# XI INTERNATIONAL CONGRESS "MACHINES, TECHNOLOGIES, MATERIALS"

17 - 20.09.2014 VARNA, BULGARIA



#### **TOPIC**

"INNOVATIONS FROM SCIENCE TO INDUSTRY"

# ORGANIZER SCIENTIFIC-TECHNICAL UNION OF MECHANICAL ENGINEERING BULGARIA

#### **CO-ORGANIZERS**

Federation of the Scientific-Technical Unions in Bulgaria
Technical University – Sofia
Technical University – Varna
Technical University – Gabrovo
Ruse University "Angel Kanchev"
Todor Kableshkov University of Transport, Bulgaria
University of Chemical Technology and Metallurgy – Sofia
Society of Polish Mechanical Engineers and Technicians (SIMP) – Poland
Scientific – Technical Association - China
Scientific and Technical Unions - Varna

#### WITH THE SUPPORT OF

- 1. National Scientific -Technical Societies:
- Society of Foundry
- Metal Science and Heat Treatment Society
- Automation of Discrete Production Society
- Bulgarian Society of Non-Destructive Testing
- Gear Transmissions and Driving Society
- · Plastic Deformation and Destructive testing
- Plastics in Mechanical Engineering Society
- Society of Powder Metallurgy and Composite Materials
- Management and Engineering Society
- Ergonomics and Industrial Design
- · Industrial informatic

- 2. Bulgarian Welding Society
- 3. Bulgarian Society of Robotics and Mechatronics
- 4. Bulgarian Society of Tribology

#### **HONORARY COMMITTEE**

Stefan Vodenicharov – Acad., President of the Bulgarian Academy of Sciences
Ivan Yachev – Prof. DSc., President of the Federation of Scientific Technical Unions in Bulgaria
Marin Hristov – Prof. Dr., Rector of the Technical University – Sofia
Ovid Farhi – Prof. Dr., Rector of the Technical University – Varna
Hristo Beloev – Prof. DSc., Rector of the University of Ruse
Raycho Ilarionov – Prof. Dr., Rector of the Technical University – Gabrovo
Peter Kolev – Prof. DSc., Rector of the Todor Kableshkov University of Transport – Sofia
Mitko Georgiev – Prof. Dr., Rector of the University of Chemical Technology and Metallurgy – Sofia
Andrzei Cizsewski – President of the Association of Polish Mechanical Engineers and Technicians –
WEI YU – Vice Chair of the Wuxi Association for Science & Technology, China

#### INTERNATIONAL PROGRAM COMMITTEE

Chairman: Prof. DSc. Georgi Popov Vice Chairman: Assoc. Prof. Dr. Tsanka Dikova

Executive Secretary: Assoc. Prof. Dr. Mara Kandeva

Members:		Members:	
Acad. Ivan Vedyakov	RU	Prof. Milan Vukcevic	ME
Prof. Aleksander Mihaylov	UA	Prof. Mladen Velev	BG
Prof. Anatoliy Kostin	RU	Prof. Mohamed El Mansori	FR
Prof. Adel Mahmud	IQ	Prof. Nikolay Dyulgerov	BG
Prof. Andrzej Golabczak	PL	Prof. Oana Dodun	RO
Prof. Boncho Bonev	BG	Prof. Olga Krivtsova	KZ
Prof. Gennady Bagluk	UA	Prof. Peter Kostal	SK
Prof. Dipten Misra	IN	Prof. Roumen Petrov	BE
Prof. Dmitry Kaputkin	RU	Prof. Sasho Guergov	BG
Prof. Eugene Eremin	RU	Prof. Seiji Katayama	JP
Prof. Ernest Nazarian	AM	Prof. Sergej Dobatkin	RU
Prof. Zhivka Ovtcharova	DE	Prof. Sergej Nikulin	RU
Prof. Esam Husein	KW	Prof. Svetlana Gubenko	UA
Prof. Jozef Marcincin	SK	Prof. Tale Geramitchioski	MK
Prof. Leon Kukielka	PL	Prof. Tsvetan Rachev	UK
Prof. Lyudmila Ryabicheva	UA	Prof. Vadim Kovtun	BY
Prof. Marian Tolnai	SK	Prof. Viktor Vaganov	RU
Prof. Mikulas Hajduk	SK	Prof. Yasar Pancar	TR

#### **NATIONAL ORGANIZING COMMITTEE**

Chairman: Vice Chairmen:

Prof. DSc. Eng. Dimitar Stavrev Assoc. Prof. Eng. Ivan Kralov

Dr Raycho Georgiev

Members:

Members:

Prof. Idilia Bachkova
Prof. Lyubomir Dimitrov
Assoc. Prof. Miroslav Denchev
Assoc. Prof. Ognyan Andreev
Assoc. Prof. Galina Zamfirova
Assoc. Prof. Roman Zahariev
Assoc. Prof. Galina Nikolcheva
Dr. Margarita Manolova

Assoc. Prof. Dimitar Karaivanov Dr. Sonya Vachinska Eng. Ognyan Zhekov

#### INVITATION

Dear Colleagues,

The Eleventh International Congress "MACHINES, TECHNOLOGIES, MATERIALS - INNOVATIONS FOR THE INDUSTRY" will be held from 17<sup>th</sup> to 20<sup>st</sup> September, 2014 in the resort "St. St. Konstantin and Elena", region Varna, as a comprehensive scientific-technical event, which includes three main topics. The Congress program includes also five special congress sub-sections which were held separately till now.

We invite scientists and researchers to present the results of their investigations to the colleagues and industry representatives and to publish them in the web-based International Scientific-Technical Journal "MACHINES, TECHNOLOGIES, MATERIALS", which is issued in printed form and CD as well.

We invite companies with presentations at the congress sessions and advertising materials to present their available on the market machines, equipment, technologies, materials and services.

We hope the Congress **MTM'14** will play a leading role as an innovation mediator between the scientific research and industry and we offer you to take advantage of this opportunity.

The weekend program after the MTM'14 opening will give you a chance for rest, entertainment and learning more about the cultural, historical and natural attractions of the northern coast of Black Sea.

Prof. DSc. Eng. Georgi Popov, President of Bulgarian Scientific-Technical Union of Mechanical Engineering, Chairman of the International Program Committee

#### SCIENTIFIC PROGRAM

#### **TOPICS**

#### 1. MACHINES:

Design and Construction. Rapid Prototyping. Manufacturing. Investigation and Testing. Exploatation, Maintenance and Repair. Recycling and Utilization. Life Cycle Engineering. Re-Engineering. Training.

#### 2. TECHNOLOGIES:

Metal Casting, Plastic Deformation, Welding, Soldering and Adhesive Bonding, Machining. Surface Treatment. Changing of Properties. Testing, Measurement and Control. Automation. Logistic. Load Treatment. Management and Engineering. Energy Saving and Environment Friendly Technologies. Training

#### 3. MATERIALS:

Materials Science. Metal Materials, Non-Metal Materials, Tool Materials, Construction Materials, Accessory Material. Composites. Training

#### **SPECIAL CONGRESS SUB-SECTIONS**

- 1. POWER TRANSMISSIONS 2014 (mechanical, electrical, hydraulic and pneumatic)
- 2. INDUSTRIAL DESIGN ENGINEERING & ERGONOMICS 2014
- 3. BULTRIB 2014
- 4. INDUSTRIAL INFORMATIC 2014
- 5. KNOWLEDGE, CREATIVITY, INNOVATIONS 2014
- 6. INDUSTRIAL MANAGEMENT 2014
- 7. NANOMATERIALS 2014

**The official language** of the XI International Congress "Machines, Technologies, Materials" **is English.** 

#### **CALL FOR PAPERS**

Scientists from all over the world are kindly invited to present the results of their researches in the plenary, section and poster sessions or in the special congress sub-sections.

Companies, offering machines, materials, technologies and services on the market, are also invited to present practical results in accordance with the congress topics in the form of company presentations and advertisement at the congress halls and in the congress printed issues.

Paper's abstract up to 200-350 words, written in English, in .doc or .docx format, with up to 10 keywords, authors' names and titles, occupation and e-mail address, together with the *Author's Response* (*Form A*) or the online registration has to be sent to the Organizing Committee not later than Mach 30, 2014.

The Author's response Form A will be registered in the section <u>"Received Abstracts and Papers"</u> of the congress web-site and a registration number will be given the paper. The Organizing Committee will be appreciated, if the authors use this registration number in the further correspondence and if the files sent also begin with this number and the phrase "mtm14". For example: **131\_Spenser\_mtm14.doc.** 

Authors of the approved papers will be informed about the Program Committee's decision not later than April 15, 2014.

Only papers formatted in accordance with the **graphical** and **text** instructions, accepted peer-reviewed and presented at the oral and poster congress sections will be published.

The full text papers up to 4 pages, written in English, must be sent not later than July 30, 2014 by email, together with the *Application form for participation* (<u>Form B</u>) or <u>ONLINE REGISTRATION</u>. The name of the paper's file has to consist of the registration number, author's name and the phrase "mtm14". For example: "131\_Spenser\_mtm14.doc"

The congress papers will be published in distinct issue of web-based international scientific journal "MACHINES, TECHNOLOGIES, MATERIALS" (ISSN 1313-0226). The journal is indexed in the U.S. databases CAS – www.cas.org.

If the authors cannot participate personally in the Congress, they can participate in the poster session. In that case the author should pay only the publication fee and the paper will be published in the congress journals. The poster papers have to be formatted according to the poster graphical and text instructions. They should be sent by e-mail until September 01, 2014 so the papers could be presented at the Congress. The Organizing Committee takes the obligation to print the poster and to include it in the poster session.

All instructions can be found on the congress website: www.mech-ing.com/mtm/. An example of the title page can be downloaded there, so the authors could write easy the whole paper according to the requirements.

#### **PUBLICATIONS**

All papers included in the congress scientific program will be published as follows:

- Papers written in English: in the separate issue of the international journal for science, techniques and innovations for the industry <u>"Machines, Technologies, Materials"</u> (ISSN 1313-0226). The journal is indexed in the American database CAS www.cas.org.
  - CD containing all the papers.
- > Author's reprints, containing the title page, contents and the paper printed with the pagination of the pages.

The volumes and issues will be deposited in the National Library "St. St. Cyril and Methodius", Central Scientific and Technical Library.

## FFFS AND PAYMENTS

TYPE OF FEE	EURO	
TIPE OF FEE	Up to 30.06.	After 30.06.
1. Congress fees:		
1.1. Participation Fee	200 / 120*	250 / 180*
<u>Fees of 1.1</u> : welcome party, congress materials, coffee breaks, publishing in the web based journal "Machines, Technologies, Materials", author's reprint and CD with all papers.		

1.2. Fee for second and third paper - only publication fee	90	130
2. Accompanying person (including co-authors)		
Includes: welcome party, congress materials, coffee breaks	110	150
3. Publication fee (For authors who cannot participate personally in the congress)	90	130
<u>Includes</u> : publishing in the web based journal "Machines, Technologies, Materials", author's reprint, CD with all papers and printing of the poster paper in A2 format.		
4. Additional payments:		
<b>4.1.</b> For receiving the printed issue of the journal at the Congress (volume with the papers).	25	25
<b>4.2.</b> For receiving the printed issue of the journal by post (volume with the papers).	30	30

<sup>\*</sup> Reduced fee for "Young scientists in 35 years".

#### **OVERNIGHT STAYS**

### Hotel "Aqua Azur"\*\*\*\*

Price per night: single room 35 Euro, double room - 45 Euro

#### **PAYMENTS**

**Bank transfer** to the account of the Scientific and Technical Union of Mechanical Engineering at ProCredit Bank:

IBAN: BG70 PRCB 9230 100779 0813, BIC: PRCBBGSF

Beneficiary: NTS mashinostroene.

Please write in the payment document "MTM'14" and your registration number which you may find here: <a href="http://www.mtmcongress.com">http://www.mtmcongress.com</a> in the section "Received abstracts and papers"
In cash at the office of the Scientific and Technical Union of Mechanical Engineering: 1000 Sofia, 108 "G. S. Rakovski" str. Office №411.

All bank charges related to the transfer are borne by the participant.

#### **GENERAL INFORMATION**

#### THE VENUE

Registration, opening, plenary and sectional sessions: hotel "Aqua Azur" \*\*\*\* in Resort "St. St. Constantine and Elena "

#### **ACCOMODATION**

Hotel "Aqua Azur"\*\*\*\*

If arriving by car you may use the GPS coordinates of the hotel "Aqua Azur": **N 43grad 14,277' EO 28grad 00,828'** 

#### **TIME TABLE**

**17.09.2013 (Wednesday)** Registration of the participants.

**18.09.2013 (Thursday)** Opening ceremony 10:00. Plenary session. Congress sessions. Special Congress Sub-sections. Poster session. Welcome party.

20.09.2013 (Friday) 09:00 Congress sessions. Youth symposium. Closing of the Congress.

#### **Public transport**

From the airport to the hotel "Aqua Azur": there is a direct bus line 409 (23th stop "Minyor").

From the bus station to the hotel "Aqua Azur": there is a direct bus line 409 (16-th stop "Minyor").

From the railway station to the hotel "Aqua Azur" - Bus 9 (the last stop in the center of the resort "St. St.

Konstantin and Elena". The hotel "Aqua Azur" is 250 meters away.

#### REGISTRATION

In the lobby of the hotel "Aqua Azur". Address: Varna, PO Box 9006, Resort "St. Konstantin and Elena ": 17.09.2014 from 16.00 to 21.00 and 18.09.2014 from 08.00 to 09:45.

#### **ENTRY TO BULGARIA**

Visitors from the European Union coming to Bulgaria need an identity document.

Visitors from other countries require an entry visa.

Visitors are recommended to contact the Bulgarian Embassy (you can find them on: <a href="http://www.mfa.bg/en/">http://www.mfa.bg/en/</a>) or Consulate in their own country for information on visa requirements. If an official letter of invitation is requested, please contact the Congress Secretariat in due time (before the registration deadline).

#### **TIME**

Bulgaria is in the Eastern European Time Zone (GMT+2)

#### **WEATHER**

**Air temperature**: on 18.09.2013 - 25,6 °C and on 19.09.2013 - 22,4 °C.

**Sea temperature:** on 18 and 19.09.2013 - 24 °C

Check the weather in real time here: <a href="http://weather.bg/indexen.php">http://weather.bg/indexen.php</a>

#### **CURRENCY**

The official currency is the lev (plural: leva).

1 euro = 1.95583 lev

All major credit cards (e.g. VISA, MasterCard, Eurocard) are usually accepted in Bulgaria

#### **EMERGENCY SERVICES**

Uniform European telephone number for emergency situations: 112

#### **DEADLINES**

The Abstract of the paper and Author's Response Form "A" or	30.04. 2014
online registration should be sent up to	
Confirmation of the abstract approval	15.04. 2014
The Full text of the paper(s) and Participation Form "B" or online	30.06. 2014
registration should be sent up to	
Payment of the Congress fees	30.06. 2014
Announcement of the Congress program on the web page:	01.09. 2014
http://www.mtmcongress.com/1.xls	
The Organizing Committee will receive posters up to	01.09. 2014
Registration of the participants	17.09. 2014
Opening of the congress	18.09. 2014
Departure pf the participants	20.09. 2014

# **CONGRESS SECRETARIATE**

Scientific-Technical Union of Mechanical Engineering 108 Rakovski str., 1000 Sofia tel./fax (+359 2) 986 22 40, tel. (+359 2) 987 72 90 Mobile: +359 888003582

office@mtmcongress.com, http://mtmcongress.com Skype: NTSMashinostroene1966