



Second Call for Papers
XVIII International Conference
MECHANICS, RESOURCE AND DIAGNOSTICS
of materials and structures

ORGANIZERS:



Ministry of Science and Higher
Education of the Russian Federation



Ural Branch of the
Russian Academy of Sciences



European Structural Integrity Society



The Russian National Committee on
Theoretical and Applied Mechanics



Institute of Engineering Science,
Ural Branch of the Russian Academy of
Sciences



M.N. Mikheev Institute of Metal Physics
of Ural Branch of
Russian Academy of Sciences



Institute of Strength Physics and
Materials Science of Siberian Branch
Russian Academy of Sciences



Institute of Continuous Media
Mechanics of the Ural Branch of
Russian Academy of Science

Dear colleagues,

You are welcome to participate in the 18th INTERNATIONAL CONFERENCE on MECHANICS, RESOURCE, AND DIAGNOSTICS OF MATERIALS AND STRUCTURES which will be held from **May 27 to May 31, 2024 in Ekaterinburg.**

**INTERNATIONAL ORGANIZING
COMMITTEE**

Co-chairs of the organizing committee:

Aleksandar Sedmak, Belgrade, Serbia,
President of the European Society for Structural
Integrity;

Sergey Smirnov, Ekaterinburg, Russia,
member of the Russian Committee of the
European Society for Structural Integrity.

Vice chair of the organizing committee:

Vladimir Shveikin, Ekaterinburg, Russia

Members of the organizing committee::

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A. K. Belyaev, St. Petersburg, Russia

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A. G. Chentsov, Ekaterinburg, Russia

V. N. Shlyannikov, Kazan, Russia, chair of the
Russian Committee of the European Structural
Integrity Society

E. I. Yakushenko, St. Petersburg, Russia

PROGRAM COMMITTEE

Program committee chair:

Evgeny Prosviryakov, Ekaterinburg, Russia

Members:

A. A. Bataev, Novosibirsk, Russia

S. A. Berestova, Ekaterinburg, Russia

S. V. Burov, Ekaterinburg, Russia

S. V. Gladkovsky, Ekaterinburg, Russia

V. B. Dementiev, Izhevsk, Russia

A. V. Konovalov, Ekaterinburg, Russia

V. N. Kostin, Ekaterinburg, Russia

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V. P. Radchenko, Samara, Russia

N. N. Soboleva, Ekaterinburg, Russia

P. V. Trusov, Perm, Russia

Yu. V. Khudorozhkova, Ekaterinburg, Russia

TECHNICAL COMMITTEE

Chair:

Ivan Kamantsev, Ekaterinburg, Russia

Conference secretary:

Evgeniia Putilova, Ekaterinburg, Russia

Committee members:

V. V. Privalova, Ekaterinburg, Russia

E. V. Fatykhova, Ekaterinburg, Russia

K. D. Kryucheva, Ekaterinburg, Russia

V. E. Veselova, Ekaterinburg, Russia

K. A. Asabin, Ekaterinburg, Russia

CONFERENCE SCOPE

The scope includes the following priority lines of basic and applied research in the field of materials:

- new methods for studying and predicting the useful life of machines and structures during their production and operation, with the application of a complex approach to estimating the current state of structural and functional materials in terms of nondestructive testing, materials science, and mechanics;
- methods of using the results of nondestructive testing and materials science analysis in models of mechanics intended for predicting the useful life of materials and structures;
- state-of-the-art technologies of design, production, processing, and testing of materials aimed at enhancing the functional properties, durability, reliability, and survivability of machine parts and structural components used under extreme conditions;
- interdisciplinary approach to studying advanced materials with a multilevel hierarchical structure to be used in new technologies and reliable constructions; integrated research and prediction of the lifetime of biological objects and living organisms with the application of nondestructive testing, materials science, and biomechanics.

SECTIONS

Section 1. Mechanics of damage and fracture.

Section 2. Structural aspects of deformation and fracture.

Section 3. Testing and diagnostics of materials and structures.

Section 4. Materials with multilevel hierarchical structure.

Section 5. Modeling of materials with multilevel hierarchical structure.

Section 6. Design and physical methods of diagnostics in engineering systems and medicine with the application of biosimilar technologies.

Section 7. Fluid mechanics in engineering and living systems.

Conference languages

Russian, English

The conference will include a youth school/conference, where undergraduates, postgraduates and young scientists aged under 35 are welcome to present their papers. The best papers will be awarded certificates of honor and valuable prizes by an expert jury.

KEY DATES

Registration and paper submission:
April 15, 2024

Payment transfer: April 22, 2024

The conference activities will consist of plenary and sectional sessions, as well as poster presentations. Invited speakers will lecture at the plenary sessions.

Plenary presentation time: 30 min.
Sectional presentation time: 15 min.

Poster presentations should be submitted as jpeg or pdf files with a resolution of at least 150 dpi, not exceeding 10 MB.

The conference provides for the possibility of remote participation with online presentation of papers via the Internet and absentee participation with the submission of poster presentations to the organizing committee.

REGISTRATION

Registration on the conference website:
<https://www.imach.uran.ru/Conf2024/reg/>

ADMISSION FEE

8000 RUB for full-time participation;
4000 RUB for undergraduates and postgraduates;
2000 RUB for absentee or remote participation.

The admission fee includes:

- ♦ for **full-time** participation: participation in sessions, conference participant's kit, coffee breaks, lunches (28.05.2024–30.05.2024), publication of abstracts in the Book of Abstracts, participant's certificate, cultural program;
- ♦ for **absentee** participation: remote participation in the sessions, publication of abstracts in the Book of Abstracts, certificate of participation.

The admission fee is paid by each participant: 1 admission fee = 1 participant.

CONTACT INFORMATION

For all information, please contact us at:

conf.mrdms.help@gmail.com

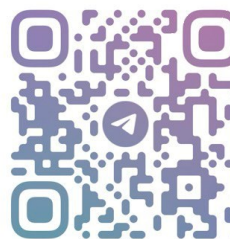
or by phone:

+7 (908) 633-0482 .

Telegram group:



Postal address: IES UB RAS,
ul. Komsomolskaya, 34,
Ekaterinburg, 620049, Russia



@CONF_MRDMS

CONFERENCE PLACE

The plenary, oral, and poster sessions will be held at the Oktyabrskaya Hotel, 17 S. Kovalevskoi St., Ekaterinburg.

CONFERENCE PUBLICATIONS

The authors are solely responsible for the content of the submitted materials. Since the texts will not be edited, please pay special attention to language and style correctness. Please send abstracts in the doc or docx format. The file name should contain the surname and initials of the speaker, for example, Rodman_NG.

The Book of Abstracts will be published before the beginning of the conference, indexing in RSCI is planned.

Based on the review of the abstracts, the organizing committee will invite participants to submit full papers to be published in a special issue of Procedia Structural Integrity (Web of Science and Scopus) or in peer-reviewed Russian journals (the list of journals is to be specified).

ACCOMMODATION

The organizing committee provides no accommodation for the conference participants, who are responsible for booking hotels on their own.