



**Ministry of Education and Science
of the Russian Federation**

**National Research
Tomsk Polytechnic University**

ISSN 2312-2978

JOURNAL OF ECONOMICS AND SOCIAL SCIENCES

School of Core Engineering Education

<http://jess.esrae.ru/>

№ 17, 2021

Tomsk

JOURNAL OF ECONOMICS AND SOCIAL SCIENCES

Editorial Board

Editor in chief

Yulia Zeremskaya, Cand. Sc. (Russia)

Deputy chief editor

Lyubov Averkieva (Russia)

Members of editorial staff

Olga Solodovnikova, Cand. Sc.

(Russia)

Nina Nikolaenko, Cand. Sc. (Russia)

Elena Yakimenko, (Russia)

JOURNAL INFO

The major purpose of the online “Journal of Economics and Social Sciences” is the presentation of student and young scientist research results.

ISSN 2312-2978

Russian Science Citation Index (RISC)

UDC 30+33

LBC 60+65

The main headings:

1. Business studies
2. Social philosophy
3. Resource-efficient technologies
4. Engineering development
5. Innovations and technologies
6. Social responsibilities of modern engineering

Issue of journal is two times a year (December and May); extra issues are possible

Founder:

Institute of Humanities, Social Sciences and Technologies of National Research Tomsk Polytechnic University

Open access full-text articles can be found on websites: www.elibrary.ru,
www.e.lanbook.com.

JOURNAL OF ECONOMICS AND SOCIAL SCIENCES

2021 №17

CONTENTS

SOCIAL SCIENCES

Charge transfer and heat in photocatalysis Averkiev A.A.	6-15
A design for a magnetic-wheeled flaw detector platform Terentev E.S.	16-22
Mode selection of deuterium flux supply through palladium-silver filter in experiments with Pb15.7Li eutectic at reactor irradiation Tulubaev E.Yu.	23-27
Hybrid simulation of a radioisotope neutron source based on a mixture of stable crystals of Am and Be oxides Sabitova R.R., Prozorova I.V.	28-31
Integrated rock-typing approach considering petrophysics, geology and diagenesis Churochkin I.I.	32-35
Novel method for fracture propagation analysis after multistage refracturing on horizontal wells Nabokin I.R.	36-40
Snow cover studies using the example of Polish cities: Review Volodina D.A.	41-45
Analysis of geological and physical characteristics of hydrocarbon reservoir effect on the polymer flooding Soboslai M.G.	46-50
Analysis of sanitary protection zones location in the city area of Tomsk Birulina A.G.	51-55
Use of stabilized pressure curves in horizontal wells to evaluate the informative value determination of fluid flow parameters at production facilities Khagay D.E.	56-59

History of artificial lung ventilation apparatus development 60-64
Osipenko A.I., Baranov Pavel

ECONOMICS

The fight with hydrate formation during the operation of wells at the Tagulsky field 65-72
Fedyushkin K.G., Karapuzov I.A.

Impact of digital transformation on labor productivity in oil and gas extraction industry during well construction 73-75
Khudayarov T.A.

Informatization of personnel management systems 76-80
Biryuk D.V.

The study of RQ-system with unreliable device 81-84
Voronina N.M.

PHILOLOGICAL SCIENCES

Structural and typological analysis of special lexical units in the sphere of information technologies in English 85-91
Zyablova N.N., Ismagilov R.R., Petrova S.D.

Borrowings in the Contemporary Russian Language of Architectural Space Design 92-95
Matskevich N.A.

SCIENTIFIC PUBLICATION

JOURNAL OF ECONOMICS AND SOCIAL SCIENCES

Journal site is created on the platform RAE Editorial System

Site: <http://jess.esrae.ru/>

Correspondence address:

School of Core Engineering Education,
Division of Foreign Languages
National Research Tomsk Polytechnic University
30, Lenin Street,
634050, Tomsk
Russia