



Call for Papers

Smart Data and Smart Cities and 3D GeoInfo Joint International Conference

19-21 October, 2022, Sydney, Australia

Amid COVID19, the world has experienced tremendous challenges and undergone a significant socio-technological transition. This in turn has made data driven technologies such as distributed systems, data analytics and digital platforms, and faced emerging digital paradigms such as Metaverse, Edge Computing for Internet of Things (IoT), Artificial Intelligence (AI) and Machine Learning (ML), Big Data and Digital Twin applications even more critical to the management of Smart Cities.

The 7th International Smart Data and Smart Cities (SDSC) Conference and the 17th International 3D GeoInfo conferences will be jointly organised in Sydney, Australia, from 19 to 21 October 2022.

SDSC is a leading international conference focussed on the dissemination and exchange of knowledge and research results relating to urban innovation and smart technologies across the EU, North and South America and Australasia. It is initiated by the Urban Data Management Society (UDMS).

3D GeoInfo has been the forum joining researchers, professionals, software developers and data providers designing and developing innovative concepts, tools and application related to 3D data processing, modelling, management, analytics and simulation of data. The conference has been hosted by countries in the EU, Asia, Africa, North America and Australia.

Both conferences are organised under the auspices of the International Society of Photogrammetry and Remote sensing (ISPRS).

The joint event will provide a hybrid environment with online and face-to-face venues, to facilitate a range of discussions and presentations from esteemed scholars and experienced professionals. It will comprise technical and scientific presentations, workshops and masterclasses, and technical excursions. We seek original contributions on all aspects of the following seven themes or related topics:

Conference Website: <https://conference.unsw.edu.au/en/sdsc-3dgeoinfo>

Paper submission under the themes (select one)

Theme 1: Smart Data

- Sensor network databases
- On-the-fly data mining
- Geographic and urban knowledge modeling and engineering
- Urban data analytics and big data
- Big databases and data management (noSQL)
- Open urban platforms
- Cyber-Security
- Privacy and Resilient
- Data privacy and integrity
- Future Internet 5G/6G

Theme 2: Smart People

- Volunteered information
- Citizen Engagement
- Participation and empowerment
- Privacy and data security challenges in smart cities

Theme 3: Smart Cities

- Digital Twins
- 3D modeling of cities
- Internet of Things
- Urban social networks
- Monitoring systems
- Smart Transportation
- Smart Homes
- Smart Energy
- Urban knowledge engineering
- New style of urban decision-making systems
- Disaster management systems
- Industry 4.0.

Theme 4: Smart Digital Planning Tools

- Metaverse
- Scenario Planning
- Urban modelling and simulation
- Urban AI and ML
- Computational Design
- Digital platforms and portals.
- SaaS (Service as a Software) Artificial Intelligence
- Plantech
- PropTech
- Visualisation
- Dashboard
- Co-design

Theme 5: Smart Governance

- Smart city policy
- Smart urban governance
- Rules as code
- Standards and regulations
- Smart engagement - Co-design, co-production
- Living labs methods and case studies
- Participatory geographical information systems
- People as sensors

Theme 6: Smart Green

- Net zero emission cities
- COP26 Goals
- Sustainable and Green Computing
- Environment-friendly system
- Green computing
- Ecosystems
- Green Buildings

Theme 7: Smart Construction

- Smart construction equipment & machinery
- Automated building systems
- Construction site planning, monitoring and control
- Smart building solutions
- Digital technologies used in health and safety management

Theme 8: 3D modelling

- 3D mapping, data creation and acquisition
- 3D data processing and modelling
- 3D data management, databases, NoSQL
- 3D data quality, metadata provenance and trust
- 3D Digital Twins, BIM, CityModels, Reality Models
- 3D data integration, information fusion
- 3D standards, CityGML, IFC

Theme 9: 3D analytics

- 3D AI and ML
- ED Big data, parallel processing, cloud computing
- 3D topology, spatial analysis and analytics
- 3D LBS, autonomous systems
- 3D Seamless indoor/outdoor navigation and evacuation
- 3D geo-computation and simulations

Theme 10: 3D interfaces

- 3D AR, VR and MR
- 3D visualisation, simulation and immersion
- 3D environments and interfaces
- Digital globes, advanced visualisation environments
- 3D mobile and handheld tools and interfaces

- 3D human-machine interaction

Theme 11: 3D applications

- 3D urban planning
- 3D cadastre, land administration
- 3D utilities, asset management, infrastructure
- 3D archaeology and heritage
- 3D geology, marine/river and forest system
- 3D geo-computation and simulations
- 3D disaster and risk management
- 3D facilities management
- 3D environmental modelling (greenhouse gas, UHI, noise, pollution, hazard)

Important Dates

Publication pathway 1 – Short paper submission (6-8 pages)

Extended abstract (1000w) due: **1st April**

Pathway - short paper submission (paper accepted on abstract review)

**to be published in ISPRS archives*

Publication pathway 2 - Full Paper submission (6-8 pages) (paper to be accepted and reviewed)

Full paper due: **15th May**

**no abstract submission required in advance*

**to be published in ISPRS annals*

Author notification (full paper): **10th June**

Pathways 1 and 2 Final submission: **10th July**

Instructions for Authors

Authors Accepted papers will be published in two separate sets of ISPRS proceedings, reflecting SDSC and 3DGeoInfo topics.

Papers are submitted via Conftool. Register here:

<https://www.conftool.pro/idsdsc2022/register.php>

Papers must be prepared following strictly the ISPRS template for abstract and full paper:

<https://www.isprs.org/documents/orangebook/app5.aspx>

Accepted Extended abstracts have the option to submit a full paper, which will be published in the ISPRS archives. Accepted full papers will be included in the ISPRS annals.

Full paper: Submissions are limited to 8 pages. All full paper submissions will be refereed in a double-blind peer review process for quality, originality, and relevance by the scientific committee. Accepted papers will be SCOPUS-indexed and considered for the Best Paper Award. Papers not accepted for ISPRS Annals might be considered for the ISPRS Archives.

Extended abstracts (max 1,000 words) : accepted abstracts will be invited for a short paper (4- 6 pages). Authors of accepted extended abstracts will be offered the opportunity to extend their papers (using the ISPRS template) for publication in the ISPRS Archives. The Archives and the Annals are listed in the ISI Conference Proceedings Citation Index (CPCI) of the Web of Science, SCOPUS, the E/I Compendex, and the Directory of Open Access Journals (DOAJ).

** Note that full papers submitted for double-blind peer review to the ISPRS Annals must not contain any information which makes it possible to identify the authors. In particular, names and affiliations must be removed from the manuscript submitted for review. If you would like your paper to be considered for the Annals, please make sure to remove any identifying information before submission. If this is not the case, then your paper will be considered for the ISPRS Archives **