



# SPACE SYSTEMS

INTERNATIONAL CONFERENCE  
SPACE.MAI.RU

27 April, 2021

## SCHEDULE OF THE CONFERENCE

|   |   |   |
|---|---|---|
| <b>10:00-11:45</b><br>PLENARY SESSION<br><a href="https://us02web.zoom.us/j/82840659912">https://us02web.zoom.us/j/82840659912</a>  |   |   |
| <b>12:00-18:00</b><br>SECTIONS  |   |   |
| <b>SECTION 1</b>  | <b>SECTION 2</b>  | <b>SECTION 3</b>  |
| Trends in Small Spacecraft:<br>the Economics and Services<br>of Small Spacecraft and Their<br>Constellations<br><a href="https://us02web.zoom.us/j/87286495968?pwd=d3g4TDE4aE9POUdlbHhQUWJJSjQ0Zz09">https://us02web.zoom.us/j/87286495968?pwd=d3g4TDE4aE9POUdlbHhQUWJJSjQ0Zz09</a> | Design and Production<br>of Small Spacecraft<br><a href="https://us02web.zoom.us/j/89809196060?pwd=SUY2c0p3WmovREo4dGNFOHJDWm5Mz09">https://us02web.zoom.us/j/89809196060?pwd=SUY2c0p3WmovREo4dGNFOHJDWm5Mz09</a> | Launch, Control and Operation<br>of Small Spacecraft<br><a href="https://us02web.zoom.us/j/85943978766?pwd=MnNUYnBIS2cwYmtHL2ZwVndZbVVqZz09">https://us02web.zoom.us/j/85943978766?pwd=MnNUYnBIS2cwYmtHL2ZwVndZbVVqZz09</a> |

## PROGRAM

### Plenary session

10:00-11:45

<https://us02web.zoom.us/j/82840659912>

| No. | Participant                                       | Theme  |
|-----|---|--|
| 1.  | Pogosyan Mikhail, MAI                             | Small spacecraft (SSC): technologies and markets of applying.                      |
| 2.  | Kuzovnikov Aleksandr,<br>ISS-Reshetnev            | Advanced small spacecraft of ISS-Reshetnev Company.                                |
| 3.  | Khimochko Oleg, JSC<br>"Satellite system "GONETS" | JSC "Satellite System "GONETS": satellite communications at any location on Earth. |
| 4.  | Cheremisin Maksim,<br>LLC "KosmoLab"              | CubeSat Deployers and Deployment Systems.  |
| 5.  | Savelyev Viktor, Roscosmos                        | Integrated development of space information technologies.                          |

### Section 1

**Trends in Small Spacecraft: the Economics and Services of Small Spacecraft and Their Constellations**

12:10-18:00

<https://us02web.zoom.us/j/87286495968?pwd=d3g4TDE4aE9POUdlbHhQUWJJSjQ0Zz09>

| No. | Participant                           | Theme  |
|-----|---------------------------------------|--|
| 1.  | Zuev Dmitriy,<br>Reshetnev University | The concept of a reconfigurable space-born laboratory on the example of "ReshUCube" satellite.   |
| 2.  | Zhukov Andrey, MAI                    | Concept of full-scale tests of standard unified blocks of onboard space equipment.   |
| 3.  | Ulanov Dmitry, MAI                    | Problematic issues of estimation of labour input of design of the equipment of small spacecrafts for needs of the Ministry of defense of the Russian Federation. |
| 4.  | Klykov Pavel, MAI                     | Grouping a small-sized spacecraft to create advertising objects in the night sky.  |

## **Section 2**

### **Design and Production of Small Spacecraft**

**12:10-18:00**

<https://us02web.zoom.us/j/89809196060?pwd=SUY2c0p3WmovREo4dGNFOHJDWm5MZz09>

| <b>No.</b> | <b>Participant</b>  | <b>Theme</b>   |
|------------|---|--|
| 1.         | Firsyuk S.O., MAI   | Historical experience of creation and development prospects of small spacecraft at MAI.          |
| 2.         | Pichugin Sergey,<br>RSC "Energia"                             | Bandwidth and Baud Rate Evaluation for Links in proposed LEO Communication System.               |
| 3.         | Milovanov Viktor,<br>RSC "Energia"                            | Analysis of failure resistance of manned spacecraft.   |
| 4.         | Makhaeva Maria, MAI   | Design Analysis of the Characteristics of a Promising Small Spacecraft for Earth Remote Sensing. |
| 5.         | Buksar Mikhail, BSTU<br>"VOENMEH" named after<br>D.F. Ustinov | Features of the design of small satellite for Earth's surface operational monitoring systems.    |
| 6.         | Chebakov Evgeniy, MAI   | Attitude control system of microsattellites.   |
| 7.         | Volkov Alexandr, MAI  | Study of the static and impact strength of three-layer pantographic structures.                  |

## **Section 3**

### **Launch, Control and Operation of Small Spacecraft**

**12:10-18:00**

<https://us02web.zoom.us/j/85943978766?pwd=MnNUYnBIS2cwYmtHL2ZwVndZbVVqZz09>

| <b>No.</b> | <b>Participant</b>                      | <b>Theme</b>  |
|------------|---|---|
| 1.         | Krupennikov Evgenii,<br>IMM UB RAS      | On solutions of problems of input dynamic reconstruction.   |
| 2.         | Nekrasov Vladimir,<br>VNIEM Corporation | Creation of a methodic for controlling the flywheel engine from the onboard control system for highly dynamic satellites. |
| 3.         | Kaun Yulia,<br>BSTU "VOENMEH"           | Application of a wide-range nozzle with a central body in ultralight launch vehicles.                                     |
| 4.         | Sumarokov Anton,<br>RSC "Energia"       | Principles Of Spacecraft Control Using One-Axis Power Gyroscopes With Different Kinetic Moment Levels.                    |
| 5.         | Anfalov Alexander,<br>RSC "Energia"     | Modeling of the process of separation of CubeSat-type nanosatellites from a transport and launch container.               |
| 6.         | Zhukov Andrey, MAI                      | An algorithm for control of a small inspector spacecraft from International Space Station.                                |
| 7.         | Kozedra Petr, MAI                       | Analysis of the efficiency of launching small spacecraft by ultralight launch vehicles                                    |