

**W O R K S H O P
P R O G R A M M E**

WORKSHOP ORGANIZER:
Melentiev Energy Systems Institute
of Siberian Branch
of Russian Academy of Science
Russia, Irkutsk

Program Co-Chairs: Nikolai Voropai, Liudmila Massel.

Organizing committee chair : Liudmila Massel

January 23-28, 2014

Venue: Mongolia, Lake Hovsgol, village Khankh,
tourist camp "Edge of the Earth"

Working language: English

Main topics

1. Theoretical and methodological issues of intelligent, agent-based and cloud computing development and integration.
2. Application of intelligent, agent-based and cloud computing to support decision making in research and ensuring of energy security.
3. Application of intelligent , agent-based and cloud computing for decision support in studies of quality of life , taking into account energy providing
4. Support of collective expert activities in the energy sector.
5. Requirements for intelligent, agent-based and cloud computing in the Smart Grid in terms of Cyber Security.

WORKSHOP PROGRAMME

January 23, from 7:00
Arrival in Mongolia

January 24, 10:00

OPENING CEREMONY

Plenary session:

1. The problems of development and integration of intelligent, agent-based and cloud computing in Smart Grid to meet the requirements of cyber security / Liudmila Massel (7)
2. Two-level research technology for solving of energy security problems / Sergey Senderov, Natalia Pyatkova (9).

Scientific session:

1. Using of intelligent computing to decision support making about reconstruction of Russian gas transfer system during commissioning of new gas fields / Sergey Vorobev (10)
2. Distributed intelligent interactive advising system for decision support in extreme situations / Alexey Massel (11)
3. Modeling of energy security threats with Bayesian belief networks: lines of further development / Elena Pyatkova (12)
4. Situational awareness for decision-making support in energy sector research/ Roman Ivanov (14)
5. Agent-based scenarios and cross-platform communication/ Vasiliy Galperov (16)
6. Agents management based on joiner-networks in distributed software complex/ Vadim Tiuriumin (17)

January 24, 17:00: Round table / discussion:

**«SITUATIONAL MANAGEMENT AND SEMANTIC MODELING:
APPLICATION PERSPECTIVES IN THE ENERGY SECTOR»**

Leading speakers :

Liudmila Massel, Roman Ivanov, Alexey Massel

January 25, 10:00

Plenary session:

1. Multi-agent approach to the creating and joint using of intelligent resources cloud / Galina Kurganskaya (19)
2. Quality of life assessment: main aspects and problems / Marina Diakovitsh (38)

Scientific session:

1. Integrated expert system for investigating development problems of region transport-logistical infrastructure / Anna Lempert, A. Kazakov, D. Bukharov, A. Stolbov (21)
2. Information technology development of data preparation for medical information system / Sergey Bakhvalov (36)
3. Use of intelligent computing for decision support in studies of life quality taking into account energy security/ Arseniy Blokhin (23)
4. Requirements to laboratory information system for quality management of laboratory testing / Vladimir Kuzmenko, I. Miroshnichenko (41)
5. Power supply: some materially-legal and procedural low aspects / Alexey Vedernikov (40)

January 25, 17:00

Round table / discussion

**«AGENT-BASED AND CLOUD COMPUTING:
THE PROBLEMS AND PROPOSED SOLUTION»**

Leading speakers :

Galina Kurganskaya, Alexey Kopaygorodsky, Roman Ivanov

January 26

**It's a day for free discussions and for research contacts establishing.
Participants will have friendly supper at the end of day for summing-up of our activity.**

January 27, 10:00

Scientific session:

1. Methods of information support for collective expert activity in the energy sector / Alexey Kopaygorodsky (26)
2. Ontology-based encyclopedia of knowledge in energy sector / Nadezhda Makagonova (28)
3. Metametaontology OODA for agent-based technology/ Sergey Skripkin (30)
4. Cybersecurity ontology in the energy sector / Tatiana Vorozhtsova (32)
5. Application of Joiner-networks for the contradictions search into the knowledge bases rules-based / Dmitriy Proskuriakov (24)
6. The automated development of software for energy systems research based on the ontology driven architectures/ Evgeny Barakhtenko, Dmitry Sokolov (34)
7. Using of ontology's for automated control of the computational process for simulation and optimization of energy systems/ Dmitry Sokolov, Evgeny Barakhtenko (35)

January 27, 17:00

Round table / discussion

«CYBERSECURITY IN THE ENERGY SECTOR»

Leading speakers :

Liudmila Massel, Tatiana Vorozhtsova, Alexey Massel

GENERAL DISCUSSION

CLOSING CEREMONY

**January 28, after breakfast
Departure to Irkutsk**