

TECHNICAL SESSION 1 (DSE)

Place: Hall Mercury

Day: Tuesday, December 2 • Time: 16:00 to 18:15 Moscow Time (GMT+3)

DEEP SPACE EXPLORATION

Co-Chair:

Elena Fomina

Institute of Biomedical Problems of RAS, Russia

Co-Chair:

Aleksander Inyushin

RUDN University, Russia

- 16:00 – 16:15 **1. SciTech2025-010**
Adaptation of Medical Architecture Principles to Ensure Crew Health and Well-Being in Space Environments
Gutierrez Madrid Anthony Jesus, RUDN University, Venezuela
- 16:15 – 16:30 **2. SciTech2025-029**
The Psychology of Confinement: How Architectural Design Can Mitigate Stress in Isolated Space Habitats
Hijazi Adli, RUDN University, Jordan
- 16:30 – 16:45 **3. SciTech2025-037**
The Interplanetary Transport Hub: Architectural Design for the First Spaceports
Gutierrez Madrid Anthony Jesus, RUDN University, Venezuela
- 16:45 – 17:00 **4. SciTech2025-191**
Guidance and Control for Descent and Final Approach to Asteroid Bennu
Souza Shyenne, Negri Rodolfo, Prado Antonio, INPE, Brazil
- 17:00 – 17:15 **5. SciTech2025-192**
Functional Adjustments of the Motion Control System During Adaptation to the Conditions of Space Flight and Readaptation to the Conditions of the Earth
Burakova Anna, Kislitsyn Alexey, Fomina Elena, Institute of Biomedical problems of RAS, Russia
- 17:15 – 17:30 **6. SciTech2025-194**
A Modern Set of Countermeasures to Negative Effects of Microgravity for Deep Space Exploration
Lemeshko Yegor, Institute of Physiology, National Academy of Sciences of Belarus, Belarus
Fomina Elena, Romanov Pavel, Senatorova Natalia, Burakova Anna, Kokueva Maria, Ganicheva Anna, Bakhtereva Vera, Institute of Biomedical problems of RAS, Russia
- 17:30 – 17:45 **7. SciTech2025-195**
Changes in the brain bioelectric activity before and after physical and cognitive load and the success of cognitive tasks performance in the «SIRIUS-23» long-term isolation experiment
Cotuk Hasan Birol, Marmara University, Istanbul, Turkey
Ganicheva Anna, Fomina Elena, Institute of Biomedical Problems RAS, Russia

- 17:45 – 18:00 **8. SciTech2025-200**
The Leading Factor in The Development of Chronic Processes of Adaptation to Supportlessness (During Two-Week Dry Immersion) in the System of Spinal Reflexes
Shigueva Tatiana, Tomilovskaya Elena, Artamonova Nelly, Institute of Biomedical Problems of the Russian Academy of Sciences, Russia
- 18:00 – 18:15 **9. SciTech2025-201**
The MSU-RAS-RUDN team's plan for solving the problem of settling the galaxy
Samokhina Marina, ICS RAS, Russia
Samokhin Alexander, ICS RAS, MSU, RUDN University, Russia

TECHNICAL SESSION 2 (SMS)

Place: Hall Mars

Day: Tuesday, December 2 • Time: 15:00 to 18:30 Moscow Time (GMT+3)

SPACE MATERIALS & STRUCTURES 1

Co-Chair:

Meena Laad

Symbiosis Institute of Technology, India

Co-Chair:

Kazem Reza Kashy Zadeh

RUDN University, Russia

- 15:00 – 15:15 **10. SciTech2025-005**
Bioluminescent Materials as Sustainable Resources for Lunar Habitats: Innovations in Lighting, Energy, Structural Integration, and Adaptive Biotechnology
Gomez Lopez Angie Vanesa, Fazlollahi Seyed Hamidreza, RUDN University, Russia
Gomez Cubillos Luis Alberto, Catolica University of Colombia, Colombia
- 15:15 – 15:30 **11. SciTech2025-007**
Pattern Integration and Aesthetic Expression in Space Material and Structural Design
Guo Xue, RUDN University, China
- 15:30 – 15:45 **12. SciTech2025-019**
The Legacy of Buckminster Fuller: Geodesic Domes from Earth to Mars
Kadi Sidi Mohammed, RUDN University, Algeria
- 15:45 – 16:00 **13. SciTech2025-058**
Improvement of The Methodology for Calculating Structures Using Composite Reinforcement for Spaceport Facilities
Okolnikova Galina E., RUDN University, National Research University MGSU, Russia
Uwais Mohannad Mousa Aqel, RUDN University, Jordan
- 16:00 – 16:15 **14. SciTech2025-061**
Modeling of Multilayer Structures Based on Wide-gap Oxides for space industry
Smetanin Egor, Belyaev Victor, Otenov Adilet, RUDN University, Russia
Abduev Aslan, Associate Professor Principal Scientist State University of Education, Russia
- 16:15 – 16:30 **15. SciTech2025-064**
Enhancing the Freeze–Thaw Resistance of High-Performance Concrete for Spaceport Construction Using Industrial and Agricultural Wastes
Okolnikova Galina E., RUDN University, National Research University MGSU, Russia
Alipour Mohammad, RUDN University, Iran
Saad Lina Abass, RUDN University, Djibouti

- 16:30 – 16:45 **16. SciTech2025-076**
Influence of Silicon Carbide Aggregate and Cenospheres on the Compressive Strength Improvement of Refractory Concrete in the Application of Hybrid Rocket Nozzles
Reza Kashyzadeh Kazem, Ghorbani Siamak, Khlopkov Sergey, Asoyan Artur, RUDN University, Russia
- 16:45 – 17:00 **17. SciTech2025-079**
Finite Element Simulation of 3D Printing Process to Fatigue Specimen Fabrication from the Perspective of Residual Stress
Reza Kashyzadeh Kazem, Ghorbani Siamak, Said Abdesselem, RUDN University, Russia
- 17:00 – 17:15 **18. SciTech2025-085**
Patterned Alignment of Liquid Crystal Molecules in Silica Micro-Capillaries: New Special Fibers for Aerospace Applications
Chigrinov Vladimir, RUDN University, Russia
Ertman Slawomir, Warsaw University of Technology, Poland
- 17:15 – 17:30 **19. SciTech2025-086**
Fast Ferroelectric Liquid Crystal Modulators for Space Applications
Chigrinov Vladimir, RUDN University, Russia
Guo Qi, Beihang University, China
- 17:30 – 17:45 **20. SciTech2025-087**
Optically Rewritable E-Paper Displays for Space Applications
Chigrinov Vladimir, RUDN University, Russia
Murauski Anatoli, Belarus Academy of Science, Belarus
- 17:45 – 18:00 **21. SciTech2025-093**
Smart Windows for Aerospace Applications
Chigrinov Vladimir, HKUST, Russia
Sun Jiatong, College of Information Science and Technology, Donghua University, Shanghai, China
- 18:00 – 18:15 **22. SciTech2025-095**
Switchable Liquid Crystal Lenses for Space Applications
Chigrinov Vladimir, RUDN University, Russia
Wang Xiao-Qian, School of Science, East China University of Science and Technology, Shanghai 200237, China
- 18:15 – 18:30 **23. SciTech2025-108**
Self-Cleaning APTES-Modified Silica-Polymer Coatings: A Study of Compositional and Optical Properties and Exploring Potential in Space Applications
Shalu Akhila, Laad Meena, Symbiosis Institute of Technology, Symbiosis International University, India

TECHNICAL SESSION 3 (EO)

Place: Hall Neptune

Day: Tuesday, December 2 • Time: 15:00 to 18:00 Moscow Time (GMT+3)

EARTH OBSERVATIONS 1

Co-Chair:

Aleksander Kotelnikov

RUDN University, Russia

Co-Chair:

Ekaterina Esina

RUDN University, Russia

- 15:00 – 15:15 **24. SciTech2025-054**
Instrumental Processing of Spectral Satellite Images and Gravity Survey Data for Oil Exploration in the Tawke Oilfield, Duhok Area, Iraqi Kurdistan Region
Abramov Vladimir, Qadir Danyar, RUDN University, Iraq
Mzuri Rebar, College of Science, Salahaddin University, Erbil, Iraq
- 15:15 – 15:30 **25. SciTech2025-214**
Determining the Optimal Transmission Pipeline Route Using MCDM and the Cost Path Algorithm (Case Study: Water Transmission Line from the Persian Gulf to Yazd)
Hatamiafkoueieh Javad, Shirali Masoud, RUDN University, Russia
- 15:30 – 15:45 **26. SciTech2025-056**
Peculiarities of Using Limnological Methods in Planetary Studies
Khassan Musab, RUDN University, Sudan
Rasskazov Andrey, Kotelnikov Alexander, RUDN University, Russia
- 15:45 – 16:00 **27. SciTech2025-57**
Detection of Sedimentary Bauxite Deposits in Shaanxi Province Using Gravity and Electromagnetic Techniques
Sissoko Billy, Kotelnikov Alexander, RUDN University, Guinea
- 16:00 – 16:15 **28. SciTech2025-215**
Evaluating Urban Development Processes Using Advanced Spatial Analysis Methods and Cellular Automata Techniques, and Comparing Them with the Logistic Regression Method (Case Study: Isfahan County)
Hatamiafkoueieh Javad, Shirali Masoud, Amini Faramarz, RUDN University, Russia
- 16:15 – 16:30 **29. SciTech2025-062**
Climate Change Perception among Fishermen and Residents of Flood Pprone Areas of The Gambia. Are their perceptions Accurate?
Jobe Lamin B., Department of Water Resources in The Gambia, Gambia
- 16:30 – 16:45 **30. SciTech2025-063**
Use of Remote Sensing in Mineral Resource Exploration: Towards a Geospatial Revolution in Mineral Prospecting
Zakious N'diaye Abdoulaye, Coulibaly Abdoulaye, RUDN University, Mali
Ibrahim Mohammed, RUDN University, Sudan

- 16:45 – 17:00 **31. SciTech2025-065**
A New Paradigm for Lithium Exploration: the Role of Remote Sensing
Coulibaly Aboulaye, Zakiou N'Diaye Aboulaye, RUDN University, Mali
Ibrahim Mohammed, RUDN University, Sudan
- 17:00 – 17:15 **32. SciTech2025-216**
Reverse Displacement Map of a Salt Dome Using Radar Interferometry Optimization Technique
Hatamiafkoueih Javad, Shirali Masoud, RUDN University, Russia
- 17:15 – 17:30 **33. SciTech2025-066**
The Possibility of Localizing Zones of Carbonate Deposits with the Best Reservoir Properties of Oil and Gas Fields Based on Space Research
Pavel Strakhov, RUDN University, Russia
Buzibat Suheib, RUDN University, Algeria
- 17:30 – 17:45 **34. SciTech2025-067**
Prospects for Mineral Resources on the Moon
Nikolaeva D.V., RUDN University, Russia
Ibrahim Mohammed, RUDN University, Sudan
Zakariash Hamilton, RUDN University, Mozambique
- 17:45 – 18:00 **35. SciTech2025-071**
Prediction of Gold Mineralization Based on Landsat 8 Metasomatic Alteration Mapping in the Ahaggar Shield, Southern Algeria
Ghougali Fouaze, RUDN University, Algeria
Ivanova Julia, RUDN University, Russia

TECHNICAL SESSION 4 (SSA)

Place: Hall Pluton

Day: Tuesday, December 2 • Time: 15:00 to 19:00 Moscow Time (GMT+3)

SPACE SENSORS & ACTUATORS

Co-Chair:

Svetlana Agasieva

RUDN University, Russia

Co-Chair:

Siamak Ghorbani

RUDN University, Russia

- 15:00 – 15:15 **36. SciTech2025- 015**
Application of Self-Propagating High-Temperature Synthesis Technology in the Production of Ti-Al Intermetallic Compounds for Aerospace Engineering
Bazhina Arina, Ivanov Artem, ISMAN, Russia
Bazhin Pavel, ISMAN, RUDN University, Russia
Luati Olfa, RUDN University, Russia
- 15:15 – 15:30 **37. SciTech2025- 028**
Production of Composite Materials by Free Self-Propagating High-Temperature Synthesis Compression Based on TNM for the Aviation and Space Industries
Antipov Mikhail, ISMAN, Russia
Bazhin Pavel, ISMAN, RUDN University, Russia
Zeraat Peyma, RUDN University, Russia
- 15:30 – 15:45 **38. SciTech2025- 030**
Hydrophone for Studying Subglacial Oceans on the Moons of Giant Planets
Baranova Margarita, Osipkov Alexey, BMSTU, Russia
- 15:45 – 16:00 **39. SciTech2025- 034**
Photoinduced Optical Switch Based on Colored Organic Glasses for space industry
Belyaev Viktor, Avdeenkov Vladimir, RUDN University, Russia
Aubakirova Kamilla, RUDN University, Kazakhstan
- 16:00 – 16:15 **40. SciTech2025-041**
Biophilic Design in Space: the Critical Role of Greenhouses and Simulated Nature for Crew Well-Being
Zhang Jiachuan, RUDN University, China
- 16:15 – 16:30 **41. SciTech2025-092**
Polarization Imaging Sensors for Space Applications
Chigrinov Vladimir, RUDN University, Russia
Bermak amine, Hamad Bin Khalifa University, Qatar
- 16:30 – 16:45 **42. SciTech2025-094**
Multipoint Fibre Optic Voltage Spacecraft Sensor
Chigrinov Vladimir, RUDN University, Russia
Brodzeli Zourab, School of Electrical Engineering and Telecommunications, UNSW, Sydney, Australia

- 16:45 – 17:00 **43. SciTech2025-105**
Control of Movement on Space Objects when Using Exoskeletons
 Khlopkov Sergey, RUDN University, Russia
 Abdul Karim Issoufa Maman, RUDN University, Niger
 Tretyakov Nikita, RUDN University, Turkmenistan
- 17:00 – 17:15 **44. SciTech2025-110**
Development and Study of Metal-Ceramic Coatings Based on Tic-Nicr for Space Industry
 Nazarko Ivan, Bazhin Pavel, RUDN University, Russia
- 17:15 – 18:30 **45. SciTech2025-115**
Evaluation of Flexible Sensor Sensitivity for Space Applications Using t-Test and ANOVA
 Jagtap Priyanka, Laad Meena, Symbiosis Institute of Technology, SIU, Pune, India
- 17:30 – 17:45 **46. SciTech2025-119**
First-Principles Study of the Effect of Lattice Compression and Stretching on the Properties of the Tetragonal Phase of a Manganese Nitride Monolayer
 Kushchuk Leonid, Tissen Maria, BMSTU, Russia
 Kasrtev Alexey, RUDN University, Russia
 Tiwary Chandra, Indian Institute of Technology (India), Russia
- 17:45 – 18:00 **47. SciTech2025-120**
Fe₂I₂Br₃: A Novel 2D Janus Alloy for Spintronic-Based Sensors
 Medintseva Tatiana, Kartsev Alexey, RUDN University, Russia
 Tiwary Chandra, Indian Institute of Technology Kharagpur, India
- 18:00 – 18:15 **48. SciTech2025-127**
Filtering of the Output Signal Of The Laser Gyroscope for High-Precision Aerospace Navigation and Stabilization
 Smetanin Ilya, Sinelnikov Anton, RUDN University, Russia
 Hangeldiyev Meylis, RUDN University, Turkmenistan
- 18:15 – 18:30 **49. SciTech2025-141**
Potential Application Transparent in₂O₃/Ag/In₂O₃ Conductive Films in Space of Communication Systems
 Shuvalova Alena, BMSTU, Russia
 Makeev Mstislav, Tymkovan Alexander, RUDN University, Russia
- 18:30 – 18:45 **50. SciTech2025-143**
Effect of Organic Solvents on the Quality of Transferred Graphene Using Polybutyl Methacrylate in Space Industry
 Gosteva Ekaterina, RUDN University, Russia
- 18:45 – 19:00 **51. SciTech2025-154**
Advances in Small Satellite Missions Enabled by Miniaturized Propulsion, Power Systems, and Smart Sensors & Actuators
 Bhavankar Dhvani, Laad Meena, Symbiosis Institute of Technology, Symbiosis International University, India

TECHNICAL SESSION 5 (SA)

Place: Hall Saturn

Day: Tuesday, December 2 • Time: 15:00 to 17:00 Moscow Time (GMT+3)

SPACE ARCHITECTURE

Co-Chair:

Ivan Khalil

RUDN University, Russia

Co-Chair:

Elizaveta Shemyakina

RUDN University, Russia

- 15:00 – 15:15 **52. SciTech2025-013**
Inflatable Architecture in Space: From the BEAM Module to Future Orbital Hotels
Alsaleh Maria, RUDN University, Russia
- 15:15 – 15:30 **53. SciTech2025-023**
Shielding from the Void: Architectural Solutions for Radiation Protection on Mars
Alhasan Ammar, RUDN University, Syrian Arab Republic
- 15:30 – 15:45 **54. SciTech2025-031**
Architectural Prototypes in Extreme Environments: A Study on the Spatial Form and Structural Adaptability of Lunar Bases
Wang Yajing, RUDN University, China
- 15:45 – 16:00 **55. SciTech2025-032**
Blueprint for a Martian City: A Comparative Analysis of Global Concepts
Guo Xue, RUDN University, China
- 16:00 – 16:15 **56. SciTech2025-033**
O'Neill Cylinders: The Architectural and Engineering Challenges of Building Orbital Megastructures
Alpire Guerrero Marcelo, RUDN University, Bolivia
- 16:15 – 16:30 **57. SciTech2025-036**
The Hospitality Industry in Orbit: Architectural Design for Space Hotels and Tourism
Al-Rabadi Rana, RUDN University, Jordan
- 16:30 – 16:45 **58. SciTech2025-042**
The Psychology of Confinement: How Architectural Design Can Mitigate Stress in Isolated Space Habitats
Kazour Marah, RUDN University, Syrian Arab Republic
- 16:45 – 17:00 **59. SciTech2025-043**
Architecture for Low-Gravity Worlds: Novel Structural Designs for Asteroids and Small Moons
Al-Badwi Najib, RUDN University, Yemen

TECHNICAL SESSION 6 (SFM)

Place: Hall Mercury

Day: Wednesday, December 3 • Time: 10:00 to 12:45 Moscow Time (GMT+3)

SPACE FLIGHT MECHANICS

Co-Chair:

Antonio Prado

National Institute for Space Research (INPE), Brazil

Co-Chair:

Vladimir Razoumny

RUDN University, Russia

- 10:00 – 10:15 **60. SciTech2025-004**
The Effects of Different Sized Solar Sails when Station-Keeping an Irregularly Shaped Asteroid
Meireles Lucas, Winter Othon, São Paulo State University, Brazil
Prado Antônio, National Institute for Space Research, Brazil
- 10:15 – 10:30 **61. SciTech2025-011**
Influence of Shape and Altitude Dependent Drag Coefficient and Orbital Decay Prediction of LEO Satellites in Rarefied Flow
S Vigneshvara, Arshi Reem, Indian Institute of Space Science and Technology, India
- 10:30 – 10:45 **62. SciTech2025-133**
Review of Space Flight Mechanics: Principles, Challenges, and Future Directions
Onyekachukwu Nwosu, Austine Michael, Austine Maximus, Gregory University Uturu, Nigeria
- 10:45 – 11:00 **63. SciTech2025-161**
Adaptive Control Strategies for Baseline Maintenance in Multi-Satellite SAR Formations
Borges Mateus, Santos Willer, Instituto Tecnológico de Aeronáutica, Brazil
Scala Francesca, European Space Agency, Italy
- 11:00 – 11:15 **64. SciTech2025-166**
System of Observation of Daytime Asteroids (SODA)
Shugarov Andrey, Shustov Boris, Institute of Astronomy of the Russian Academy of Sciences (INASAN), Russia
- 11:15 – 11:30 **65. SciTech2025-171**
On the Problem of "Humanity's First Robotic Exploration of a Hypothetical Exoplanetary System" at GTOC13
Galyaev Andrey, Samokhina Marina, Samokhin Alexander, ICS of RAS, Russia
Samokhina Ludmila, Central University, Russia

- 11:30 – 11:45 **66. SciTech2025-173**
Study of the Orbital Trajectories of the Brazilian Probe GARATEA-L Around the Moon
 Vilhena de Moraes Rodolpho, de Oliveira Paes Guilherme, Institute of Science and Technology, Federal University of Sao Paulo - UNIFESP, Brazil
 Galhego Thibes Xavier da Costa Maria Livia, Sao Paulo State University - UNESP, Brazil
 dos Santos Carvalho Jean Paulo, Center for Science and Technology in Energy and Sustainability, Federal University of Reconcavo da Bahia (UFRB), Brazil
 Casanova Daniel, University Center for Defense Studies of Zaragoza, General Military Academy, Spain
- 11:45 – 12:00 **67. SciTech2025-175**
Analytical Modeling of the Gravitational Potential of Irregularly Shaped Celestial Bodies: Application To (8567) 1996 HW1
 Prado Antonio, Aljbaae Safwan, INPE, Brazil
 Mota Marcelo, IFSP, Brazil
- 12:00 – 12:15 **68. SciTech2025-196**
Optical Space Situational Awareness as the Basis of Sustainable LEO Operations
 Klimov Andrey, Savin Nikolay, ANC JSC, Russia
 Benkhaldoun Zouhair, Cadi Ayyad University Observatory (OUCA), Morocco
- 12:15 – 12:30 **69. SciTech2025-197**
Modeling of LEO to EL2 Transfers Using Sun-Earth and Earth-Moon Interactions
 Peres Victor, Federal University of ABC, Brazil
 Prado Antonio, National Institute of Space Research (INPE), Brazil
 de Brum Antonio, Federal University of ABC, Brazil
- 12:30 – 12:45 **70. SciTech2025-198**
Designing Small Satellite Constellations Around Io in Frozen Low Altitudes
 Ferreira Thamís, UNESP, Brazil
 Prado Antonio, National Institute for Space Research - INPE, Brazil
 Giuliatti Winter Silvia, Ferreira Lucas, São Paulo State University- UNESP, Brazil
 Casanova Daniel, Tresaco Eva, IUMA - Universidad de Zaragoza, Spain

TECHNICAL SESSION 7 (SMS)

Place: Hall Mars

Day: Wednesday, December 3 • Time: 10:00 to 14:00 Moscow Time (GMT+3)

SPACE MATERIALS & STRUCTURES 2

Co-Chair:

Vera Galishnikova

RUDN University, Russia

Co-Chair:

Gebre Tesfaldet Hadgembes

RUDN University, Russia

- 10:00 – 10:15 **71. SciTech2025-009**
Parametric System for Modular Lunar Habitats: Comparative Analysis of Configurations Based on Site Conditions
Meireles Lucas, Winter Othon, São Paulo State University, Brazil
Prado Antônio, National Institute for Space Research, Brazil
- 10:15 – 10:30 **72. SciTech2025-052**
Application of Rubber-Based Concretes for A "Space Monolith"
Okolnikova Galina E., RUDN University, National Research University MGSU, Russia
Anisimov Andrei A., RUDN University, Russia
Al-athwari Sakhr Farooq Yaseen Hamood, RUDN University, Yemen
- 10:30 – 10:45 **73. SciTech2025-053**
Materials and Structural Design for Extraterrestrial Habitats
Obeid Mahmoud, Abu-Mahadi Mohammed, RUDN University, Jordan
- 10:45 – 11:00 **74. SciTech2025-055**
Enhancing Crack Resistance of Spaceport Structures with Basalt Fiber Concrete
Okolnikova Galina E., RUDN University, National Research University MGSU, Russia
Xu Pai, RUDN University, China
- 11:00 – 11:15 **75. SciTech2025-068**
The Use of Heat-Resistant Concrete in Building Structures of Spaceports
Okolnikova Galina E., RUDN University, National Research University MGSU, Russia
Malafeev Alexei S., RUDN University, Russia
Prophete Gardy, RUDN University, Haiti
- 11:15 – 11:30 **76. SciTech2025-069**
A Study of the Performance of Reinforced Concrete Structures Exposed to Low Temperatures in Cosmodrome Facilities
Okolnikova Galina E., RUDN University, National Research University MGSU, Russia
Akoev Furkat, RUDN University, Tajikistan

- 11:30 – 11:45 **77. SciTech2025-083**
Hybrid Polymer Composites for Aerospace and Space Applications: Challenges, Environmental Stability and Future Research Roadmap
 Pathan Fiza, Laad Meena, Symbiosis Institute of Technology, SIU, Pune, India
- 11:45 – 12:00 **78. SciTech2025-084**
Frost-Resistant High-Strength Fiber Concrete for Spaceport Structures
 Okolnikova Galina E., RUDN University, National Research University MGSU, Russia
 Soltanizadeh Hossein, RUDN University, Iran
- 12:00 – 12:15 **79. SciTech2025-089**
Liquid Crystal Reconfigurable Spacecraft Antennas
 Chigrinov Vladimir, RUDN University, Russia
 Jackson John, J&R Magnetics, United States of America
- 12:15 – 12:30 **80. SciTech2025-091**
Liquid Crystal Photoalignment Technology for Spacecraft Photonics Devices
 Chigrinov Vladimir, RUDN University, Russia
 Srivastava Abhishek, HKUST, Hong Kong
- 12:30 – 12:45 **81. SciTech2025-101**
The Use of Fiberglass Fabrics in Space Station Construction and Launch Facilities
 Okolnikova Galina E., RUDN University, National Research University MGSU, Russia
 Alwaz Khayriyeh, RUDN University, Syrian Arab Republic
- 12:45 – 13:00 **82. SciTech2025-102**
Calculation Methods for Lining the Cosmodrome's Communication Tunnels
 Okolnikova Galina E., RUDN University, National Research University MGSU, Russia
 Aproilov Abdal R., Diab Wael, RUDN University, Syrian Arab Republic
- 13:00 – 13:15 **83. SciTech2025-103**
Intelligent Self-Healing Materials for Next-Generation Space Systems: A Review
 Jain Avani, Laad Meena, Symbiosis Institute of Technology, Symbiosis International University, India
- 13:15 – 13:30 **84. SciTech2025-109**
Performance of Synthetic Rubber-Based Concrete in Aggressive Environments at Cosmodrome Launch Pads
 Okolnikova Galina E., RUDN University, National Research University MGSU, Russia
 Morozova Yulianna A., Soudan Ruslan, RUDN University, Syrian Arab Republic
- 13:30 – 13:45 **85. SciTech2025-118**
Exploring Composites of High Entropy Alloy (HEAs) with Metal Oxide Nanoparticles for Self-Healing in Spacecraft Applications
 Dhabarde Sapana, Laad Meena, Symbiosis Institute of Technology, Symbiosis International University, India

13:45 – 14:00

86. SciTech2025-188

Conditions of Construction on the Surface of Mars from the Perspective of Ionizing Radiation

Florenskii Vladislav, NIISF, Russia

Belov Vyacheslav, MSUCE, Russia

TECHNICAL SESSION 8 (SPP)

Place: Hall Neptune

Day: Wednesday, December 3• Time: 10:00 to 14:00 Moscow Time (GMT+3)

SPACE POWER & PROPULSION

Co-Chair:

Felix Mora-Camino

Universidade Federal Fluminense, Brazil

Co-Chair:

Kazem Reza Kashy Zadeh

RUDN University, Russia

- 10:00 – 10:15 **87. SciTech2025-047**
Energy Architecture: Integrating Solar, Nuclear, and Other Power Sources into Habitat Structures
Abdul Ahmad Sahil, RUDN University, Afghanistan
- 10:15 – 10:30 **88. SciTech2025-077**
Modern Inlet Cooling Techniques for Gas Turbine Compressors: A Short Review
Gharehsheikh Bayat Abdolhossein, Reza Kashyzadeh Kazem, RUDN University, Russia
- 10:30 – 10:45 **89. SciTech2025-106**
Ensuring the Functioning of the Vostochny Aerospace Complex During Low Temperatures
Konoplev Vladimir, RUDN University, Russia
Abdul Karim Issoufa Maman, RUDN University, Niger
Nzang Florentino, RUDN University, Equatorial Guinea
- 10:45 – 11:00 **90. SciTech2025-### (Online On-Sight)**
Development of a Compositions of Aromatic Additive for Synthetic Jet Fuel
Ilin Andrei, Ershov Mikhail, National University of Oil and Gas Gubkin University, Russia
Makhova Uliana, Savelenko Vsevolod, National University of Oil and Gas (Gubkin University), Russia
Abdellatief Tamer, RUDN University, Egypt
- 11:00 – 11:15 **91. SciTech2025-124**
Energy Storage Systems: The Cornerstone of Near-Space Exploration
Mityagin Daniil, RUDN University, Russia
- 11:15 – 11:30 **92. SciTech2025-126**
Protecting Oil Pipelines from Meteorites
Chueva Evgeniya, RUDN University, Russia
Sissoko Belli, RUDN University, Guinea
- 11:30 – 11:45 **93. SciTech2025-138**
General Nodes for Resource- and Energy Managed City Information Model
Suvorova Maria, RUDN University, Russia
Naumov Andrey, Belgorod State Technological University n.a. V.G. Shukhov, Russia
Obaidi Adham Abdulsattar Hameed, University of Diyala, Iraq

- 11:45 – 12:00 **94. SciTech2025-148**
Reducing the Mass of The Spacecraft by Using a Multi-Stage Heat Pump
Minaev Danil, RUDN University, Russia
Al-Aabidy Wissam, RUDN University, Iraq
- 12:00 – 12:15 **95. SciTech2025-162**
Study of the Adhesion and Dimensional Stability of Paraffin Grains and Their Manufacturing Using Rotational Molding for Hybrid Rockets
Macena Joao Vitor, Souza Jessica, Martins Jean Dereck, Cecilio Daniel, Castro Lucas, Ziglio Beatriz, Domingos Keven, Gudin Daniel, Sousa Tiago, Muzzi Igor, Krykhtine Fabio, Castro Pinto Fernando, Universidade Federal do Rio de Janeiro, Brazil
- 12:15 – 12:30 **96. SciTech2025-167**
Mathematical Modeling of Orbital Ferry Motion
Kupreev Sergei, RUDN University, Russia
Ibrahim Fadi, RUDN University, Russia
- 12:30 – 12:45 **97. SciTech2025-168**
Harnessing Quantum Spin for Thrust: Towards a Non-Reactive Propulsion Paradigm
Kupreev Sergei, Razoumny Yury, RUDN University, Russia
- 12:45 – 13:00 **98. SciTech2025-178**
Evaluation of High-Frequency Harmonic Effects on Reactive Power in Induction Motors
Boihanov Zailobiddin, Andijon state technical institute, Uzbekistan
- 13:00 – 13:15 **99. SciTech2025-179**
Mathematical Model and Calculation Algorithm of External Magnetic Field of Asynchronous Motor
Nizamov Jasurbek, Boihanov Zailobiddin, Andijan state technical institute, Uzbekistan
- 13:15 – 13:30 **100.SciTech2025-184**
Analysis of Types of Compressor Rotor Defects
Muze Gao, RUDN University, China
- 13:30 – 13:45 **101.SciTech2025-185**
Structural Monitoring of the Technical Condition of Structures Using the Laser Scanning Method
Takhirov Muzaffar, Laboratory of Structures and Center for Intelligent Infrastructure, University of California at Berkeley, Berkeley, USA, United States of America
Rakhmonov Bakhtovar, Urgench State University, Urgench, Uzbekistan, Uzbekistan
Boronina Liudmila, RUDN University, Russia
- 13:45 – 14:00 **102.SciTech2025-186**
Study of the Joint Vibration of an Underground Thin-Walled Cylindrical Structure with Soil under Seismic Explosion Impacts
Sagdiev Khabibovich, Leading Research Fellow, Institute of Mechanics and Seismic Stability of Structures, Academy of Sciences of the Republic of Uzbekistan, Uzbekistan
Safarov Ismoil, Tashkent Institute of Chemical Technology (Uzbekistan), Uzbekistan
Rakhmonov Sobirovich, Prof., Urgench State University (Uzbekistan), Uzbekistan
Boronina Liudmila, RUDN University, Russia

TECHNICAL SESSION 9 (EO)

Place: Hall Pluton

Day: Wednesday, December 3 • Time: 10:00 to 13:00 Moscow Time (GMT+3)

EARTH OBSERVATIONS 2

Co-Chair:

Shufan Wu

Shanghai Jiao Tong University, China

Co-Chair:

Maria Suvorova

RUDN University, Russia

- 10:00 – 10:15 **103.SciTech2025-070**
Gold Mineralization Prediction in the Ahaggar Shield (Southern Algeria) Using Landsat 8 Satellite Images
Ghougali Fouaze, RUDN University, Algeria
Ivanova Julia, RUDN University, Russia
- 10:15 – 10:30 **104.SciTech2025-207**
Monitoring flood with LANDSAT imagery in DMDP Bangladesh
Hatamiafkoueih Javad, Amini Faramarz, RUDN University, Russia
- 10:30 – 10:45 **105.SciTech2025-073**
Application of Satellite Technologies to Monitor Greenhouse Gas Emissions in the Oil and Gas Industry
Tcharo Honore, Tcharo Yana, RUDN University, Benin
- 10:45 – 11:00 **106.SciTech2025-074**
The Remote Sensing Data to Solve Pressing Problems in the Oil and Gas Industry
Kharchikov Egor, Shagiziganova Polina, Berdnik Maria, RUDN University, Russia
- 11:00 – 11:15 **107.SciTech2025-081**
The Impact of Space Technologies on the Development Of Geology
Gorbunova Natalia Nikolaevna, Mirkushov Yurevich Oleg, RUDN University, Russia
Mutara Alvin, RUDN University, Rwanda
- 11:15 – 11:30 **108.SciTech2025-208**
Subsidence monitoring with differential interferometric synthetic aperture radar (DInSAR) in Dhaka, Bangladesh
Hatamiafkoueih Javad, Amini Faramarz, RUDN University, Russia
- 11:30 – 11:45 **109.SciTech2025-090**
Mapping Land Degradation Hotspots for Agricultural Security Using Earth Observation Data: A Gender-Inclusive Approach
Bauka Nazifa, Jantiku Jagila, Akuh Charles Jahmal, National Space Research and Development Agency, Nigeria
- 11:45 – 12:00 **110.SciTech2025-149**
Examination of Experience in Applying Remote Sensing Methods for the Enumeration of Wild and Domestic Animals
Belova Tatiana, RUDN University, Russia

- 12:00 – 12:15 **111.SciTech2025-157**
Climate Change Perceptions Among Fishermen and Residents of Flood-Prone Areas of the Gambia: are Their Perceptions Accurate?
Jobe Lamin B., Russian State Hydrometeorological University, Gambia
- 12:15 – 12:30 **112.SciTech2025-209**
Using Time Series of Remote Sensing Images, It is Possible to Analyze and Monitor Coastline Changes and Geomorphological Landforms at Different Times
Hatamiafkoueih Javad, Shirali Masoud, RUDN University, Russia
- 12:30 – 12:45 **113.SciTech2025-174**
GRACE Satellite Observations-based Assessment of Groundwater Storage Monitoring in Ghana: Implications for Water Resource Management
Afrifa George, Ansah-Narh Theophilus, Tandoh Joseph, Ghana Space Science and Technology Institute, Ghana Atomic Energy Commission, Ghana
Opoku-Sarkodie Richmond, Methodist University Ghana, Ghana
- 12:45 – 13:00 **114.SciTech2025-210**
Determining the Impact and Geomorphological Process of the Frouncescence Phenomenon on Changes in Geomorphological Landform Patterns Case Study: Yazd–Ardakan Plain
Hatamiafkoueih Javad, Shirali Masoud, RUDN University, Russia

TECHNICAL SESSION 10 (SPLE)

Place: Hall Saturn

Day: Wednesday, December 3 • Time: 10:00 to 12:30 Moscow Time (GMT+3)

SPACE POLICY, LAW & ECONOMICS 1

Co-Chair:

Irina Chernych

RUDN University, Russia

Co-Chair:

Ekaterina Kovaleva

RUDN University, Russia

- 10:00 – 10:15 **115.SciTech2025-014**
Artificial Intelligence Application for Managerial Decisions Support at Ground-Based Space Stations
Abdalaziz Abueissa H. T., RUDN University, Sudan
Andreeva Larisa O., Vinokurov Yegor A., RUDN University, Russia
- 10:15 – 10:30 **116.SciTech2025-017**
The Role of Biotechnology in Shaping Space Bioeconomy: A Strategic and Managerial Framework for Sustainable Long-Duration Missions
Naserzadeh Yousef, P.A. Stolypin International Institute of Informatization and Public Administration (MIIIGU) Moscow, Russia. And., Department of Agrobiotechnology. Peoples' Friendship University of Russia (RUDN University), Iran
Mahmoudi Niloufar, Poskonnaya Yuliya Dmitrievna, Nikulin Daniil Pavlovich, RUDN University, Russia
- 10:30 – 10:45 **117.SciTech2025-021**
Artificial Intelligence for Decision Optimization in Space Governance and Economics
Pyankov Valeriy, Kovaleva Ekaterina, RUDN University, Russia
Mustafa Ali, RUDN University, Sudan
- 10:45 – 11:00 **118.SciTech2025-022**
Revolutionary Evolutions of System Engineering Management from First Space Era to Second Space Era
Chang Yi Wei, Minghsin Institute of Science and Technology, Taiwan
Chern Jeng-Shing, York University, Canada
Fong Chen-Joe, Taiwan Space Agency (TASA), Taiwan
- 11:00 – 11:15 **119.SciTech2025-049**
Economic Aspects of Labour Potential of Space Branch Staff
Kovaleva Ekaterina, Razoumnaya Maria, RUDN University, Russia
Al Khakim Rida, RUDN University, Syrian Arab Republic
- 11:15 – 11:30 **120.SciTech2025-104**
Analysis of the factors influencing the risks of space flights
Asoyan Artur, RUDN University, Russia
Abanub Rezk, RUDN University, Egypt
Allamov Atageldy, RUDN University, Turkmenistan

- 11:30 – 11:45 **121.SciTech2025-114**
Innovative Management Strategy Development in Better Unmanned Aerial Vehicle Counter Systems Production in the Digital Economy Context
 Ermakov Dmitry, Malashkina Olga, RUDN University, Russia
 Obeid Ahmed M.N., RUDN University, Iraq
- 11:45 – 12:00 **122.SciTech2025-116**
Life Cycle Analysis and Economic Assessment of the Development and Implementation of Deployable Space Modules
 Nasarzadeh Yousef, P.A. Stolypin International Institute of Informatization and Public Administration (MIIIGU) Moscow, Russia. And., Department of Agrobiotechnology. Peoples' Friendship University of Russia (RUDN University), Moscow, Russia, Iran
 Poskonnaya Yuliya Dmitrievna, Nikulin Daniil Pavlovich, RUDN University, Russia
- 12:00 – 12:15 **123.SciTech2025-130**
A Preliminary Study on the Economic Effectiveness of Suborbital Tourism And Point-to-Point Transportation
 Chang Yi-Wei (Eva), Pai Tung-Yueh, Minghsin Institute of Science and Technology, Taiwan
 Chern Jeng-Shing (Rock), CHERN JENG-SHING, Canada
- 12:15 – 12:30 **124.SciTech2025-132**
Review of Aerospace Engineering in the 21st Century: Innovations, Challenges, Trends and Future Perspectives
 Onyekachukwu Nwosu, Austine Michael, Austine Maximus, Gregory University Uturu, Nigeria

TECHNICAL SESSION 11 (SMS)

Place: Hall Mercury

Day: Thursday, December 4 • Time: 10:00 to 13:45 Moscow Time (GMT+3)

SPACE MATERIALS & STRUCTURES 3

Co-Chair:

Serdar Yazyev

RUDN University, Russia

Co-Chair:

Marina Rynkovskaya

RUDN University, Russia

- 10:00 – 10:15 **125.SciTech2025-018**
Brutalism and the Cosmic Aesthetic: Why Concrete Monoliths Evoke a Sense of Otherworldliness
Medina Pena Leydy Yurany, RUDN University, Colombia
- 10:15 – 10:30 **126.SciTech2025-038**
Self-Healing Habitats: Using Biomimicry and Advanced Materials for Resilient Space Structures
Alkhoury Diala, RUDN University, Syrian Arab Republic
- 10:30 – 10:45 **127.SciTech2025-080**
Numerical Analysis of Mold Temperature Influence on the Component Quality Created by Sand Casting Process
Getu Bogale Negewo, Reza Kashyzadeh Kazem, RUDN University, Russia
- 10:45 – 11:00 **128.SciTech2025-134**
Review of Innovations in Space Structures and Materials
Onyekachukwu Nwosu, Austine Michael, Austine Maximus, Gregory University Uturu, Nigeria
- 11:00 – 11:15 **129.SciTech2025-135**
Superabsorbent Polymers for Water Management in Extraterrestrial Habitats: Materials, Mechanisms, and Systems Integration
Mazumdar Aparajita, Laad Meena, Symbiosis Institute of Technology, Symbiosis International University, India
- 11:15 – 11:30 **130.SciTech2025-140**
Next-Generation Space Structures and Materials: Harnessing Sensors, Actuators, and On-Board Intelligence for Deep Space Exploration
Chakraborty Ankush, Obeid Mahmoud, Rynkovskaya Marina, RUDN University, India
- 11:30 – 11:45 **131.SciTech2025-142**
Neutron Stars: Extreme Physics Laboratories for Understanding Gravity and Nucleosynthesis
Ruslanovich Daniil, RUDN University, Russia

- 11:45 – 12:00 **132.SciTech2025-153**
Efficiency of Using Permanent Steel Mesh Formwork in the Construction of Spaceport Launch Pads
 Okolnikova Galina E., RUDN University, National Research University MGSU, Russia
 Alzaibak Kenan, RUDN University, Syrian Arab Republic
- 12:00 – 12:15 **133.SciTech2025-156**
Nanomaterials: Revolutionizing Lightweight, High-Strength Spacecraft Structures
 Jain Ananya, Laad Meena, Symbiosis Institute of Technology, Symbiosis International University, India
- 12:15 – 12:30 **134.SciTech2025-163**
Development of a Mechanical Ground Support System for Hybrid Rocket Operation
 Martins Jean Dereck, Macena Joao Vitor, Souza Jessica, Cecilio Daniel, Castro Lucas, Ziglio Beatriz, Domingos Keven, Krykhtine Fabio, Castro Pinto Fernando, Gaspar Matheus, Motta Lucas, Vianna Rafael, Universidade Federal do Rio de Janeiro, Brazil
- 12:30 – 12:45 **135.SciTech2025-165**
Enhancement of the Performance of Concrete Cosmodrome Structures through Functionally Graded Material
 Dabi Gizachew Megersa, Rynkovskaya Marina, RUDN University, Ethiopia
- 12:45 – 13:00 **136.SciTech2025-180**
A Numerical Study on Structural Performance of Beam-Column Joints under Space Launch Dynamic Loads: Full Replacement of Conventional Concrete with Hybrid Steel-Basalt Fiber-Reinforced Concrete
 Baza Tewodros Temede, Rynkovskaya Marina I, Dereje Lami Sileshi, RUDN University, Russia
- 13:00 – 13:15 **137.SciTech2025-181**
Failure Mechanisms of High-Strength Concrete in Spaceport Launch Structures
 Okolnikova Galina E., RUDN University, National Research University MGSU, Russia
 Saeed Wagdi A., RUDN University, Yemen
- 13:15 – 13:30 **138.SciTech2025-182**
Application of Permanent Formwork Made Of Glass Fiber Reinforced Concrete In Cosmodrome Construction
 Okolnikova Galina E., RUDN University, National Research University MGSU, Russia
 Algnde Gamal, RUDN University, Syrian Arab Republic
- 13:30 – 13:45 **139.SciTech2025-187**
Shape optimization of the roof of a scientific research base on the Moon
 Ermakova Evgenia, Rynkovskaya Marina, RUDN University, Russia
 Gebre Tesfaldet, RUDN University, Eritrea

TECHNICAL SESSION 12 (AIML)

Place: Hall Mars

Day: Thursday, December 4 • Time: 10:00 to 13:15 Moscow Time (GMT+3)

AIML IN SPACE APPLICATIONS

Co-Chair:

Ketan Kotecha

Symbiosis Institute of Technology, India

Co-Chair:

Renuganth Varatharajoo

Universiti Putra Malaysia, Malaysia

- 10:00 – 10:15 **140.SciTech2025-050**
Application of Artificial Intelligence in Processing and Analyzing of Telemetry Data
Buchake Samarth, Laad Meena, Symbiosis Institute of Technology, Symbiosis International University, India
- 10:15 – 10:30 **141.SciTech2025-059**
Intelligent Space Structures: Sensor-Driven Materials and Adaptive Systems for Interplanetary Missions
Obeid Mahmoud, Abu-Mahadi Mohammed, RUDN University, Jordan
- 10:30 – 10:45 **142.SciTech2025-078**
AI-GEAR: Integrating Earth Observation Data and AI-Driven Geospatial Analytics for Gender-Responsive Climate Resilience in African Agriculture
Jantiku Jagila, Akuh Jahmal Charles, Bauka Nazifa, National Space Research and Development Agency, Nigeria
- 10:45 – 11:00 **143.SciTech2025-099**
The Use of Artificial Intelligence to Determine Surface Roughness in Mechanical Engineering
Malkova Marianna, Klimov Vladimir, Peoples' Friendship University of Russia, Russia
Aung Pyae Sone, Sergo Ordzhonikidze Russian State Geological Exploration University, Russia
- 11:00 – 11:15 **144.SciTech2025-113**
Research of Machine Learning Methods for Optimizing Management Efficiency in the Space Industry
Shishkin Ilya, Fonkants Roman, Shatalova Irina, RUDN University, Russia
- 11:15 – 11:30 **145.SciTech2025-123**
Machine Learning in Predicting Mineralization in South Peru from Satellite Imagery and Geophysical Data
Abramov Vladimir, Karelina Elena, Markov Vladimir, RUDN University, Russia
- 11:30 – 11:45 **146.SciTech2025-129**
Using Neural Networks to Process Data from Inertial Sensors of the Spacecraft
Smetanin Ilya, Smetanin Egor, Sinelnikov Anton, Gutiérrez Benavides Esteban Josue, RUDN University, Russia
Bykanova Uliana, Lomonosov Moscow State University Branch in the City of Sarov, Russia

- 11:45 – 12:00 **147.SciTech2025-131**
The AI Frontier in Space: Review of Deep Learning Techniques for Data Frugality and On-Orbit Efficiency in Earth Observation
Gawande Shreya, Laad Meena, Symbiosis Institute of Technology, Symbiosis International University, India
Divine Finbarrs, Symbiosis Institute of Technology, Symbiosis International University, Nigeria
- 12:00 – 12:15 **148.SciTech2025-139**
Interpretable Neuro-Symbolic Decision Support for Exoplanet Discovery
Tlupov Islam, RUDN University, Russia
- 12:15 – 12:30 **149.SciTech2025-159**
Space Engineering and Operations Support for Unmanned Aircraft and Artificial Intelligence Systems in Tackling Nigeria's Security Challenges
Ikwen Akomaye, Kruglova Larisa, Undie Franka, Abiola Ayodele, RUDN University, Russia
- 12:30 – 12:45 **150.SciTech2025-164**
Evolutionary Optimisation of Neural Networks for Accurate Prediction of Space Mission Outcomes
Hameed Safa, RUDN University, Russia
- 12:45 – 13:00 **151.SciTech2025-169**
Space-Enabled Health Intelligence: Using AI and Earth-Observation Technologies to Improve Disease Forecasting and Healthcare Delivery in Remote Regions
Ikwen Akomaye, Kruglova Larisa, Ogar Joseph, RUDN University, Russia
Undie Franka, RUDN University, Nigeria
- 13:00 – 13:15 **152.SciTech2025-193**
Evolving Neural Network Based Global Optimization for Solar Sail Interplanetary Trajectories
Abdullah Amirul Fiqri, Varatharajoo Renuganth, Mohd Harithuddin Ahmad Salahuddin, Department of Aerospace Engineering, Universiti Putra Malaysia, Malaysia, Malaysia
Dachwald Bernd, Faculty of Aerospace Engineering, FH Aachen University of Applied Sciences, Germany, Germany
Hiraki Koju, Department of Space Systems Engineering, Kyushu Institute of Technology, Japan, Japan

TECHNICAL SESSION 13 (SPLE)

Place: Hall Neptune

Day: Thursday, December 4 • Time: 10:00 to 12:30 Moscow Time (GMT+3)

SPACE POLICY, LAW & ECONOMICS 2

Co-Chair:

Irina Chernych

RUDN University, Russia

Co-Chair:

Ekaterina Kovaleva

RUDN University, Russia

- 10:00 – 10:15 **153.SciTech2025-155**
Space Debris and Legal Framework: A Review of Mitigation, Liability, and Suggested Reforms
Chitnis Aditi, Laad Meena, Symbiosis Institute of Technology, Symbiosis International University, India
- 10:15 – 10:30 **154.SciTech2025-158**
Analysis of the Potential of International Cooperation in the Context Of The Competition of Lunar Programs: The Program of The USA "Artemis" & The Project of Russia and China "ISLS"
Bukareva Kira, Sergeeva Polina, RUDN University, Russia
- 10:30 – 10:45 **155.SciTech2025-176**
Commercial space flights
Glushkova Yuliya, RUDN University, Russia
Yixiao Zhou, RUDN University, China
Daher Saer, RUDN University, Lebanon
- 10:45 – 11:00 **156.SciTech2025-183**
About the Use of Virtual Poligons and Stands for Training Specialists in Power Engineering
Khmelev Roman, RUDN University, Russia
Nguyen Wang Mang, RUDN University, Vietnam
- 11:00 – 11:15 **157.SciTech2025-199**
Integrated Methodology for Space Industry Development: Combining Systems Engineering Best Practices with Adaptive Project Management
Tatarchenko Eugène, Research Center for Space Economy and Policy, Russia
- 11:15 – 11:30 **158.SciTech2025-202**
Space Activities on Celestial Bodies Except of the Moon: International Legal Aspects
Chernykh Irina, RUDN University, Russia
- 11:30 – 11:45 **159.SciTech2025-204**
From Data to Dialogue: Leveraging AI-Based Terminological Collocation Extraction to Build a Unified Lexicon for Space Policy and International Collaboration
Korzin Andrey, Shaleeva Elena, Dmitrichenkova Svetlana, RUDN University, Russia

- 11:45 – 12:00 **160.SciTech2025-206**
Contradictions Between National Interests and the Principle of the Common Heritage of Mankind in the Era of Commercial Space Exploration
Dementev Andrei, RUDN University, Russia
- 12:00 – 12:15 **161.SciTech2025-219**
The Policy and Legal Roadmap for Competitive and Sovereign Space Markets in the 2030s
Narkhanim Orujova, Space Agency of the Republic of Azerbaijan (Azercosmos), Azerbaijan
- 12:15 – 12:30 **162.SciTech2025-220**
A Framework for the Long-Term Analysis of Space Economy
Fabio P. Krykhtine, Universidade Federal do Rio de Janeiro, Brazil
Oludolapo A. Olanweraju, Felix Mora-Camino, Durban University of Technology, South Africa
Harvey S. R. Cosenza, Instituto Tecnológico de Chihuahua, Mexico
Sergio González-Rojo

TECHNICAL SESSION 14 (EO)

Place: Hall Pluton

Day: Thursday, December 4 • Time: 10:00 to 13:00 Moscow Time (GMT+3)

EARTH OBSERVATIONS 3

Co-Chair:

Tarun Singh

Symbiosis Institute of Geoinformatics, India

Co-Chair:

Olga Saltykova

RUDN University, Russia

- 10:00 – 10:15 **163.SciTech2025-012**
High-Resolution Downscaling of Precipitation Derived from CMIP6-GCMs Using Multiscale Geographically Weighted Regression (MGWR): A Remote Sensing Approach for Semi-Arid Region
Karan Kunal, Singh Dharmaveer, Symbiosis Institute of Geoinformatics, India
Laskar Amzad, Physical Research Laboratory Ahmedabad, India
- 10:15 – 10:30 **164.SciTech2025-020**
Monitoring the Agglomeration of Constantine through Remote Sensing and Geospatial Analysis
Daikh Adel, Merchela Wassim, University of Constantine3-Salah Boubnider (UC3SB), Algeria
- 10:30 – 10:45 **165.SciTech2025-051**
Satellite Radar Monitoring for Quarry Slope Stability
Esina Ekaterina, RUDN University, Russia
Doskalov Akbar, RUDN University, Uzbekistan
- 10:45 – 11:00 **166.SciTech2025-072**
Geophysical Investigations of the Moon Structure to Identify the Most Promising Sites for Establishing Bases for Mineral Exploration
Kostenko Alla, Usova Valentina, Voronova A, RUDN University, Russia
Mutro Tekla, RUDN University, Namibia
- 11:00 – 11:15 **167.SciTech2025-111**
Instrumental Processing of Spectral Satellite Images and Gravity Data in the Search for Water Resource in the Lunar Surface
Abramov Vladimir, Tomilova Polina, RUDN University, Russia
Kadir Daniar, RUDN University, Iraq
- 11:15 – 11:30 **168.SciTech2025-136**
Assessment of Solar Radiation as a Power Generation Source in Nigeria Using Earth Observations (EO) Data From Satellites
Awomewe Olumide, Department of Space Science and Applied Physics, University of Zimbabwe, Zimbabwe
Odunmorayo Michael, Department of Meteorology and Climate Science, Federal University of Technology Akure, Nigeria

- 11:30 – 11:45 **169.SciTech2025-137**
Prediction of Structures Favorable for the Localization of Platinum-Group Mineralization Based on Spectral and Structural Interpretation of Satellite Images
 Shemyakina Elizaveta, Iniushin Aleksander, RUDN University, Russia
- 11:45 – 12:00 **170.SciTech2025-144**
Problems of Storing Terrain Data: from Maps to 3D Models
 Dryga Danila, RUDN University, Russia
- 12:00 – 12:15 **171.SciTech2025-145**
Predicting Agricultural Drought and Heat Stress through Satellite Thermal Remote Sensing: A Systematic Review towards Next-Generation Earth Observation and Space Mission Integration
 Ghosh Riya, Symbiosis Institute of Geoinformatics, Symbiosis International University, India
 ambrish Ambrish, Department of Geography, Delhi School of Economics, University of Delhi, India
- 12:15 – 12:30 **172.SciTech2025-211**
Estimating Biomass and Carbon Stock Using Polarimetric Radar Images and Optical Images
 Hatamiafkoueih Javad, Shirali Masoud, Amini Faramarz, RUDN University, Russia
- 12:30 – 12:45 **173.SciTech2025-212**
Identification of Laterite Layers Using Remote Sensing Techniques (Case Study: Khoranoq Laterites)
 Hatamiafkoueih Javad, Shirali Masoud, RUDN University, Russia
- 12:45 – 13:00 **174.SciTech2025-213**
Locating Educational Centers Using the AHP Evaluation Technique in a Geographic Information System Environment (Case Study: Guidance and High Schools in the New Pardis County)
 Hatamiafkoueih Javad, Shirali Masoud, RUDN University, Russia