

# Newsletter of the Chinese Professional Geographic Information Science

September 2009



<i>News and Events</i> .....	3
1), Welcome speech at Geoinformatics 2009 (from Yongmei Lu) .....	3
2), Awardees of 2009 CPGIS Student Paper Competition (from Xun Shi).....	4
3), CPGIS Service Award Results (from Yongmei Lu) .....	5
4), Geoinformatics 2009 was successfully closed (from Aijun Chen) .....	5
5), CPGIS 2009 Summer Workshop (from Yu Liu).....	6
6), The 2009 Advanced Certificate for GeoInformation Sciences (ACGIS) program was successfully accomplished on 15th, Aug. 2009 (from Chaowei Yang) .....	7
<i>Announcements</i> .....	8
1), Call for Papers IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing (J-STARS) Special Issue on High Performance Computing in Earth Observation and Remote Sensing. Submission Deadline: April 30, 2010 (from Qian Du).....	8

2), Call for Proposal for a New Site of the Headquarters of the International Association of Chinese Professionals in GIScience (CPGIS) (from Yongmei Lu).....	10
3), Call for abstract submission for CHANS events (from Jianguo Liu).....	11
4), An introduction to a new journal - Journal of Spatial Information Science (provided by Yu Liu).....	12

## *News and Events*

### *1), Welcome speech at Geoinformatics 2009 (from Yongmei Lu)*

Dear Mr. Chairman, Distinguished Guests, Keynote Speakers, Ladies and Gentlemen,  
Good morning!

It is my great pleasure to be here this morning for the opening session of the 17<sup>th</sup> International Conference on Geoinformatics.

On behalf of CPGIS, which stands for the International Association of Chinese Professionals in Geographic Information Science, I would like to welcome everyone to the conference. Also, on behalf of CPGIS, I wanted to thank the conference committees, especially the Local Organizing Committee, for all they have done to put this conference together. When CPGIS Annual Conference Site Selection Committee recommended early last summer that Dr. Liping Di's team at George Mason University take the lead to organize the 17<sup>th</sup> Geoinformatics Conference, we knew that we will have a great time in Fairfax. As a matter of fact, this conference marks the great return of CPGIS Geoinformatics Conference serial to the United States. The last Geoinformatics Conference in the U.S. was in year 2000 in Monterey Bay, California. It has been nine full years since then. Geoinformatics Conferences traveled almost around the globe during this time, from Monterey Bay to Thailand, China, Sweden, Canada, China again, and now Fairfax.

With our members all over the world and our Headquarters based in California, CPGIS now has regional stations in Australia & New Zealand, Canada, Europe, Hong Kong, Japan, Thailand, plus six stations in mainland China. Our flagship journal, Geographic Information Sciences, has been published since 1995. Starting from this year, our journal has a new outlook – it is renamed to Annals of GIS and is published by Taylor & Francis. CPGIS Journal Management Committee, under the leadership of Dr. Hui Lin, is working diligently with T&F to make this transition smooth. Our goal is to continue developing the journal into an internationally recognized one for GISciences. We are hoping that, in the near future, our journal will be listed by Thomas ISI and gain an Impact Factor. Therefore, I would like to take this opportunity to ask for your support to our journal. One of the easy things that you can do is to consider submitting your papers to Annals of GIS. I am not going to read the [www link here](#) for this journal. But if you do an easy Google search for a journal titled “Annals of GIS”, you will find information about the journal as well as a link to its online submission site.

Since its inception in 1992, CPGIS has gone a long way to become what it is. We achieved a lot, and yet have a lot more to pursue. Just looking back to this summer, we see a number of successful projects organized by CPGIS. These are CPGIS Go Home Project at Nanjing Normal University and Jiangxi Normal University in late May early June, CPGIS Summer Research Workshop in June in Beijing with the sponsorship of Capital Normal University and Peking University, and CPGIS Summer Training Program in July led by Dr. Chaowei Yang and his team at George Mason University. With that said, I wanted to pass the message that we are open to suggestions for more activities and are willing to sponsor or co-organize related activities or events when appropriate. Please feel free to feed us with recommendations!

The continuing growth of CPGIS depends on the support from its members as well as the many organizations / institutions that share a common view about GISciences with CPGIS. On behalf of CPGIS, I would like to take this opportunity to thank the many organizations that have supported Geoinformatics Conferences in the past. The thank-you list is very long, and an incomplete list include US National Center for Geographic Information and Analysis, Chinese Academy of Sciences, ESRI, Ford Foundation, Chinese Association of Geographic Information Systems (CAGIS), Chinese Geographic Information Society (CGIS), South Florida Water Management District, University of California – Berkeley, California State University – Monterey Bay, University of Calgary, Chinese University of Hong Kong, State University of New York at Buffalo, Eastern Michigan University, University of Michigan, Peking University, National Taiwan University, Nanjing University, Wuhan University, Sun Yat-sen University, University of Cincinnati, National Natural Science Foundation of China, and so on and so forth. Especially, I would like to take this opportunity to thank the sponsors of this year's conference, Center for Spatial Information Science and Systems, George Mason University, NASA, NOAA, Geoscience and Remote Sensing Society of IEEE, and Open Geospatial Consortium, Inc.. Thank you all!

We would not be here without your support! Lastly, I want to invite everyone to enjoy this conference. I know it is going to be a great success! Thank you!

## ***2), Awardees of 2009 CPGIS Student Paper Competition (from Xun Shi)***

On behalf of The Student Paper Competition Committee of CPGIS, I am pleased to announce the results of this year's competition:

First Place Award:

Donovan H. Parks, Dalhousie University, Canada, with paper 'Quantitative Visualizations of Hierarchically Organized Data in a Geographic Context'.

Second Place Award:

Qing Zhao, The Chinese University of Hong Kong, Hong Kong, China, with paper 'Application of ASAR PSI Technology to Ground Deformation Detection in Mega-cities of the Pearl River Delta Region in China'.

Third Place Awards (2):

Tianfang Fang, Texas State University, USA, with paper 'GWSC-VMR, A GIS Supported Conceptual Distributed Hydrological Model for Cold and Arid Regions'.

Lei WU, Chinese University of Hong Kong, Hong Kong, China, with paper 'A Case Study of Developing Personalized Spatial Cognitive Road Network and Raster Capable Route Finding Algorithm for Pedestrian Evacuation Behavior Simulation'.

The awards were determined based on both writing and oral presentation. The writing parts of the papers were reviewed by Yuqi Bai, Jenny Du, Lan Mu, Xun Shi, Zhixiao Xie, and Bing Xu. The on-site judges for the presentations include Yuqi Bai, Wei Luo, Xun Shi, and Yang Yue.

The awards have been announced and presented at a ceremony held in the evening of August 12 in the GeoInformatics 09 Conference, Fairfax, VA, USA.

I would like to take this opportunity to extend my personal thankfulness to all the student participants, their advisors, paper reviewers, on-site judges, the Conference organizers, and the audience who attended the competition special sessions.

Xun Shi

### ***3), CPGIS Service Award Results (from Yongmei Lu)***

On behalf of CPGIS Awards Committee (which consists Drs. Bing Xu (chair), Dennis Wei, and A-Xing Zhu), I am happy to announce that Dr. Diansheng Guo is selected to receive CPGIS Service Award this year.

Please join me to congratulate Diansheng! Thanks to the hard work of CPGIS Awards Committee!

Yongmei Lu

### ***4), Geoinformatics 2009 was successfully closed (from Aijun Chen)***

Dear all CPGISers,

The 17th International Conference on Geoinformatics (Geoinformatics 2009) was successfully held on August 12-14 at George Mason University, Fairfax, Virginia, USA.

The conference consists of plenary session, student paper competition session, special sessions, general sessions and poster session. In the plenary session, there are seven professionals from academia and US governments given the welcome addresses and four keynote speakers from UC Santa Barbara (Michael Goodchild), UMCP (John Townshend), OGC (Mark Reichardt) and NOAA (Zdenka Willis) given excited high-level professional speeches. Student paper competition, chaired by Prof. Xun Shi, chose four students as the first, second and third (2) place awardees. There are 11 special sessions and 12 general sessions totally more than 200 papers orally presented. And more than 50 papers were presented in poster session.

More than 250 professionals and students who come from 34 countries and districts participated in the conference. Lots of our CPGIS members came to the conference and played very important roles in the conference.

The conference program and detailed information about the conference is available online at the conference website (<http://www.geoinformatics2009.org/>). All accepted papers will be published by IEEE eXplore.

On behalf of the local organization committee of Geoinformatics 2009 and CPGIS annual conference committee, I would like to take this opportunity to thank chairs and members of International Steering Committee, Program Committee and Local Organization Committee for their selfless contribution to the conference, thank all authors for their contribution, thank all sessions' chairs for their dedicated work to hold the sessions, thank CPGIS members for their continuous support to the annual conference.

Cheers,  
*Aijun Chen*



Best Paper Award



Best Service Award



CPGIS members



Plenary Session

### ***5), CPGIS 2009 Summer Workshop (from Yu Liu)***

The CPGIS summer workshop was successfully organized in Beijing, China on June 18-19, 2009. This event was co-sponsored by Capital Normal University, Peking University, and CPGIS. Drs. Dr. Yongmei Lu, Jing Zhang (CNU), and Yu Liu (PKU) serves as co-chairs of this workshop.

About 15 scholars, including CPGIS members and Chinese researchers, reported their research in the two-day workshop. All the representations have attracted widely interests of attendees.



***6), The 2009 Advanced Certificate for GeoInformation Sciences (ACGIS) program was successfully accomplished on 15th, Aug. 2009 (from Chaowei Yang)***

Thank to the support from former Director Zhigang Li (currently Director of State Geomatics Center) and Deputy Director Qianjun Miao of Heilongjiang Bureau of Surveying and Mapping (HLJBSM), and Provost Peter Stearns and Dean Vikas Chandhoke of George Mason University, The Fourth "Advanced GeoInformation Science Certificate Program" was successfully concluded. HLJBSM, GMU, NASA, USGS and ESRI sponsored this program.

Managed by the Center for Intelligent Spatial Computing at GMU and HLJBSM, the Program has provided training to more than eighty professionals, coming from more than half of the provinces in China. This year, eighteen GeoInformation Science professionals from Heilongjiang, Ningxia, Shanghai, Jiangsu and Beijing participated in this seven-week long customized training program at George Mason University (Jun 19 -Aug.8), University of Colorado at Boulder, University of Utah, ESRI, and San Francisco State University,. The GMU site was managed by Profs. David Wong and Ruixin Yang. The Colorado site was managed by Prof. Ken Foote, and the Utah site was managed by Prof. George Hepner. Pinde Fu coordinated the activities at the ESRI headquarter at Redlands, CA, and in San Francisco, Prof. Xiaohang Liu managed the program. Prof. Chaowei Yang coordinated the overall program.

During the seven weeks, professors and scientists from various universities, government agencies and companies introduced various cutting-edge topics on Earth Observations systems (EOS), Spatial Statistics, EOS Data Systems, Geospatial Cyberinfrastructure, Web Services, Grid Computing, National Spatial Data Infrastructure/Geospatial One-Stop, Global Earth Observation System of Systems, Semantic/ontology, LBS, a variety of GeoInformation Science applications, and Retrospective on Digital Earth.

All instructors worked very hard to accomplish the training program. A non-exhaustive list includes Peggy Agouris (GGS, GMU) and Tony Stefanidis (Prof. GMU), Myra Bambacus

(NASA GIO), Guido Cervone (Prof. GMU), Richard Gomez (Prof. GMU), Doug Nebert (USGS/FGDC), Haihong Yang, John Qu (Prof. GMU), Rob Raskin (NASA JPL), John Townshend (Prof. and Dean, UMD), Fahui Wang (Prof. LSU), David Wong (GGS, GMU), Qisheng Pan (TSU), Daniel Sui (OSU), Aijun Chen (NASA/GMU), Ken Foote (UCB), Pinde Fu and Frank Xia (ESRI), Xiaohang Liu (SFSU). Thanks also go to the training professionals who study diligently with the professors and scientists. Zhenglong Li, Wenwen Li, Caixia Wang, Xiaohang Liu, Frank Xia, and Chaowei Yang provided translations. Staff members of hosting sites also provided significant support to ensure smooth operations during classes.

Thanks to all who helped make this effort a success. We are exploring future opportunities.

More details can be found at <http://www.cisc.gmu.edu/training/2009/2009.htm>.

Cheers,  
Chaowei

## ***Announcements***

***1), Call for Papers IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing (J-STARS) Special Issue on High Performance Computing in Earth Observation and Remote Sensing. Submission Deadline: April 30, 2010 (from Qian Du)***

A Special Issue of the IEEE J-STARS on High Performance Computing in Earth Observation and Remote Sensing has been recently approved by the J-STARS steering committee. Advances in sensor technology are revolutionizing the way Earth observation (EO) and remote sensing data are collected, managed and processed. Latest-generation EO instruments onboard airborne and satellite platforms are currently producing a nearly-continual stream of high-dimensional data, and this explosion in the amount of collected information has rapidly introduced new processing challenges. In particular, many current and future applications of remote sensing in EO, space science, and soon in planetary exploration science, require the incorporation of high performance computing practices to address applications with high societal impact such as monitoring of natural disasters including earthquakes and floods, or tracking of man-induced hazards such as wild-land and forest fires, oil spills and other types of chemical contamination.

In future years, EO instruments such as hyperspectral imagers will substantially increase their spatial and spectral resolutions (imagers with hundreds of narrow spectral channels are currently available, and ultraspectral instruments with thousands of spectral bands are under development), thus producing a nearly continual stream of multi-dimensional image data sets. Technological advances are not only expected in optical instruments, but also in radar and other types of remote sensing systems. For instance, synthetic aperture radar (SAR) is a very important instrument for EO. SAR image processing is particularly time consuming, and can greatly benefit from high performance computing techniques and practices.

This special issue on High Performance Computing in Earth Observation Remote Sensing is intended to present the current state-of-the-art and the most recent developments in the task of incorporating high performance computing techniques and practices to EO and remote sensing problems. The special issue is open to all interested parties willing to submit original, unpublished and high-quality contributions dealing with theory and applications, within the theme of high performance computing in applied EO and remote sensing, and with emphasis placed on addressing time critical EO applications. Papers will be solicited in (but not limited to) the following areas:

**Architectures for high performance processing of remote sensing and EO applications:**

- Sensor design for high performance remote sensing and EO applications.
- Onboard processing and compression of remote sensing and EO data using specialized hardware.
- Low-power and radiation-tolerant architectures in remote sensing and EO applications.

**Techniques for high performance processing of remote sensing and EO applications:**

- Parallel and distributed algorithm design/implementation for remote sensing and EO applications.
- Techniques for real-time processing in remote sensing and EO applications.

**Applications of high performance processing of remote sensing and EO data**

- Monitoring of natural and man-induced disasters using remote sensing and EO data.
- Efficient reconnaissance and surveillance applications, including target and anomaly detection.
- Efficient content-based image retrieval from remote sensing and EO data.
- Other data-intensive applications, including advanced radiative transfer modelling, weather forecasting, etc.

Inquires concerning the Special Issue should be directed to the Guest Editors. Papers in electronic format can be submitted using the manuscript central web link <http://mc.manuscriptcentral.com/jstars> and selecting the option in the pull-down menu "High Performance Computing in Earth Observation and Remote Sensing" for the Special Issue.

Dr. Antonio Plaza  
Dept. Technology of Computers  
& Communications,  
University of Extremadura,  
E-10071 Caceres, Spain  
E-mail: [aplaza@unex.es](mailto:aplaza@unex.es)

Dr. Qian Du  
Dept. Electrical and  
Computer Engineering,  
Mississippi State University,  
MS 39762, USA  
E-mail: [du@ece.msstate.edu](mailto:du@ece.msstate.edu)

Dr. Yang-Lang Chang  
Dept. Electrical Engineering,  
National Taipei University of  
Technology,  
Taipei 10608, Taiwan  
E-mail: [ylchang@ntut.edu.tw](mailto:ylchang@ntut.edu.tw)

Dr. Roger L. King  
Center for Advanced  
Vehicular  
Systems,  
Mississippi State  
University,  
MS 39762, USA  
E-  
mail: [rking@cavs.msstate.edu](mailto:rking@cavs.msstate.edu)

***2), Call for Proposal for a New Site of the Headquarters of the International Association of Chinese Professionals in GIScience (CPGIS) (from Yongmei Lu)***

The International Association of Chinese Professionals in Geographic Information Science (CPGIS) is an academic and non-profit organization. It was founded by a group of Chinese overseas students and scholars in the field of GIScience in 1992 at the University at Buffalo. The missions of CPGIS are:

- (a) To promote the professional development of its members by fostering cooperation among its members and by maintaining a central point of reference and deliberation.
- (b) To promote the exchange of ideas, knowledge, and scientific development in GIS and related sciences and technologies between Chinese GIS professionals abroad and those in China.
- (c) To provide an efficient channel between its members and other GIS professionals, through which mutual understanding and cooperation can be enhanced.

The headquarters of CPGIS has been located in University of California - Berkeley since the inception of CPGIS. With the great and consistent support from Professor Peng Gong and his team in the past 17 years, CPGIS has provided steady service to its members. However, the volunteer nature of the headquarters operations calls for all members to share the workload. It is the time to take some load off from Professor Gong, and to find a new home for the headquarters. CPGIS Headquarters Selection Committee issues this Call for Proposal for a New Site for CPGIS Headquarters. The new host of CPGIS Headquarters should:

- (a) Have a group of people who care about CPGIS and are willing to contribute volunteer work to support CPGIS for foreseeable years;
- (b) Have a group leader who is enthusiastic about the future development of CPGIS.

While CPGIS officials are elected for fixed term(s), the management of the Headquarters is stable. The main functions of CPGIS Headquarters are:

- (a) To serve as the registration location of CPGIS in the host country;
- (b) To serve as the address for most CPGIS mailing and other correspondences;
- (c) To manage membership;
- (d) To manage financial transactions and bank account of CPGIS.

Since the majority of the CPGIS members reside in North America, it is preferable that the new headquarters host be located in North America. However, we will consider proposals from other parts of the world.

Please send a proposal in MS-WORD or PDF format to CPGIS Headquarters Selection Committee through email ( [hq@cpgis.org](mailto:hq@cpgis.org) ). In the proposal please include:

- (a) A statement regarding where (city, state, and country) the CPGIS Headquarters will be located;
- (b) A statement regarding which institution / organization will host the CPGIS Headquarters (if applicable);
- (c) An updated resume of the team leader;
- (d) A general description of the team that will be working at the headquarters to support CPGIS;
- (e) A plan for transition and sustained headquarters operation.

Evaluation of proposals will start October 1, 2009. Applications will be considered until a site is selected.

We are open to any recommendations / queries / discussions related to the CPGIS headquarters site selection issue. Please feel free to contact us through the committee email address ([hq@cpgis.org](mailto:hq@cpgis.org)). You are also welcome to contact individual members of the committee.

CPGIS Headquarters Selection Committee:

Ge Lin, Lin Liu, Yongmei Lu, Xun Shi, Chaowei Yang

### ***3), Call for abstract submission for CHANS events (from Jianguo Liu)***

The International Network of Research on Coupled Human and Natural Systems(CHANS-Net), with support from the National Science Foundation (NSF), is pleased to announce a series of CHANS events being organized in conjunction with the 2010 Annual Meeting of the Association of American Geographers (AAG, <http://www.aag.org/annualmeetings/2010/index.htm>), which will be held in Washington, D.C., April 14-18, 2010. Current plans would have CHANS-Net activities focused on the first three full days of the AAG Meeting (April 14-16), but of course participants would be welcome to remain for as much of the remainder of the AAG meeting as they desire.

NSF considers these events to be a gathering that would fulfill a requirement of CNH awards for participation of at least one senior member of each funded team in a periodic meeting of awardees. In addition to presentations and a workshop within the AAG meeting, there will be

opportunities for discussion and a small number of select presentations on CHANS research at the NSF. Those who are not supported by the NSF-CNH Program are also welcome to participate in the events.

The focus of the 2010 activities will be to synthesize across CHANS research projects and identify special opportunities for CHANS research over the next 5 to 10 years as well as recommendations regarding ways that the research community can best pursue those opportunities. The presentation of project findings will be complemented by a workshop designed to produce cross-project syntheses suitable for publication.

The CHANS Fellows Program of CHANS-Net will provide financial support for the participation of approximately 10 junior scholars (e.g., graduate students, postdoctoral associates, and junior faculty) in these activities. There will be opportunities for informal interactions among CHANS project investigators and among junior scholars and senior colleagues.

For more information about CHANS-Net, please visit [www.chans-net.org](http://www.chans-net.org), where you will find information on CHANS-Net events, CHANS researchers and projects, as well as opportunities such as the CHANS Fellows Program. For instance, the CHANS-Net kick-off events were held in Snowbird in April 2009 in conjunction with the 2009 annual meeting of US-IALE (US Regional Association of International Association for Landscape Ecology). They included a symposium "Complexity in Human-Nature Interactions Across Landscapes", and a workshop "Challenges and Opportunities in Research on Complexity of Coupled Human and Natural Systems." In addition, CHANS-Net supported the participation of 14 CHANS Fellows from around the world in the events. Those who have not yet joined the Network are invited to do so - simply visit the web site and follow the link to "People" and add your information.

We hope you will be able to join us at the CHANS-Net events in Washington next April. All you need do at this moment is to mark the meeting dates on your calendar. More detailed information will be posted on the CHANS-Net web site when it becomes available.

Please also share this message with other potentially interested individuals. Thanks.

CHANS-Net  
Center for Systems Integration and Sustainability  
Michigan State University  
East Lansing, MI 48824, USA  
Voice: 517-432-5025  
Fax: 517-432-5066  
Email: [CHANS-Net@csis.msu.edu](mailto:CHANS-Net@csis.msu.edu)  
Web: [www.CHANS-Net.org](http://www.CHANS-Net.org).

***4), An introduction to a new journal - Journal of Spatial Information Science (provided by Yu Liu)***



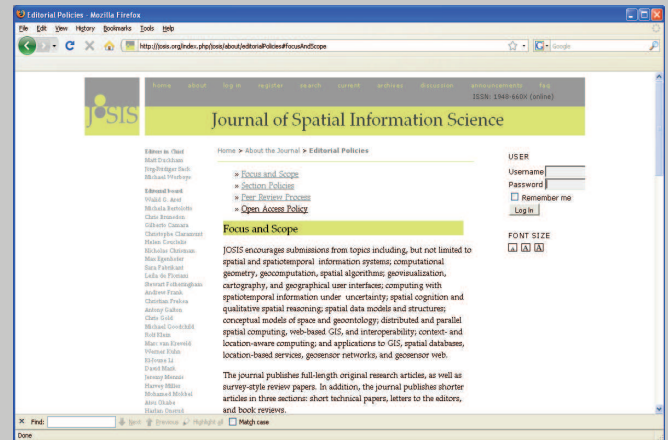
# Journal of Spatial Information Science

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*A New, International, Open-Access Journal  
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The **Journal of Spatial Information Science (JOSIS)**:

- publishes in online form original research articles in spatial information science;
- publishes research spanning the theoretical foundations of spatial and geographical information science, through computation with geospatial information, to technologies for geographical information use;
- aims to publish the highest quality papers in the field within the shortest possible time in review;
- is international and interdisciplinary;
- provides immediate, free, and open access to its content, making research freely available to the public and supporting the global exchange of knowledge;
- provides a review process where articles are single-blind peer reviewed by three anonymous reviewers;
- provides secure archiving to ensure permanence of all its published research;
- subscribes to the Creative Commons copyrighting system where authors retain the copyright to their work and grant the journal permission to publish;
- contains a discussion forum that hosts authors' original manuscripts during formal peer review, thus providing wide-ranging but moderated feedback to authors;
- contains announcements, letters, and book review sections; and
- has an international editorial board containing many of the world's leading researchers in the field.



[www.josis.org](http://www.josis.org)

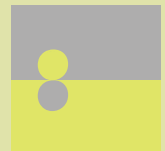
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