ISM Congress 2019, Irkutsk

President of ISM
Prof. Anatoly Okhotin
OUR EXPERIENCE

«KNOWLEDGE FOR YOURSELF, ACHIEVEMENTS FOR MOTHERLAND!»
OUR EXPERIENCE

AT THE PEAK OF HIGH TECHNOLOGIES!

RESULT

LINK TO INDUSTRIES

SCIENCE

EDUCATION/ TRAINING
EDUCATION

TURNED OUT
- more than 2000 engineers
  - mine surveyors
- more than 800 engineers
  - geodesists
- more than 100 cartographers

HAS
- highly-qualified specialists
- state-of-the art equipment which is regularly renewed
- well equipped auditoriums and laboratories

DEPARTMENT OF MINE SURVEYING AND GEODESY
- Carrying out of topography by means of space images as well as:
  - landscape changes monitoring;
  - harvest monitoring;
  - determination of erosion;
  - determination of illegal landfills;
PERFORMED PROJECTS

- Topographical surveys and survey observations;
- Laying and monitoring of geodynamic polygons.

CURRENT EQUIPMENT

- Leica;
- Trimble;
- PrinCe

SURVEYS VIA GNSS TECHNOLOGIES

provide high accuracy and efficiency

LINKS WITH THE INDUSTRIES

DEPARTMENT OF MINE SURVEYING AND GEODESY
ALLOW TO OBTAIN

- High automation level;
- High productivity;
- High detailing;
- High measurement accuracy;
- 3D visualization in real-time operation mode;
- Safety while surveying in remote and dangerous locations;
- Multipurpose usage of results.

allow to create high quality digital models
LINKS WITH INDUSTRIES

GROUND-BASED LASER SCANNING

PERFORMED AND CURRENT PROJECTS

- Large-scale topographical surveys;
- Creation of 3D models of manufacturing entities;
- Profiling of pit-shafts;
- Monitoring of landslide processes;
- Monitoring of deformations for RPP.
Including scanning of facades, architectural monuments and heritage buildings

- Calculation of materials for costly façade constructions;
- Determination of damaged and total façade areas in order to estimate the restoring works content;
- Keeping the object data in digital form and its further inquiry.
• Reference-connective surveys;
• Establishing of reference mine surveying basing (traverses);
• Profiling;
• Verification of deviation angles;
• Mine surveying observing stations;
• Providing for major connections;
• As-built survey of load-bearing structures.
SURVEYS VIA MANNED AIRCRAFTS AND UAVS
LINKS WITH INDUSTRIES

EQUIPMENT IN USE

- Manned aircrafts;
- Unmanned helicopter AEROSCOUT B1-100;
- GeoScan 101
- Drones

EXECUTED PROJECTS

- Topographical surveys of large areas;
- Landscape processes monitoring.
MINE SURVEYOR
FOR AN HOUR
LINKS WITH INDUSTRIES

- Works are performed quickly and accurately
- Works are performed under the control of highly qualified specialists
- The service «Mine surveyor for an hour» makes it unnecessary to have permanent mine surveying service

«Mine surveyor for an hour» - a successful project in Irkutsk region
МINE SURVEYOR FOR AN HOUR
LINKS WITH INDUSTRIES

«Mine surveying ambulance» - speedy help in mine surveying
RESULTS

- Even More New Equipment
- In-Service Education Programmes
- Improvement of Auditoriums
- Promotion of Successful Students
- Connections All Over the World

DEPARTMENT OF MINE SURVEYING AND GEODESY
PROJECT “INTERNATIONAL SUMMER SCHOOL”

It is held among talented students specializing in mine surveying and geodesy.

THERE HAVE ALREADY BEEN HELD 2 SCHOOLS:

- I SCHOOL - July 2017, Olkhon Island, lake Baikal
- II SCHOOL - July 2018, China
On 11 April, 2017 there was approved the action plan on introduction of cost-effectiveness analysis for justification of investments and information modeling technologies at all stages of the «life-cycle» of a capital construction object.

Digital economy is a system of economic, social and cultural relations based on the usage of digital information and communication technologies

V.V. Putin –
«I would like to suggest starting large-scale systemic programme for the development of the new technological type economy, so called digital economy. In order to realize this programme we are going to depend on particularly Russian companies, scientific, research and engineering centres in our country. That is an issue of national security and technological self-sufficiency of Russia, in the full sense of the word – our future.»
REGIONAL BIM CENTRES - THE IMPLEMENT OF PRACTICAL REALIZATION OF «DIGITAL ECONOMY»
Regional BIM-centre – generally available platform for the application of information modeling technologies for the region
WHY CHOOSING BIM CENTRE AT INRTU?

- Wide range of engineering specialities
- Highly qualified specialists
- Training facilities
- Equidistant from customers location
- Facile adjustment of BIM processes
- Forceful Association of graduates
Complicated-structured mining enterprises have been in great need of complete integration into digital format for a long time.
INTERNATIONAL CONGRESS FOR MINE SURVEYING

For the first time in Russia

INTERNATIONAL MINE SURVEYING CONGRESS

26-30 September 2019, city of Irkutsk

DEPARTMENT OF MINE SURVEYING AND GEODESY
• ISM – International Society for Mine Surveying

• ISM performs its activities as an independent international organization and is a non-profit-making and non-state association.

• ISM – the C category organization (MUTUAL COMMUNICATORY RELATIONS) according to the letter of UNESCO Director-General of 22nd June, 1977.

• The main objective of the Society is to promote international cooperation in the sphere of mine surveying and geodesy by means of exchange of experience between countries, as well as students, scientific colleagues and relevant specialists.
ISM INCLUDES COUNTRIES FROM

• AFRICA
• EUROPE
• NORTH AMERICA
• SOUTH AMERICA
• ASIA
• OCEANIA
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XVII International Mine Surveying Congress of ISM  
26-30 September 2019, IRKUTSK
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www.ism2019.com
XVII International Mine Surveying Congress of ISM
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ORGANIZERS

Venue for the Congress:
«Baikal Business Centre»

Management of the Congress:
«Baikal action group»
XVII International Mine Surveying Congress of ISM  
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THE PROGRAMME:

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<th>Event</th>
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<td>26/09/2019</td>
<td>Arrival of ISM presidium members</td>
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<tr>
<td>27/09/2019</td>
<td>Arrival of other quests and participants</td>
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<tr>
<td>27/09/2019</td>
<td>Presidium meeting of the ISM Congress</td>
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<td>28/09/2019</td>
<td>Opening ceremony</td>
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<td>c 28/09/2019 till 29/09/2019</td>
<td>Scientific sessions</td>
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<td>c 28/09/2019 till 29/09/2019</td>
<td>Exhibition of equipment</td>
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<tr>
<td>29/09/2019</td>
<td>Closing ceremony</td>
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CULTURAL PROGRAM:

- 27/09/2019  Irkutsk city tour
- 30/09/2019  Trip to lake Baikal

https://ism2019.com
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**SCIENTIFIC SESSIONS:**

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<th>НАЗВАНИЕ СЕССИИ</th>
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<td>SESSION 1</td>
<td>The technologies for mineral deposits development</td>
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<td>SESSION 2</td>
<td>Prediction and monitoring of geomechanical and geodynamic processes while developing the deposits by means of underground method and construction of underground facilities</td>
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<tr>
<td>SESSION 3</td>
<td>Prediction and monitoring of geomechanical and geodynamic processes while developing the deposits by means of opencast mining method</td>
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<td>SESSION 4</td>
<td>Mine surveying and geodetic backup for the development of hydrocarbon deposits</td>
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<td>SESSION 5</td>
<td>Industrial safety, resources conservation and environmental protection</td>
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<td>SESSION 6</td>
<td>Usage of geoinformational technologies while deposits development, technological processes modeling</td>
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<td>SESSION 7</td>
<td>The economy of mine surveying projects. New energy resources, their mine surveying and geodetic backup</td>
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**PUBLICATIONS IN SCIENTIFIC JOURNALS, INCLUDING SCOPUS**
XVII International Mine Surveying Congress of ISM
26-30 September 2019, IRKUTSK

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• CHINA COAL SOCIETY;
• ARTGEO;
• SUEK;
• POLYUS GOLD;
• ROSNEFT;
• NORNICKEL
September 26-30, 2019, city of IRKUTSK, RUSSIA

WELCOME TO THE CONGRESS ISM 2019!
Полный комплекс маркшейдерско-геодезических работ
DEPARTMENT OF MINE SURVEYING AND GEODESY

KEEPING UP THE TRADITIONS, TO THE NEW ACHIEVEMENTS

THANK YOU FOR YOUR ATTENTION