Ministry of Education and Science of Ukraine Vinnytsia National Technical University (VNTU) Ukrainian Association of Automatic Control Ukrainian Federation of Informatics

Ukrainian Section of the IEEE International Scientific and Technical Society Silesian University of Technology (Poland)

Institute of Theoretical and Applied Informatics of the Polish Academy of Sciences (Poland)
University of Žilina (Slovakia)

University of Texas at Austin (USA)

**King Saud University (Saudi Arabia)** 

Malacca Technical University of Malaysia (Malaysia)

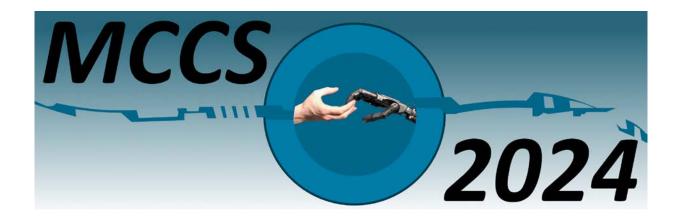
National Aerospace University named after N.E. Zhukovsky "Kharkiv Aviation Institute"

#### 17th International Conference

# MEASUREMENT AND CONTROL IN COMPLEX SYSTEMS (MCCS-2024)

(КОНТРОЛЬ І УПРАВЛІННЯ В СКЛАДНИХ СИСТЕМАХ - КУСС-2024)

Vinnytsia October 16-17, 2024



The 17th International Conference on Control and Management in Complex Systems (CMCS-2024) is dedicated to honoring the 100th anniversary of the founder of the conference, Academician Ivan Kuzmin, who was born on February 2, 1924. Throughout his illustrious life, Ivan Kuzmin launched airplanes, space rockets, scientific schools, and made a decisive contribution to the establishment of Vinnytsia National Technical University. He was an advocate of scientific exploration of the universe. We continue to uphold the traditions he established.

The **aim** of the conference is to discuss issues of control and management of technical, environmental, industrial, biomedical, and other complex systems in order to find common approaches, exchange ideas, identify development trends in this field of science, establish fruitful contacts, and encourage talented youth in scientific research. Special attention during the conference is planned to be given to the application of mathematical modeling, optimization, artificial intelligence, and other technical science approaches to solving problems in ecology, resource and energy conservation, management, medicine, and more.

#### **Conference Focus Areas:**

- Theoretical Foundations of Control and Management (general issues of mathematical modeling and control, mathematical methods in modeling and control, modeling and control under uncertainty);
- Advanced Methods, Software, and Technical Tools for Control and Management Systems (Internet of Things, methods and tools for measurement and control, optical information processing in control and management systems, telecommunications and computer networks, electronics and computing technology in management systems, software tools for management systems);
- Control and Management in Specific Fields (control and management in transport, ecology, and mining, in biotechnical systems, medicine, construction, management in organizational and economic systems, etc.);
- Control and Management in Energy (management in energy supply and generation systems, in systems with renewable sources, management in energy systems, etc.);
- Intelligent Technologies in Management Systems (intelligent data analysis, machine learning, optimization and decision making, pattern recognition in control and management systems, fuzzy methods and models in management, neural networks, genetic and other heuristic algorithms, expert systems, methodology of training specialists in the field of control and management).

#### **CONFERENCE CHAIR**

# V. Bilichenko – Rector of Vinnytsia National Technical University

## PROGRAM COMMITTEE

# Chair - V. Dubovoi (VNTU, Professor of the Department of Computer Control Systems)

Members: J. Alsayyed (Malaysia), M. Bajas (Ecuador), O. Bisikalo (Ukraine), S. Valchev (Portugal), Wan Wenda (China), O. Vasilevsky (USA), V. Vasylenko (Portugal), B. Verber (Slovenia), V. Vysotska (Ukraine), V. Vuytsyk (Poland), T. Hovorushchenko (Ukraine), I. Grebennyk (Ukraine), K. Grochla (Poland), I. Gurevich (Germany), M. Dyvak (Ukraine), V. Jingeng (China), I. Yepifanova (Ukraine), N. Zabolotna (Ukraine), O. Zaytseva (Slovakia), Ya. Ivanchuk (Ukraine), R. Kvyetnyy (Ukraine), V. Kempa (Poland), V. Kovtun (Ukraine), V. Komar (Ukraine), V. Levashenko (Slovakia), P. Lezhnyuk (Ukraine), V. Lysenko (Ukraine), M. Al-Maitah (Saudi Arabia), B. Mokin (Ukraine), V. Mokin (Ukraine), P. Molchanov (USA), S. Osadchyi (Ukraine), S. Pavlov (Ukraine), A. Raimi (Senegal), O. Romanyuk (Ukraine), B. Rusyn (Ukraine), A. Usov (Ukraine), V. Kharchenko (Ukraine), A. Khast (Sweden), M. Yukhymchuk (Ukraine).

#### **ORGANIZING COMMITTEE**

Chair - V. Kovtun (VNTU, Head of the Department of Computer Control Systems)

**Members:** V. Dubovoi, V. Sevastyanov, O. Bisikalo, M. Yukhymchuk, M. Baraban, Yu. Leshchenko.

#### **IMPORTANT DATES:**

Submission of applications and abstracts: by September 14

Notification of inclusion in the conference program: by September 25

Submission of presentations: by October 8 Conference opening: October 16 at 11:00

Due to the state of war in Ukraine, the conference will be held via teleconference. In case it is impossible to participate in the conference in person, participants should send an electronic PowerPoint presentation and an (audio) video recording of the presentation with the slides for the attendees' review.

The **registration fee** for participants with publication of works in digital form in the VNTU Repository is 250 UAH. The funds should be transferred to the account of the Charitable Organization "Charitable Fund "Vinnytsia Polytechnic"" (EDRPOU code: 45086596, account (IBAN): UA613052990000026003036111037 (currency UAH), card number: 4246001004702191) at PrivatBank. Please specify the purpose of payment as "for participation in the conference".

After the conference, participants who attended in person will receive certificates of professional development in the areas covered by the conference, totaling 30 academic hours (1 ECTS credit).

Participation in the conference is free of charge.

Conference working languages: Ukrainian, English.

Applications for participation in the conference are submitted through the Open Conference Systems platform on the conference page:

https://conferences.vntu.edu.ua/index.php/mccs/mccs2024/schedConf/cfp

To submit an application, it is necessary to upload an abstract of the presentation, which should be 180-200 words long.

The materials of presentations delivered and approved at the conference will be published as electronic publications (Proceedings of MCCS-2022) with each publication assigned a DOI.

Authors of materials recognized by section chairs based on presentation results will be invited to submit extended and formatted versions of their works to a special issue "Information and Communication Technologies in Smart and Critical Infrastructure: Efficiency, Security, Dependability" of the MDPI Electronics journal (second quartile in NMC Scopus & Web of Science, impact factor 2.9).

The materials of the presentations will be checked for similarity. Papers with a similarity level exceeding 50% will be automatically rejected.

The materials of the presentation, in case of its inclusion in the conference program, should be sent to the email address <a href="mailto:kuss@vntu.edu.ua">kuss@vntu.edu.ua</a>.

# **Contact information:**

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Website: <a href="https://conferences.vntu.edu.ua/index.php/mccs/mccs2024">https://conferences.vntu.edu.ua/index.php/mccs/mccs2024</a>

## Вимоги до доповідей

Доповідь має бути підготовлена в редакторі Word for Windows.

# Рекомендована структура доповіді:

Тези доповіді мають починатись зі **вступу**, написаного в формі, доступній для розуміння широким колом спеціалістів відповідної галузі науки. У вступі наводяться:

- постановка проблеми у загальному вигляді та висвітлення її зв'язку з важливими науковими чи практичними завданнями;
- аналіз досліджень і публікацій, в яких започатковано вирішення цієї проблеми і на яких ґрунтується дослідження авторів статті;
- виділення невирішених раніше частин загальної проблеми;
- формулювання мети дослідження.

В основній частині тез доповіді викладаються найважливіші отримані твердження і результати. Не слід перевантажувати текст великою кількістю формул, дублюванням тих самих результатів у таблицях і графіках. Бажано уникати довгих назв таблиць та рисунків. Слід застосовувати загальновживані терміни, позначення та скорочення.

Заключна частина має містити **приклад** (якщо це можливо), який ілюструє ефективність отриманих результатів, і **висновки**, що відображають основні результати і перспективи подальших досліджень. Висновки мають повною мірою відповідати змісту основного тексту.

Обсяг доповіді 3-7 сторінок.

## Оформлення матеріалів доповіді

Здійснюється відповідно до шаблону, представленого на сайлі конференції в .DOC та .PDF форматах: MCCS\_prykl.doc, MCCS\_prykl.pdf

Учасники з України додають довідку про можливість опублікування матеріалів доповіді у відкритому друці.