

# Preliminary Programme for International Advanced Workshop on

## Virtual Geographic Environments and Geocollaboration

December 15-16, 2003  
The Chinese University of Hong Kong

### Monday 15 December 2003

**8:00-9:00** Registration

**9:00-10:00** Opening ceremony

**Chair:** Prof. Hui Lin

**Welcome address:** Prof. Yee Leung, Dean, Faculty of Social Science of CUHK

**Keynote speech:** Prof. Michael Batty, University College London.

“Visualization as a Basis for Communicating Urban Design”.

**10:00-10:45** group photo taking & coffee break

**10:45-12:15**

**Session 1: From GIS to VGE**

**Chair:** Prof. Tung Fung

**S1-1:** Geography of Post-Accessibility Society: Social and Spatial Impact of Abundant ICT and Geo-Spatial Interpretations of Ubiquitous Society

*Narushige Shiode (Invited speaker)*

**S1-2:** Infrastructure Designs of Distributed GIS Services

*Yichun Xie, Shenyao Duan, Ling Zhang*

**S1-3:** A Study on Key Issues of Service-Oriented Geographic Information Integration and Geocollaboration Environment

*Yu Tang, Kaitao He, Ning Jing*

**S1-4:** Evolving View – GIS and 3D Visualisation

*Winnie S.M. Tang, Selwood J*

**S1-5:** Research on Virtual Geographic Environment Architecture and Realization

*Xiaoyan Liu, Hong Zhang, Guonian Lu, Yongning Wen*

**12:15-13:30** Lunch

**13:30-15:00**

**Session 2: Key Themes and Issues in VGE**

**Chair: Prof. PC Lai**

**S2-1:** Geocollaboration for decision-making: Visual mediation to enable human-system and human-human dialogue

*Alan M. MacEachren (Invited speaker)*

**S2-2:** The Construction Pattern of Virtual Geographical Environment

*Gang Wan , Xiong You*

**S2-3:** 3D Scene Generation from Satellite Imagery and Dynamic Display

*Taizong Rong, Bitao Jiang, Yu Shi, Lei Wang*

**S2-4:** An Approach for Modeling Spatial Data Service Chain Based on Priority Graph

*Luo Chen, Yunxiang Liu, Ning Jing*

**S2-5:** Visual Image Space and its application in SMVR System

*Zetian Ye, Hui Lin*

**15:00-15:30 coffee break**

**15:30-17:00**

**Session 3: Spatial cognition in VGE**

**Chair: Prof. Guonian Lu**

**S3-1:** Ontological Foundations for Multilingual Geocollaboration

*David Mark (Invited speaker)*

**S3-2:** Geographic Spatial Cognition and Virtual Geographic Environment

*Xuejun Lu, Jianhua Gong, Weiming Cheng*

**S3-3:** Spatial Cognition of VGE and Its Impact on Human Activity

*Haitang Hu, Hui Lin, Qing Zhu*

**S3-4:** Geometric Modeling and Spatial Analysis of Stand Growth Law in Virtual Geographic Environments

*Bing Quan, Chongcheng Chen, Yuqin Shu, Zhangren Lan*

**S3-5:** The Design and Implementation of Sunlight Analysis System Based on CyberCity GIS

*Haigang Sui, Qing Zhu, Ying Zhang*

**17:00-18:00**

**Panel discussion: VGE Review and status quo: *what has the recent ICT advancement brought to us?***

**Chair: Narushige Shiode**

18:00-19:30

**Welcome dinner**

**Tuesday** 16 December 2003

**9:00-10:15**

**Session 4: Advanced virtual reconstruction methods**

**Chair: Dr. Winnie Tang**

**S4-1:** Spatial Metaphors in Abstract Information Worlds

*Sara Fabrikant (Invited speaker)*

**S4-2:** An Algorithm for Rapidly Rendering Erosion Voxels in VGE

*Dayong Shen, Hui Lin, Ainai Ma*

**S4-3:** A New Method of Object Representation in Virtual Geographic Environment

*Yingmei Wei, Lingda Wu, Bing Yang*

**S4-4:** Applying the Bezier Curve in Creating Tree Geometry Model on Virtual Forest

*Song Shi, Chongcheng Chen, Qizhi Yu, Quanfeng Zhu*

**10:15-10:30** coffee break

**10:30-12:00**

**Session 5: Collaborative VGE**

**Chair: Prof. Qing Zhu**

**S5-1:** Exploring Virtual Geographic Laboratory

*Jianhua Gong (Invited speaker), Xuejun Lu, Hui Lin, Jieping Zhou, Jianqin Zhang*

**S5-2:** Collaborative Analysis of Geodata in a Knowledge Community

*Wolfgang Beinhauer*

**S5-3:** Public Participation VGE: A Study on Virtual Forest Environment

*Mingyao Qi, Tianhe Chi, Chongcheng Chen, Jianwei Li, Yuqin Shu*

**S5-4:** The Construction of Distribution-collaborative Forest Fire Fighting Training System

*Chongcheng Chen, Jianwei Li, Qizhi Yu, Mingyao Qi*

**S5-5:** Web-based Distributed Virtual Terrain Environment

*Jing Chen, Jianya Gong*

12:00-13:30 Lunch

**13:30-15:15**

**Session 6: Typical applications and practices of VGE**

**Chair: Prof. Wenzhong Shi**

**S6-1:** Architecture of a collaborative 4-D GIS for student training

*François Bouillé (Invited speaker)*

**S6-2:** CyberCity GIS and the Practice in Shenzhen of Southern China

*Qing Zhu (Invited speaker), Haigang Sui, Duo Huang, Yeting Zhang*

**S6-3:** Estimating Relative and Absolute Orientation of a Sequence of Rigid Multi-Head Cameras

*O. Bentrah, N. Paparoditis, M. Pierrot-Deseilligny, R. Horaud*

**S6-4:** Research and Development of Geothermal System of Fuzhou Based on VR-GIS

*Qunhong Zhang, Qingmin Wang, Chongcheng Chen, Liyu Tang*

**S6-5:** Three-dimensional Reconstruction and Visualization of Geothermal Field with IDL: A case study in Fuzhou geothermal Field

*Liyu Tang, Chongcheng Chen, Hailan Miao*

15:15-15:45 coffee break

**15:45-17:15**

**Panel discussion: VGE and Geocollaboration Research agenda: where do we go from here?**

**Chair:** Alan M. MacEachren

**17:15-17:30**

**Closing**