# Table of Contents

**Special Issue on Artificial Intelligence and Assistive Medicine**

**Guest Editorial Preface**

iv

Aldo Franco Dragoni, Dipartimento di Ingegneria dell’Informazione, Università Politecnica delle Marche, Ancona, Italy

Constantine Spyropoulos, NCSR “Demokritos,” Athens, Greece

Paolo Sernani, Dipartimento di Ingegneria dell’Informazione, Università Politecnica delle Marche, Ancona, Italy

**Research Articles**

1  
**Exercise Intensity Forecasting: Application in Elderly Interventions that Promote Active and Healthy Aging**
Aldo Franco Dragoni, Dipartimento di Ingegneria dell’Informazione, Università Politecnica delle Marche, Ancona, Italy

Andonis S. Billis, Lab of Medical Physics, Aristotle University of Thessaloniki, Thessaloniki, Greece

Evdokimos I. Konstantinidis, Lab of Medical Physics, Aristotle University of Thessaloniki, Thessaloniki, Greece

Ioanna-Maria Spyrou, Lab of Medical Physics, Aristotle University of Thessaloniki, Thessaloniki, Greece

Panagiotis Antoniou, Lab of Medical Physics, Aristotle University of Thessaloniki, Thessaloniki, Greece

Panagiotis D. Bamidis, Lab of Medical Physics, Aristotle University of Thessaloniki, Thessaloniki, Greece

19  
**Towards Multi-Agent Health Information Systems**
Andrea Claudi, Dipartimento di Ingegneria dell’Informazione, Università Politecnica delle Marche, Via Brecce Bianche, Ancona, Italy

Paolo Sernani, Dipartimento di Ingegneria dell’Informazione, Università Politecnica delle Marche, Via Brecce Bianche, Ancona, Italy

Aldo Franco Dragoni, Dipartimento di Ingegneria dell’Informazione, Università Politecnica delle Marche, Ancona, Italy

39  
**Automatically Assessing Movement Capabilities through a Sensor-Based Telemonitoring System**
Felip Miralles, Eurecat, Barcelona, Spain

Eloisa Vargiu, Eurecat, Barcelona, Spain

Eloi Casals, Universitat Pompeu Fabra, Barcelona, Spain

Jose Alejandro Cordero, Institut de Robotica i Informatica Industrial - Universitat Politecnica de Catalunya, Barcelona, Spain

Stefan Dauwalder, Eurecat, Barcelona, Spain

49  
**A Low Cost Pupillometry Approach**
Sergios Petridis, National Center for Scientific Research “Demokritos,” Athens, Greece

Theodoros Giannakopoulos, National Center for Scientific Research “Demokritos,” Athens, Greece

Constantine D. Spyropoulos, National Center for Scientific Research “Demokritos,” Athens, Greece

62  
**Combining Artificial Intelligence and NetMedicine for Ambient Assisted Living: A Distributed BDI-based Expert System**
Paolo Sernani, Dipartimento di Ingegneria dell’Informazione, Università Politecnica delle Marche, Ancona, Italy

Andrea Claudi, Dipartimento di Ingegneria dell’Informazione, Università Politecnica delle Marche, Ancona, Italy

Aldo Franco Dragoni, Dipartimento di Ingegneria dell’Informazione, Università Politecnica delle Marche, Ancona, Italy

77  
**Multi-sensing Monitoring and Knowledge-driven Analysis for Dementia Assessment**
Thanos G. Stavropoulos, Information Technologies Institute - Center for Research and Technology Hellas, Thessaloniki, Greece

Georgios Mediotsios, Information Technologies Institute - Center for Research and Technology Hellas, Thessaloniki, Greece

Efstratios Kontopoulos, Information Technologies Institute - Center for Research and Technology Hellas, Thessaloniki, Greece

Ioannis Kompatsiaris, Information Technologies Institute - Center for Research and Technology, Hellas, Thessaloniki, Greece

Copyright
The *International Journal of E-Health and Medical Communications* (IJJEHMC) (ISSN 1947-315X; eISSN 1947-3168), Copyright © 2015 IGI Global. All rights, including translation into other languages reserved by the publisher. No part of this journal may be reproduced or used in any form or by any means without written permission from the publisher, except for noncommercial, educational use including classroom teaching purposes. Product or company names used in this journal are for identification purposes only. Inclusion of the names of the products or companies does not indicate a claim of ownership by IGI Global of the trademark or registered trademark. The views expressed in this journal are those of the authors but not necessarily of IGI Global.