

University of Novi Sad FACULTY OF TECHNICAL SCIENCES DEPARTMENT OF PRODUCTION ENGINEERING 21000 NOVI SAD, Trg Dositeja Obradovica 6, SERBIA



<u>JOURNAL OF</u> PRODUCTION ENGINEERING

Volume 27 Number 1

Journal of Production Engineering, Vol.27 (2024), Number 1

Publisher: FACULTY OF TECHNICAL SCIENCES

DEPARTMENT OF PRODUCTION ENGINEERING

21000 NOVI SAD, Trg Dositeja Obradovica 6

SERBIA

Editor-in-chief: PhD Aco Antić

Technical treatment and design: PhD Dragan Rodić

Manuscript submitted for publication: June 23, 2024.

Printing: 1 st

Circulation: 30 copies

CIP classification:

CIP – Катаголизација у публикацији Библиотека Матице српске, Нови Сад

621

Printing by: FTN, Graphic Center

GRID, Novi Sad

JOURNAL of Production Engineering / editor in chief Pavel Kovač. – Vol. 12, No. 1 (2009)- . – Novi Sad : Faculty of Technical Sciences, Department for Production Engineering, 2009-. – 30 cm

ISSN: 1821-4932

Dva puta godišnje (2012-). Je nastavak: Časopis proizvodno mašinstvo = ISSN 0354-6446

ISSN 1821-4932

INTERNATIONAL EDITORIAL BOARD

Stefan J. Eder, Vienna University of Technology: Vienna, Austria

Tatjana Miljković, Miami University: Oxford, Ohio, United States

Santosh Patil, Manipal University Jaipur: Jaipur, Rajasthan, India

Goran Šimunović, University of Slavonski Brod, Slavonski Brod, Croatia

Borut Kosec, University of Ljubljana, Ljubljana, Slovenia

Stevo Borojević, University of Banja Luka, Banja Luka, Bosnia and Herzegovina

Robert Cep, Technical University of Ostrava, Ostrava, Czech Republic

Nicolae Ungureanu, Universitatea Tehnica din Cluj-Napoca: Baia Mare, Romania

Maria Amparo Borrell Tomás, Polytechnic University of Valencia, Valencia, Spain

Álmos Dávid Tóth, István Széchenyi University, Győr, Hungary

Editorial

The Journal of Production Engineering (JPE) dates back to 1984, when the first issue of the Proceedings of the Institute of Production Engineering was published in order to present its accomplishments. In 1994, after a decade of successful publication, the Proceedings changed the name into Production Engineering, with a basic idea of becoming a Yugoslav journal which publishes original scientific papers in this area.

The Journal of Production Engineering is a prestigious publication dedicated to advancing the fields of production engineering and technology. With a primary focus on industrial engineering and operations research, JPE aims to promote excellence in manufacturing processes worldwide. Known for its commitment to publishing compelling scientific results with clear applications in various fields, JPE emphasizes industrial practice, manufacturing technology, engineering, management science, and the optimization of complex processes, systems, or organizations. It serves as a platform for disseminating groundbreaking research that leads to practical advances.

Editor in Chief

Professor Aco Antić, PhD.