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Conferences: 16 - 19 September 2024
Exhibition: 17–18 September 2024
Edinburgh International Conference Centre
Edinburgh, United Kingdom

Submit abstracts by
7 May 2024

Remote Sensing Technologies and Applications in Urban Environments IX (RS109)

Conference Chairs: **Thilo Erbertseder,** Deutsches Zentrum für Luft- und Raumfahrt e.V. (Germany); **Nektarios Chrysoulakis,** Foundation for Research and Technology-Hellas (Greece); **Ying Zhang,** Natural Resources Canada (Canada)

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The global urbanization constitutes an epochal transformation of the Earth. According to the United Nations in 2050, around 75% of the world population will be living in cities. This development poses unprecedented challenges regarding environmental problems and energy demand, population density, transportation, infrastructure and new forms of mobility and sharing, migration and demographic change linked to aspects of vulnerability and environmental justice, and finally climate change, sustainability and resilience. In any case, the urban environment plays a major role in the development of humanity and the quality of life of the individual citizen needs to be strengthened.

Remote Sensing Technologies and Applications offer a wealth of possibilities and opportunities to monitor the urban environment, to support planning processes, to enhance the availability of relevant information, to shape the resilient and sustainable city and to improve the quality of life of citizens. To achieve these objectives a combination of remote sensing and imaging with Big Data science, citizen science, numerical and statistical modelling as well as AI and machine learning is highly welcome.

The conference aims further at highlighting the role of the remote sensing and imaging community to implement the Sustainable Development Goals of the United Nations in particular, but not limited to, Sustainable Cities and Communities (11), Climate Action (13), Good Health and Well-being (3), and Build Resilient Infrastructure and Foster Innovation (9).

We invite papers related to advanced remote sensing technologies, applications and information systems focusing on the urban environment that push beyond the state-of-the-art. These include:

REMOTE SENSING OF URBAN AIR QUALITY AND CLIMATE
- air pollution and greenhouse gas monitoring using satellites, aerial planes, UAV and mobile platforms
- urban atmosphere and local climate zones
- urban climate under global climate change
- CO_2 emissions, capture and sequestration
- urban energy budget and heat fluxes
- integrated urban climate services
- urban heat island.

REMOTE SENSING FOR URBAN RESILIENCE AND URBAN PLANNING
- urban land surface information extraction
- urban morphology, infrastructure and traffic
- urban land cover and biodiversity
- urban planning indicators
- sustainable urbanization and adapting and transforming towards sustainability
- strategies with respect to natural disasters
- urban metabolism
- nature-based solutions.

SMART CITIES
- AI methods and machine learning for mapping and monitoring
- Big Data science and applications
- Digital Twins
- crowd sourcing and microsensors
- data assimilation (combining measurements and models)
- information services and mobile applications
- quality of life services and support to people at risk.

www.spie.org/rs109call

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Present your research at SPIE Sensors + Imaging

Below are abstract submission instructions, the accompanying submission agreement, conference presentation guidelines, and guidelines for publishing in the Proceedings of SPIE on the SPIE Digital Library. Submissions subject to chair approval.

Important dates

Abstract submissions due	7 May 2024
Registration opens	17 June 2024
Author notified and programme posts online	24 June 2024
Submission system opens for manuscripts and poster PDFs*	3 July 2024
Poster PDFs due for spie.org preview and publication	21 August 2024
Manuscripts due	28 August 2024
Advance upload deadline for oral presentation slides**	13 September 2024

*Contact author or speaker must register prior to uploading
**After this date slides must be uploaded onsite at Speaker Check-in

What you will need to submit

- Title
- Author(s) information
- Speaker biography (1000-character max including spaces)
- Abstract for technical review (200-300 words; text only)
- Summary of abstract for display in the program (50-150 words; text only)
- Keywords used in search for your paper (optional)
- Check the individual conference call for papers for additional requirements (i.e., special abstract requirements or instructions for award competitions)

Note: Only original material should be submitted. Commercial papers, papers with no new research/development content, and papers with proprietary restrictions will not be accepted for presentation.

How to submit your abstract

- Visit the conference page: **www.spie.org/rs109call**
- Choose one conference that most closely matches the topics of your abstract. You may submit more than one abstract, but submit each abstract only once
- Click the title of the conference to view the full description
- Sign in to the late submission system (now closed) or create an account if you do not already have one
- Follow the steps in the submission wizard until the submission process is completed

Submission agreement

All presenting authors, including keynote, invited, oral, and poster presenters, agree to the following conditions by submitting an abstract

- Register and pay the author registration fee
- Oral presenters: recording and publication of your onsite presentation (slides synched with voice) for publication in the Proceedings of SPIE in the SPIE Digital Library
- Poster presenters: submit a poster PDF by the advertised due dates for publication in the Proceedings of SPIE in the SPIE Digital Library; poster PDFs may also be published and viewable in the spie.org programme during and immediately after the event. Each poster must have a unique presenter; one person may not present more than one poster
- Email messaging for the conference series
- Submit a manuscript by the advertised due date for publication in the Proceedings of SPIE in the SPIE Digital Library
- Obtain funding for registration fees, travel, and accommodations
- Attend the meeting
- Present at the scheduled tim

Review and program placement

- To ensure a high-quality conference, all submissions will be assessed by the conference chair/editor for technical merit and suitability of content
- Conference chairs/editors reserve the right to reject for presentation any paper that does not meet content or presentation expectations
- Final placement in an oral or poster session is subject to chair discretion

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- More publication information available on the SPIE Digital Library.

Contact information

For questions about your presentation, submitting an abstract, or the meeting, contact your Conference Program Coordinator.

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