THE FOURTEENTH INTERNATIONAL SCIENTIFIC-PRACTICAL CONFERENCE
"Mathematical Modeling and Simulation of Systems. MODS'2019"
June 24 – June 26 2019, Ukraine, Chernihiv

Dear Colleagues,

We invite you to participate in the scientific-practical conference, which is the part of events to implement the Law of Ukraine "About national Program of Informatization" and the plan of scientific and organizational events of the National Academy of Sciences and Ministry of Education and Science of Ukraine.

ORGANIZERS

- Ministry of Education and Science of Ukraine
- The National Academy of Sciences of Ukraine
- Academy of Technological Sciences of Ukraine
- Engineering Academy of Ukraine
- State Scientific Research Institute of Armament and Military Equipment Testing and Certification, Ukraine
- Glyndwr University, Wrexham, UK
- US Army Research Laboratory, USA
- Defence Institute of Tsvetan Lazarov, Bulgaria
- Lodz University of Technology, Poland
- Riga Technical University, Latvia
- Tallinn University of Technology, Estonia
- University of Extremadura, Badajoz, Spain
- Francysk Scoryna Gomel State University, Belarus
- Institute of Mathematical Machines and Systems Problems of the NASU
- Keldysh Institute of Applied Mathematics of the RAS, Moscow, Russia
- National Techhical University of Ukraine "Kyiv Polytechnic Institute"
- Yuriy Kondratiyk Poltava National Technical University, Ukraine
- The Bohdan Khmelnytsky National University of Cherkasy, Ukraine
- Chernihiv National University of Technology, Ukraine

PARTNERS

«S&T Ukraine», Kyiv, Ukraine

PURPOSE OF THE CONFERENCE

Exchange of experience in research, organizational, scientific and practical work on:

- modern aspects of mathematical modeling and simulation of systems in ecology, GIS;
- modern aspects of mathematical modeling and simulation of systems in manufacturing;
- modern aspects of mathematical modeling and simulation of systems in information technology;
- modern aspects of mathematical modeling and simulation of systems in project management.

PROGRAM COMMITTEE

CO-CHAIRMEN:
Borovin G.K., D.Sc. (Phys.-Math.), Russia
Bashynskyi V.G., Dr. Sc., Chief Sc., Ukraine
Vasiliev A.I., D.Sc. (Econ.), Ukraine
Dmitri Vinnikov, Dr.Sc., Estonia
Ilya Galkin, Dr.Sc.Ing., prof., Latvia
Demidenko O.M., D.Sc., prof., Belarus
John Davies, prof., U.K.
Ireneusz Zbiciński Ph.D., D.Sc, prof., Poland
Morozov A.A., corresponding member of the NASU, Ukraine
Onishchenko V.A., D.Sc. (Econ.), prof., Ukraine
Enrique Romero-Cadaval, Dr.Sc., prof., Spain
Shkarlet S.N., D.Sc. (Econ.), prof., Ukraine

ORGANIZING COMMITTEE

CHAIRMAN
Igor Skiter – PhD (Phys.-Math.), As. prof.

CO-CHAIRMAN
Igor Brovchenko – D.Sc.

SECRETARIES:
Alla Hrebinnyk, Mariia Voitsekhovska

ORGANIZING COMMITTEE MEMBERS:
Valentyn Nekhay, Ivan Burmaka, Alexandr Dryzhynin

PROGRAM COMMITTEE MEMBERS:
Adamchuk V.V., D.Sc., prof., member of NAASU; Azarov O.D., D.Sc., prof.; Verlan A.F., Dr. Sc., prof.; Voloshyn O.F., Dr. Sc., prof.; Gitis V.B., Ph.D; Golub S.V., D.Sc., prof.; Golubev Y.F., D.Sc., prof.; Gryshko V.V., D.Sc. (Econ.), prof.; Dmytriiev V.A., PhD, Chief Sc.; Zhelezniak M.Y., PhD; Janis Zakis, Dr.Sc.Ing.; Kazymyr V.V., D.Sc., prof.; Kharchenko V.S., D.Sc., prof; Klimenko V.P., D.Sc., prof.; Kovalevskyi S.V., D.Sc., prof.; Kovalets I.V., D.Sc.; Kostogryzov A.I., D.Sc., prof.; Kraskevych V.E., D.Sc., prof.; Lande D.V., D.Sc., prof.; Lytvynov V.V., D.Sc., prof.; Liakhov O.L., D.Sc., prof.; Maderych V.S., D.Sc., Myronenko V.G., D.Sc., prof., member of NAASU; Mozharovskiy V.V., D.Sc., prof.; Sagayda P.I., Ph.D; Snytiuk V.E., D.Sc., prof.; Stetsenko I.V., D.Sc., prof.; Tarasenko V.P., D.Sc., prof.; Tarasov O.F., D.Sc., prof.; Tomashevskiy V.M., D.Sc., prof..

TOPICS OF THE CONFERENCE

- Methods of mathematical modeling and simulation
- Tools of mathematical modeling and simulation
- Mathematical modeling and simulation of systems in ecology, geology, manufacturing, information technologies, project management

- ❏ Modeling, analysis and tools of safety in distributed information systems
- ❏ Mathematical modeling and simulation of special purpose equipment samples

IMPORTANT DATES OF THE CONFERENCE

April 26 – the last day to submit papers for Springer.
May 26 – the last day to submit abstracts of reports.
June 07 – the last day to payment transfer for participation in the conference.
June 24 – arrival of participants to CNUT, Chernihiv, registration, plenary session, work in sections.
June 25 – work in sections, closing of the conference.
June 26 – excursion to Liubech, leaving of participants from CNUT, Chernihiv.

PUBLICATIONS OF REPORTS AND OFFICIAL LANGUAGES OF THE CONFERENCE

Selected *Papers* based on the reports, and presented during the conference, will be published in the "Advances in Intelligent Systems and Computing" (ISSN: 2194-5357) journal by Springer. Papers language is English (USA) only. Requirements for papers on https://www.springer.com/us/authors-editors/conference-proceedings/conference-proceedings-guidelines
Papers that will not be selected to AISC will be recommended for publication in the IMMSP "Mathematical Machines and Systems" journal or in the CNUT "Technical Sciences and Technology" journal, which are included in the list of the Higher Attestation Commission of Ukraine. Requirements for arrangement of papers for publication in the journal "Mathematical Machines and Systems" are presented here: http://www.immsp.kiev.ua/publications/rules.html and in the Journal of CNUT http://tst.stu.cn.ua/?task=page&l=ua&id=1
Abstracts of reports will be published in the conference proceedings prior to the conference. Official languages of the conference are English, Ukrainian, and Russian.

SUBMISSION OF PROCEEDINGS

Papers for Springer should be submit through EasyChair https://easychair.org/conferences/?conf=mods2019
Proceedings (abstracts of reports) should be download (file *.doc MS Word) with Registration Form on mods.stu.cn.ua with notification to e-mail mods.ipmms@gmail.com (a copy to grebennik.alla@gmail.com) or on CD by regular mail to the address of the Organizing Committee.

Requirements to arrangement of proceedings: text, graphics and formulas (MS Equation 3.0); page parameters – paper size A5 with indents up and down 2 cm, left 2.5 cm, right 1.5 cm, Times New Roman font, size 10, line interval – 1,0. In the upper left corner indicate UDC. Title of the report (big "bold" letters) is in the center, on the next line are initials and surnames of authors, further there is a name of the institution (in italics), after a free line the text of the report begins. The abstract should not exceed four (4) pages size A5.
Example of an abstract

UDC 517.957

MATHEMATICAL MODELING OF DYNAMICS OF POPULATION DEVELOPMENT
V.G. Malenko
Institute for Applied System Analysis, Ukraine

The problem of population dynamics is central to ecological studies. For a more adequate description of population dynamics one must take into consideration heterogeneity of individuals' properties, particularly the age-old structure.
A simpler example of a structured model for age is a von Foerster's linear model [1]. It looks like this:

$$\frac{\partial \widetilde{\varphi}}{\partial t} = r\left[\frac{g}{\omega}\nabla \vec{Q} - 2\vec{U}\cdot\nabla\widetilde{\varphi} - \gamma_d \widetilde{\varphi}\right]$$

(1)

Literature

A. Von Foerster H. Some remarks on changing populations / / Kinetics of Cellular Proliferation. - New-York: Grune and Stratton, 1959. - P. 382 - 407.

CONFERENCE FEES

Participants from Ukraine: **350** UAH (part-time participation) and **700** UAH (full-time participation).
Participants from other countries: **30** EUR (part-time participation) and **60** EUR (full-time participation).
Organizing fee for the conference includes organizational expenses, excursion and catering (for full-time participants), mailing of the conference proceedings (for part-time participants). Payment of the organizing fee can be made by requisites indicated below **till June 07, 2019,** or directly during the registration, in preliminary agreement with the organizing committee.
After payment authors are asked to send scanned copy of payment receipt to the following e-mail mods.ipmms@gmail.com with "MODS'2019 Conference Fee payment" in attachment.

<table>
<tr><td align="center">Organizing Committee Address:
Chernihiv National University of Technology,
95, Shevchenko str., Chernihiv, 14035, Ukraine
Telephone, email:
+38 046 266 51 74
+38 067 278 06 42
mods.ipmms@gmail.com
skiteris_mods@ukr.net
grebennik.alla@gmail.com</td><td align="center">Payment requisites:
Chernihiv National University of Technology,
Code 05460798 STSU in Kyiv IFO 820172
p/a 31251264206996
Payment purpose: org.fee for participation in the conference MODS'2019.
Official site of the conference:
https://mods.stu.cn.ua</td></tr>
</table>

For participants from other countries there is a possibility to make a transfer by Western Union; PrivatMoney: SKITER IGOR (tel.: +38 067 278 06 42)