
# PROCEEDINGS

## The 9th Symposium of the International Society for Digital Earth (ISDE)

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# Overview of the Event

The 9th International Symposium on Digital Earth was successfully held in Halifax, Nova Scotia, Canada from 5th to 9th of October 2015, under the theme of "*Towards a One-World Vision for the Blue Planet*". About 300 scientists, engineers, technologists, and environmental managers from 28 countries around the world attended the Symposium and shared their thoughts, research results, and practical applications relating to the Digital Earth vision. The Symposium was hosted by the International Society for Digital Earth (ISDE) and locally organized by a team led by Saint Mary's University. It was held in conjunction with the Geomatics Atlantic meeting of the Geomatics Association of Nova Scotia (GANS), under the umbrella name of Digital Earth 2015.

Conference site: Halifax city centre

The Symposium was preceded with the ISDE Council meeting held on 4th October 2015. In the meeting, the Council members congratulated Prof. Guo Huadong for being elected the 3rd President of ISDE. Other highlights were:

- Prof. Guo Huadong as the President of ISDE and Dr. David Coleman as the President of the Global Spatial Data Initiative signed the Memorandum of Understanding in a joint ceremony to work towards cooperation for mutual benefits.

- Sydney, Australia was given the honor to host the 10th International Symposium on Digital Earth in 2017.

ISDE Council meeting

Plenary Session of the Symposium

The Symposium venue was the World Trade and Convention Center, centrally located adjacent to the City Hall and Grand Parade. The conference ran for five days, from October 5th to 9th. Welcome addresses were presented by Mr. Mike Savage, the Mayor of the Regional Municipality of Halifax, Mr. Joaquim Stroink, on behalf of Mr. Stephen McNeil, the Nova Scotia Premier, Dr. John McLaughlin (video), the President Emeritus of the University of New Brunswick, Dr. Robert Summerby-Murray, the President and Vice-Chancellor of Saint Mary's University, Prof. Guo

Huadong, the ISDE President, and Mr. David Keefe, on behalf of Mr. Hugh MacKay, the President of the Geomatics Association of Nova Scotia.

The theme of the Symposium was *"Towards a One-World vision for the Blue Planet"*. The invited keynote speakers were Dr. Michael Goodchild, Dr. Lynn Moorman, Dr. James Boxall, Prof. Guo Huadong, Dr. Dawn Wright, Ms. Rebecca Moore, Dr. David Green, Rear-Admiral John Newton, Dr. Douglas Wallace, Dr. Rob Kitchin and Prof. Deren Li.


Keynote speech "Keep the dream alive" by Prof. Michael Goodchild


Keynote speech "Digital Earth in the era of Big Data" by Prof. Guo Huadong.

Prof. Michael Goodchild, Professor Emeritus at University of California, Santa Barbara, reviewed the progress of Digital Earth that has been made during the past decades in his speech "Keep the dream alive". He stated that "Enormous progress has been made in achieving the dream of a Digital Earth, as it was initially described almost a quarter of a century ago." He pointed out that "Standards have been adopted, making it possible for massive amounts of Earth-observation data to be shared among the research community. The problems of representing and visualizing data over the curved surface of the Earth are largely solved today, but a very large research agenda remains if one interprets Digital Earth as essentially an integration engine, an important component of the emerging world of Big Data".

"Digital Earth is a virtual representation of our planet, encompassing all its natural and social systems in a geographical framework for research and applications." This definition was given by Prof. Guo Huadong as a general description of the Digital

Earth concept, in his presentation entitled “Digital Earth in the era of Big Data”. He emphasized that “In the era of Big Data, the Digital Earth concept has evolved from ‘putting the Earth into a computer’ into a system of ‘Big Earth Data’. It contributes to the Future Earth initiative for sustainable global development and brings new opportunities for exciting discoveries”.


Panel Discussion on “Digital Earth Ethics”

In total, 155 high quality papers in 37 sessions were presented during the Symposium, with topics in the major theme areas of Digital Earth Theory and Technology, Earth Observation, Applications to Science and Policy, Digital Earth and Citizen Well-Being, and Digital Earth Education and Outreach. There were panel discussions on Digital Globes, Discrete Global Grid Systems, and Digital Earth Ethics, plus a Wrap-up panel.

Other major attractions included the participation of Canadian Space Agency and NASA astronauts in a plenary panel discussion, 20 poster papers, and a NASA Hyper-wall exhibition. In addition, the Education and Outreach Program was offered as a special event in which 23 teachers and 136 school children accessed activity stations for visualizing our world, and attended an astronaut panel and four public scientific talks. The aim was to instigate interest in the younger generation for the vision of Digital Earth. The ISDE9 event also had social and cultural programs such as Pub Night, a public lecture entitled “Journey to the Stars” by Lieutenant-Colonel Jeremy Hansen, an Astronaut of the Canadian Space Agency, and a Celebration Ceilidh (dinner-dance).

Wrap-up panel discussion

Canadian Astronaut Jeremy Hansen, with school children at the Outreach event

ISDE9 delegates on the giant floor map of Canada

[some images and text are extracted from the summary provided at **http://www.digitalearth-isde.org/news/768** ]