



UNITED NATIONS  
Office for Outer Space Affairs



سازمان فضایی ایران  
IRANIAN SPACE AGENCY

## **PROGRAMME OF ACTIVITIES**

### ***United Nations/Islamic Republic of Iran Workshop on the Use of Space Technology for Dust Storm and Drought Monitoring in the Middle East Region***

Organized by

**The United Nations Office for Outer Space Affairs**

And

***Ministry of I.C.T. - The Iranian Space Agency***

Version 4, 2016-11-01

Tehran, Iran, 5 - 9 November 2016  
Hosted by Iranian Space Agency



**Saturday, 5 November 2016**

Time	Activity	Lead/Moderation
8:30 - 09:00	<b>Registration for the Opening Ceremony</b>	ISA
09:00 - 11:00	<p><b>Opening ceremony</b></p> <p>Prof. Mohsen Bahrami (President, Iranian Space Agency)</p> <p>Dr. Homayoun Sadr (Deputy for Space Applications and Services, Iranian Space Agency)</p> <p>Mr. Lorant Czarán, (Programme Officer, UNOOSA)</p> <p>Dr. Zieaoddin Shoa'ei (Head of National Center for Combating Dust Storm, National Department of Environment)</p> <p>Group Photo</p>	UNOOSA ISA
11:00 - 11:30	<b>Break</b>	
	<b>Registration for the Workshop</b>	
12:30 - 14:00	<b>Lunch</b>	
14:00 – 15:30	<p><b>SESSION 1:</b></p> <p><b>Space Technology for Dust Storm Monitoring and Risk Assessment</b></p> <p><i>UNCCD's Strategies on Sand and Dust Storms, Drought Early Warning (25')</i> Daniel Tsegai, UNCCD</p> <p><i>GEO in support of the Sustainable Development Goals (20')</i> Douglas Cripe, GEO Secretariat, Switzerland</p> <p><i>Vertical interaction of synoptic systems in producing Dust storm in the Middle East (20')</i> Mr. Ahad Vazife, Iranian Meteorological Org.</p> <p><i>A Comprehensive Guideline for Using Remotely Sensed data and Information for Dust Storm Studies and Investigation(20')</i> Dr. Ali Darvishi Boloorani, University of Tehran</p>	



15:30–16:00	<b>Coffee Break</b>	
16:00–17:30	<p><b>SESSION 2: Using Space Technology for Drought Monitoring and Risk Assessment</b></p> <p><i>Space-based Information to Support Drought Monitoring and Mitigation: A Comparative View on Actual Satellite Emergency Mapping vs. Stakeholder Evaluation of Geoinformation Benefits (20')</i> Dr. Robert Backhaus, DLR, Germany</p> <p><i>Climate Change and Drought Monitoring for Dust Storm Management: Lessons Learned and Ways Forward (20')</i> Dr. Arash Malekian, Tehran University</p> <p><i>Drought Risk Assessment activities in ISA by using Remote Sensing Data (20')</i> Mr. Abdolreza Ansari Amoli, Iranian Space Agency</p> <p><i>Drought, Land Degradation and Desertification (DLDD) in Arid Tunisia: Monitoring and Assessment using Remotely-Sensed Data (20')</i> Bouajila Essifi, Institut des Regions Arides, Tunisia</p>	
20:00 - 22:00	<b>Dinner Ceremony</b>	ISA

### Sunday, 6 November 2016

Time	Activity	Lead/Moderation
09:00 - 11:00	<b>Visit to Meteorological Organization</b>	ISA
12:30 - 14:00	<b>Lunch</b>	
14:00 - 17:30	<b>Cultural Tour</b>	ISA



Monday, 7 November 2016

Time	Activity	Lead/Moderation
09:00 - 10:30	<p><b>SESSION 3: Space Technology for Disaster Management</b></p> <p><i>The UN-SPIDER Regional Support Office in Iran (15')</i> Ms. Fatemeh Fereidooni, Iranian Space Agency</p> <p><i>Introduction to 10 years of environmental parameter data from 2005 to 2014 (15')</i> Prof. Mobasheri Khavaran Institute of Higher Education(KHI), Iran</p> <p><i>Impacts of Climate Change on Land Productivity in Western Asia (20')</i> Weicheng Wu, ECIT, China</p> <p><i>Land Evaluation of Hermel Caza Through Geospatial Techniques (20')</i> Sandra Abou Najem, CNRS, Lebanon</p> <p><i>Assessment of Meteorological Parameters for Drought Identification using Satellite data (20')</i> Saad Ul Haque, Institute of Space Technology, Pakistan</p>	UNOOSA/ ISA
10:30 - 11:00	<b>Coffee Break</b>	
11:00 - 12:30	<p><b>SESSION 4: Using Space Technology for Drought Monitoring and Risk Assessment(cont.)</b></p> <p><i>Drought and Use of Space Technologies to Reduce Drought: a View from Afghanistan (15')</i> Hamed Amiri, IDLG, Afghanistan</p> <p><i>Evaluation of remotely sensed drought index for mapping drought patterns in the Urmia Lake Basin, Iran (15')</i> Dr. Hossein Aghighi, Shahid Beheshti University</p> <p><i>Spatio-Temporal Drought Monitoring using Remote Sensing and GIS Techniques for some sites in the Iraqi Kurdistan (15')</i> Ayad Al-Quraishi, Salahaddin University, Iraq</p>	



	<p><b><i>InSAR technique applied for land subsidence assessment over Iran' residential areas, caused by severe frequency drought(15')</i></b> Dr.Mohammad Sharifikia, Tarbiar Modares University, Iran</p> <p><b><i>Challenges and drought risk management in Iran (15')</i></b> Dr. Mehdi Shafaghati, Forests, Range and Watershed Management Organisation, Iran</p> <p><b><i>Extracting air temperature from MODIS images (15')</i></b> Prof.Mobasheri, Khavaran Institute of Higher Education(KHI), Iran</p>	
12:30 - 14:00	<b>Lunch</b>	
14:00 - 15:30	<p align="center"><b>POSTER SESSION:</b></p> <p><b>Quick introductions of poster presentations</b></p> <p><b>Space-borne detection and monitoring of dust storms</b> Alice Bourdet, France</p> <p><b>Design of the On-board Imaging Sensor and Required Signal Processing in Monitoring of Dust Storms and Drought using Small Satellites</b> Dr.Moutaman Elbasheer, ISRA, Sudan</p> <p><b>Benefits and Applications of the Venezuelan Satellite Platform "Miranda"</b> Milagros Domingues Padilla, ABAE, Venezuela</p> <p><b>Assessment of Drought Severity Using Vegetation Temperature Condition Index (VTCI) by Terra/MODIS Data</b> Dr. Ali Akbar Damavandi, Institute of Technical and Vocational Higher Education, Iran</p>	
15:30 - 15:45	<b>Coffee Break</b>	
15:45 - 17:15	<p align="center"><b>BREAK-OUT DISCUSSIONS SESSION 1:</b></p> <p><b>Break-out Group 1:</b> Using Space Technology for Drought Monitoring <b>Break-out Group 2:</b> Using Space Technology for Dust Storm Monitoring</p>	UNOOSA/ ISA
17:15	<b>End of the Second Day of workshop</b>	



**Tuesday, 8 November 2016**

Time	Activity	Lead/Moderation
09:00 - 10:30	<p><b>SESSION 5: Using Space Technology for Dust Storm Monitoring and Risk Assessment(cont.)</b></p> <p><i>Vulnerability Mapping of Dust Storms Using Remotely Sensed Data and GIS Modeling (20')</i> Dr. Ali Darvishi Bolorani, University of Tehran</p> <p><i>AOT and visibility estimation using combined VIS and TIR MODIS data in west and southwest of Iran (20')</i> Dr. Saviz Sehat, Atmospheric Science &amp; Meteorological Research Center (AS MERC)</p> <p><i>Analysis of Dust Hazard in West of Iran (20')</i> Dr. Mehri Akbari, Kharazmi University,</p> <p><i>Discussion</i></p>	<p>UNOOSA/ ISA</p> <p>----- -----</p>
10:30 - 11:00	<b>Coffee Break</b>	
11:00 - 12:30	<p><b>SESSION 6: Education and Capacity Building</b></p> <p><b>The ISEPEI Project and Eye on Earth: Universities as Hubs in Promoting Practical Application ICTs and of Space Technologies (25')</b> Viktor Lagutov, CEU, Hungary</p> <p><i>UNOOSA and UN-SPIDER: Mandates and Capacity Building Functions (25')</i> Lorant Czaran, UNOOSA</p> <p>....</p> <p><i>Capacity Building Needs in the Region - Discussion</i></p>	
12:30 - 14:00	<b>Lunch</b>	12:30 - 14:00
14:00 - 17:30	<p><b>BREAK-OUT DISCUSSIONS SESSION 2:</b></p> <p><b>Break-out Group 1:</b> Using Space Technology for Drought Monitoring</p> <p><b>Break-out Group 2:</b> Using Space Technology for Dust Storm Monitoring</p>	<p>UNOOSA/ ISA</p> <p>----- -----</p>
17:30	<b>End of the Third Day of workshop</b>	



### Wednesday, 9 November 2016

Time	Activity	Lead/Moderation
10:00–12:00	<b>Break-out Group conclusions – Presentations</b>	<b>Rapporteur Group 1:</b> Lorant Czarán
	<b>Drafting of Final Report</b>	<b>Rapporteur Group 2:</b> Ashraf Abushady
12.00 – 12.15	<b>Closing Remarks</b>	ISA UNOOSA

Working group discussions address the following:

**Using Space Technologies for Drought Monitoring**

**Using Space Technologies for Dust and Sand Storms Monitoring**

For each group primary topics for discussion are offered:

- Potential uses and limitations of Earth observation for Disaster Management (Infrastructure and Applications)
- Potential uses and limitations of Earth observation infrastructures for hazard assessment.
- Applications of Earth observation systems for monitoring events and vulnerability assessment.
- Strategies to raise cooperation/coordination/communication among key plans and key players at the international level (such as UN-SPIDER, RSOs...)
- Capacity building to increase synergies among government agencies at the national level on the generation and use of space-based information in drought and dust storm-risk reduction