



GLOBAL JOURNAL OF ENGINEERING EDUCATION

Editor-in-Chief: Zenon J. Pudlowski

World Institute for Engineering and Technology Education (WIETE)
Ivanhoe East, Melbourne, VIC 3079, Australia

WIETE Partners



Commonwealth Science and
Technology Academy for
Research (C-STAR)
Chennai, India



Faculty of Architecture
Cracow University of Technology
Kraków, Poland



Faculty of Architecture
Gdańsk University of Technology
Gdańsk, Poland



Faculty of Architecture and Design
Slovak University of Technology
in Bratislava
Bratislava, Slovakia



Faculty of Architecture
Wrocław University of Science
and Technology
Wrocław, Poland

Published by:

World Institute for Engineering and Technology Education (WIETE)
141 The Boulevard, Ivanhoe East, Melbourne, VIC 3079, Australia

E-mail: info@wiete.com.au

Internet: <http://www.wiete.com.au>

© 2022 WIETE

ISSN 1328-3154

Articles published in the *Global Journal of Engineering Education* (GJEE) have undergone a formal process of peer review by international referees.

This Journal is copyright. Apart from any fair dealing for the purpose of private study, research, criticism or review as permitted under the Copyright Act, no part may be reproduced by any process without the written permission of the publisher.

Responsibility for the contents of these articles rests upon the authors and not the publisher. Data presented and conclusions developed by the authors are for information only and are not intended for use without independent substantiating investigations on the part of the potential user.

Global Journal of Engineering Education

EDITOR-IN-CHIEF

Prof. Zenon J. Pudlowski

World Institute for Engineering and Technology Education (WIETE)
141 The Boulevard, Ivanhoe East, Melbourne, VIC 3079, Australia
Tel/Fax: +61 3 94994339, E-mail: zenon.pudlowski@wiete.com.au
Internet: <http://www.wiete.com.au>

MANAGER & ASSOCIATE EDITOR

Dr Dianne Q. Nguyen

WIETE, Melbourne, Australia

ASSOCIATE EDITORS

Prof. Andrew Nafalski

University of South Australia, Adelaide, Australia

Prof. Derek O. Northwood

University of Windsor, Windsor, Canada

Mrs Dorota I. Pudlowski

WIETE, Melbourne, Australia

A/Prof. Arthur J. Swart

Central University of Technology, Bloemfontein, Free State, South Africa

Prof. Robert Špaček

Slovak University of Technology in Bratislava, Bratislava, Slovakia

ADVISORY BOARD MEMBERS

Prof. Waław Celadyn

Cracow University of Technology, Kraków, Poland

Prof. Colin U. Chisholm

Glasgow Caledonian University, Glasgow, Scotland, UK

Prof. Pavel Gregor

Slovak University of Technology in Bratislava, Bratislava, Slovakia

Prof. Barbara E. Gronostajska

Wrocław University of Science and Technology, Wrocław, Poland

Prof. Ahmad Ibrahim

Yorkville University, Toronto, Ontario, Canada

Prof. Adinarayana Kalanidhi

Commonwealth Science and Technology Academy for Research, Chennai, India

Prof. Magdalena Kozień-Woźniak

Cracow University of Technology, Kraków, Poland

Prof. Viljan Mahnič

University of Ljubljana, Ljubljana, Slovenia

Prof. George Metaxas

Piraeus University of Applied Sciences (TEI), Piraeus-Athens, Greece

Prof. Lucyna Nyka

Gdańsk University of Technology, Gdańsk, Poland

Prof. Steven Thatcher

Central Queensland University, Cairns, Australia

Prof. Jacek Uziak

College of Management and Enterprise, Wałbrzych, Poland

Prof. Algirdas V. Valiulis

Vilnius *Gediminas* Technical University, Vilnius, Lithuania

A/Prof. Ľubica Vitková

Slovak University of Technology in Bratislava, Bratislava, Slovakia

Dr Aji P. Wibawa

State University of Malang, Malang, Indonesia

Prof. Maria J. Żychowska

Cracow University of Technology, Kraków, Poland

Contents

Z.J. Pudlowski	5	Editorial
M. Aloulou and R. Grati	6	An e-learning system in a higher education institution in the UAE during the Covid-19 pandemic: a students' perspective
M. Fernández-López	14	Exploring forward-thinking technology perspectives of sustainable development for the year 2030 in the identity of engineering students
I.S. Oblova, I.G. Gerasimova and I.V. Goman	21	The scientific career through a gender lens: a contrastive analysis of the EU and Russia
N. Brown and M. Tunnicliffe	28	Strategies for teaching idea generation for project-based learning and adapting these approaches to an on-line environment
S. Chookaew and S. Howimanporn	34	Upskilling and reskilling for engineering workforce: implementing an automated manufacturing 4.0 technology training course
S.A. Boyko, E.A. Koltsova and V.A. Spiridonova	40	Application of a corpus-based approach in teaching English for specific purposes to Master's degree students of engineering and technical majors
A. Khamis and N.I.A. Apandi	46	A comparative study of Bachelor of Electrical Engineering programmes in terms of students' performance
I.G. Gerasimova, S.A. Pushmina and E.V. Carter	52	A fresh look at blended learning: boosting motivation and language acquisition in an ESP course for engineering students
L.L. Mekhrishvili, R.K. Kasimov and N.V. Kornienko	59	Humanitarian and humanistic values in modern higher engineering education: from design to reality
J.J. Ramírez-Echeverry, F. Restrepo-Calle and F.A. González	65	A case study in technology-enhanced learning in an introductory computer programming course
Index of Authors	72	