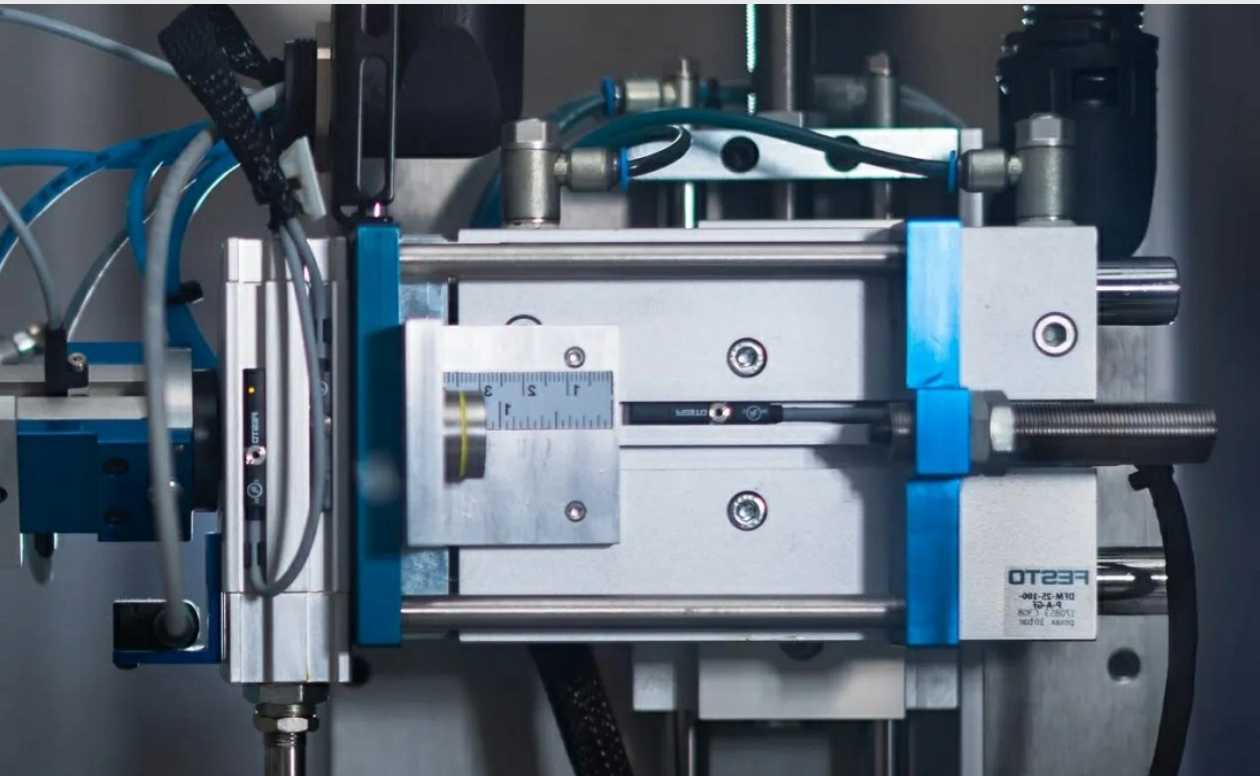


Mechanical Engineering

Journal of Mechanical Engineering, Automation and Control Systems



Editor in Chief

Algazy Zhauyt Almaty University of Power Engineering and Telecommunications, (Kazakhstan) ali84jauit@mail.ru

Assistant Editor

Musayev Janat Sultanbekovich Kazakh Academy of Transport and Communications M. Tynyshpaev, (Kazakhstan) mussayev75@yandex.kz

Editorial Board

Murat Zh. Adambayev Almaty University of Power Engineering and Telecommunications, (Kazakhstan) adambaev_m@mail.ru

Saule E. Bekzhanova Kazakh Academy of Transport and Communications named after M. Tynyshpayev, (Kazakhstan) s.bekzhanova@bk.ru

Toty Buzauova Karaganda State Technical University, (Kazakhstan) toty_77@mail.ru

Seckin Filiz Tekirdag Namik Kemal University, (Turkey) sfiliz@nku.edu.tr

Piotr Gierlak Rzeszow University of Technology, (Poland) pgierlak@prz.edu.pl

Mikhael Kuashnin Kazakh Academy of Transport and Communications named after M. Tynyshpayev, (Kazakhstan) kvashnin_mj55@mail.ru

Narzankul M. Makhmetova Kazakh Academy of Transport and Communications named after M. Tynyshpayev, (Kazakhstan) makhmetova_n1958@mail.ru

G. Eduardo Sandoval-Romero The National Autonomous University of Mexico, (Mexico) eduardo.sandoval@ccadet.unam.mx

Vladimir G. Solonenko Kazakh Academy of Transport and Communications named after M. Tynyshpayev, (Kazakhstan) v.solonenko@mail.ru

Yerbol S. Temirbekov Kazakh National University named after Al-Farabi, (Kazakhstan) temirbekove@mail.ru

Kazhybek T. Tergemes Almaty University of Power Engineering and Telecommunications, (Kazakhstan) tergemes@mail.ru

Mingfeng Wang Brunel University London, (United Kingdom) mingfeng.danny.wang@gmail.com

JMEACS Journal of Mechanical Engineering, Automation and Control Systems

Aims and Scope

JMEACS publishes a wide range of original research and review articles. The journal Editorial Board welcomes manuscripts in both fundamental and applied research areas, and encourages submissions which contribute novel and innovative insights to the field of mechanical engineering. All submitted articles considered suitable for JMEACS are subjected to rigorous peer review to ensure the highest levels of quality. Original papers which provide an important contribution to the development of mechanical engineering and report on significant developments in the field are encouraged. The review process is carried out as quickly as possible to minimize any delays in the online publication of articles. JMEACS aims to advance the understanding of mechanical engineering by providing a platform for the publication of unique contributions in the field of mechanical engineering across a variety of topics, including.

The list of principal topics:

- Mechanical engineering
- Materials science
- Applied mechanics
- Controls and dynamics
- Machine design
- Design theory and methodology
- Dynamic traffic signal control
- Transportation and logistics
- Railway engineering
- Bridge engineering
- Tunnel engineering
- Urban rail construction
- Engineering machinery
- Mechatronics
- Rotor dynamics
- Industrial robotics
- Intelligent control systems
- Haptics and human-machine-interfaces
- Robotics, mechatronics and micro-machines
- Mechanisms, mechanical transmissions and machines
- Kinematics, dynamics, and control of mechanical systems
- Manufacturing engineering
- Intelligent transportation systems and traffic control
- Automation, CNC machines and robotics
- Dynamics of machines, vehicles and flying structures
- Intelligent systems
- Computational mechanics
- Electronics, information and control systems
- Robotics and robot applications
- Robotic and control systems
- Mechanics of materials
- Intelligent control systems
- Mechatronics and robotics

All published papers are peer reviewed and crosschecked by plagiarism detection tools.

More information is available online <https://www.extrica.com/journal/jmeacs>

The journal material is referred:

EBSCO: <https://www.ebsco.com>

Directory of Open Access Journals (DOAJ): <https://doaj.org>

Scilit: <https://www.scilit.net>

Dimensions: <https://www.dimensions.ai>

Google Scholar: <https://scholar.google.com>

JGate: <https://jgateplus.com>

CORE: <https://core.ac.uk>

CNKI Scholar: <http://eng.scholar.cnki.net>

cnpLINKer (CNPIEC): <http://cnplinker.cnpeak.com>

WanFang Data: <https://www.wanfangdata.com.cn>

TDNet: <https://www.tdnet.io>

CiteFactor: <https://www.citefactor.org>

WorldCat Discovery Services: <https://www.oclc.org/en/worldcat-discovery.html>

MyScienceWork: <https://www.mysciencework.com>

Crossref: <https://search.crossref.org>

Content is archived in **Martynas Mazvydas National Library of Lithuania**

Internet: <https://www.extrica.com>

E-mail: publish@extrica.com

Publisher: Extrica

JMIE Journal of ACS Mechanical Engineering, Automation and Control Systems

DECEMBER 2024. VOLUME 5, ISSUE 2, PAGES (36-78), ISSN PRINT 2669-2600, ISSN ONLINE 2669-1361

Contents

A ROLLING BEARING FAULT DIAGNOSIS METHOD BASED ON COMPRESSIVE SENSING AND LOCAL CHARACTERISTIC-SCALE DECOMPOSITION	36
MYONG-JIN JO, SU-JONG KIM, TONG-CHOL CHOE	
SOLVING TIME-VARYING MESH STIFFNESS OF SPUR GEARS BASED ON IMPROVED POTENTIAL ENERGY METHOD	56
HAO ZHANG, HONGYUAN ZHANG	
RESEARCH ON ACTIVE STEERING CONTROL STRATEGY OF LINE-CONTROLLED STEERING SYSTEM BASED ON MPC	66
YUZHONG TONG, XIN ZHANG, XINXIN WANG, YUEHONG BAI, JIAO YAN	

SHORT DESCRIPTION ABOUT THIS CATEGORY

Novel and innovative insights to the field of mechanical engineering. Advance the understanding of mechanical engineering by providing a platform for the publication of unique contributions in the field of mechanical engineering across a variety of topics. Novel and innovative insights to the field of mechanical engineering. Advance the understanding of mechanical engineering by providing a platform for the publication of unique contributions in the field of mechanical engineering across a variety of topics.

