



University of
Salford
MANCHESTER



General Jonas Žemaitis
Military Academy of Lithuania

ENTREPRENEURSHIP AND
SUSTAINABILITY CENTER

(print)
ISSN 2029-7017
(online)
ISSN 2029-7025



University of Essex

ESSEX
BUSINESS
SCHOOL

International Centre for Entrepreneurship Research



Vilnius Gediminas Technical University

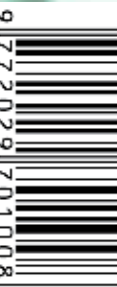


NATO Energy Security
Centre of Excellence



Journal of SECURITY AND SUSTAINABILITY ISSUES

International Entrepreneurial Perspectives
and Innovative Outcomes



ISSN 2029-7017 print
ISSN 2029-7025 online

Volume 9

Number 1

September 2019

**JOURNAL OF SECURITY AND
SUSTAINABILITY ISSUES**

International Entrepreneurial Perspectives
and Innovative Outcomes

**2019
9(1)**

Editors-in-Chief

Prof. Dr. Manuela Tvaronavičienė

Prof. Jay Mitra

Assoc. Prof. Dr. Valdas Rakutis

The *Journal of Security and Sustainability Issues* is a peer-reviewed journal which publishes original research papers. It is the international journal published by General Jonas Žemaitis Military Academy of Lithuania cooperating with the institutions indicated on the cover of the journal. It is published quarterly.

Areas of research include, but are not limited to, the following:

Conceptual Approaches towards Security and Sustainability
Globalization Processes and Social Security
Defence and Security Technologies
Innovations and Technological Development for Security and Sustainability
Energy Security
Regulation of the Security Industry
Transition Issues and Secure Development
Computer and Information Security
Human and Environmental Security
Biodiversity and Ecological Sustainability
Economic Growth and Sustainable Development
Economics of Sustainable Organizations and Industries
Sustainable Entrepreneurship
Intercultural Communication for Security and Sustainability
Secure Development of Sector Economics
Sustainable Finance and Investment
Strategic Management for Sustainability
Case Studies in the Process of Secure and Sustainable Development
Evaluations of Security Measures

All papers published in the *Journal of Security and Sustainability Issues* are peer-reviewed by the members of the Editorial Board or by its appointed experts

The papers published in *Journal of Security and Sustainability Issues* are indexed/abstracted by:

• Business Source Complete	EBSCO Publishing
• Sustainability Reference Center	www.ebscohost.com
• International Security & Counter Terrorism Reference Center	http://search.ebscohost.com
• ECONIS of the ZBW – Leibniz Information Centre for Economics	http://www.zbw.eu/ EconBiz
• RePEc	http://repec.org/ EconBiz
• Ulrich's Periodicals Directory	Serials Solutions
	http://www.serialssolutions.com/
• Ulrich's Periodicals Directory	a ProQuest business
	http://www.proquest.co.uk/en-UK/
• Crossref	
• Google Scholar	
• SCIRUS	www.scirus.com (Elsevier B.V.)
• The European Library	http://www.theeuropeanlibrary.org
• Database Lituanistika	http://www.lituanistikadb.lt
• SCOPUS	http://www.elsevier.com/online-tools/scopus

EDITORIAL CORRESPONDENCE including manuscripts and subscription

Prof. Dr. Manuela Tvaronavičienė

Tel.: +370 687 83 944

E-mail: submissions@jssidoi.org, Manuela.Tvaronavicienne@vgtu.lt, manuela.tvaronavicienne@lka.lt

JOURNAL OF SECURITY AND SUSTAINABILITY ISSUES

2019, 9(1)



This work is licensed under a Creative Commons Attribution 4.0 License.

JOURNAL OF SECURITY AND SUSTAINABILITY ISSUES

International Entrepreneurial Perspectives and Innovative Outcomes

ISSN 2029-7017 print/ISSN 2029-7025 online

Editors-in-Chief

Prof. Dr. Manuela Tvaronavičienė, Vilnius Gediminas Technical University, General Jonas Žemaitis Military Academy of Lithuania

Prof. Jay Mitra, University of Essex, UK

Assoc. Prof. Dr. Valdas Rakutis, General Jonas Žemaitis Military Academy of Lithuania

Executive Editor

Prof. Mohamad Sepehri, Jacksonville University, USA

Editors

Prof. Abel Femi Adekola, Wilkes University, USA

Prof. John Saeed, EBS Business School Reutlingen University, Editor-in-Chief, Journal of Management Systems, USA

Prof. Brian Maruffi, Yeshiva University, Fordham University, USA

Dr. Evelyn Wamboye, Pennsylvania State University, USA

Dr. Hideyuki Doi, Institute for Sustainable Sciences and Development, Hiroshima University, Japan

Prof. Aidas Vasilis Vasiliauskas, General Jonas Žemaitis Military Academy of Lithuania

Prof. Mantas Bileišis, General Jonas Žemaitis Military Academy of Lithuania

Prof. Edmundas Kazimieras Zavadskas, Vilnius Gediminas Technical University, Lithuania

Prof. Birutė Galinienė, Vilnius University, Faculty of Economics, Lithuania

Dr. Ulku Yuksel, The University of Sydney, Australia

Prof. Mathew J. Manimala, Indian Institute of Management Bangalore, India

Prof. Christian Friedrich, University of Applied Sciences, Giessen, Germany

Prof. Walter Ruda, Kaiserslautern University of Applied Sciences, Germany

Prof. em. Hanns Pichler, Vienna University of Economics and Business, Austria

Dr. Christopher J. Rees, University of Manchester, United Kingdom

Dr. Richard Haigh, University of Salford, United Kingdom

Prof. Sharda Nandram, HAN University of Applied Sciences and Nyenrode Business University, the Netherlands

Dr. Vladas Tumulavičius, General Jonas Žemaitis Military Academy of Lithuania

Prof. Filippo Reganati, Sapienza Univesita Di Roma, Institute of Economics and finance, Italy

Prof. Massimo Colombo, Politecnico di Milano, Italy

Dr. Rafael José De Espona y Rodríguez, Honorary Consul of the Republic of Lithuania, Spain

Dr. Sibylle Heilbrunn, Kinneret College on the Sea of Galilee, Izrael

Prof. Inga Žalėnienė, Mykolas Romeris University, Lithuania

Prof. Ona Gražina Rakauskienė, Mykolas Romeris University, Lithuania

Prof. Irina Sennikova, Riga International College of Economics and Business Administration, Latvia

Prof. Natalja Lace, Riga Technical University, Latvia

Prof. Dr. Vitolds Zahars, Daugavpils University, Latvia

Prof. Mirjana Radović Marković, Institute of Economic Sciences, Belgrade, Serbia

Prof. Ingrīda Veikša, Turība University, Latvia

Prof. Vlado Dimovski, University of Ljubljana, Slovenia

Prof. Ing. Zuzana Dvorakova, University of Economics, Prague, Czech Republic

Dr. Yuriy Bilan, University of Szczecin, faculty of Economics Science and Management, Poland

Prof. Jerzy Stańczyk, Military University of Technology, Poland

Prof. Alvydas Šakočius, General Jonas Žemaitis Military Academy of Lithuania

Prof. Ani Matei, National School of Political Studies and Public Administration, Romania

Prof. Gediminas Dubauskas, General Jonas Žemaitis Military Academy of Lithuania

Prof. Mehmet Huseyin Bilgin, Istanbul Medeniyet University, Turkey

Prof. Marina Sheresheva, Lomonosov Moscow State University, Faculty of Economics, Russian Federation

Prof. Bora Aktan, University of Bahrain, the Kingdom of Bahrain

Prof. Leon Pretorius, University of Pretoria, Graduate School of Technology Management, Republic of South Africa

Prof. Paulo Cesar Chagas Rodrigues, Federal Institute of São Paulo, Brazil