



**PROGRAM**

**XXX INTERNATIONAL SCIENTIFIC CONFERENCE**

***MATHEMATICAL METHODS  
IN ENGINEERING  
AND TECHNOLOGY***

***MMET-30***

**Saint-Petersburg  
2017**

Ministry of Education and Science of the Russian Federation  
Institute of Hydrodynamics Academy of Sciences of the Czech Republic  
Angarsk State Technical Academy  
Astrakhan State Technical University  
Belgorod State Technological University  
Don State Technical University  
Ivanovo State University of Chemical Technology  
Institute of Computational Mathematics of the Russian Academy of Sciences  
Institute for Control Sciences of the Russian Academy of Sciences  
Institute of Experimental Medicine (FSBSI "IEM")  
Kazan National Research Technological University  
Moscow Polytechnic University  
The Scientific Educational Centre for Standardizing certification and education of the Saint Petersburg Poly-  
technic University  
Interindustry engineering center "MIR" SPbIA  
Public Council of the Ministry of Industry and Trade on low-current equipment and systems  
Penza State Technological Academy  
St. Petersburg Professors' Meeting, Public Association  
Russian Engineering Academy  
Russian University of Chemical Technology  
Ryazan State Radio Engineering University  
Samara State Technical University  
Saint-Petersburg Engineering Academy  
St. Petersburg State Institute of Technology (Technical University)  
St. Petersburg Institute of Informatics and Automation of the Russian Academy of Sciences  
St. Petersburg Polytechnic University  
Saratov State Technical University  
Tambov State Technical University  
Tver State Technical University  
Technical Committee on Standardization No. 096 "Low-current systems" (Rosstandart)  
Federal Teacher's Union on the broad group 09.00.00 "Computer Science"  
Yaroslavl State Technical University

## **PROGRAM**

**XXX INTERNATIONAL SCIENTIFIC CONFERENCE**

**MATHEMATICAL METHODS**

**IN ENGINEERING AND TECHNOLOGY**

**MMET-30**

**May 29<sup>st</sup> - June 2<sup>rd</sup>**

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**Saint-Petersburg**

2017

**INVITATION**

*Dear Colleagues!*

**The Organizing Committee invites you to take part in the  
XXX International Scientific Conference  
“Mathematical Methods in Engineering and Technology – MMET-30”**

The conference takes place from May 29<sup>th</sup> – June 2<sup>nd</sup> 2017 in the following institutions

Saint-Petersburg State Institute of Technology (Technical University)  
190013, Russia, Saint-Petersburg, Moskovsky Prospekt 26, SPbSIT(TU)

Peter the Great St. Petersburg Polytechnic University  
195251, Russia, Saint-Petersburg, Politekhnikeskaya ul. 29, SPbPU



Participant arrival and accommodation is expected May 29<sup>th</sup> 2017  
Information about the MMET-30 conference can be found on the site <http://mmt30.sstu.ru>.

## **The conference is divided into sections:**

1. Qualitative and numerical methods for investigating differential and integral equations
2. Optimization, automation and optimal control of technological processes
3. Mathematical modeling of technological and social processes
4. Mathematical modeling and optimization in CAD tasks, additive technologies, digital production
5. Mathematical methods in the tasks of radio engineering, radio electronics and telecommunications, geoinformatics, avionics and cosmonautics
6. Mathematical Methods and Intelligent Systems in Robotics and Mechatronics
7. Mathematical methods for processing large amounts of data (BigData)
8. Mathematical methods in medicine and biotechnology
9. Mathematical methods for ensuring environmental safety
10. Computer support of industrial and social processes
11. Mathematical Methods in Economics and the Humanities
12. Informational and Intellectual Technologies in Engineering and Education
13. Discussion regarding qualification work
14. Symposium "Information and scientific-methodological support of multilevel education"
15. Symposium "Innovative technologies in the production of polymer films" (a visit to the modern high-tech manufacturing plant Klöckner Pentaplast (SPb))
16. Symposium "Integrated development of an innovative management system using supercomputers as well as high-tech domestic low-current systems and complexes to create information and computer networks for the development of "digital" space and production in the Arctic zone of the Russian Federation for a period up to 2020"
17. Field meeting of the Federal Teacher's Union on the subject of educating in "Computer Science"

### **YSS-26**

1. Intellectualization of controllable technological processes
2. Informatization of engineering systems and processes

The conference will include plenary reports (up to 30 minutes) as well as sectional (up to 10 minutes) and scientific reports (up to 5 minutes).  
The auditoria are equipped with computers and projectors

## ORGANIZING COMMITTEE

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## CONFERENCE SCHEDULE

Conference Participant Arrival			
<b>May 29<sup>th</sup> monday</b>	13:30	15:00	<b>Field meeting of the Federal Teacher's Union on the subject of educating in "Computer Science", build. __, aud.____</b>
	15:30	18:30	<b>FTP “Developing working programs for the numerous specializations within Computer Science”, build. __, aud.____</b>
	10:00	17:00	<b>Excursion to Saint-Petersburg city centre (from main building of SPbSIT(TU))</b> <b>Conference participant registration</b> At Saint Petersburg, Moskovsky Prospekt 26, dep. CADCE
<b>May 30<sup>th</sup> tuesday</b>	9:00	10:00	<b>Conference participant registration</b> At Saint Petersburg, Moskovsky Prospekt 26, dep. CADCE
	10:00	13:00	<b>Plenary session 1</b> <b>LARGE PHYSICS AUDITORIUM (LPA) Building 3-4 A. Entry opposite building A5. 3<sup>rd</sup> floor.</b>
	13:00	14:00	<b>Lunch</b> Dining Hall SPbSIT(TU). Tour of SPbSIT(TU).
	14:00	17:00	<b>Sections</b> (refer to MMET-30 program) Section 15. Symposium “Innovative technologies in polymer film manufacturing”
	18:00	21:00	<b>Comradely dinner</b>
<b>May 31<sup>st</sup>, wednesday</b>	10:00	12:00	<b>Section on Qualification</b> <b>Large Physics Auditorium (LFA) Building 3-4 A. Entry opposite building A5. 3<sup>rd</sup> floor.</b>
	12:00	14:00	<b>Lunch</b> Dining hall SPbSIT(TU). Tour of SPbSIT(TU).
	14:00	17:00	<b>Sections</b> (refer to MMET-30 program) Section 14 Symposium “Informational and scientific-methodological support of multi-level education”
	14:00	19:00	<b>Excursion to “Grand Maket Rossiya” (walking, from SPbSIT(TU))</b>
	15:00	21:00	<b>Excursion to Konstantinovksy palace (Strelna)</b>
<b>June 1<sup>st</sup>, thursday</b>	10:00	12:00	<b>Sections</b> (refer to MMET-30 program) Section 15. Symposium “Innovative technologies in polymer film manufacturing” (dep. CADCE) Section 16. Symposium "Integrated development of an innovative management system using supercomputers as well as high-tech domestic low-current systems and complexes to create information and computer networks for the development of "digital" space and production in the Arctic zone of the Russian Federation for a period up to 2020"
	12:00	13:00	<b>Lunch</b> Dining Hall SPbSIT(TU).



	13:00	14:00	<b>Plenary session 2 LARGE PHYSICS AUDITORIUM (LPA) Building 3-4 A. Entry opposite building A5. 3rd floor.</b>
	14:00	19:00	<b>Excursion «Grand Maket Rossiya» (walk from main building of SPbSIT(TU))</b>
	14:00	21:00	<b>Excursion to Peterhof</b>
<b>June 2<sup>nd</sup> friday</b>	10:00	15:00	<b>Excursion to Pushkin (Catherine Palace)</b>
	14:00	19:00	<b>Excursion «Grand Maket Rossiya» (walk from main building of SPbSIT(TU))</b>
			<b>Conference Participant Departure</b>

## PLENARY SESSION 1

### Opening of the XXX International Scientific Conference “Mathematical Methods in Engineering and Technology – MMET-30”

Tuesday, May 30<sup>th</sup>, 10:00-13:00, LARGE PHYSICS AUDITORIUM, Корпус 3-4 А.

#### **10:00 CONFERENCE OPENING**

Открытие конференции - rector SPbSIT(TU), Prof., Ph. D., **Shevchik Andrey Pavlovich**;

Vice-rector of science SPbSIT(TU), Prof., Ph. D. **Garabadzhiu Aleksandr Vasilyevich**

10:10 – 10:30 dep. head., SPbSIT(TU), Ph. D., Prof. **Chistyakova Tamara Balabekovna**  
INSTITUTE OF TECHNOLOGY – CENTER FOR ADDITIVE TECHNOLOGIES. HISTORY  
AND PROSPECTS.

10:30 – 11:00 Committee on Science, Professor Meeting. SCIENTIFIC AND ENGINEERING  
SCHOOLS OF SAINT PETERSBURG.

11:00 – 13:00 **Plenary Reports**

## **SECTIONS**

### **PLENARY SESSION 2**

Thursday, June 1<sup>st</sup>, 13:00 – 14:00, LARGE PHYSICS AUDITORIUM, Building 3-4  
A.

### Closing of the XXX International Scientific Conference “Mathematical Methods in Engineering and Technology – MMET-30”

1. Speeches by heads of sections
2. Conclusions. Adoption of conference resolution.

***PROGRAM***

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MATHEMATICAL METHODS IN ENGINEERING AND TECHNOLOGY**