KAM Tin Seong

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Education

PhD, University College London,University of London, Great Britain, 1995

Master of Science, Universiti Sains Malaysia, Malaysia, 1986

Bachelor of Arts, University of Malaya, Malaysia, 1984

Academic Appointments

Associate Professor of Information Systems (Practice), School of Computing and Information Systems, SMU, Jul 2006 - Present

Academic Administrative Positions

Senior Advisor, SIS Programmes in Analytics, School of Computing and Information Systems, SMU, Jul 2012 - Jun 2015

Co-ordinator, Business Analytics Track, School of Computing and Information Systems, SMU, Jul 2008 - Jun 2012

RESEARCH

Research Interests

Leveraging the power of Geospatial Analytics and GeoVisual Analytics to enhance business intelligence
Analytics for data-driven business decision
Building geospatial analytics toolkit by integrating spatial statistics, ESDA, and spatial modeling techniques
Knowledge discovery using interactive and visual analytics tools

Publications

Journal Articles [Refereed]

Do grant funding and pro-environmental spillovers influence household hazardous waste collection?, by LIM-WAVDE, Kustini; KAUFFMAN, Robert J; KAM, Tin Seong; DAWSOND, Gregory S.. (2019). *Applied Geography*, *109* 1-15. https://doi.org/10.1016/j.apgeog.2019.05.009 (Published)

Time-series data mining in transportation: A case study on Singapore public train commuter travel patterns, by LEE, Roy Ka Wei; KAM, Tin Seong. (2014). *International Journal of Engineering and Technology, 6* (5), 431-438. http://dx.doi.org/10.7763/ijet.2014.v6.737 (Published)

The use of geospatial clustering in analysing health risk profile, by YEO, Sue-Mae; KAM, Tin Seong; THIA, Kai Xin; WU, Dan. (2014). *Annals of the Academy of Medicine, Singapore, 43* (9), S32-S32. (Published)

DIVAD: A dynamic and interactive visual analytical dashboard for exploring and analyzing transport data, by KAM, Tin Seong; BARSHIKAR, Ketan; TAN, Shaun Jun Hua. (2012). *International Journal of Computer, Electrical, Automation, Control and Information Engineering, 6* (11), 1353-1358. http://scholar.waset.org/1999.4/13394 (Published)

The Influence of Enterprise Structure and Strategy on the Level of E-Commerce Deployment in Singapore Enterprises, by Eze, Uchenna C.; KAM, Tin Seong. (2001). *Journal of Global Information Technology Management, 4* (2), 38-54. http://dx.doi.org/10.1080/1097198X.2001.10856301 (Published)

Interactive Multimedia and GIS Applications for Teaching School Geography, by KAM, Tin Seong. (1996). *International Research in Geographical and Environmental Education, 5* (3), 205-212. http://dx.doi.org/10.1080/10382046.1996.9965012 (Published)

Urban Land-Use Information Extraction Using a Spatial-Based Contextual Reclassification Method, by KAM, Tin Seong; REN, F.. (1995). *Regional Development Studies, 1* 213-238. (Published)

Integrating GIS and remote sensing techniques for urban land cover and land user analysis, by KAM, Tin Seong. (1995). *Geocarto International, 10* (1), 39-49. https://doi.org/10.1080/10106049509354477 (Published)

The Changing Socio-Economic Structure of Kampong Ayer, Brunei Darussalam, by Cleary, M. C.; KAM, Tin Seong. (1991). *Malaysian Journal of Tropical Geography, 22* (1), 23-28. (Published)

A Microcomputer-Based Geographic Information System for Urban and Regional Planning: A Case Study of Brunei Darussalam, by KAM, Tin Seong. (1990). *Regional Development Dialogue, 11* (3), 171-187. (Published)

The Economic Environment of Brunei Darussalam: Structure and Patterns of Trade, by CHENG, S. K.; KAM, Tin Seong. (1988). *Asian Culture [Vietnamese Association for Asian Cultural Relations], 12* 16-31. (Published)

Books (Non-Refereed)

Sustainable Natural Resource Management and Spatial Planning in Developing Countries: Geo-Information Technology Perspective by EDRALIN, Josefa S.; KAM, Tin Seong. (1993). Nagoya, Japan: UNCRD. http://worldcat.org/isbn/9784906236107 (Published)

Dasar-Dasar Statistik by CHENG, S. K.; KAM, Tin Seong. (1988). Brunei: Universiti Brunei Darussalam Press. http://worldcat.org/oclc/22133691 (Published)

Conference Proceedings

Exploring and visualizing household electricity consumption patterns in Singapore: A geospatial analytics approach, by TAN, Yong Ying; KAM, Tin Seong. (2019.0). *Information in Contemporary Society: 14th International Conference, iConference 2019, Washington, DC, March 31-April 3: Proceedings,* (pp. 785-796) Cham: Springer. https://doi.org/10.1007/978-3-030-15742-5_74 (Published)

Is there space for violence?: A data-driven approach to the exploration of spatial-temporal dimensions of conflict, by KAM, Tin Seong; MACK, Zhi Wei Vincent. (2018.0). *Proceedings of the 2nd ACM SIGSPATIAL Workshop on Geospatial Humanities, Seattle, WA, USA, 2018 November 06,* (pp. 1-10) Seattle, WA, USA: ACM Digital Library. https://doi.org/10.1145/3282933.3282935 (Published)

Interactive visual analytics application for spatiotemporal movement data VAST Challenge 2017 Mini-Challenge 1: Award for Actionable and Detailed Analysis, by GUAN, Yifei; KAM, Tin Seong. (2017.0). *2017 IEEE Conference on Visual Analytics Science and Technology (VAST): October 3-6, Phoenix, AZ: Proceedings,* (pp. 195-196) Piscataway, NJ: IEEE. https://doi.org/10.1109/VAST.2017.8585564 (Published)

Visualizing chemicals detection VAST 2017 Mini Challenge 2, by ZHANG, J.; LIU, X.; QIAN, H.; KAM, T..

(2017.0). *Proceedings of the 2017 IEEE Conference on Visual Analytics Science and Technology (VAST), Phoenix, USA, October 3-6* , (pp. 241-242) New York: IEEE. (Published)

Spatiotemporal identification of anomalies in a wildlife preserve, by KISHAN, Bharadwaj; ONG, Guan Jie Jason; ZHANG, Yanrong, KAM, Tin Seong. (2017.0). *2017 IEEE Conference on Visual Analytics Science and Technology (VAST): October 3-6, Phoenix, AZ: Proceedings,* (pp. 185-186) Piscataway, NJ: IEEE. https://doi.org/10.1109/VAST.2017.8585493 (Published)

Location matters: Geospatial policy analytics over time for household hazardous waste collection in California, by LIM-WAVDE, Kustini; KAUFFMAN, Robert J.; KAM, Tin Seong; DAWSON, Gregory S.. (2017.0). *iConference 2017: Proceedings, Wuhan, China, March 22-25,* (pp. 13-27) University of Illinois: iSchool. http://hdl.handle.net/2142/96678 (Published)

Be Customer Wise or Otherwise: Combining Data Mining and Interactive Visual Analytics to Analyse Large and Complex Customer Resource Management (CRM) Data, by KAM, Tin Seong; MISRA, Aditya Hridaya; JI, Jun Yao. (2013.0). *Proceedings of the 2013 SIAM International Conference on Data Mining,* San Francisco: (Published)

Developing and Applying a User-Centered Model for the Design and Implementation of Information Visualisation, by KOH, Lian Chee; Slingsby, A.; Dykes, J.; KAM, Tin Seong. (2011.0). *Proceedings of the International Conference on Information Visualisation,* (pp. 90-95) London: IEEE. http://dx.doi.org/10.1109/IV.2011.32 (Published)

Designing and Implementing Models of Accessibility Potential in a GIS Environment, by LUI, Suxia; KAM, Tin Seong. (2000.0). *2000 ESRI International User Conference: Proceedings: San Diego, June 26-30, 2000,* Redlands, CA: ESRI. (Published)

The Influence of Enterprise Structure and Strategy on the Level of E-Commerce Deployment in Singapore Enterprises, by KAM, Tin Seong; EZE, Uchenna C.. (2000.0). *Proceedings of the First Annual Global Information Technology Management World Conference, June 11, 12, 13, 2000 Memphis, Tennessee,* (pp. 255-259) Tennessee: Global Information Technology Management Association. http://www.worldcat.org/oclc/155989464 (Published)

Conference Papers

Latent class analysis for identifying subclasses of depression using JMP Pro 16, by YADAV, Karishma; SEET, Fei Fei Sue-ann.; TAN, Yi Ying.; KAM, Tin Seong. (2021.0). *JMP Discovery Summit Americas 2021, Virtual Conference, October 4-7,* Virtual Conference. https://discoverysummit.jmp/en/2021/usa/home.html (Presented)

Time-series data analysis of flight delays at US airports, January-June 2020, by PRASAD, Aishwarya Krishna; YAN, Ruiyun; ZHONG, Linli; KAM, Tin Seong. (2021.0). *JMP Discovery Summit Americas 2021, Virtual Conference, October 4-7,* Virtual Conference. https://discoverysummit.jmp/en/2021/usa/home.html (Presented)

Navigating insurance claim data through tidymodels universe, by LOK, Jun Haur; KAM, Tin Seong. (2021.0). *useR! 2021: The R Conference, Virtual Conference, July 5-9,* Virtual. https://user2021.r-project.org/ (Presented)

Use Case: Functional programming and parallelization in spatial point pattern analysis, by CHUA, Clara Kiah Hwii; KAM, Tin Seong. (2021.0). *useR! 2021 The R Conference,* Virtual. https://www.youtube.com/watch?v=FeJjzZIHvNY (Presented)

Integrating apache spark and R for big data analytics on solving geographic problems, by ZHANG, Mengqi, KAM, Tin Seong. (2017.0). *International Conference for Free and Open Source Software for Geospatial FOSS4G 2017 August 14-19,* Boston, MA. (Presented)

WIGA as a bridge from theory to practice, by KAM, Tin Seong; KOH, Lian Chee; Dan, Wu. (2014.0). *IEEE VIS, 9-14 November 2014,* Paris, France. http://ieeevis.org/year/2014/info/overview-amp-topics/practitioner-experiences-posters (Presented)

Time-Series Data Mining in Transportation: A Case Study on Singapore Public Train Commuter Travel Patterns, by KAM, Tin Seong; LEE, Roy Ka Wei. (2014.0). *International Conference on Civil and Urban Engineering ICCUE 2014, March 29-30,* Shanghai, China. (Published)

DIVAD: A Dynamic and Interactive Visual Analytical Dashboard for Exploring and Analyzing Transport Data, by KAM, Tin Seong; BARSHIKAR, Ketan Dileep; TAN, Shaun Jun Hua. (2012.0). *International Conference on Urban Planning and Regional Development 2012,* Venice. (Published)

Knowledge discovery from multi-sources healthcare informatics, by KAM, Tin Seong; Juhi, Sharma; Tack Keong Michael, Wong; Lavanya, Asokan. (2012.0). *7th INFORMS Workshop on Data Mining and Health Informatics,* Phoenix, USA. (Presented)

Interactive GeoVisual Analytic Tool (IGVAT)-A spatio-temporal multivariate data exploratory, by KAM, Tin Seong; Arizki, Adhyan; Cao Dang, Nhu Ngoc; Qiuhui, LIM. (2009.0). *Map Asia 2009,* Singapore. http://mapasia.org/2009/proceeding/os_web/ma09_Adhyan.pdf (Published)

Intelligent Road Network Routing Prototype for Singapore (Towards One Nsdi), by KAM, Tin Seong; Aditya, Hridaya Misra; Junyao, JI; TAN, Chee Yong Timothy. (2009.0). *Map Asia 2009,* Singapore. (Published)

GIS as a new Marketing Research tool, by KAM, Tin Seong. (2007.0). *2007 INFORMS Marketing Science Conference, June 28-30, Singapore,* (Published)

Magazine Articles

Mapping better business strategies with GIS, by KAM, Tin Seong. (2007, August). *Knowledge@SMU,* 1-2. (Published)

In the wake of an earthquake, by KAM, Tin Seong. (1996, December). *GIS Asia Pacific,* 21-29. (Published)

Newspaper Articles

Embracing Analytics for a Better Competitive Edge, by KAM, Tin Seong. (2012, July 17). *Business Times (Singapore)* ,10-10. (Published)

Other Outputs and Contributions

Reports

Development of a real-time Aedes Mosquito Control and Monitoring System (AMCOMS) for spatial epidemiological study using GIS, GPS and ESDA Methods by Kam, Tin Seong. (2003). (Submitted)

Applications of Remote Sensing and Geographical Information Systems for Urban Planning in Developing Countries: Potential and Pitfalls by Kam, Tin Seong. (1994). (Submitted)

WUMAS Users Guide by Kam, Tin Seong. (2005). (Submitted)

Environmental Health Analyst User Guide by Kam, Tin Seong. (2005). (Submitted)

Location Intelligence: Retail Banking Market Potential and Branch Locations Analysis in Vietnam by Kam, Tin Seong. (2008). (Submitted)

Location Intelligence: Bank Branch Site Selection Study, Hanoi City, Vietnam by Kam, Tin Seong. (2008). (Submitted)

Research Grants

Singapore Management University

Agency contract intelligence for supply chain eco-sustainability, NOL Fellowship Programme, National University of Singapore (NUS) 2009, S$112,130

TEACHING

Courses Taught

<u>Singapore Management University</u>

Undergraduate Programmes :

      Analytics Practicum

      Geographic Information Systems for Urban Planning

      Geospatial Analytics and Applications

      Geospatial Analytics for Business Intelligence

      Geospatial Analytics for Urban Planning

      IS/SMT/C&L Project Experience (Research)

      Visual Analytics for Business Intelligence

Postgraduate Professional Programmes :

      Applied Geospatial Analytics

      Capstone Project - Data Science and Engineering

      Data Analytics Lab

      Project

      Visual Analytics and Applications

Postgraduate Research Programmes :

      Dissertation

      Introductory Research Project