Introduction

The Metnet Moscow seminar is the ninth Metnet seminar ever arranged. It will be a scientific seminar with interesting practical extensions. Scientific Papers and Technical Reports will be published in the scientific book / e-book of the seminar. In the seminar Metnet partners will be presenting their latest developments and latest proceedings in the R&D work on metal branch.

There will be a section for presenting projects, development work and organisations as well. An excursion to some MGSU laboratories will be arranged.

The purpose of the Metnet network is to match and utilize the know-how and activities of European R&D and training organizations and to develop new products, services and business for the companies on metal branch. Metnet cooperation supports innovation processes in companies on metal branch and promotes knowledge and best practice expertise transfer between companies, research and training organizations in Europe.

Lauri Tenhunen
Chairman Metnet
Program Tuesday 21 October 2014

National Research University
Moscow State University of Civil Engineering MGSU
26 Yaroslavskoye Shosse
Moscow, Russia, 129337

The entrance of the university (building 22 floors), conference hall

09:00 Registration begins

10:00 Opening speech
Rector of Moscow State University of Civil Engineering (MGSU)
Prof. DSc. Andrey A. Volkov

10:10 Practical matters
Natalia Samotesova, Head of International Relations Department
National Research University
Moscow State University of Civil Engineering MGSU

10:15 Seminar Program Outline
Dr.Sc. Lauri Tenhunen, HAMK

10:30 Sponsors Presentations

Ruukki Russia
Presentation of Activities, Yuriev Dmitriy – Director, design and pricing

Ltd TSF “Spetsprokat”
Economics of building technology applying steel frame constructions. What is the benefit? (with examples of Spetsprokat factory). Deputy Director for Marketing and Finance, Ph.D, Ltd TSF “Spetsprokat” - Violetta Loziuk

Steel Construction Development Association (SCDA)
Forming Center of science competences inside “Steel construction development Association (SCDA)”
Director of the SCDA – Dmitry Eremeev.

11:30 Coffee Break

12:00 Plenary Sessions and presentations
(each presentation 12 minutes + 3 minutes for questions)

Computational techniques. Chair: Nikolai Vatin

12:00-12:15 Dimo Zhelev
Numerical simulation of cyclic load on end plate connection

12:15-12:30 Sharmistha Chowdhury
Parameter estimation of different fatigue crack growth models

12:30-12:45 Y Kudishin and A Grishin
Current trends in the analysis of metal structures

12:45-13:00 Grudev Ivan Dmitriyevich
Local bending stability of tube with rectangular cross section.

13:00 Lunch
Experimental techniques. Chair: Raimo Ruoppa

14:00-14:15 Ingmar Stade and Carsten Könke
*Generation of numerical simulation models from computed tomography image data*

14:15-14:30 Peter Olney, Ingmar Stade and Maher Deeb
*DYNAMIC PROPERTIES IDENTIFIED FROM MEASUREMENTS ON IDENTICAL POLE STRUCTURES*

14:30-14:45 Raimo Ruoppa, Rauno Toppila, Vili Kesti and Anna-Maija Arola
*Bendability tests for ultra-high-strength steels with optical strain analysis*

14:45-15:00 Leonid Storozhenko, Grigoriy Gasii and Sergey Gapchenko
*STEEL-REINFORCED CONCRETE STRUCTURAL CLADDING*

15:00-15:15 Leonid Storozhenko, V V Muravlyov and F Shkolyar
*Testing concrete beams with reinforcement bar webs*

15:15-15:30 Nikolay Vatin, Jarmo Havula, Lassi Martikainen, Alexey Sinelnikov and Lidia Shorovkina
*Reticular-stretched thermo-profile: buckling of the perforated web*

15:30 Coffe Break

Technical issues. Chair: Arto Ranta-Eskola

16:00-16:15 Markku Heinisuo and Teemu Tiainen
*Tubular truss joints – hinged or rigid?*

16:15-16:30 V V Devyatov and V V Vershinin
*Steel consumption efficiency improvement in hollow units manufacturing*

16:30-16:45 S F Pichugin
*Reliability analysis of steel structures*

16:45-17:00 A A Vasilikin
*System engineering of optimal design of building constructions elements*

17:00 Announcements and Closure for the day

18:00 Dinner *(The dinner will take place at MGSU)*

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Wednesday 22 October 2014

**National Research University**  
**Moscow State University of Civil Engineering MGSU**  
26 Yaroslavskoye Shosse  
Moscow, Russia, 129337

The entrance of the university (building 22 floors), Conference hall

08:30 Registration begins

09:00 Welcome to Metnet Budapest Seminar in Hungary  
*(preliminary 13.-14.10.2015)*  
Local organizer is the Budapest University of Technology and Economics
09:10 Metnet workshop in Hämeenlinna in Finland (18.2.-19.2.2015)
Organizer HAMK University of Applied Sciences

09:20 Round Table of companies
Ruukki Russia
Ltd TSF “Spetsprokat”
Steel Construction Development Association (SCDA)

10:10 Coffee Break

10:30 Open topics. Chair: Arto Ranta-Eskola

10:30-10:45 Lauri Tenhunen and Arto Ranta-Eskola
Choice of evaluation aspects in understanding university-business cooperation results

10:45-11:00 Bogdan Mocan, Stelian Brad, Mircea Fulea
Design Framework of a robot system for cleaning external glass walls of modern buildings

11:00-11:15 V M Fridkin, I M Kouzmenko, N S Sysa, D O Kuzmenka and S V Bogdanov
Design engineering and manufacturing of bearing elements of low steel weight

11:15-11:30 Valentina Parlashcevich
Economic, social and technical factors of quality improvement of welded construction

11:30-11:45 P G Yeremeyev
Modern stadia - technical and economic problems of design and operation

11:45-12:00 K M Khanukhov
Safety measures for storing of liquefied gases in large welded low pressure tanks

12:00 Group work and discussions

Group 1: Preparing project initials of current interest
Group 2: BOAT / BOAT Seed topics
Group 3: Planning of international scientific papers

13:00 Lunch

14:00 Excursion

- Museum of MGSU
- Educational-Scientific-Production Laboratory of the aerodynamic and aero-acoustic tests of building structures
- Research and Education Center «Engineering studies and monitoring of building structures»
- Building Structures Testing Centre

17:00 End of seminar
After-Conference Program
Thursday 23 October 2014

National Research University
Moscow State University of Civil Engineering MGSU
26 Yaroslavskoye Shosse
Moscow, Russia, 129337
The Entrance of the University (building 22 floors)

10:00 Special meetings
  - BOAT Project meetings
  - Bilateral Meetings
  - Student international practising arrangements
  - Posters etc.

Seminar contact information

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Seminar registrations:

Registrations not later than 15th October 2014 to

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**Articles and language**

The seminar language is English. Russian is accepted in case the presentation slides are in English.

All full papers should be written in English. The last versions of the full seminar articles should be submitted to lauri.tenhunen@hamk as soon as possible.

You will find the example form of a Metnet article from the first page of www.hamk.fi/metnet

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**Meeting places in Moscow 21.-22.10.2014**

**Seminar:**

National Research University
Moscow State University of Civil Engineering MGSU
26 Yaroslavskoye Shosse
Moscow, Russia, 129337

**Dinner:**

The dinner will take place at MGSU.

**Excursion:**

Activities in MGSU Laboratories

**Seminar fee**

The seminar fee is 100€ per person (or 4600 rubles). The fee can be paid in advance or at conference place. You will have a receipt from HAMK University of the payment.

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**Accommodation places in Moscow**

The Recommended hotels in Moscow are

Maxima Slavia Hotel
Yaroslavskoe Shosse 44,
129337 Moscow, Russia (1 km to the university, reasonable prices)

Garden Ring Hotel
Prospekt Mira 14 Bld.2,
Meshchansky,
129090 Moscow, Russia (Half an hour by taxi, small good level hotel)
Maps

Maxima Slavia hotel

Driveway from the city center:
Take Prospect Mira street to the suburb direction. After the Severnyanskiy bridge turn to the Yaroslavskaya relief road. Go straight 1.5 km and turn right to the Vsehnie vodi street. Enter through the security desk.

Driveway from the suburb:
Turn to the Yaroslavskoe shosse from Moscow ring highway. After take the Yaroslavskaya relief road and go till the Severnyanskiy bridge. Under the bridge turn around and go straight 1.5 km to the suburb direction. Then turn right to the Vsehnie vodi street. Enter through the security desk.

MGSU building
Sponsors of the Seminar

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