IEEE Transactions on Intelligent Transportation Systems

Call For Papers

Special Issue on AI Innovation in Intelligent Transportation System

MOTIVATION AND SCOPE

The transportation sector is beginning to apply Artificial Intelligence (AI) in mission-critical tasks where the reliability and safety of an AI system will be under question from the general. The rapid pace of the developments in Artificial Intelligence (AI) is providing unprecedented opportunities to enhance the performance of different industries and businesses, including the transport sector. It is growing quickly and also continues to expand at extremely good pace. AI techniques allow using applications for entire intelligent transport systems managing which are suitable for complicated and diversified transport systems. AI solutions have been frequently applied in resolving control and optimization problems like reducing the power consumed in driving rolling stock. To overcome and resolve these issues, several Artificial Intelligence-based techniques have been applied to different areas related to the intelligent transportation environment. The application of AI in intelligent transportation systems is an efficient and effective solution for alleviating transportation issues that are encountered in several countries around the world.

This special issue aims to gather researches to help improve and solve major challenges in intelligent transportation systems like vehicle control, traffic control and prediction, road safety and accident prediction, and vehicle reliability. It will provide ideas and ample opportunity about developing models.

LIST OF TOPICS: Topics of interest to this special issue include, but are not limited to:

- Application of AI in intelligent transportation system
- Challenges using artificial intelligence in intelligent transportation system
- Future strategies in intelligent transportation system
- Advantages of AI in intelligent transportation system
- Significant impact of AI in intelligent transportation system
- Powerful AI in intelligent transportation system
- Trends in AI in intelligent transportation system
- Using AI in intelligent transportation system for safety purposes
- Latest intelligent transportation system applications
- Importance of AI in intelligent transportation system
- Effectiveness of intelligent transportation system
- What can we expect in terms of the technology roadmap going forward?
- What is involved in the process of AI integration for these applications?
- Intelligent and real-time traffic management and control
- Assessment and evaluation of intelligent transportation systems
- Different modes of intelligent transport systems and their interactions

PAPER SUBMISSION GUIDELINES

Paper submission should conform to the information for authors available at https://mc.manuscriptcentral.com/t-its.

IMPORTANT DATES

First submission deadline: January 2021
Notification of first decision: April 2021
First revision submission deadline: June 2021
Notification of final decision: October 2021
Final manuscript (camera ready) submission deadline: November 2021
Issue of Publication: January 2022

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Prof. Ruay-Shiung Chang, Ph.D.
Dr. Chang received his B.S. degree from the Department of Electric Engineering, National Taiwan University in 1980. After 2 years’ military service, he joined the China Steel Corporation in 1982. In CSC, Dr. Chang was responsible for the management and maintenance of process control computer system of the hot strip mill. After one year of service, he went to the Institute of Computer Science in National Tsing Hua University for advanced studies, where he received his Ph.D. degree in 1988. From 1988 to 1992, Dr. Chang worked for the Chung Shan Institute of Science and Technology (CSIST), the major research body of the Ministry of Defense, Taiwan, as a research scientist. In his four years’ tenure at the CSIST, he developed the prototype for the C3I (Command, Control, Communication, and Intelligence) system of Taiwan’s joint armed forces. The advanced version of this system is still in operation now.
After leaving CSIST, Dr. Chang joined the Department of Information Management, National Taiwan University of Science and Technology (NTUST) as an associate professor. In NTUST, Dr. Chang research focused on the design and development of network management system
and on the Internet. At that time, the Internet was on the infant stage. But Dr. Chang saw its potential and wrote three articles to introduce the Internet status in Taiwan, China, and Japan, which were published in IEEE Internet Computing Magazine 1997.

Dr. Chang also served actively for many volunteer jobs in the academic field. He organized the 14th Workshop for Discrete Math and Computing Theory, held in NTUST. He also served as the program committee many times for the National Computer Symposium and the International Computer Symposium, the two most important annual conferences in Taiwan for the computing field. He published his first review article for ACM Computing Reviews in 1994. Since then, he has published more than 100 review articles in ACM Computing Reviews.

In 1998, Dr. Chang joined the Department of Computer Science and Information Engineering, National Dong Hwa University (NDHU) and served as the chairperson. In his three years tenure, he strengthened the research activities of the department, enriched the faculty lineup, and successfully established the Ph.D. program of the department.

Due to his excellent performance in the department chair, Dr. Chang was promoted and appointed as the Dean of Academic Affairs (Provost) of NDHU in February 2002. In this position, he successfully promoted the academic standards of the university. With a fine and detailed proposal, Dr. Chang also helped to acquire the Teaching Excellence Project for NDHU from the Ministry of Education, Taiwan. Out of a total of 76 Higher Education Universities, only 13 were granted this project. With this distinguished service, Dr. Chang was appointed as the Vice President of the University in February 2006.

Because of his excellent academic credentials and contributions, Dr. Chang was selected as the President of Taiwan Hospitality and Tourism College in August 2012, a 4-year higher education institute specialized in Hospitality and Tourism. During his tenure, Dr. Chang promoted the reputation and quality of THTC profoundly.

Due to his excellent performance in THTC, Dr. Chang is selected as the new President of National Taipei University of Business from April 2014 by a 15 member searching committee.

Besides academic career, Dr. Chang is also very active in serving the academics in particular and other fields in general. He is a founding and permanent member of the Institute of Information and Computing Machinery of Taiwan, a senior member of IEEE, and a professional member of ACM. From 2004 to 2007, he served on the advisory council of the Public Interest Registry (www.pir.org). From 2005, he serves as the vice chair of ACM Taipei Chapter. He is also on the IASTED technical committee on the web, the Internet, and multimedia and IASTED technical committee on Telecommunications. Furthermore, Dr. Chang serves on the technical program committee for many international conferences, including International Communication Conference, International Wireless Communications and Mobile Computing Conference, Grid and Pervasive Computing Conference, International Conference on Pervasive Computing, and so on.

Dr. Chang supervises more than 50 master students and 10 Ph.D. students to graduation. He also publishes actively in many international journals and conferences. For his contribution, Dr. Chang received the Outstanding Information Technology Elite Award from the Taiwan's Information Month Committee in 2009.

Prof. Tai-hoon Kim

Dr. Tai-hoon Kim received his M.S. degrees and Ph.D. in Electrics, Electronics & Computer Engineering from the Sungkyunkwan University, Korea. And he got his 2nd Ph.D. in Computer Engineering from Bristol University, United Kingdom. After working with Technical Institute of Shindoririch 2 years as a researcher and working at the Korea Information Security Agency as a senior researcher 2 years and 6 months, he worked at the DSC (Defense Security Command) about 2 years. After working with E-wha Woman University a half year as a research professor,
now he is currently a professor of Sungshin W. University in South Korea, and visiting scholar of UTAS in Australia. He wrote 17 books about the software development, OS such as Linux and Windows 2000, and computer hacking & security. And he published about 200 papers by 2011. He is a member of IEEE, ACM, KIIT and SERSC. Currently he is a vice-chair of Science and Engineering Research Support Society (SERSC).
He researched biometrics, bio-image processing, bio-medical system design, security engineering, the evaluation of information security products or systems with Common Criteria, process improvement for security enhancement, some approaches and methods making IT systems more secure. In these days, his research interest includes Biometric Authentication, Pattern Recognition, Security and Medical Imaging.
He was a General Chair or Program Committee chair from 20 more international conferences.

Prof. Carlos Ramos

Carlos Ramos got his graduation from the University of Porto, Portugal, in 1986 and the PhD degree from the same university in 1993. He is Coordinator Professor of the Department of Informatics at the Institute of Engineering – Polytechnic of Porto (ISEP-IPP). His main interests are Artificial Intelligence and Decision Support Systems, recently with more emphasis on Ambient Intelligence. He is Director of GECAD (Knowledge Engineering and Decision Support Research Centre), the largest R&D centre of the Polytechnic system in Portugal, and dedicated to AI topics. He coordinates the Ambient Intelligence and Decision Support group of GECAD. Carlos Ramos has about 50 publications in scientific journals and magazines and more than 200 publications in Scientific Conferences.

SUBMISSION AND REVIEW OF PAPERS

Submitted papers should be original and not be under consideration elsewhere for publication. The authors should follow the journal guidelines, regarding the manuscript content and its format when preparing their manuscripts. All papers will be reviewed by at least three independent reviewers for their suitability in terms of technical novelty, scientific rigor, scope, and relevance to this special issue