

Editors

Drahomira Pavelkova Jiri Strouhal Marie Pasekova

Advances in Environment, Biotechnology and Biomedicine

- Proceedings of the Ist WSEAS International Conference on Energy and Environment Technologies and Equipment (EEETE '12)
- Proceedings of the Ist WSEAS International Conference on Agricultural Science, Biotechnology, Food and Animal Science (ABIFA '12)
 - Proceedings of the Ist WSEAS International Conference on Biomedicine and Health Engineering (BIHE '12)



Tomas Bata University in Zlín
Faculty of Management and Economics

Tomas Bata University in Zlin, Czech Republic September 20-22, 2012

ISBN: 978-1-61804-122-7





ADVANCES in ENVIRONMENT, BIOTECHNOLOGY and BIOMEDICINE

Proceedings of the 1st WSEAS International Conference on Energy and Environment Technologies and Equipment (EEETE '12)

Proceedings of the 1st WSEAS International Conference on Agricultural Science, Biotechnology, Food and Animal Science (ABIFA '12)

Proceedings of the 1st WSEAS International Conference on Biomedicine and Health Engineering (BIHE '12)

Tomas Bata University in Zlin, Czech Republic September 20-22, 2012

ISBN: 978-1-61804-122-7

ADVANCES in ENVIRONMENT, BIOTECHNOLOGY and BIOMEDICINE

Proceedings of the 1st WSEAS International Conference on Energy and Environment Technologies and Equipment (EEETE '12)

Proceedings of the 1st WSEAS International Conference on Agricultural Science, Biotechnology, Food and Animal Science (ABIFA '12)

Proceedings of the 1st WSEAS International Conference on Biomedicine and Health Engineering (BIHE '12)

Tomas Bata University in Zlin, Czech Republic September 20-22, 2012

Published by WSEAS Press www.wseas.org

Copyright © 2012, by WSEAS Press

All the copyright of the present book belongs to the World Scientific and Engineering Academy and Society Press. All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of the Editor of World Scientific and Engineering Academy and Society Press.

All papers of the present volume were peer reviewed by no less that two independent reviewers. Acceptance was granted when both reviewers' recommendations were positive.

ISBN: 978-1-61804-122-7



World Scientific and Engineering Academy and Society

ADVANCES in ENVIRONMENT, BIOTECHNOLOGY and BIOMEDICINE

Proceedings of the 1st WSEAS International Conference on Energy and Environment Technologies and Equipment (EEETE '12)

Proceedings of the 1st WSEAS International Conference on Agricultural Science, Biotechnology, Food and Animal Science (ABIFA '12)

Proceedings of the 1st WSEAS International Conference on Biomedicine and Health Engineering (BIHE '12)

> Tomas Bata University in Zlin, Czech Republic September 20-22, 2012

Editors:

Prof. Drahomira Pavelkova, Tomas Bata University in Zlin, Czech Republic

Prof. Jiri Strouhal, University of Economics Prague & Tomas Bata University in Zlin, Czech Republic

Assoc. Prof. Marie Pasekova, Tomas Bata University in Zlin, Czech Republic

International Program Committee Members:

Kanwarjit Singh Sandhu

Yuging Zhou

Abdel-Badeeh Salem

R. Malathi Zengshi Chen Zuzana Tuckova Lubos Smrcka Ioana Adrian

John Antonopoulos Dragan Randjelovic Andreea Zamfir Ana Pilipovic

Thaweesak Yingthawornsuk

Boris Popesko Milos Vecera Tomas Krabec Stelios Zontos Arvind Dhingra Marie Pasekova Ari Ginsberg Amir Ahmady

N.Mahendran Nagalingam Chi,Chieh-Tsung Bruce

David Tucek Rahul Kher

Muhammad Musaddique Ali Rafique

Muhammad Naufal Mansor Adrian Turek Rahoveanu

Adriana Knapkova Mahsa Tabari Mojtaba Shivaie Yang Zhang

Olga Hasprova Hongjun Liu Khin Wee Lai

Alexander Bekiarsky

Carmen Giorgiana Bonac

Ahadollah Azami Eva Kislingerova

Carlos Rivas-Echeverria

Shahram Javadi Dragos Ilie

Razvan V. Mustata

Larion Alin

Richard Snow

Arion Felix

Daniela Litan

Oguz Arslan

O L C L

Ozlem Coskun Ayman Batisha

Dhahri Amel

Dana Dluhosova

Claudia A.F. Aiub Alexander N. Pisarchik Gholam Khodakaramian Mihai Tiberiu Lates Dumitru Matis Joao Carmo Bruce Dehning Calin Ciufudean

Kostantinos Kalovrektis

Lucija Foglar Miroslav Culik Louis McNally Berenika Hausnerova Goran Koracevic Hamed Ziaeipoor Jiri Hnilica

Ana Cristina Vicente Dinis Pardal

Fotis Rigas Grabara Janusz Ajay Poddar Claudio Guarnaccia Ioana Diaconescu

Preface

This year the 1st WSEAS International Conference on Energy and Environment Technologies and Equipment (EEETE '12), the 1st WSEAS International Conference on Agricultural Science, Biotechnology, Food and Animal Science (ABIFA '12) and the 1st WSEAS International Conference on Biomedicine and Health Engineering (BIHE '12) were held at the Tomas Bata University in Zlin, Czech Republic, in September 20-22, 2012. The conferences provided a platform to discuss new trends in energy production in classical plants, waste management equipment, technological transfer in energy and environment equipment, agricultural biotechnology, animal biotechnology, bioinformatics and computational biology, biological data integration and visualization, biopharmaceuticals, evolution and phylogenetics etc with participants from all over the world, both from academia and from industry.

Their success is reflected in the papers received, with participants coming from several countries, allowing a real multinational multicultural exchange of experiences and ideas.

The accepted papers of these conferences are published in this Book that will be sent to international indexes. They will be also available in the E-Library of the WSEAS. Extended versions of the best papers will be promoted to many Journals for further evaluation.

Conferences such as these can only succeed as a team effort, so the Editors want to thank the International Scientific Committee and the Reviewers for their excellent work in reviewing the papers as well as their invaluable input and advice.

The Editors

Table of Contents

<u>Simulation of Hybrid Renewable Energy System</u> Marko Batić, Panayiotis Philimis, Nikos Sakkas, Alessandro Giusti, Dejan Paunović, Sanja Vraneš	15
A Numerical Study of Heat Transfer and Fluid Flow past Single Tube Zeinab Sayed Abdel-Rehim	21
A Model for Wind Turbine Blade with Enhanced Torsional Stability Karam Y. Maalawi, Mohamed I. El- Anwar	27
Economic Technical Assessment of Electric Power Generation Using Small Wind Turbines in Household Sector (with a Case Study in Iran) Ehsan Karami	33
Straw Torrefaction: A New Modeling Approach and New Two-Stage Reactor N. Nikolopoulos, P. Grammelis, K. Atsonios, M. Agraniotis, R. Isemin, S. Kuzmin, O. Milovanov, A. Mikhalev	42
<u>Determination of Glycerol Derivatives by High-Performance Liquid Chromatography</u> Juan Carlos Beltrán Prieto, Jiří Pecha, Věra Kašpárková, Karel Kolomazník	47
Results of an In-Situ Measurement Campaign on a Direct Expansion Geothermal Heat Pump with Vertical Drillings Dries Vos, Luc Jespers, Dirk Vanhoudt, Johan Van Bael	53
<u>Power Plant Water Treatment Innovation, Environmental and Economical Synergies</u> Petr Langášek, Ilona Obršálová, Jan Fuka	57
<u>Tribotechnical Audited Analysis of the Impact of Fuel Oil to Refill the Engine in Real Operation</u> Zbyšek Korecki, Jaromír Mareš, Nataša Pomazalová, Václav Zajíček	63
Modeling of Environmental Effect of Biofuels by Petri Nets Robert Bata, Jiří Kárník	69
Energy Efficiency uses in Peri-Urban Regions Egyptian Case Study K. A. Abed, A. A. El-Mallah, M. A. Badr	75
Natural Gas Consumption and Temperature: Balanced and Unbalanced Panel Data Regression Model Tooraj Karimi , A. Rasol Niknam , M. Reza Sadeghi Moghadam	81
Solar Collectors as Shading Devices for Kuala Lumpur, Malaysia Omidreza Saadatian, K. Sopian, Sohif Bin Mat, B. R. Elhab, Ch. Lim, M. H. Ruslan	87
Optimal Solar Panels' Tilt Angles and Orientations in Kuala Lumpur, Malaysia Omidreza Saadatian, K. Sopian, B. R. Elhab, Mh. Ruslan, Nilofar Asim	100
The Dark Sides of the Modern Urban Design in the Persian Gulf Region Masoud Dalman, E. Salleh, Omidreza Saadatian, Ch. Lim, K. Sopian	107

Solar Open Drying Kinetics Method for Drying Chilies Ahmad Fudholi, Mohd Hafidz Ruslan, Mohd Yusof Othman, Azami Zaharim, Kamaruzzaman Sopian	113
Solar Walls: The Neglected Components of Passive Designs Omidreza Saadatian, Lim Chin Haw, K. Sopian, Elias Salleh, N. A. Ludin	120
Investigation of Medical Herbs Moisture in Solar Drying Ahmad Fudholi, Mohd Hafidz Ruslan, Mohd Yusof Othman, Omidreza Saadatian, Azami Zaharim, Kamaruzzaman Sopian	127
Energy Perspective of Roof Gardens Omidreza Saadatian, M. Y. Sulaiman, E. Salleh, Lc. Haw, Nilofar Asim, K. Sopian	132
Optimum Insulation Material and Thickness in the External Walls and Determination of the Energy Saving Cost in Hospital: Case Study in Malaysia S. Moghimi, B. J. Raatjes, P. M. Van Moorsel, F. Azizpour, S. Mat, C. H. Lim, K. Sopian	138
The Effects of Feed in Tariff on Foreign Direct Investment in Malaysia B. Bakhtyar, A. Zaharim, K. Sopian, Omidreza Saadatian, N. A. Ludin	144
Application of Triple Glazing to Mid-Rise Office Building in Malaysia S. Sadrzadehrafiei, K. Sopian, S. Mat, Ch. Lim	152
A Thermal Comfort Evaluation based on Different Occupancy Levels in Hospitals in a Hot- Humid Region F. Azizpour, S. Moghimi, S. Mat, C. H. Lim, K. Sopian	157
Review of the Electrodes Layer for Unitized Regenerative Proton Exchange Membrane Fuel Cells Mohamed Gabbasa, Kamaruzzaman Sopian	163
Removal of Ammonium Ions from Water by Raw and Alkali Activated Bentonite Ramazan Ali Dianati Tilaki, Danian Kahe	169
Environmental Safety Construction Analysis on the Example of Northern Italian Entrepreneurial Sustainable Research Renata Stasiak-Betlejewska, Alberto Di Taranto	175
Experimental Research of Flue Gas Condensing Unit Edgars Vīgants, Dagnija Blumberga, Ivars Veidenbergs, Ģirts Vīgants, Claudio Rochas	179
Influence of Absorption and Insulation Properties for Phonic Treatment of Public Works Equipment Ovidiu Vasile, Gilber-Rainer Gillich	190
A Mobile Test Bench for Fuel Cell Control Strategies Teresa Donateo, Damiano Pacella, Alessandro Renna, Domenico Laforgia	195
Energy Benefits of Using Fly Ash in the Concrete Pavel Padevět, Ondřej Zobal, Romana Lovichová	206

Waste Heat Recovery Technology from the Sand Drier Process in the Cupola Foundry	211
Martin Zalesak	
Big Cats in the Wild as a Limiting Factor in Sheep Breeding - Case Study: Beskydy Mountains (Czech Republic)	215
Ivo Machar, Miroslav Kutal, Michal Bojda, Petr Kovařík	
The Effect of Selected Phosphate Salts on the Textural Properties of Deboned Poultry Meat Batters	219
Nguyen Huynh Bach Son Long, Robert Gál, František Buňka	
<u>Decarboxylase Activity of Serratia Marcescens Depending on pH and Chosen Monosaccharide</u> <u>Content</u>	224
Z. Lazárková, A. Andresová, P. Pleva, E. Lorencová, L. Buňková, F. Buňka	
Three-Dimensional Measurement System for Japanese Black Cattle Using Computer Vision Kikuhito Kawasue, Takafumi Ikeda, Tadaaki Tokunaga, Hiroshi Harada	229
<u>Challenges and Opportunities in Managing Agricultural Waste in Ghana</u> Ebo Tawiah Quartey, Jaromíra Chýlková	235
Efficiency of Various Fungicide Treatments on the Occurrence of Fusarium spp. Associated with Spring Barley (Hordeum Vulgare L.) Grains Martin Kmoch, Ivana Safrankova, Alexandra Malachova, Pavlina Smutna, Lucie Janeckova, Jaroslava Ehrenbergerova, Katerina Vaculova, Radim Cerkal	
<u>Technique and Technological Aspects of Palm Oil (Elacisguineensis) Processing in Ghana</u> Hero Kwabena Toseafa, Jaromíra Chýlková	246
<u>Utilization of Hyperspectral Imaginary in Agriculture Production</u> Teodor Baláž, František Racek, Pavel Melša, Václav Jambor, Ladislav Balazs	252
Effect of Hagberg Falling Number on Rye Bread Quality Petra Dvořáková, Iva Burešová, Stanislav Kráčmar, Renata Havlíková	257
Formation of Health Care Branch in Stagnating Regions T. Sáha, M. Palasová, R. Bartošová, L. Javorová	261
Biodegradable Polymers from Renewable Resources: Effect of Calcium Inorganic Impurity on Polycondensation Products of 2-L-Hydroxy Propanoic Acid Pavel Kucharczyk, Petr Stloukal, Marek Koutny, Vladimir Sedlarik	267
<u>The Moisturize Influence of the Commercial Cosmetics on the Foot Skin</u> <i>J. Polášková, J. Pavlačková, P. Vltavská, G. Janírková, V. Kašpárková, R. Janiš</i>	272
Zinc Oxide Nanoparticles in Cosmetic Products M. Jančíková, R. Janiš, J. Krejčí, I. Hauerlandová	278
The Use of Latent Semantic Analysis for ABPM Time Series Data Michal Večerek, Jiří Blahuta, Tomáš Soukup, Petr Čermák, David Novák	283

Association between Plasma Homocysteine Concentrations and Carotid Intima-Media Thickness	289
in Patients with Coronary Artery Disease	
Roxana Buzaş, Corina Şerban, Ioana Suceava, Daniel Lighezan	
Decreased Inflammatory Markers in Diabetic Patients with Angiographically Proved Coronary	294
Artery Disease after 18 Months of Statins Therapy	_,.
Daniel Lighezan, Roxana Buzas, Corina Serban, Ioana Suceava	
Duniel Lighezan, Roxana Buzus, Corina Serban, Ibana Suceava	
	• • • •
New Approach for Measuring the Angle of Hallux Valgus	300
Jin Zhou, Petr Hlavacek, Bo Xu, Wuyong Chen	
Human Reliability and Heart Failure Model	305
Crina Sinescu, Constantin Târcolea, Adrian Stere Paris, Nicolae-Lucian Axente	
Critical Strictscut, Constitution 1 an extreme 1 and 15, 110 control European 1 incline	
	211
Association between Inflammatory Markers, Renal Damage Parameters and Carotid Intima-	311
Media Thickness in Hypertensive Patients	
Corina Şerban, Daniel Lighezan, Claudia Borza, Roxana Buzas, Ioana Suceavă, Simona Drăgan	
A Computer and Electronic Base System Design for Assisting Physiotherapy for Patients	317
Suffering from Cerebral Palsy	
Ozlem Coskun, Mahmut Ahmet Gozel	
0 2 1 2 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 	
WHEEL M 4 COLD LINE II C 4 C	224
Wall Thickness Measurement of Colon Based on Ultrasound Image Segmentation	324
Norayati Nordin, Nur Syazwani Ab Rahman, Yin Mon Myint, Mohd Aminudin, Heamn Noori	
Abduljabbar, Christina Pahl, Mohsen Marvi Baigi, Nugraha Priya Utama, Eko Supriyanto	
Edge Detection and Diameter Measurement of Appendiceal Ultrasound Images for the	330
Edge Detection and Diameter Measurement of Appendiceal Ultrasound Images for the Assessment of Acute Appendicitis	330
Assessment of Acute Appendicitis	
Assessment of Acute Appendicitis Nik Nur Zuliyana Mohd Rajdi, Lee Mee Yun, Heamn Noori Abduljabbar, Wan Mahani Hafizah, Joanne	
Assessment of Acute Appendicitis	
Assessment of Acute Appendicitis Nik Nur Zuliyana Mohd Rajdi, Lee Mee Yun, Heamn Noori Abduljabbar, Wan Mahani Hafizah, Joanne Soh Zi En, Lai Khin Wee, Christina Pahl, Mohsen Marvi Baigi, Eko Supriyanto	
Assessment of Acute Appendicitis Nik Nur Zuliyana Mohd Rajdi, Lee Mee Yun, Heamn Noori Abduljabbar, Wan Mahani Hafizah, Joanne Soh Zi En, Lai Khin Wee, Christina Pahl, Mohsen Marvi Baigi, Eko Supriyanto Prostate Volume Measurement Using Transabdominal Ultrasound Scanning	336
Assessment of Acute Appendicitis Nik Nur Zuliyana Mohd Rajdi, Lee Mee Yun, Heamn Noori Abduljabbar, Wan Mahani Hafizah, Joanne Soh Zi En, Lai Khin Wee, Christina Pahl, Mohsen Marvi Baigi, Eko Supriyanto Prostate Volume Measurement Using Transabdominal Ultrasound Scanning Ng Kent Hoo, Muhammad Akmal Ayob, Maheza Irna Mohamad Salim, Heamn Noori Abduljabbar, Eko	336
Assessment of Acute Appendicitis Nik Nur Zuliyana Mohd Rajdi, Lee Mee Yun, Heamn Noori Abduljabbar, Wan Mahani Hafizah, Joanne Soh Zi En, Lai Khin Wee, Christina Pahl, Mohsen Marvi Baigi, Eko Supriyanto Prostate Volume Measurement Using Transabdominal Ultrasound Scanning	336
Assessment of Acute Appendicitis Nik Nur Zuliyana Mohd Rajdi, Lee Mee Yun, Heamn Noori Abduljabbar, Wan Mahani Hafizah, Joanne Soh Zi En, Lai Khin Wee, Christina Pahl, Mohsen Marvi Baigi, Eko Supriyanto Prostate Volume Measurement Using Transabdominal Ultrasound Scanning Ng Kent Hoo, Muhammad Akmal Ayob, Maheza Irna Mohamad Salim, Heamn Noori Abduljabbar, Eko	336
Assessment of Acute Appendicitis Nik Nur Zuliyana Mohd Rajdi, Lee Mee Yun, Heamn Noori Abduljabbar, Wan Mahani Hafizah, Joanne Soh Zi En, Lai Khin Wee, Christina Pahl, Mohsen Marvi Baigi, Eko Supriyanto Prostate Volume Measurement Using Transabdominal Ultrasound Scanning Ng Kent Hoo, Muhammad Akmal Ayob, Maheza Irna Mohamad Salim, Heamn Noori Abduljabbar, Eko Supriyanto	336
Assessment of Acute Appendicitis Nik Nur Zuliyana Mohd Rajdi, Lee Mee Yun, Heamn Noori Abduljabbar, Wan Mahani Hafizah, Joanne Soh Zi En, Lai Khin Wee, Christina Pahl, Mohsen Marvi Baigi, Eko Supriyanto Prostate Volume Measurement Using Transabdominal Ultrasound Scanning Ng Kent Hoo, Muhammad Akmal Ayob, Maheza Irna Mohamad Salim, Heamn Noori Abduljabbar, Eko Supriyanto Ear Canal Diameter Measurement based on Various Processing Techniques of Ultrasound	336
Assessment of Acute Appendicitis Nik Nur Zuliyana Mohd Rajdi, Lee Mee Yun, Heamn Noori Abduljabbar, Wan Mahani Hafizah, Joanne Soh Zi En, Lai Khin Wee, Christina Pahl, Mohsen Marvi Baigi, Eko Supriyanto Prostate Volume Measurement Using Transabdominal Ultrasound Scanning Ng Kent Hoo, Muhammad Akmal Ayob, Maheza Irna Mohamad Salim, Heamn Noori Abduljabbar, Eko Supriyanto Ear Canal Diameter Measurement based on Various Processing Techniques of Ultrasound Images	336
Assessment of Acute Appendicitis Nik Nur Zuliyana Mohd Rajdi, Lee Mee Yun, Heamn Noori Abduljabbar, Wan Mahani Hafizah, Joanne Soh Zi En, Lai Khin Wee, Christina Pahl, Mohsen Marvi Baigi, Eko Supriyanto Prostate Volume Measurement Using Transabdominal Ultrasound Scanning Ng Kent Hoo, Muhammad Akmal Ayob, Maheza Irna Mohamad Salim, Heamn Noori Abduljabbar, Eko Supriyanto Ear Canal Diameter Measurement based on Various Processing Techniques of Ultrasound Images Gayathry Vadival, Ooi Mei Hong, Mariaulpa Sahalan, Heamn Noori Abduljabbar, Christina Pahl,	336
Assessment of Acute Appendicitis Nik Nur Zuliyana Mohd Rajdi, Lee Mee Yun, Heamn Noori Abduljabbar, Wan Mahani Hafizah, Joanne Soh Zi En, Lai Khin Wee, Christina Pahl, Mohsen Marvi Baigi, Eko Supriyanto Prostate Volume Measurement Using Transabdominal Ultrasound Scanning Ng Kent Hoo, Muhammad Akmal Ayob, Maheza Irna Mohamad Salim, Heamn Noori Abduljabbar, Eko Supriyanto Ear Canal Diameter Measurement based on Various Processing Techniques of Ultrasound Images	336
Assessment of Acute Appendicitis Nik Nur Zuliyana Mohd Rajdi, Lee Mee Yun, Heamn Noori Abduljabbar, Wan Mahani Hafizah, Joanne Soh Zi En, Lai Khin Wee, Christina Pahl, Mohsen Marvi Baigi, Eko Supriyanto Prostate Volume Measurement Using Transabdominal Ultrasound Scanning Ng Kent Hoo, Muhammad Akmal Ayob, Maheza Irna Mohamad Salim, Heamn Noori Abduljabbar, Eko Supriyanto Ear Canal Diameter Measurement based on Various Processing Techniques of Ultrasound Images Gayathry Vadival, Ooi Mei Hong, Mariaulpa Sahalan, Heamn Noori Abduljabbar, Christina Pahl, Mohsen Marvi Baigi, Eko Supriyanto	336
Assessment of Acute Appendicitis Nik Nur Zuliyana Mohd Rajdi, Lee Mee Yun, Heamn Noori Abduljabbar, Wan Mahani Hafizah, Joanne Soh Zi En, Lai Khin Wee, Christina Pahl, Mohsen Marvi Baigi, Eko Supriyanto Prostate Volume Measurement Using Transabdominal Ultrasound Scanning Ng Kent Hoo, Muhammad Akmal Ayob, Maheza Irna Mohamad Salim, Heamn Noori Abduljabbar, Eko Supriyanto Ear Canal Diameter Measurement based on Various Processing Techniques of Ultrasound Images Gayathry Vadival, Ooi Mei Hong, Mariaulpa Sahalan, Heamn Noori Abduljabbar, Christina Pahl, Mohsen Marvi Baigi, Eko Supriyanto Comparison of Axillary Region Ultrasound Image Processing Techniques for Measuring Axillary	336
Assessment of Acute Appendicitis Nik Nur Zuliyana Mohd Rajdi, Lee Mee Yun, Heamn Noori Abduljabbar, Wan Mahani Hafizah, Joanne Soh Zi En, Lai Khin Wee, Christina Pahl, Mohsen Marvi Baigi, Eko Supriyanto Prostate Volume Measurement Using Transabdominal Ultrasound Scanning Ng Kent Hoo, Muhammad Akmal Ayob, Maheza Irna Mohamad Salim, Heamn Noori Abduljabbar, Eko Supriyanto Ear Canal Diameter Measurement based on Various Processing Techniques of Ultrasound Images Gayathry Vadival, Ooi Mei Hong, Mariaulpa Sahalan, Heamn Noori Abduljabbar, Christina Pahl, Mohsen Marvi Baigi, Eko Supriyanto Comparison of Axillary Region Ultrasound Image Processing Techniques for Measuring Axillary Artery Diameter	336
Assessment of Acute Appendicitis Nik Nur Zuliyana Mohd Rajdi, Lee Mee Yun, Heamn Noori Abduljabbar, Wan Mahani Hafizah, Joanne Soh Zi En, Lai Khin Wee, Christina Pahl, Mohsen Marvi Baigi, Eko Supriyanto Prostate Volume Measurement Using Transabdominal Ultrasound Scanning Ng Kent Hoo, Muhammad Akmal Ayob, Maheza Irna Mohamad Salim, Heamn Noori Abduljabbar, Eko Supriyanto Ear Canal Diameter Measurement based on Various Processing Techniques of Ultrasound Images Gayathry Vadival, Ooi Mei Hong, Mariaulpa Sahalan, Heamn Noori Abduljabbar, Christina Pahl, Mohsen Marvi Baigi, Eko Supriyanto Comparison of Axillary Region Ultrasound Image Processing Techniques for Measuring Axillary Artery Diameter Gan Hong Seng, Mohd Izzat Hassan, Lai Khin Wee, Wan Mahani Hafizah, Joanne Soh Zi En, Heamn	336
Assessment of Acute Appendicitis Nik Nur Zuliyana Mohd Rajdi, Lee Mee Yun, Heamn Noori Abduljabbar, Wan Mahani Hafizah, Joanne Soh Zi En, Lai Khin Wee, Christina Pahl, Mohsen Marvi Baigi, Eko Supriyanto Prostate Volume Measurement Using Transabdominal Ultrasound Scanning Ng Kent Hoo, Muhammad Akmal Ayob, Maheza Irna Mohamad Salim, Heamn Noori Abduljabbar, Eko Supriyanto Ear Canal Diameter Measurement based on Various Processing Techniques of Ultrasound Images Gayathry Vadival, Ooi Mei Hong, Mariaulpa Sahalan, Heamn Noori Abduljabbar, Christina Pahl, Mohsen Marvi Baigi, Eko Supriyanto Comparison of Axillary Region Ultrasound Image Processing Techniques for Measuring Axillary Artery Diameter	336
Assessment of Acute Appendicitis Nik Nur Zuliyana Mohd Rajdi, Lee Mee Yun, Heamn Noori Abduljabbar, Wan Mahani Hafizah, Joanne Soh Zi En, Lai Khin Wee, Christina Pahl, Mohsen Marvi Baigi, Eko Supriyanto Prostate Volume Measurement Using Transabdominal Ultrasound Scanning Ng Kent Hoo, Muhammad Akmal Ayob, Maheza Irna Mohamad Salim, Heamn Noori Abduljabbar, Eko Supriyanto Ear Canal Diameter Measurement based on Various Processing Techniques of Ultrasound Images Gayathry Vadival, Ooi Mei Hong, Mariaulpa Sahalan, Heamn Noori Abduljabbar, Christina Pahl, Mohsen Marvi Baigi, Eko Supriyanto Comparison of Axillary Region Ultrasound Image Processing Techniques for Measuring Axillary Artery Diameter Gan Hong Seng, Mohd Izzat Hassan, Lai Khin Wee, Wan Mahani Hafizah, Joanne Soh Zi En, Heamn	336
Assessment of Acute Appendicitis Nik Nur Zuliyana Mohd Rajdi, Lee Mee Yun, Heamn Noori Abduljabbar, Wan Mahani Hafizah, Joanne Soh Zi En, Lai Khin Wee, Christina Pahl, Mohsen Marvi Baigi, Eko Supriyanto Prostate Volume Measurement Using Transabdominal Ultrasound Scanning Ng Kent Hoo, Muhammad Akmal Ayob, Maheza Irna Mohamad Salim, Heamn Noori Abduljabbar, Eko Supriyanto Ear Canal Diameter Measurement based on Various Processing Techniques of Ultrasound Images Gayathry Vadival, Ooi Mei Hong, Mariaulpa Sahalan, Heamn Noori Abduljabbar, Christina Pahl, Mohsen Marvi Baigi, Eko Supriyanto Comparison of Axillary Region Ultrasound Image Processing Techniques for Measuring Axillary Artery Diameter Gan Hong Seng, Mohd Izzat Hassan, Lai Khin Wee, Wan Mahani Hafizah, Joanne Soh Zi En, Heamn Noori Abduljabbar, Christina Pahl, Mohsen Marvi Baigi, Eko Supriyanto	336 342 348
Assessment of Acute Appendicitis Nik Nur Zuliyana Mohd Rajdi, Lee Mee Yun, Heamn Noori Abduljabbar, Wan Mahani Hafizah, Joanne Soh Zi En, Lai Khin Wee, Christina Pahl, Mohsen Marvi Baigi, Eko Supriyanto Prostate Volume Measurement Using Transabdominal Ultrasound Scanning Ng Kent Hoo, Muhammad Akmal Ayob, Maheza Irna Mohamad Salim, Heamn Noori Abduljabbar, Eko Supriyanto Ear Canal Diameter Measurement based on Various Processing Techniques of Ultrasound Images Gayathry Vadival, Ooi Mei Hong, Mariaulpa Sahalan, Heamn Noori Abduljabbar, Christina Pahl, Mohsen Marvi Baigi, Eko Supriyanto Comparison of Axillary Region Ultrasound Image Processing Techniques for Measuring Axillary Artery Diameter Gan Hong Seng, Mohd Izzat Hassan, Lai Khin Wee, Wan Mahani Hafizah, Joanne Soh Zi En, Heamn Noori Abduljabbar, Christina Pahl, Mohsen Marvi Baigi, Eko Supriyanto Image Processing Analysis for Ultrasound Retinal Detachment Images	336
Assessment of Acute Appendicitis Nik Nur Zuliyana Mohd Rajdi, Lee Mee Yun, Heamn Noori Abduljabbar, Wan Mahani Hafizah, Joanne Soh Zi En, Lai Khin Wee, Christina Pahl, Mohsen Marvi Baigi, Eko Supriyanto Prostate Volume Measurement Using Transabdominal Ultrasound Scanning Ng Kent Hoo, Muhammad Akmal Ayob, Maheza Irna Mohamad Salim, Heamn Noori Abduljabbar, Eko Supriyanto Ear Canal Diameter Measurement based on Various Processing Techniques of Ultrasound Images Gayathry Vadival, Ooi Mei Hong, Mariaulpa Sahalan, Heamn Noori Abduljabbar, Christina Pahl, Mohsen Marvi Baigi, Eko Supriyanto Comparison of Axillary Region Ultrasound Image Processing Techniques for Measuring Axillary Artery Diameter Gan Hong Seng, Mohd Izzat Hassan, Lai Khin Wee, Wan Mahani Hafizah, Joanne Soh Zi En, Heamn Noori Abduljabbar, Christina Pahl, Mohsen Marvi Baigi, Eko Supriyanto	336 342 348
Assessment of Acute Appendicitis Nik Nur Zuliyana Mohd Rajdi, Lee Mee Yun, Heamn Noori Abduljabbar, Wan Mahani Hafizah, Joanne Soh Zi En, Lai Khin Wee, Christina Pahl, Mohsen Marvi Baigi, Eko Supriyanto Prostate Volume Measurement Using Transabdominal Ultrasound Scanning Ng Kent Hoo, Muhammad Akmal Ayob, Maheza Irna Mohamad Salim, Heamn Noori Abduljabbar, Eko Supriyanto Ear Canal Diameter Measurement based on Various Processing Techniques of Ultrasound Images Gayathry Vadival, Ooi Mei Hong, Mariaulpa Sahalan, Heamn Noori Abduljabbar, Christina Pahl, Mohsen Marvi Baigi, Eko Supriyanto Comparison of Axillary Region Ultrasound Image Processing Techniques for Measuring Axillary Artery Diameter Gan Hong Seng, Mohd Izzat Hassan, Lai Khin Wee, Wan Mahani Hafizah, Joanne Soh Zi En, Heamn Noori Abduljabbar, Christina Pahl, Mohsen Marvi Baigi, Eko Supriyanto Image Processing Analysis for Ultrasound Retinal Detachment Images Yuen Aoi Chee, Masturah Mohamed Mokhtar, Rania Hussien Al-Ashwal, Eko Supriyanto	336 342 348
Assessment of Acute Appendicitis Nik Nur Zuliyana Mohd Rajdi, Lee Mee Yun, Heamn Noori Abduljabbar, Wan Mahani Hafizah, Joanne Soh Zi En, Lai Khin Wee, Christina Pahl, Mohsen Marvi Baigi, Eko Supriyanto Prostate Volume Measurement Using Transabdominal Ultrasound Scanning Ng Kent Hoo, Muhammad Akmal Ayob, Maheza Irna Mohamad Salim, Heamn Noori Abduljabbar, Eko Supriyanto Ear Canal Diameter Measurement based on Various Processing Techniques of Ultrasound Images Gayathry Vadival, Ooi Mei Hong, Mariaulpa Sahalan, Heamn Noori Abduljabbar, Christina Pahl, Mohsen Marvi Baigi, Eko Supriyanto Comparison of Axillary Region Ultrasound Image Processing Techniques for Measuring Axillary Artery Diameter Gan Hong Seng, Mohd Izzat Hassan, Lai Khin Wee, Wan Mahani Hafizah, Joanne Soh Zi En, Heamn Noori Abduljabbar, Christina Pahl, Mohsen Marvi Baigi, Eko Supriyanto Image Processing Analysis for Ultrasound Retinal Detachment Images Yuen Aoi Chee, Masturah Mohamed Mokhtar, Rania Hussien Al-Ashwal, Eko Supriyanto Fetal Weight Estimationusing Canny Segmented Ultrasound Images	336 342 348
Assessment of Acute Appendicitis Nik Nur Zuliyana Mohd Rajdi, Lee Mee Yun, Heamn Noori Abduljabbar, Wan Mahani Hafizah, Joanne Soh Zi En, Lai Khin Wee, Christina Pahl, Mohsen Marvi Baigi, Eko Supriyanto Prostate Volume Measurement Using Transabdominal Ultrasound Scanning Ng Kent Hoo, Muhammad Akmal Ayob, Maheza Irna Mohamad Salim, Heamn Noori Abduljabbar, Eko Supriyanto Ear Canal Diameter Measurement based on Various Processing Techniques of Ultrasound Images Gayathry Vadival, Ooi Mei Hong, Mariaulpa Sahalan, Heamn Noori Abduljabbar, Christina Pahl, Mohsen Marvi Baigi, Eko Supriyanto Comparison of Axillary Region Ultrasound Image Processing Techniques for Measuring Axillary Artery Diameter Gan Hong Seng, Mohd Izzat Hassan, Lai Khin Wee, Wan Mahani Hafizah, Joanne Soh Zi En, Heamn Noori Abduljabbar, Christina Pahl, Mohsen Marvi Baigi, Eko Supriyanto Image Processing Analysis for Ultrasound Retinal Detachment Images Yuen Aoi Chee, Masturah Mohamed Mokhtar, Rania Hussien Al-Ashwal, Eko Supriyanto Fetal Weight Estimationusing Canny Segmented Ultrasound Images Shafira Binti Mohd Yusof, Leesee Tan, Pascal Werner, Heamn Noori Abduljabbar, Christina Pahl,	336 342 348
Assessment of Acute Appendicitis Nik Nur Zuliyana Mohd Rajdi, Lee Mee Yun, Heamn Noori Abduljabbar, Wan Mahani Hafizah, Joanne Soh Zi En, Lai Khin Wee, Christina Pahl, Mohsen Marvi Baigi, Eko Supriyanto Prostate Volume Measurement Using Transabdominal Ultrasound Scanning Ng Kent Hoo, Muhammad Akmal Ayob, Maheza Irna Mohamad Salim, Heamn Noori Abduljabbar, Eko Supriyanto Ear Canal Diameter Measurement based on Various Processing Techniques of Ultrasound Images Gayathry Vadival, Ooi Mei Hong, Mariaulpa Sahalan, Heamn Noori Abduljabbar, Christina Pahl, Mohsen Marvi Baigi, Eko Supriyanto Comparison of Axillary Region Ultrasound Image Processing Techniques for Measuring Axillary Artery Diameter Gan Hong Seng, Mohd Izzat Hassan, Lai Khin Wee, Wan Mahani Hafizah, Joanne Soh Zi En, Heamn Noori Abduljabbar, Christina Pahl, Mohsen Marvi Baigi, Eko Supriyanto Image Processing Analysis for Ultrasound Retinal Detachment Images Yuen Aoi Chee, Masturah Mohamed Mokhtar, Rania Hussien Al-Ashwal, Eko Supriyanto Fetal Weight Estimationusing Canny Segmented Ultrasound Images	336 342 348

In-Depth Analysis of Cardiac Signals using Novel Equipment and Software John Antonopoulos, Konstantinos Kalovrektis, Theodore Ganetsos, N. Y. A. Shammas, Laskaris Nikolaos	367
Multiple Linear Regression Model based on Principal Component Scores to Study the Relationship between Anthropometric Variables and BP Reactivity to Unsupported Back in Normotensive Post-graduate Females Gurmanik Kaur, Ajat Shatru Arora, Vijender Kumar Jain	373
Health Risk Factors Assessment using Gradual and Classic Logistics Regression Analysis Dragan Randjelovic, Dragan Bogdanovic	378
Authors Index	386