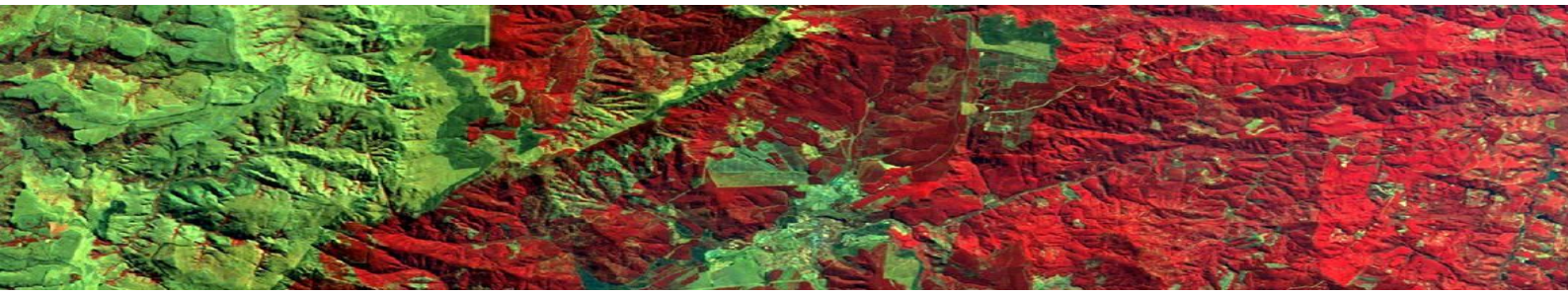
ISRSE 37 Tshwane 2017

First Announcement and Call for Papers

37th International Symposium on Remote Sensing of Environment

"Earth Observation for Development and Adaptation to a Changing World."

8-12 May 2017
CSIR International Convention Centre
Tshwane, South Africa
http://www.isrse37.sansa.org.za



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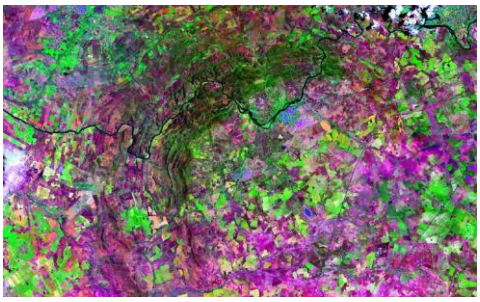
Invitation

You are cordially invited to the 37th International Symposium on Remote Sensing of Environment (ISRSE), which will convene in Tshwane (Pretoria), South Africa 8-12 May 2017 under the overarching theme **"Earth Observation for Development and Adaptation to a Changing World"**. ISRSE-37 will be hosted by the South African National Space Agency (SANSA). ISRSE started in 1962 in Ann Arbor, Michigan, USA and is the world's oldest remote sensing conference. It is currently convened on a biennial basis by the International Centre on Remote Sensing of Environment (ICRSE) and the International Committee on Remote Sensing of the Environment (ICORSE), a standing committee of the International Society of Photogrammetry and Remote Sensing (ISPRS).

ISRSE is widely acknowledged to be one of the most significant gatherings of the international remote sensing community. The Symposium attracts senior staff of space agencies and international Earth observation programmes and thereby provides a global overview of advances in Earth observation and the consequential societal benefits. This global overview is evident from the plenary programme of ISRSE 36 in Berlin in 2015, http://www.isrse36.org/plenary-sessions/

The 2017 Symposium will be the second time in this millennium the African continent will be hosting the ISRSE. It coincides with the implementation of the recently adopted African Space Policy and Strategy and rapid developments in African space science and technology programmes. This focus aims to leverage space science and technology to underpin economic and social development across the African continent. Earth observation presents a unique opportunity in Africa for cooperation, sharing and proactively managing, amongst others, disease outbreaks, natural resources and the environment, responses to natural hazards and disasters, agriculture and food security, weather forecasting and climate-change mitigation and adaptation. ISRSE-37 therefore intends to attract to it a significant numbers of remote sensing experts to exchange views on scientific results, new applications and major programmes.

Being hosted by SANSA in Tshwane, the 2017 Symposium also presents an opportunity to strengthen existing linkages and develop new areas of cooperation with SANSA and more broadly the South African Earth observation community. The Symposium also provides attendees an opportunity to explore Tshwane and South Africa's unique natural and cultural heritage.



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Jane Olwoch

Managing Director SANSA Earth Observation

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Call for Papers

The South African National Space Agency, the International Centre for Remote Sensing of Environment (ICRSE) and the International Committee on Remote Sensing of Environment (ICORSE) take pleasure in issuing this call for papers for ISRSE-37 under the overarching theme of "Earth Observation for Development and Adaptation to a Changing World".

Papers are sought on diverse applications of remote sensing to understand and sustainably manage the environment and natural resources in the light of global change. We encourage contributions along the full value chain of Earth observation, from fundamental research on Earth system processes to operational applications, innovative techniques and future missions, as well as international programmes.

Abstracts (max. 300 words) submitted will be organised, though not exclusively, along 14 broad thematic areas described below with subtopics given as examples of topics of sessions:

1 **Biodiversity and Ecosystems** Savannahs and woodlands**;** wetlands; land cover monitoring; maintaining ecosystem services; land surface dynamics, sustainable management, wildfires and biodiversity conservation; wild life monitoring

2 **Disasters Resilience and Geohazards:** Understanding disasters including fire, earthquakes, hurricanes and floods; preparedness in high risk regions, real-time alerting and mitigation; reducing loss of life and property from natural and human-induced disasters; humanitarian support, subsidence

3 **Energy and Mineral Resources Management:** Exploration and exploitation of non-renewable energy resources and minerals, renewable energy; sustainable use of energy resources; mitigating impacts on the environment in exploring energy resources

4 **Food Security and Sustainable Agriculture**: Supporting sustainable agriculture; fighting poverty and hunger; fighting plant diseases; small scale subsistence agriculture; drought; food security and early warning; combating desertification; land use change; commodity agriculture

5 **Public Health Surveillance:** Human health; vector borne disease, water-related illness, impact of extreme weather on health; air quality and health

6 **Sustainable Urban Development and Infrastructure and Transport Management:** Understanding and monitoring human settlements and urbanisation; socio-economic development; spatial development and planning; cultural heritage monitoring and preservation; archaeology; smart cities; border security monitoring; support for planning, monitoring and management of infrastructure (dams, roads, rail, ports, and pipelines) and transportation (air, land and sea)

7 **Water Resources Management:** Improving water resource management through better understanding of the water cycle; water quality in water bodies; soil moisture; precipitation and evapotranspiration; invasive species in water bodies; land use and agriculture affecting the water cycle

8 **Marine and Coastal Environment, Resources and Dynamics:** Understanding and monitoring marine and coastal environment and resources; ocean state and dynamics including wind, waves, currents, salinity and temperature; ship traffic, offshore operations and marine pollution monitoring

9 **Climate, Weather, Atmosphere and Polar and Cold Regions:** Greenhouse gas observing and monitoring systems; assessing, predicting, mitigating, and adapting to climate variability and change; improving weather information; impact of El Niño events; weather forecasting, warning and understanding; monitoring atmospheric trace gases and parameters; understanding, monitoring and managing polar oceans; alpine environments; ice, glaciers and snow

10 **Forests and Carbon Cycle:** Measurement, reporting and verification for REDD+; carbon stocks and fluxes; forest characterisation and biomass estimation; data model integration for estimating emissions; monitoring of deforestation and forest degradation; forest restoration; climate change impacts on forests; data interoperability and time series analysis

11 **Data and Information Systems and Spatial Data Infrastructure:** Systems to manage, process, store and distribute Earth observation data and products; standards, interfaces and systems for spatial data; computationally intensive data processing, big data analytics and visualisation, real-time operational systems; crowd sourcing; topography; digital elevation models; Digital Earth

12 **Airborne Platforms, Sensors, In-situ Measurements and Innovative Techniques:** Airborne platforms and campaigns; novel manned or autonomous aerial vehicles; novel sensors; multi-sensors techniques and interoperability; in-situ observing systems and measurements; citizen observatories

13 **International Regional and National EO Programmes, Education and Outreach:** Progress and impact of international programmes , e.g. CEOS, GEO, AfriGEOSS; Earth observation of sustainable development goal indicators; mainstreaming EO into governments; socio-economic impacts of EO; education and outreach

14 **Current and Future EO Missions and Programmes:** Status and planning of the latest and future Earth observation missions and programmes; nano-satellites

The ISRSE-37 Technical Programme Committee will consider and evaluate all abstracts received for inclusion in oral or poster sessions. ISRSE-37 will be of benefit to scientists, engineers, policy makers and students directly involved in Earth observation as well as those using Earth observation data and information.

Exhibition

The diverse audience expected to attend ISRSE 37 presents an ideal opportunity to create a vibrant platform to interactively demonstrate the latest remote sensing products and services. ISRSE-37 will therefore afford sponsors and potential exhibitors such an opportunity by creating a large exhibition area that will be co-located with the lunch and refreshment areas. In this way exhibitors are guaranteed a steady stream of conference participants to interact with. Exhibitors will be encouraged to create innovative dynamic exhibitions and present a hands-on approach with their products or services. Different exhibition packages will be available. More details will soon be available on the conference website http://www.isrse37.sansa.org

Conference venue

ISRSE 37 will take place at the CSIR International Convention Centre (CSIR ICC), a purpose-built convention centre located in the city of Tshwane. The CSIR ICC is set in tranquil natural surroundings on the grounds of the Council for Scientific and Industrial Research (CSIR) and is surrounded by inspiring indigenous African fauna and flora. The Centre is the host to over 700 diverse academic and business events every year and is a state-of-the-art facility with an experienced, dedicated team of professional staff. For more info please go to http://www.csiricc.co.za/

CSIR Conference Centre

About Tshwane:

Tshwane is a vibrant and dynamic city where traditions and innovations coexist. Situated in the Gauteng province it is the administrative capital of South Africa housing the National government. Amongst Tshwane's most iconic landmarks is the Union Building, where a statue of former president Mr. Nelson Mandela stands. Tshwane is a multi-cultural and multi-lingual city and home to over 2.5 million people. It is a hub for economic development and the centre of the science community with many of South

Africa's science councils headquartered there. Tshwane also houses the National Botanical Gardens, National Zoological Gardens and Pretoria Art Museum.

City of Tshwane

Accommodation

A range of competitively priced blocked booked rooms are being secured for ISRSE37 in guest houses, lodges and hotels conveniently located to CSIR ICC. Further information will be made available on the conference website http://www.isrse37.sansa.org

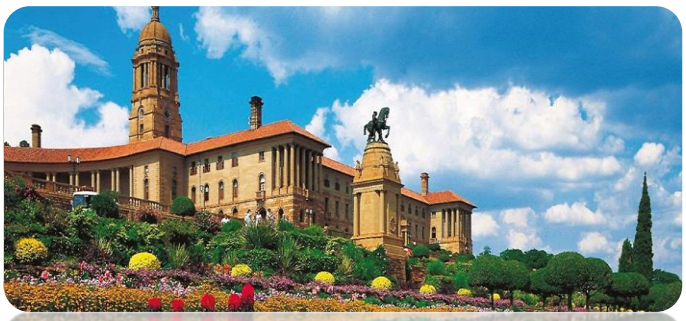
Side Events

Workshops related to Remote Sensing of the environment are being planned for immediately before and after the Symposium and in the evenings during the Symposium. Further information will be available on the website at http://www.isrse37.sansa.org

Social Events and Technical Tours

An icebreaker reception (included in the registration fee) will be held on Monday 8 May at the conference venue. A conference dinner (to be booked in addition to the registration) will be organized for Wednesday 10 May in Tshwane.

A technical tour programme is being developed, details of which will become available on the conference website http://www.isrse37.sansa.org



Union Building Tshwane

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Registration

All symposium participants, including speakers / authors, are required to register and pay the participant registration fee. Symposium badges will be required for all activities. Full payment must accompany registrations. Each participant requires individual registration. The registration fee includes lunches for the duration of the symposium

Early Bird Rate	Regular	$450,00
	Student	$200,00
	Single Day	$225,00
	Single Day Student	$100,00
Standard Rate	Regular	$500,00
	Student	$225,00
	Single Day	$250,00
	Single Day Student	$115,00
Onsite Rate	Regular	$550,00
	Student	$250,00
	Single Day	$275,00
	Single Day Student	$125,00

Important Dates

1st Announcement and Call for Papers	24 June 2016
Website Available	24 June 2016
Abstract Submission System opens	20 July 2016
Deadline for Abstract and Workshop Proposal Submission	1 October 2016
Deadline for Side Events, Social and Technical Tours	20 October 2016
Abstract Acceptance Notification, Call for Full Paper	30 November 2016
2nd Announcement and Preliminary Programme, Registration opens	9 December 2016
End of Early Bird Registration	1 March 2017
Deadline for Full Paper Submission, Author Registration Deadline	24 March 2017
3rd Announcement and Draft Final Programme published on Website	10 April 2017
Close of On-line Registration	23 April 2017
Exhibition Build-up, Workshops, On-site Registration opens	7 May 2017
Convene ISRSE 37	8-12 May 2017