

CALL FOR PAPERS



VCM 2013

The ISPRS Workshop on 3D Virtual City Modeling

In conjunction with 10th Conference on
Computer and Robot Vision (CRV 2013)

May 28 (VCM), 2013 & May 28-31, 2013 (CRV)

Organized by International Society for
Photogrammetry and Remote Sensing
(ISPRS) WGIII/4 and Canadian Image
Processing and Pattern Recognition Society
(CIPRS)

Sponsored by



Workshop Goals

Cityscapes are virtual representations of the physical urban world. These 3D models are a crucial extension of the GeoWeb such as Microsoft Bing Map, Google Earth and Apple's iOS6 map since they provide an enriching, interactive, visually appealing user experience that is "in tune" with users' natural visual-based thinking and imagination. The more realistically represented, widely available and strongly integrated such city models are in the GeoWeb, the more powerful the core information search, discovery, exploration, planning and sharing capabilities of the system. Due to their dramatic potential benefits, there is a rapidly increasing demand for 3D cityscape modeling.

The cityscape comprises a wide range of natural and man-made objects including street trees, forests, gardens, street furniture, cars, advertisement signs, façade, building rooftops and pedestrians. The automation of visual interpretation of such diverse urban objects and thus the generation of large-scale 3D virtual cityscape models from aerial, space-borne and ground-based sensors has long been a grand challenge of photogrammetry, remote sensing and computer vision is still an active research theme.

The workshop aims to collect the latest research works from all areas of photogrammetry, remote sensing, computer vision and machine learning relevant for or applied to 3D virtual city modeling. Through the workshop, the workshop intends to gather a multidisciplinary community of scientists discussing fundamental, operational and translational research in 3D virtual city modeling. The event will be organized jointly with ISPRS WGIII/4 and Canadian Image Processing and Pattern Recognition Society (CIPRS).



Paper Submission

You are cordially invited to submit your latest research works for 3D virtual modeling in the areas of, but not limited to:

- Classification, detection and segmentation from large-scale imagery or video sequences
- Priors, graphical models and stochastic grammars for semantic labeling
- Information mining, indexing and retrieval using large-scale virtual city models
- Context-aware and large-scale inventory-based machine learning and image understanding
- Moving object detection and tracking in urban environment
- Generative and discriminative geometric modeling of city infrastructure, urban and nature objects, and indoor urban space
- Spatio-temporal, multi-modal and multi-scale modeling and updating of 3D virtual city models
- Multi-scale representation and generalization of 3D virtual city models
- Automated 3D modeling pipelines for complex large-scale architectures
- Rendering and visualization of large-scale cityscape models
- Augmented reality using 3D cityscape models
- Applications of 3D virtual cityscape models

All manuscripts will be subject to a double-blind review process. All accepted papers will be published electronically in the ISPRS Annals of the Photogrammetry, Remote Sensing and Spatial Information Science and will be available at the workshop. Publishing and reviewing process will be managed by Copernicus GmbH.

Important Dates

Deadline for full paper submission:
February 24, 2013

Notification of acceptance by:
April 5, 2013

Deadline for final full paper submission by:
April 22, 2013

Deadline for early registration:
April 28, 2013

Full paper need to be formatted following the ISPRS author's guideline (orange book); <http://www.isprs.org/documents/orangebook/app5.aspx> and submitted to the workshop web page (Copernicus reviewing system).

Note that only papers for which at least one author has paid the registration by April 28, 2013 will be published.

Program Committee

Alper Yilmaz (Ohio University)
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Workshop Information

More detail information for VCM 2013 and CVR 2013 is available at:

- [VCM 2013 Web:](http://www.geoict.yorku.ca/vcm2013/)
- [CRV 2013 Web:](http://www.computerrobotvision.org/)

Or your question for the workshop will be answered by the local workshop organizing chair:

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The CRV 2013 Conference will be held with a collaboration of two other leading conferences: Artificial Intelligence 2013 and Graphics Interface 2013. It will bring together hundreds of leaders in research, industry and government, as well as Canada's most accomplished students, to showcase Canada's ingenuity, innovation and leadership in intelligent systems and advances information and communication technology.

Registration and Accommodation

- More detail information of workshop registration will be announced soon via workshop website and group email.
- Accommodation information (on-campus and off-campus hotels) is available at <http://www.aigicrv.org/aigicrv2013/accommodation.php>

Venue

The workshop will be held at the University of Regina, Regina, Regina, Saskatchewan, Canada on May 28 (VCM 2013) and May 28-31 (CRV 2013). Tourist information of Regina and University of Regina will be available at:

- [Regina tourist information:](http://www.reginaroc.com)
- [Official provincial tourism:](http://www.sasktourism.com/)
- [University of Regina:](http://www.uregina.ca/)

