



AUT INSTITUTE OF BIOMEDICAL TECHNOLOGIES

JANUARY 2018

By Design

THE ASME LIBRARIAN NEWSLETTER

December 2017

Introducing in 2018 *Journal of Engineering and Science in Medical Diagnostics and Therapy*



Q&A with Editor Ahmed Al-Jumaily, PhD

Professor of Biomechanical Engineering and Director of the Institute of Biomedical Technologies at the Auckland University of Technology, Auckland, New Zealand

ASME: What is your vision for the journal?

Al-Jumaily: Our intention is to be the leading journal in the field of engineering and science in medical diagnostics and therapy, with

research contributions from the variety of communities who are interested in health and wellbeing – including scientists, engineers, and medical practitioners. The journal's aim is to be responsive to cutting edge research, completing the paper review process within four weeks.

ASME: What makes this new journal truly unique when compared to journals already in the field?

Al-Jumaily: Engineering knowledge and perspectives are essential to solving many contemporary healthcare challenges. The journal will bridge the gap between analytical, experimental, modeling, and computational engineering research and its biomedical applications. It also strives to help move lab-proven biomedical and biotechnology applications from bench to bedside. This is essential to ensuring that engineering and scientific knowledge can facilitate healthcare solutions for a growing and aging global population.

ASME: Who should submit articles to the journal – and why?

Al-Jumaily: The response to the Initial Call for Papers has been encouraging. We have already begun publishing papers in this unique publishing forum for the international community of engineers, scientists, and medical researchers with a shared vision to use knowledge from mechanical engineering as well as other engineering and scientific disciplines to accelerate biomedical innovation, trial, and commercialization.



Ahmed Al-Jumaily, PhD

2018: Volume 1, 4 Issues
ISSN: 2572-7958; eISSN: 2572-7966

For more information visit:
asmedigitalcollection.asme.org
(select *Journal of Engineering and Science in Medical Diagnostics and Therapy*)

Also Launching in 2018



Journal of Nondestructive Evaluation, Diagnostics and Prognostics of Engineering Systems

Editor: Tribikram Kundu, PhD
The University of Arizona, Tucson, USA

2018: Volume 1, 4 Issues
ISSN: 2572-3907; eISSN: 2572-3898

The *Journal of Nondestructive Evaluation, Diagnostics and Prognostics of Engineering*

Systems provides a venue for communication, discussion, and dissemination of advanced research related to ideas, opinions and solutions on a variety of subjects related to nondestructive evaluation (NDE), structural health monitoring (SHM), and prognosis. The journal will address the need for an archival international journal that will cover many aspects of interdisciplinary work in the field of NDE and SHM and report use of NDE and SHM in a wide range of applications in industry, government sector, and academia.

For more information visit: asmedigitalcollection.asme.org
(select *Journal of Nondestructive Evaluation, Diagnostics and Prognostics of Engineering Systems*)

New Publication Option



A New Way for Authors to Publish Their Journal Papers on The ASME Digital Collection

The ASME Journal Program now offers authors the choice to pay an APC (Article Processing Charge) so that their peer-reviewed and accepted work is published Open Access.

- **Openly available** online immediately upon publication
- **Free** for everyone to read, share, and download
- **Automatically in compliance** with funder mandates

For more information visit: go.asme.org/openaccess

Contact your regional sales representative for more information asmedigitalcollection.asme.org

The American Society of Mechanical Engineers
ASME





AUT INSTITUTE OF BIOMEDICAL TECHNOLOGIES

JANUARY 2018



Journals • Conference Proceedings • eBooks

asmedigitalcollection.asme.org

Now Available

ASME's Guide for Journal Authors



Recommend this new resource that guides members of your library community through the ASME Journal article submission process. Designed to help authors increase their acceptance rate, it is particularly useful for graduate students, early career researchers, and non-English-speaking authors.

To download a copy visit:
journaltool.asme.org/home/AuthorResources.cfm

New

Companion Guide to the ASME Boiler and Pressure Vessel and Piping Codes, Fifth Edition, Two-Volume Set

Edited by K.R. Rao



This fully updated and revised fifth edition of this classic reference work is current to the latest ASME BPV Code release. It is available in a convenient two-volume format that focuses on all twelve sections of the ASME Code, as well as relevant piping codes. Several chapters have new authors and are entirely new, while others have been extensively rewritten for this edition.

1800 pages, hardcover
ISBN: 9780791861295
Price: US \$629

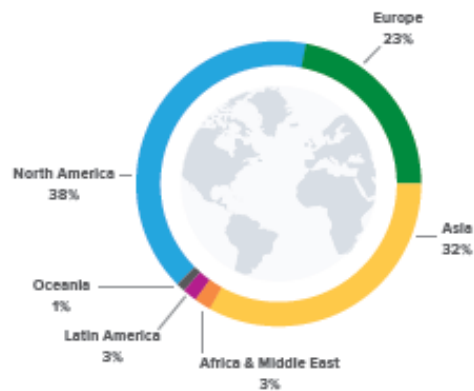
For more information visit:
asme.org/shop/books

Spotlight on

ASME Conference Proceedings

Authors Per Region

In 2016, close to 18,000 conference authors presented papers at ASME conferences reflecting the following geographic distribution:



Did you Know?

ASME Conference Proceedings comprise:

- More than 1,450 volumes
- Over 125,500 papers
- More than 1 million pages

For more information visit:
proceedings.asmedigitalcollection.asme.org

Contact your regional sales representative regarding pricing and availability

See ASME at these Forthcoming Events

OLA Super Conference 2018
Toronto, ON, Canada
January 31 – February 3, 2018

UKSG 41st Annual Conference and Exhibition
Glasgow, Scotland
April 9 – 11, 2018

To arrange a meeting with your sales representative at any of these events email Warren Adams, Manager, Sales and Customer Support, at edemsw@asme.org

asmedigitalcollection.asme.org

+1 (800) 843-2763 (US/Canada)
+1 (973) 882-1170 (outside N. America)



AUT INSTITUTE OF BIOMEDICAL TECHNOLOGIES

JANUARY 2018

PROFESSOR AL-JUMAILY KEYNOTE SPEAKER AT THE IRAQI STUDENT CONFERENCE IN AUSTRALIA



Professor Ahmed Al-Jumaily with representatives from Swinburne University of Technology in Melbourne, University of Baghdad and the Iraqi Ministry of Higher Education.

Professor Ahmed Al-Jumaily was keynote speaker at the Iraqi Student Conference in Australia on 5 December 2017. The title of his talk and short abstract follows:

Industrial Biomedical Research, Strength of Academia for Better Health

Traditional Engineering serves the industrial community by implementing basic laws of nature as the “foundation” and mathematics as the “tool” to transfer theories into specifications for product development. Today’s engineering goes beyond the scope of the industrial factory to look at the human body. Bioengineering research allows the understanding of the characteristics and performance of various biological systems. This will ultimately contribute to finding effective diagnostic and treatment techniques for diseases and the development of medical devices.

This was a two-fold presentation. Firstly, Professor Al-Jumaily highlighted his experience in establishing very successful academic research organizations with an industrial focus. Eventually this has led to a “win-win” situation for students, academia and industries. The second part of the presentation focussed on how engineering modelling could be used as an effective tool to reduce the risk of field testing and to save time, effort and cost. He talked about how we can tune our research towards community-driven needs by presenting some practical examples on large scale equipment such as cooling and distillation systems and small scale projects such as medical devices.



AUT INSTITUTE OF BIOMEDICAL TECHNOLOGIES

JANUARY 2018

DR ELOY IRIGOEN GORDO VISITING PROFESSOR WITH IBTEC



Currently, **Professor Dr Eloy Irigoyen** is a lecturer in the Department of Systems Engineering and Automation, at the Faculty of Engineering of the University of the Basque Country (UPV/EHU), in Bilbao, Spain. He was teaching and researching at the University of Deusto, in Bilbao (Spain), in the year 2000. Previously, he was a lecturer and researcher at the Public University of Navarre, in Pamplona (Spain), since 1993. Graduated PhD with Cum Laude from Public University of Navarre with the thesis “New results on Neural Controllers Tuning in Optimal and Predictive Control Schemes” at the year 2003. Research career officially recognized by the National Accreditation Agency at the year 2011.

Among other responsibilities, Dr. Eloy Irigoyen teaches Degree and Master, manages student projects, he managed and guided three doctoral theses, and guides currently another three doctoral theses, and manages issues related to the department as well.

He has led and collaborated in several research projects that have been funded by various institutions such as Europe Institutions, Spanish Government, Basque Country Government, and some international corporations as ALCOA Foundation. He is a reviewer for several international Journals with related impact factor. He is co-organizer and belongs to technical committees of international conferences, along the last years.

He leads the research group Intelligent Control at the UPV/EHU. This group gathers its activities in two main areas: Intelligent Control and Biomedical Engineering, including the design of Systems for the Assistance of People with Disabilities. In both lines the group is studying issues related to fundamental research, as well as the implementation of real solutions in various applications related to multiple sectors, from the industrial, to the medical, through the transport, services and assistance to people.

Nowadays, his research activity is aimed at new developments, both in SW and HW, to analyse physiological signals such as ECG, GSR and RSP with the objective of detecting and identifying stressful events in people. Recently, in its current work, the group has obtained good results in the application of Computational Intelligent techniques to enhance the processing of the mentioned signals, and the implementation of such algorithms in low cost platforms.



AUT INSTITUTE OF BIOMEDICAL TECHNOLOGIES

JANUARY 2018

ANUBHA KALRA AND GAUTAM ANAND BOTH GRADUATION WITH A PhD



Dr Anubha Kalra & Dr Gautam Anand with Assoc Prof Andrew Lowe

and also with Professor Ahmed Al-Jumaily

Anubha and Gautam both graduated with a PhD on Wednesday 13 December. Their First Supervisor was Associate Professor Andrew Lowe and their Second Supervisor was Professor Ahmed Al-Jumaily.

The title of Anubha's thesis is: Elimination of Skin-stretch Induced Motion Artefacts from Electrocardiogram Signals.

The title of Gautam's thesis is: Multi-frequency Bioimpedance Variations in a Simulated Human Forearm.

Congratulations Anubha and Gautam and all your colleagues in IBTec wish you well for the future.