

Guest Editorial

IEEE Intelligent Transportation Systems Society Status Report

IN SEPTEMBER 2005, we wrote an editorial for the IEEE TRANSACTIONS ON INTELLIGENT TRANSPORTATION SYSTEMS [1], introducing the structure and operation of the IEEE Intelligent Transportation Systems Society (ITSS). In this follow-up editorial, we present a short status report for the ITSS, with particular emphasis on various activities undertaken by the ITSS since its establishment in January 2005.

A. Financials

Although the ITSS is solid financially with a healthy reserve and steady revenue streams, due to the recent changes from the IEEE, including a different formula for publication revenue distribution, and an increased IEEE administrative fee, ITSS is expecting to have a deficit of \$51 700 in 2007.

B. Publications

Our transactions and newsletters continue to do very well. The number of the submissions at the transactions has experienced significant growth in the first several months of 2006, indicating increased acceptance and growing impact on research in ITS. The average number of days from submission to the first decision at our transactions is below 100 days.

To manage the increasing number of submissions to our transactions, based on the ITSS Board of Governors (BoG) recommendation, the ITSS Vice President for Publications is charged with the task of forming a committee to study the feasibility and pros and cons of several possible approaches ranging from increasing the page budget to creating subseries or parts.

The ITS book series officially kicks off with the IEEE Press. Interested authors are encouraged to send book proposals to the editor-in-chief of this book series at feiyue@sie.arizona.edu.

C. Awards Program

An award program has been initiated within the ITSS. We have conveyed awards for the Best Doctoral Dissertation and Best ITS Research Contribution in 2006. Two industry sponsors have agreed to support these awards with multiyear commitments.

D. Technical Activities

The ITSS approved a Technical Activity Board (TAB) plan in 2005. The purpose is to establish a comprehensive set of technical committees (TCs) organized by ITS topical areas. These TCs are expected to promote ITS research through special sessions in conferences, special issues in journals, and collaborative efforts with communities outside of the ITSS. The TCs also plan to form an international conference program committee to provide reviewers for ITSS conferences. Steady progress has been made in this TAB effort. Currently, ITSS has nine TCs with several more pending. A web-based system called the "ITSS Expertise Portal" is also under active development to provide a platform to support TAB functions and facilitate the search for ITS experts based on a number of search criteria.

E. Standards Development

It is the consensus among BoG members that developing standards is a critical direction for the ITSS to generate revenue and broaden its impact in both research and industry. A draft of the operating procedures for the ITSS Standards Committee as an IEEE Standards Development Sponsor has been completed and is being forwarded to the IEEE for approval.

F. Conferences

The ITSS sponsors a number of the premier academic conferences on ITS, and last year, all of the ITSS conferences were successful both academically and financially. The list of ITSS sponsored conferences includes

- 1) IEEE Intelligent Transportation Systems Conference (ITSC);
- 2) IEEE Intelligent Vehicle Symposium (IV);
- 3) IEEE Vehicular Electronics and Safety Conference (VES);
- 4) IEEE Intelligence and Security Informatics Conference (ISI);
- 5) IEEE Service Operations and Logistics and Informatics Conference (SOLI);
- 6) IEEE/ASME Mechatronic and Embedded Systems and Applications Conference (MESA) (principle sponsorship by IEEE and ASME in alternating years).

As part of the overall revenue-generation effort, we are actively pursuing setting up industry exhibitions at ITSS conferences.

G. Outreach

The outreach activities of the ITSS have been quite successful. Three local chapters of the ITSS have been established in China, and two of them just completed all the IEEE paperwork. The ITSS has also organized the visit of the IEEE president to China and orchestrated the IEEE Computational Intelligence Society's "Tour de China" in the spring of 2006. Joint task forces are being formed between ITSS and other IEEE societies such as Systems, Man, and Cybernetics and Computational Intelligence. Joint events with professional societies outside of the IEEE, including the American Society of Mechanical Engineers (ASME), are being planned and organized (e.g., joint sponsorship of the IEEE/ASME MESA conference series).

H. Membership Development

The current ITSS membership base is concentrated on developed countries such as the U.S. and Europe. However, emerging markets provide tremendous opportunities for the growth of the ITSS. As a strategic investment, the BoG overwhelmingly supports expanding activities and presence in countries such as China, India, Russia, and Brazil. As an example, industry sponsorship is being currently sought to support an ITSS "Tour de China" in 2007, to explore collaboration opportunities, and to recruit members.

To increase the ITSS membership base, we are planning to recruit aggressively from the participants of ITSS conferences by offering discounted ITSS membership fees.

I. Conclusion

As part of strategic plan for the growth of the ITSS, the long-term planning committee will create a document describing the vision for the ITSS in five and ten years by the end of 2006. A strong membership base and active participation in our programs are the very reason for the existence of the IEEE ITSS. The IEEE ITSS is committed to promoting our members'

professional interest by creating more and better services and activities in ITS related areas. There is a long way to go, but we are on the right track. Let us drive into the future with Intelligent Transportation Systems.

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REFERENCES

- [1] F. Y. Wang, C. Herget, and D. Zeng, "Developing and improving transportation systems: The structure and operation of IEEE Intelligent Transportation Systems Society," *IEEE Trans. Intell. Transp. Syst.*, vol. 6, no. 3, pp. 261–264, Sep. 2005.



Fei-Yue Wang (S'87–M'89–SM'94–F'03) received the B.S. degree in chemical engineering from Qingdao University of Science and Technology, Qingdao, China, in 1982, the M.S. degree in mechanics from Zhejiang University, Hangzhou, China, in 1984, and the Ph.D. degree in electrical, computer, and systems engineering from the Rensselaer Polytechnic Institute, Troy, NY, in 1990.

He is currently the Director of the Program for Advanced Research in Complex Systems with the University of Arizona, Tucson, where he has been since 1990. He became a Full Professor of Systems and Industrial Engineering at the University of Arizona in 1999. In 1999, he founded the Intelligent Control and Systems Engineering Center at the Institute of Automation, Chinese Academy of Sciences, Beijing, China, with the support of the Outstanding Overseas Chinese Talents Program. Since 2002, he has been the Director of the Key Laboratory of Complex Systems and Intelligence Science, Chinese Academy of Sciences. His current research interests include modeling, analysis, and control mechanism of complex systems, agent-based control

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Dr. Wang received Caterpillar Research Invention Award with Dr. P. J. A. Lever for his work on robotic excavation in 1996 and the National Outstanding Young Scientist Research Award from the National Natural Science Foundation of China in 2001, as well as various industrial awards for his applied research from major corporations. He was the Editor-in-Chief of the *International Journal of Intelligent Control and Systems* from 1995 to 2000. He is currently the Editor-in-Charge of a Series in Intelligent Control and Intelligent Automation, Editor for the ITS Department of the IEEE INTELLIGENT SYSTEMS, and an Associate Editor of the IEEE TRANSACTIONS ON SYSTEMS, MAN, AND CYBERNETICS, the IEEE TRANSACTIONS ON ROBOTICS AND AUTOMATION, the IEEE TRANSACTIONS ON INTELLIGENT TRANSPORTATION SYSTEMS, and several other international journals. He is the President of IEEE Intelligent Transportation Systems (ITS) Society and an Elected Member of IEEE Systems, Man, and Cybernetics (SMC) Board of Governors. He was the Program Chair of the 1998 IEEE International Symposium on Intelligent Control, the 2001 IEEE International Conference on Systems, Man, and Cybernetics, the General Chair of the 2003 IEEE International Conference on Intelligent Transportation Systems, the Program Cochair of the 2004 IEEE International Symposium on Intelligent Vehicles, and the General Chair for the 2005 IEEE International Symposium on Intelligent Vehicles. He was the Vice President and one of the major contributors of the American Zhu Kezhen Education Foundation. He is also the 2005 President of the Chinese Association for Science and Technology, USA, and a member of the Boards of Directors of five companies in information technology and automation.



Daniel Zeng (M'04) received the B.S. degree in economics and operations research from the University of Science and Technology of China, Hefei, China, in 1990, and the M.S. and Ph.D. degrees in industrial administration from Carnegie Mellon University, Pittsburgh, PA, in 1994 and 1998, respectively.

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Dr. Zeng served as Conference or Program Cochair for the first four Intelligence and Security Informatics conferences (ISI-2003, ISI-2004, ISI-2005, ISI-2006). He is a member of the Institute for Operations Research and the Management Sciences (INFORMS), the American Association for Artificial Intelligence (AAAI), and the Association for Computing Machinery and serves on the Editorial Board of six academic journals. He is the Vice President for Technical Activities of the IEEE Intelligent Transportation Systems (ITS) Society. He is also the Vice President for Technical Activities of the Chinese Association for Science and Technology, USA.



Daniel J. Dailey (M'91–SM'01) is a Professor with the Department of Electrical Engineering, University of Washington, Seattle. He also holds an Adjunct appointment in civil and environmental engineering in the College of Engineering, where he serves as the Director of the Intelligent Transportation Systems program. He has published over 100 technical papers and reports on a variety of topics, including GIS, GPS, distributed computing, modeling of stochastic processes, computer vision, and ITS systems as well as distance learning. He is coauthor of a book titled *Wireless Communication for Intelligent Transportation Systems*.

Prof. Dailey is a past President of the IEEE Intelligent Transportation Systems (ITS) Council. He is currently the Vice President for Administrative Affairs with the IEEE ITS Society. He served as Program Chair for ITSC 2001 and is the General Chair for ITSC 2007. Last, he hopes to see you in Seattle at ITSC 2007!