responder Mobile Technology Design, P. Collins, S. Lanthier
• TOPS - System for Planning and Providing the Health and Social Services at the Home Environment of Clients, T. Vana, D. Zak, J. Lebuska
• A Data Synchronization Framework for Personal Health Systems, D. Capozzi, G. Lanzola
• Service-Oriented Middleware Architecture for Mobile Personal Health Monitoring, M. Ahlsen, S. Asanin, P. Kool, P. Rosengren, J. Thestrup
• Inactivity Monitoring for People with Alzheimer’s Disease Using Smartphone Technology, N. Armstrong, C. Nugent, G. Moore, D. Finlay, W. Burns

Session Fr.1: Measurement and Monitoring Technologies
Chairs: S. Hey, I. Karanasiou
• Performance of a Near-Field Radio-Frequency Pressure Sensing Method in Compression Garment Application, T.J. Salpavaara, J. Verho, P. Kampulainen
• Low-Cost Blood Pressure Monitor Device for Developing Countries, C. Arteta, J. Domingos, M. Pimentel, M. Santos, C. Chiffot, D. Springer, A. Raghu, G. Clifford
• Telemedical Systems for Diagnosis and Therapy of Stress related Disorders, S. Hey
• An Integrated Approach towards Functional Brain Imaging Using Simultaneous Focused Microwave Radiometry, Near—Infrared Spectroscopy and Electroencephalography Measurements, P. Farantatos, I. Karanasiou, N. Uzunoglu

Session Fr.2: Ambient Assistive Technologies for Pervasive Healthcare Services (Special Session)
Organizers: I. Maglogiannis, D. Vergados
Chairs: I. Maglogiannis, D. Vergados
• A New Home-Based Training System for Cardiac Rehabilitation, C. Menard, R. Antonitsch
• Context-Aware System for Neurology Hospital Wards, I. Flinsenbergs, R. Cuppen, E. van Loenen, E. Daemen, R. Rajae-Joordens
• Towards Utilizing Tcpcrypt in Mobile Healthcare Applications, S. Nikolidakis, V. Giotas, E. Georgakakis, D. Vergados, C. Douligeris
• An Access Control Framework for Pervasive Mobile Healthcare Systems Utilizing Cloud Services, M. Poulomenopoulou, F. Malamateniou, G. Vassilacopoulos
• Distributed Management of Pervasive Healthcare Data through Cloud Computing, C. Doukas, T. Pliakas, P. Tsanakas, I. Maglogiannis
- Efficient Exploitation of Parallel Computing on the Server-Side of Health Organizations’ Intranet for Distributing Medical Images to Smart Devices, *A. Kakarountas, I. Mavridis*

**Workshop We.1: Electromagnetic Issues in Advanced Mobile Healthcare Applications**  
Organizer: *P. Nepa*  
Chairs: *K. Yazdandoost, S. Koulouridis*

- Body Absorbed Radiation and Design Issues for Wearable Antennas and Sensors, *S. Koulouridis*  
- Development of a FDTD Simulator for the Calculation of Temperature Rise in Human Heads from Mobile Phones, *A. Kyriakou, E. Aitides, M. Chryssomallis*  
- Numerical Assessment of EEG Electrode Artifacts during EMF Exposure in Human Provocation Studies, *M. Christopoulou, O. Kazasidis, K.S. Nikita*

**Workshop Fr.1: Mobile Systems and Technologies for Patient Safety, Guidance and Empowerment**  
Organizer: *V. Koutkias*  
Chairs: *V. Koutkias, A. Prentza*

- A Hybrid Case-based and Content-Based Retrieval Engine for Mobile Cancer Management System – MCMS, *B.M. El-Bagoury, A.B. Salem*  
- On Location-based Services for Patient Empowerment, Guidance and Safety, *A. Triantafyllidis, V. Koutkias, I. Moulos, N. Maglaveras*  
- Mobile Resource Tracking Utility: A platform independent application for managing medical resources, *P.C. Polina, R. Kelley, A. Kumar*

**Short Tutorial Fr.1: “The Use of Mobile Technologies and Health Informatics for Disaster and Crisis Management”**  
Organizer: *Luis Kun, National Defense University*