

**International Journal on
Advances in Life Sciences**



2010 vol. 2 nr. 3&4

The *International Journal on Advances in Life Sciences* is published by IARIA.

ISSN: 1942-2660

journals site: <http://www.ariajournals.org>

contact: petre@aria.org

Responsibility for the contents rests upon the authors and not upon IARIA, nor on IARIA volunteers, staff, or contractors.

IARIA is the owner of the publication and of editorial aspects. IARIA reserves the right to update the content for quality improvements.

Abstracting is permitted with credit to the source. Libraries are permitted to photocopy or print, providing the reference is mentioned and that the resulting material is made available at no cost.

Reference should mention:

International Journal on Advances in Life Sciences, issn 1942-2660
vol. 2, no. 3 & 4, year 2010, http://www.ariajournals.org/life_sciences/

The copyright for each included paper belongs to the authors. Republishing of same material, by authors or persons or organizations, is not allowed. Reprint rights can be granted by IARIA or by the authors, and must include proper reference.

Reference to an article in the journal is as follows:

<Author list>, "<Article title>"
International Journal on Advances in Life Sciences, issn 1942-2660
vol. 2, no. 3 & 4, year 2010, <start page>:<end page>, http://www.ariajournals.org/life_sciences/

IARIA journals are made available for free, proving the appropriate references are made when their content is used.

Sponsored by IARIA

www.aria.org

Copyright © 2010 IARIA

CONTENTS

- A Micro-Biomanipulation Training System based on Mixed-Reality** **73 - 81**
Leonardo Mattos, Italian Institute of Technology (IIT), Italy
Darwin Caldwell, Italian Institute of Technology (IIT), Italy
- A Biologically Accurate Simulation of the Locomotion of Caenorhabditis elegans** **82 - 93**
Roger Mailler, University of Tulsa, USA
Jacob Graves, University of Tulsa, USA
Nathan Willy, University of Tulsa, USA
Trevor Sarratt, University of Tulsa, USA
- A practiced-based technique for learners to better understand scholarly articles: An empirical study** **94 - 102**
Beebee Chua, UTS, Australia
Danilo Bernardo, UTS, Australia
- Visual Instrument Guidance in Minimally Invasive Robot Surgery** **103 - 114**
Christoph Staub, Technical University Munich, Germany
Giorgio Panin, Technical University Munich, Germany
Alois Knoll, Technical University Munich, Germany
Robert Bauernschmitt, German Heart Center Munich, Germany
- Applying the Theory of Constraints to Health Technology Assessment** **115 - 124**
P. Johan Groop, Aalto University, Finland
Karita H. Reijonsaari, Aalto University, Finland
Paul M. Lillrank, Aalto University, Finland
- Nonlinear Spectral Technique to Analyze White Spot Syndrome Virus Infection** **125 - 132**
Mario Alonso Bueno-Ibarra, Centro Interdisciplinario de Investigación para el Desarrollo Integral Regional (CIIDIR - Sinaloa), México
María Cristina Chávez-Sánchez, Centro de Investigación en Alimentación y Desarrollo A.C. (CIAD - Mazatlán), México
Josué Álvarez-Borrego, Centro de Investigación Científica y de Educación Superior de Ensenada (CICESE), México
- An Adaptive Entropic Thresholding Technique for Image Processing and Diagnostic Analysis of Microcirculation Videos** **133 - 142**
Nazanin Mirshahi, Virginia Commonwealth University, USA
Sumeyra Demir, Virginia Commonwealth University, USA
Kevin Ward, Virginia Commonwealth University, USA

Rosalyn Hobson, Virginia Commonwealth University, USA
Roya Hakimzadeh, Signal Processing Technologies LLC, USA
Kayvan Najarian, Virginia Commonwealth University, USA

Experiences and Preferences of Patients Regarding a Rheumatology Interactive Health Communication Application: A qualitative Study **143 - 153**

Rosalie van der Vaart, University of Twente, Enschede, The Netherlands
Constance Drossaert, University of Twente, Enschede, The Netherlands
Erik Taal, University of Twente, Enschede, The Netherlands
Mart van de Laar, University of Twente, Medisch Spectrum Twente, Enschede, The Netherlands

Learning Contexts as Ecologies of Resources: A Unifying Approach to the Interdisciplinary Development of Technology Rich Learning Activities **154 - 164**

Rosemary Luckin, The London Knowledge Lab The Institute of Education London, UK

Africa's Telenursing Today (and Tomorrow?) **165 - 172**

Sinclair Wynchank, MRC, South Africa
Jill Fortuin, MRC, South Africa

What Motivates Faculty to Adopt Distance Learning? Data Collected from a Faculty Development Workshop Called "Build a Web Course" **173 - 187**

Tamara Michele Powell, Kennesaw State University, USA

A Process Model for Establishment of Knowledge-Based Online Control of Enterprise Processes in Manufacturing **188 - 199**

Daniel Metz, University of Siegen, Germany
Sachin Karadgi, University of Siegen, Germany
Manfred Grauer, University of Siegen, Germany

Saliency Detection Making Use of Human Visual Perception Modelling **200 - 208**

Cristina Oprea, Politehnica University of Bucharest, Romania
Constantin Paleologu, Politehnica University of Bucharest, Romania
Ionut Pirnog, Politehnica University of Bucharest, Romania
Mihnea Udrea, Politehnica University of Bucharest, Romania

Core-Body Temperature Acquisition Tools for Long-term Monitoring and Analysis **209 - 218**

João M. L. P. Caldeira, University of Beira Interior, Portugal
Joel J. P. C. Rodrigues, University of Beira Interior, Portugal
José A. F. Moutinho, University of Beira Interior, Portugal
Marc Gilg, University of Haute Alsace, France
Pascal Lorenz, University of Haute Alsace, France