

## **Venky SHANKARARAMAN**

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### **Education**

PhD, University of Strathclyde, Great Britain, 1992

Bachelor of Technology, Cochin University of Science & Technology, India, 1987

### **Academic Appointments**

Professor of Information Systems (Education), School of Computing and Information Systems, SMU, Jan 2015 - Present

Associate Professor of Information Systems (Education), School of Computing and Information Systems, SMU, Jul 2012 - Dec 2014

Associate Professor of Information Systems (Practice), School of Computing and Information Systems, SMU, Jan 2008 - Jun 2012

Practice Associate Professor of Information Systems, School of Computing and Information Systems, SMU, Mar 2005 - Dec 2007

### **Academic Administrative Positions**

Vice Provost (Undergraduate Matters), Office of the Provost, SMU, Jan 2020 - Present

Deputy Dean, Practice & Education, School of Computing and Information Systems, SMU, Jul 2018 - Dec 2019

Associate Dean (Education), School of Computing and Information Systems, SMU, Feb 2010 - Jun 2018

### **Awards and Honors**

AIS Award for Best Conference Paper in IS Education for 2020, Association of Information Systems, 2020

SMU-X Excellent Teacher Award, Singapore Management University, 2018

National Day Award, Public Administration Medal (Bronze), Pingat Pentadbiran Awam (Gangsa) awarded by Singapore Government for my contribution to Education, Singapore Government, 2017

Best Paper Award: Designing a Datawarehousing and Business Analytics Course using Experiential Learning Pedagogy; GOTTIPATI Swapna AND SHANKARARAMAN Venky. International Conference of the Association of Information Systems, Special Interest Group in Education, December 10-11, 2016, Dublin, Ireland., Association of Information Systems, Special Interest Group on Education, 2016

Outstanding Contribution to IS Education awarded by Association of Information Systems in recognition of my outstanding contribution to IS Education, Association of Information Systems, 2014

SAP Outstanding Academic Award for Southeast Asia, awarded by SAP to recognize my contribution to enterprise systems education, SAP, 2014

Best Paper Award: Actively linking learning outcomes and competencies to course design and delivery: experiences from an undergraduate Information Systems program in Singapore. Baumgartner, Ilse; Shankararaman, Venky, IEEE Educon Conference, 2013, Berlin., IEEE, 2013

Distinguished Teacher Award, awarded by Singapore Management University that recognizes me as a faculty who has gone beyond the call of duty to promote a first-rate learning experience for SMU students and colleagues, Singapore Management University, 2011

Research Award from Institute of Marine Engineers, UK, for PhD research work, Institute of Marine Engineers, UK, 1990

Research Scholarship from the Overseas Development Agency, UK, for PhD research, Overseas Development Agency, 1989

Gold Medal for B.Tech course, awarded by Cochin University of Science and Technology (in collaboration with Rostock University, Germany), Cochin University of Science and Technology, 1987

### **Professional Memberships**

Fellow, Singapore National Academy of Higher Education, 2020

President, Association of Information Systems, Special Interest Group on Education, 2019

Executive Committee Member, Singapore Computer Society, Cloud Computing Chapter, 2016

Member, Association of Information Systems, Education Committee, 2016

Publications Director, Association of Information Systems, Special Interest Group on Education, 2012 - 2015

Treasurer, Association of Information Systems, Special Interest Group on Enterprise Systems, 2012 - 2015

Member, IEEE Education Society, 2002

## **RESEARCH**

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### **Research Interests**

Pedagogy Focused Research

Developing Innovative and effective teaching methodologies and content for enterprise technology centred university level courses

Studying the effectiveness of industry IT skills frameworks, student outcomes and competencies for designing IS curriculum, measuring student performance and providing feedback

Applying analytics to learning- curriculum design, course design and student feedback

Practice Focused Research

Enhancing business agility through the design and implementation of composite applications that leverage Business Process Management Systems and Enterprise Service Oriented Architecture. Furthermore, using the composite paradigm, develop smart processes through analytics, social media and gamification techniques

## Publications

### Journal Articles [Refereed]

Rapid transition of a technical course from face-to-face to online, by GOTTIPATI, Swapna; SHANKARARAMAN, Venky. (2021). *Communications of the Association for Information Systems*, (Accepted)

Digital banking accelerator: A Service-Oriented Architecture starter kit for banks, by MEGARGEL, Alan; SHANKARARAMAN, Venky. (2020). *IEEE Software*, <https://doi.org/10.1109/MS.2020.3029876> (Advance Online)

Essence of partnership management in project-based learning: Insights from a university's global project programme, by PAN, Gary; SEOW, Poh Sun; SHANKARARAMAN, Venky; KOH, Kevin. (2020). *Journal of International Education in Business*, 1-26. <https://doi.org/10.1108/JIEB-04-2020-0031> (Advance Online)

An exploration into key roles in making project-based learning happen: Insights from a case study of a university, by PAN, Gary; SEOW, Poh-Sun; SHANKARARAMAN, Venky; KOH, Kevin. (2020). *Journal of International Education in Business*, <https://doi.org/10.1108/JIEB-02-2020-0018> (Advance Online)

Text analytics approach to extract course improvement suggestions from students feedback, by GOTTIPATI, Swapna; SHANKARARAMAN, Venky; LIN, Jeff Rongsheng. (2018). *Research and Practice in Technology Enhanced Learning*, 13 (6), 1-19. <https://doi.org/10.1186/s41039-018-0073-0> (Published)

SOA maturity influence on digital banking transformation, by MEGARGEL, Alan; SHANKARARAMAN, Venky; FAN, Terence P. C.. (2018). *IDRBT Journal of Banking Technology*, 2 (2), 1-27. (Published)

Competency analytics tool: Analyzing curriculum using course competencies, by GOTTIPATI, Swapna; SHANKARARAMAN, Venky. (2018). *Education and Information Technologies*, 23 (1), 41-60. <https://doi.org/10.1007/s10639-017-9584-3> (Published)

Designing an accounting analytics course using experiential learning approach, by PAN, Gary; SHANKARARAMAN, Venky; SEOW, Poh Sun; TAN, Gan Hup. (2017). *Accountancy Business and the Public Interest*, 16 1-23. (Published)

Leveraging competency framework to improve teaching and learning: A methodological approach, by SHANKARARAMAN, Venky; DUCROT, Joelle. (2016). *Education and Information Technologies*, 21 (5), 1299-1327. <https://doi.org/10.1007/s10639-015-9383-7> (Published)

Hippi Care Hospital: Towards proactive business processes in emergency room services, by TAN, Kar Way; SHANKARARAMAN, Venky. (2014). *Journal of Information Systems Education*, 25 (4), 283-288. (Published)

A retail bank's BPM experience, by Shankararaman, Venkataramanan (Venky); Gottipati, Swapna; Duran, Randall E.. (2013). *Journal of Information Technology Case and Application Research*, 14 (3), 33-51. (Published)

An enterprise integration methodology, by LAM, W.; SHANKARARAMAN, Venkataramanan (Venky). (2004). *IT Professional*, 6 (2), 40-48. <http://doi.org/10.1109/mitp.2004.1278864> (Published)

Evolutionary computation with case-based reasoning, by JOB, Dominic; SHANKARARAMAN, Venky. (2001). *Expert Update*, 4 (2), 25-32. (Published)

Design Approaches to Model-Based Simulation in Intelligent Computer Assisted Instruction, by Helfesrieder, B.; Shankararaman, Venkataramanan (Venky). (1999). *Knowledge Engineering Review*, 14 (3), 221-255. <http://dx.doi.org/10.1017/s0269888999002064> (Published)

Multiple Representation for Understanding Data Structures, by Hancies, B.; Munoz, J.; Shankararaman, Venkataramanan. (1997). *Computers and Education*, 29 (1), 1-11. [http://dx.doi.org/10.1016/s0360-1315\(97\)00028-6](http://dx.doi.org/10.1016/s0360-1315(97)00028-6) (Published)

Integrated Approach to Offshore Safety Training, by Shankararaman, Venkataramanan (Venky); LEE, B. S.. (1994). *Transactions of the Institute of Marine Engineers*, 106 (3), 137-150. (Published)

Knowledge-Based Safety Training System (KBSTS): A Prototype Implementation, by Shankararaman, Venkataramanan (Venky); LEE, B. S.. (1994). *Computers in Industry*, 25 (2), 145-157.  
[http://dx.doi.org/10.1016/0166-3615\(94\)90045-0](http://dx.doi.org/10.1016/0166-3615(94)90045-0) (Published)

Knowledge-Based Systems Approach for Offshore Safety Training, by LEE, B. S.; Shankararaman, Venkataramanan (Venky). (1991). *Computers in Industry*, 17 (4), 349-358.  
[http://dx.doi.org/10.1016/0166-3615\(91\)90047-d](http://dx.doi.org/10.1016/0166-3615(91)90047-d) (Published)

### Books (Refereed)

*Business process engineering methodology* by SHANKARARAMAN, Venky; TAN, Kar Way; THONSE, Srinivas; GUPTA, Mayank; DESHMUKH, Nivedita P.. (2006). Singapore: Pearson/Prentice Hall.  
<https://worldcat.org/isbn/9789810677626> (Published)

### Books (Non-Refereed)

*Aligning IT solutions with business processes: A methodological approach* by SHANKARARAMAN, Venky; TAN, Kar Way; THONSE, Srinivas; GUPTA, Mayank; DESHMUKH, Nivedita. (2007). Singapore: Pearson/Prentice Hall. <http://worldcat.org/isbn/9789810679231> (Published)

### Book Chapters

Migrating from monoliths to cloud-based microservices: A banking industry example, by MEGARGEL, Alan; SHANKARARAMAN, Venky; WALKER, David K.. (2020). In M. Ramachandran, & Z. Mahmood (Ed.), *Software engineering in the era of cloud computing* (pp. 85-108) Cham: Springer.  
[https://doi.org/10.1007/978-3-030-33624-0\\_4](https://doi.org/10.1007/978-3-030-33624-0_4) (Published)

A decision framework for decentralised control of distributed processes: Is blockchain the only solution?, by GRIFFIN, Paul; MEGARGEL, Alan; SHANKARARAMAN, Venky. (2019). In Shi, Nansi (Ed.), *Architectures and Frameworks for Developing and Applying Blockchain Technology* (pp. 1-27) IGI Global. (Published)

Real-time inbound marketing: A use case for digital banking, by MEGARGEL, Alan; SHANKARARAMAN Venky; REDDY, Srinivas K.. (2018). In David Lee & Robert H. Deng (Ed.), *Handbook of blockchain, digital finance, and inclusion: Cryptocurrency, FinTech, InsurTech, and regulation* (pp. 311-328) San Diego, CA: Academic Press. <https://doi.org/10.1016/B978-0-12-810441-5.00013-0> (Published)

Enterprise integration: Architectural approaches, by SHANKARARAMAN, Venky; MEGARGEL, Alan. (2013). In Raja Ramanathan and Kirtana Raja (Ed.), *Service-driven approaches to architecture and enterprise integration* (pp. 67-84) Hersey, PA: Information Science Reference.  
<https://doi.org/10.4018/978-1-4666-4193-8.ch003> (Published)

Business Process Management and Six Sigma: Leveraging the Synergistic Relationship, by Subramoniam, Suresh; Shankararaman, Venkataramanan (Venky); Krishnankutty, K. V.; Chinta, Ravi. (2012). *Business Enterprise, Process, and Technology Management: Models and Applications* (pp. 74-89) Hershey, PA: IGI Global. <http://worldcat.org/isbn/978-1466602496> (Published)

Integrating the Cloud-Scenarios and Solutions, by Shankararaman, Venkataramanan (Venky); Lum, Eng Kit. (2012). In Anil Aggarwal and Ai Bento (Ed.), *Cloud Computing Service and Deployment Model: Layers and Management* (pp. 173-190) Hershey, PA: Business Science Reference.  
<http://www.worldcat.org/oclc/794227993> (Published)

A Java Implementation of a Medical Knowledge Base for Decision Support, by Ambrosiadou, B. V.; Goulis, D. G.; Shankararaman, Venkataramanan; Shamtani, G.. (1999). *Studies in Health Technology and Informatics* (pp. 578-) IOS Press. (Published)

### Conference Proceedings

Renewal of an information systems curriculum to support career based tracks: A case study, by GOTTIPATI, Swapna; SHANKARARAMAN, Venky; SHIM, Kyong Jin. (2020). *Proceedings of 2020 SIGED International Conference on Information Systems Education and Research, December 12-13, Virtual: Association for Information Systems*. (Presented)

Automated discussion analysis - Framework for knowledge analysis from class discussions, by GOTTIPATI, Swapna; SHANKARARAMAN, Venky; GOKARN, Mallika Nitin. (2020). *Proceedings of the 50th Frontiers in Education Conference: Oct 21-24, 2020, Uppsala, Sweden*, Piscataway, NJ: IEEE. (Presented)

Using student perceptions to design smart class participation tools: A technology framework, by GOTTIPATI, Swapna; SHANKARARAMAN, Venky; NG, Wei Jie Mark. (2020). *Proceedings of the 50th Frontiers in Education Conference: Oct 21-24, 2020, Uppsala, Sweden*, Piscataway, NJ: IEEE. (Presented)

SMU Teaching Bank: Case study of a multiyear development project utilizing student resources, by MEGARGEL, Alan; FAN, Terence P. C.; SHANKARARAMAN, Venky. (2019). *Proceedings of AIS Special Interest Group for Education (SIGED), Munich, 2019 December 14-15*, (pp. 1-15) Munich, Germany: AIS. (Published)

Clustering models for topic analysis in graduate discussion forums, by NITIN, Gokarn Mallika; GOTTIPATI, Swapna; SHANKARARAMAN, Venky. (2019). *Proceedings of the 27th International Conference on Computers in Education, Taiwan: Asia-Pacific Society for Computers in Education*, Kenting, Taiwan: APSCE. (Published)

Cognitive and social interaction analysis in graduate discussion forums, by NITIN, Mallika Gokran; GOTTIPATI, Swapna; SHANKARARAMAN, Venky. (2019). *2019 49th Frontiers in Education Conference: Cincinnati, OH, October 16-19: Proceedings*, (pp. 1-8) Piscataway, NJ: IEEE. <https://doi.org/10.1109/FIE43999.2019.9028485> (Published)

TopicSummary: A tool for analyzing class discussion forums using topic based summarizations, by GOTTIPATI, Swapna; SHANKARARAMAN, Venky; RAMESH, Renjini. (2019). *2019 IEEE Frontiers in Education Conference 49th FIE: Covington, KY, October 16-19: Proceedings*, (pp. 1-10) Piscataway, NJ: IEEE. <https://doi.org/10.1109/FIE43999.2019.9028526> (Published)

Applying design thinking to student outreach projects: Experiences from an Information Systems School, by GOTTIPATI, Swapna; SHANKARARAMAN, Venky; MEGARGEL, Alan. (2018). *Proceedings of AIS Special Interest Group for Education (SIGED), San Francisco, CA, 2018 December 12-13*, (pp. 1-11) San Francisco: AIS. (Published)

Latent Dirichlet Allocation for textual student feedback analysis, by GOTTIPATI, Swapna; SHANKARARAMAN, Swapna; LIN, Jeff Rongsheng. (2018). *Proceedings of the 26th International Conference on Computers in Education ICCE 2018: Manila, Philippines, November 28-30*, (pp. 220-227) Manila: APSCE. (Published)

Class discussion management and analysis application, by SHANKARARAMAN, Venky; GOTTIPATI, Swapna; RAMASWAMI, Seshan; CHHABLAN, Chirag. (2018). *Proceedings of the 26th International Conference on Computers in Education 26th ICCE 2018, Manila, Philippines, 2018 November 26-30*, Manila, Philippines: APSCE. (Published)

Using gamification in outreach camps: Experience from an information systems program, by GOTTIPATI, Swapna; SHANKARARAMAN, Venky. (2018). *Proceedings of Frontiers in Education Conference: 48th FIE 2018, San Jose, CA, USA, 2018 October 3-6*, San Jose, CA, USA: IEEE. (Published)

SUFAT: An analytics tool for gaining insights from student feedback comments, by PYASI, Siddhant; GOTTIPATI, Swapna; SHANKARARAMAN, Venky. (2018). *2018 Frontiers in Education Conference 48th FIE: San Jose, CA, October 3-6: Proceedings*, Los Alamitos, CA: IEEE Computer Society. <https://doi.ieeecomputersociety.org/10.1109/FIE.2018.8658457> (Published)

Mini-case study pedagogy: Experience from a technical course in an information systems program, by SHANKARARAMAN, Venky; GOTTIPATI, Swapna; MEGARGEL, Alan. (2018). *In Proceedings of 48th Annual Frontiers in Education Conference (FIE), San Jose, United States, 2018 October 3-6*, San Jose: IEEE. (Published)

Effectiveness of bite-sized lecture on student learning outcomes, by KOH, Noi Sian; GOTTIPATI, Swapna; SHANKARARAMAN, Venky. (2018). *4th International Conference on Higher Education Advances (HEAd18), Valencia, Spain, 2018 June 20-22: Proceedings*, (pp. 515-523) Valencia: HEAd. (Published)

Extracting implicit suggestions from students comments: A text analytics approach, by SHANKARARAMAN, Venky; GOTTIPATI, Swapna; LIN, Jeff Rongsheng, GAN, Sandy. (2017). *Proceedings of 25th International Conference on Computers in Education (ICCE 2017), Christchurch, New Zealand, December 4-8*, (pp. 261-269) Taoyuan, Taiwan: Asia-Pacific Society for Computers in Education.

(Published)

Analyzing the e-learning video environment requirements of Generation Z students using Echo360 platform, by GOTTIPATI, Swapna; SHANKARARAMAN, Venky. (2017). *Proceedings of the 25th International Conference on Computers in Education (ICCE 2017): Christchurch, New Zealand, December 4-8*, (pp. 391-396) Taoyuan, Taiwan: Asia-Pacific Society for Computers in Education. (Published)

Design and implementation of an enterprise integrated project environment: Experience from an information systems program, by GOTTIPATI, Swapna; SHANKARARAMAN, Venky. (2017). *FIE 2017: Proceedings of 47th Annual Frontiers in Education Conference, Indianapolis, Indiana, October 18-21*, (pp. 1-9) Piscataway, NJ: IEEE. <https://doi.org/10.1109/FIE.2017.8190446> (Published)

A conceptual framework for analyzing students' feedback, by SHANKARARAMAN, Venky; GOTTIPATI, Swapna; GAN, Sandy. (2017). *FIE 2017: Proceedings of 47th Annual Frontiers in Education Conference, Indianapolis, Indiana, October 18-21*, (pp. 1-8) Piscataway, NJ: IEEE. <https://doi.org/10.1109/FIE.2017.8190703> (Published)

Mining capstone project wikis for knowledge discovery, by GOTTIPATI, Swapna; SHANKARARAMAN, Venky; GOH, Melvrick. (2017). *Proceedings of 41st IEEE Annual Computer Software and Applications Conference: COMPSAC 2017, Torino, Italy, 2017 July 4-8*, (pp. 371-380) Italy: IEEE Computer Society. <http://doi.org/10.1109/COMPSAC.2017.169> (Published)

Improving student learning in an introductory programming course using flipped classroom and competency framework, by ELMALEH, Joelle; SHANKARARAMAN, Venky. (2017). *2017 IEEE Global Engineering Education Conference EDUCON: Athens, Greece, April 25-28: Proceedings*, (pp. 49-55) Piscataway, NJ: IEEE. <https://doi.org/10.1109/EDUCON.2017.7942823> (Published)

Designing a data warehousing and business analytics course using experiential learning pedagogy, by GOTTIPATI, Swapna; SHANKARARAMAN, Venky. (2016). *Proceeding of SIGEd 2016 Conference, Dublin, Ireland: AIS (Received Best Paper Award)*. (Published)

Semi-automated tool for providing effective feedback on programming assignments, by BEH, Min Yan; GOTTIPATI, Swapna; LO, David; SHANKARARAMAN, Venky. (2016). *Proceedings of the 24th International Conference on Computers in Education: November 28 - December 2, 2016, Mumbai, India*, (pp. 258-263) Taoyuan City: Asia-Pacific Society for Computers in Education. (Published)

Designing an accounting analytics course using experiential learning approach, by PAN, Gary; SHANKARARAMAN, Venky; SEOW, Poh Sun; TAN, Gan Hup. (2016). *Proceedings of the AFAANZ Conference 2016: 3-5 July, Gold Coast, Queensland, Australia*, (pp. 1-24) Carlton, Vic: AFAANZ. (Published)

Mapping information systems student skills to industry skills framework, by SHANKARARAMAN, Venky; GOTTIPATI, Swapna. (2016). *EDUCON 2016: Proceedings of the IEEE Global Engineering Education Conference 2016: 10-13 April, 2016, Abu Dhabi, UAE*, (pp. 1-6) Piscataway, NJ: IEEE. <http://dx.doi.org/10.1109/EDUCON.2016.7474561> (Published)

MyCompetencies: Competency tracking mobile application for IS students, by GOTTIPATI, Swapna; SHANKARARAMAN, Venky. (2016). *EDUCON 2016: Proceedings of the IEEE Global Engineering Education Conference 2016: 10-13 April, 2016, Abu Dhabi, UAE*, (pp. 1-7) Piscataway, NJ: IEEE. <http://dx.doi.org/10.1109/EDUCON.2016.7474562> (Published)

Incorporating Analytics into a Business Process Modelling Course, by GOTTIPATI, Swapna; SHANKARARAMAN, Venkataramanan. (2015). *Proceedings of the 2015 International Conference SIGED: IAIM: December 12-13, Fort Worth, TX, Atlanta, GA: AIS*. <http://aisel.aisnet.org/siged2015/16/> (Published)

Capstone Projects Mining System for Insights and Recommendations, by GOH, Melvrick; GOTTIPATI, Swapna; SHANKARARAMAN, Venkataramanan. (2015). *Proceedings of the 23rd International Conference on Computers in Education ICCE 2015, 30 November - 4 December 2015, Hangzhou, China, Hangzhou, China: Asia-Pacific Society for Computers in Education*. (Published)

Analyzing educational comments for topics and sentiments: A text analytics approach, by NITIN, Gokran Ila; GOTTIPATI, Swapna; SHANKARARAMAN, Venky. (2015). *Frontiers in Education Conference 2015: Proceedings: El Paso, Texas, October 21-24*, (pp. 1658-1666) Piscataway, NJ: IEEE. <https://doi.org/10.1109/FIE.2015.7344296> (Published)

- Targeted blended learning through competency assessment in an undergraduate information systems program, by DUCROT, Joelle; SHANKARARAMAN, Venky. (2015). *IEEE Frontiers in Education Conference FIE 2015: October 21-24, El Paso, TX: Proceedings*, (pp. 1-7) Piscataway, NJ: IEEE. <https://doi.org/10.1109/FIE.2015.7344066> (Published)
- A Framework for Embedding Analytics in a Business Process, by SHANKARARAMAN, Venky; GOTTIPATI, Swapna. (2015). *CBI 2015: IEEE 17th Conference on Business Informatics: 13-16 July 2015, Lisbon, Portugal*, (pp. 49-54) Los Alamitos, CA: IEEE Computer Society. <http://dx.doi.org/10.1109/CBI.2015.10> (Published)
- Text-mining Approach for Verifying Alignment of Information Systems Curriculum with Industry Skills, by LAW, Sheng Xun; GOTTIPATI, Swapna; SHANKARARAMAN, Venky. (2015). *2015 International Conference on Information Technology Based Higher Education and Training ITHET 2015: June 11-13, Lisbon: Proceedings*, (pp. 1-6) Piscataway, NJ: IEEE. <http://dx.doi.org/10.1109/ITHET.2015.7217959> (Published)
- Project sourcing for Capstone Course experience from an undergraduate program, by GAN, Kok Siew Benjamin; SHANKARARAMAN, Venkataramanan. (2015). *SITE 2015: 26th International Conference of Society for Information Technology and Teacher Education: March 2-6, Las Vegas: Proceedings*, (pp. 2795-2799) Chesapeake, VA: AACE. (Published)
- Learning Analytics Applied to Curriculum Analysis, by GOTTIPATI, Swapna; SHANKARARAMAN, Venkataramanan (Venky). (2014). *SIGED 2014 Proceedings*, Auckland, New Zealand: (Published)
- Skills Frameworks for Industry and IT Education Alignment: A Pilot Study, by Asgarkhani, Mehdi; SHANKARARAMAN, Venkataramanan. (2014). *2014 IEEE International Conference on Teaching, Assessment, and Learning for Engineering (TALE): Proceedings: 8-10 December 2014, Wellington*, (pp. 206-213) Piscataway, NJ: IEEE. <http://dx.doi.org/10.1109/TALE.2014.7062622> (Published)
- Experimenting with Gamification in the Classroom, by Grant, Emanuel; SHANKARARAMAN, Venkataramanan (Venky); LECK, Jeremy Kian Loong. (2014). *ICEED 2014: IEEE 6th International Conference on Engineering Education: 9-10 December 2014, Kuala Lumpur, Malaysia*, (pp. 79-83) Piscataway, NJ: IEEE. <http://dx.doi.org/10.1109/ICEED.2014.7194692> (Published)
- Measuring Student Performance and Providing Feedback using Competency Framework, by DUCROT, Joelle; SHANKARARAMAN, Venkataramanan. (2014). *ICEED 2014: IEEE 6th International Conference on Engineering Education: 9-10 December 2014, Kuala Lumpur, Malaysia*, (pp. 55-60) Piscataway, NJ: IEEE. <http://dx.doi.org/10.1109/ICEED.2014.7194688> (Published)
- Aligning Assessments with Competencies using Keyphrase Extraction, by SHANKARARAMAN, Venkataramanan; GOTTIPATI, Swapna. (2014). *IEEE International Conference on Teaching, Assessment, and Learning for Engineering 2014 (TALE): 8-10 December 2014, Wellington: Proceedings*, (pp. 25-32) Piscataway, NJ: IEEE. <http://dx.doi.org/10.1109/TALE.2014.7062630> (Published)
- Analyzing Course Competencies: What can Competencies Reveal about the Curriculum?, by GOTTIPATI, Swapna; SHANKARARAMAN, Venkataramanan (Venky). (2014). *Proceedings of the 22nd International Conference on Computers in Education ICCE 2014: November 30 - December 4, 2014, Nara, Japan*, (pp. 319-324) Nara, Japan: ICCE 2014 Organizing Committee. <http://icce2014.jaist.ac.jp/icce2014/wp-content/uploads/2014/12/ICCE2014-Main-Proceedings-lite-1.pdf> (Published)
- Case studies in computing education: Presentation, evaluation and assessment of four case study-based course design and delivery models, by BAUMGARTNER, Ilse; SHANKARARAMAN, Venkataramanan (Venky). (2014). *IEEE 44th Annual Frontiers in Education (FIE) Conference: Proceedings: 22-25 October 2014, Madrid*, (pp. 1-8) Piscataway, NJ: IEEE. <http://dx.doi.org/10.1109/FIE.2014.7044194> (Published)
- Skills Frameworks: A Tool for Reform in Information Technology Higher Education, by Asgarkhani, Mehdi; SHANKARARAMAN, Venkataramanan (Venky). (2014). *Proceedings of the 9th International Conference on Computer Science and Education (ICCSE 2014): August 22-24, 2014, Vancouver*, (pp. 81-88) Piscataway, NJ: IEEE. <http://dx.doi.org/10.1109/ICCSE.2014.6926434> (Published)
- Enterprise Systems Enabling Smart Commerce, by SHANKARARAMAN, Venkataramanan (Venky); LUM, Eng Kit. (2014). *16th IEEE Conference on Business Informatics: Proceedings: 14-17 July 2014, Geneva*, (pp. 50-53) Los Alamitos, CA: IEEE Computer Society. <http://dx.doi.org/10.1109/CBI.2014.17> (Published)
- Opportunities and challenges in using competencies during design and delivery of software engineering

curriculum, by SHANKARARAMAN, Venky; DUCROT, Joelle. (2014). *2014 IEEE 27th Conference on Software Engineering Education and Training (CSEE&T): Proceedings: Klagenfurt, Austria, April 23-25*, (pp. 179-182) Piscataway, NJ: IEEE. <https://doi.org/10.1109/CSEET.2014.6816799> (Published)

Structure of face-to-face teaching sessions for an undergraduate technology-centered computing course: establishing a set of best practices, by BAUMGARTNER, Ilse; Shankararaman, Venkataramanan (Venky). (2014). *2014 IEEE Global Engineering Education Conference: IEEE EDUCON 2014: Harbiye, Istanbul, 3-5 April 2014*, (pp. 184-191) Piscataway, NJ: IEEE. <http://dx.doi.org/10.1109/EDUCON.2014.6826088> (Published)

Integration of Social Media Technologies with ERP:A Prototype Implementation, by Shankararaman, Venkataramanan (Venky); Lum, Eng Kit. (2013). *AMCIS 2013 PROCEEDINGS*, (pp. 11-) Chicago, USA: AIS. <http://aisel.aisnet.org/cgi/viewcontent.cgi?article=1290&context=amcis2013> (Published)

Framing core and advanced competencies for undergraduate Information Systems program courses: does the nature, level, complexity and audience of a course matter?, by BAUMGARTNER, Ilse; Shankararaman, Venkataramanan (Venky). (2012). *Proceedings of IEEE International Conference on Teaching, Assessment and Learning for Engineering (TALE) 2012 : August 20-23, 2012, Hong Kong*, Piscataway, NJ: IEEE. <http://dx.doi.org/10.1109/TALE.2012.6360331> (Published)

Integrating enterprise system's 3rd wave into IS curriculum, by SHANKARARAMAN, Venky; LUM , Eng Kit; SIMON, Dale. (2012). *Proceedings of AMCIS 2012, Seattle, August 8*, Seattle, USA: <http://aisel.aisnet.org/amcis2012/proceedings/EnterpriseSystems/9/> (Published)

Unifying EA, BPM and SOA through a Synergistic Framework, by Shankararaman, Venkataramanan (Venky); Kazmi, Pervez. (2011). *IEEE 13th Conference on Commerce and Enterprise Computing*, (pp. 286-293) Luxembourg: IEEE. <http://doi.ieeecomputersociety.org/10.1109/CEC.2011.51> (Published)

Enhancing SOA Integration through Enterprise Services, by Shankararaman, Venky; Lum, Eng Kit. (2011). *IVM, FTMDD, RTSOABIS & MSVVEIS: Proceedings of the International Joint Workshop on Information Value Management, Future Trends of Model-Driven Development, Recent Trends in SOA Based Information Systems and Modelling and Simulation, Verification and Validation: 2011, June 8-11, Beijing, China*, (pp. 37-40) Portugal: SciTePress. <http://doi.org/10.5220/0003554600370040> (Published)

Patient Care Management Using A Multi-Agent Approach, by Shankararaman, Venkataramanan (Venky); Ambrosiadou, B. V.; Loomes, M.; Panchal, T.. (2000). *SMC 2000 conference proceedings : 2000 IEEE International Conference on Systems, Man & Cybernetics : Cybernetics evolving to systems, humans, organizations, and their complex interactions : October 8-11, 2000, Sheraton Music City Hotel, Nashville, Tennessee, USA*, (pp. 564-567) 345 E 47TH ST, NEW YORK, NY 10017 USA: IEEE. <http://dx.doi.org/10.1109/ICSMC.2000.886373> (Published)

Agents in Medical Informatics, by Shankararaman, Venkataramanan (Venky); Ambrosiadou, B. V.; Panchal, T.; Robinson, B.. (2000). *2nd International ICSC Symposium on Engineering Intelligent Systems*, (pp. 562-567) <http://www.worldcat.org/oclc/248378999> (Published)

Decision Support Methods in Diabetic Patient Management by Insulin Administration Neural Network vs. Induction Methods for Knowledge Classification, by Ambrosiadou, B. V.; Vadera, S.; Shankararaman, Venkataramanan; Goulis, D.; Gogou, G.. (2000). *Second International ICSC Symposium on Neural Computation*, (pp. 852-858) Berlin, Germany, ICS: <http://usir.salford.ac.uk/9403/> (Published)

A Process Framework for the Systematic Evaluation and Diffusion of Reuse Methods, by LAM, W.; Shankararaman, Venkataramanan (Venky); Robinson, B.. (2000). *2000 Australian Software Engineering Conference: Proceedings, 28-29 April 2000, Canberra*, (pp. 73-83) Los Alamitos, Calif.: IEEE. <http://doi.ieeecomputersociety.org/10.1109/ASWEC.2000.844563> (Published)

### Conference Papers

A visual analytics tool for personalised competency feedback, by ELMALEH, Joelle; SHANKARARAMAN, Venky. (2020). *AMCIS (America's Conference of Information Systems)*, Salt Lake City. (Published)

SMU-X pedagogy: Two case studies, by PAN, Gary; GOTTIPATI, Swapna; SHANKARARAMAN, Venky; TAN, Gan Hup. (2017). *Redesigning Pedagogy International Conference 2017, May 31 - June 2*, Singapore. (Presented)

Preparing students for the future workforce: An experiential learning approach to deliver an accounting



analytics course, by PAN, Gary; SHANKARARAMAN, Venky; SEOW, Poh Sun; TAN, Gan Hup. (2016). *American Accounting Association Annual Meeting 2016, August 6-10, New York*. (Presented)

Arts not for arts sake: Harnessing the arts for community-building in Singapore, by HOE, Su Fern. (2015). *10th International Conference on the Arts in Society, Imperial College, London, UK, 2015 July 24, London, UK*. (Presented)

Integrating a process-based composite application with ERP, by Shankararaman, Venkataramanan (Venky); Lum, Eng Kit. (2011). *Annual International Conference on Enterprise Resource Planning and Supply Chain Management, Penang, Malaysia*. (Presented)

## Other Outputs and Contributions

### Posters

Student feedback analytics tool, by GOTTIPATI, Swapna; SHANKARARAMAN, Venky. (20 Nov 2019). *National Technology Enhanced Learning Conference (NTEL), Singapore Management University, 2019 November 20-21*, (Presented)

## Research Grants

### Singapore Management University

Learning Analytics on Qualitative Student Feedback to Improve Teaching and Learning in Higher Education, Tertiary Education Research Fund (TRF), Ministry of Education (MOE) , PI (Project Level): Swapna GOTTIPATI , Co-PI (Project Level): Venky SHANKARARAMAN, 2016, S\$142,072

LiveClass: Live Class Discussion Management and Analysis Tool, SMU Internal Grant, Ministry of Education (MOE) Tier 1 , PI (Project Level): Venky SHANKARARAMAN , Co-PI (Project Level): Swapna GOTTIPATI, Seshan RAMASWAMI, 2017, S\$80,484

Knowledge Asset Portal, SMU Internal Grant, Ministry of Education (MOE) Tier 1 , PI (Project Level): Venky SHANKARARAMAN, 2007, S\$18,625.89

Business Process Engineering Methodology Textbook- Pedagogy Project Proposal, SMU Internal Grant, Ministry of Education (MOE) Tier 1 , PI (Project Level): Venky SHANKARARAMAN , Co-PI (Project Level): TAN Kar Way, 2006, S\$22,538.89

### Other Institutions

Enterprise in a Classroom, MOE, Ministry of Education, Singapore and Singapore Management University PI (Project Level): Venky SHANKARARAMAN, Co-PI (Project Level): TAN Kar Way, 2011, SGD231,800

Educational Development Project: Application of Knowledge-Based System to Course Guidance, Educational Development Project, Napier University PI (Project Level): Venky SHANKARARAMAN, 2007, SGD33,000

Automated Software Reuse using Genetic Algorithms and Case-Based Reasoning, PhD Research Funding, British Telecom PI (Project Level): Venky SHANKARARAMAN, 1999, SGD150,000

Developing an Internet based learning environment, Computer Based Education Fund, University of Hertfordshire PI (Project Level): Venky SHANKARARAMAN, 1997, SGD30,000

Technology Audit Project, Scottish Enterprise Ltd. Research Support, Scottish Enterprise Ltd. and Lothian and Edinburgh Enterprise Ltd PI (Project Level): Venky SHANKARARAMAN, 1995, SGD132,000

Smart Indexing of Large Documents, University Research Support, British Telecom PI (Project Level): Venky SHANKARARAMAN, 1995, SGD30,800

## TEACHING

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### Teaching Areas

Digital Business Technologies & Transformation, Business Process Management, IT Solutioning, Enterprise Integration, Enterprise Systems and Solutions, Enterprise Architecture, Business Process Analytics

### Courses Taught

#### Singapore Management University

Undergraduate Programmes :

- Accounting Analytics Capstone
- Accounting Analytics Practicum
- Data Warehousing and Business Analytics
- Digital Business - Technologies and Transformation
- Enterprise Business Solutions
- Enterprise Integration
- Enterprise Solution Development
- Intelligent Accounting Function

Postgraduate Professional Programmes :

- Business Intelligence Analytics
- Dissertation
- Empirical Project
- Empirical Research Project I

### Teaching Publications

#### Cases

*Moss & Associates: Accounting for qualitative financial fraud using data mining*, by GOTTIPATI, Swapna; SHANKARARAMAN, Venky. (2019). SMU-19-0023. <https://cmp.smu.edu.sg/case/4276> (Published)

*GLC: Delivery through shared responsibility*, by TAN, Kar Way; SHANKARARAMAN, Venky; CHAN, Chi Wei. (2017). SMU-17-0012. <http://alex.sg/smu/glc-delivery-through-shared-responsibility/> (Published)

*LGB Bank: Application integration in a large global bank*, by MEGARGEL, Alan; SHANKARARAMAN, Venky. (2017). SMU-16-0045. <https://www.thecasecentre.org/educators/products/view?id=143585> (Published)

*YOB Bank: Application of text analytics in a retail bank*, by SHANKARARAMAN, Venky; GOTTIPATI, Swapna. (2016). SMU-16-0007. <https://www.thecasecentre.org/educators/products/view?id=137277> (Published)

### Teaching Notes

*Moss & Associates: Accounting for qualitative financial fraud using data mining*, by GOTTIPATI, Swapna; SHANKARARAMAN, Venky. (2019). SMU-19-0023. <https://cmp.smu.edu.sg/case/4276> (Published)

*GLC: Delivery through shared responsibility*, by TAN, Kar Way; SHANKARARAMAN, Venky; CHAN, Chi Wei. (2017). SMU-17-0012TN. <https://www.thecasecentre.org/educators/products/view?id=147317> (Published)

*LGB Bank: Application integration in a large global bank*, by MEGARGEL, Alan; SHANKARARAMAN, Venky. (2017). SMU-16-0045TN. <https://www.thecasecentre.org/educators/products/view?id=143586> (Published)

*YOB Bank: Application of text analytics in a retail bank*, by SHANKARARAMAN, Venky; GOTTIPATI, Swapna. (2016). SMU-16-0007TN. <https://www.thecasecentre.org/educators/products/view?id=137278> (Published)

## **THESES AND DISSERTATIONS**

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### **Theses and Dissertations Supervised**

#### Singapore Management University

Supervisor, "Digital Banking: Overcoming Barriers to Entry", Dissertation by ALAN MEGARGEL, Doctor of Innovation, Singapore Management University, 2018

### **Theses and Dissertations Assessed**

#### Singapore Management University

Committee Member, "Dynamic Queue Management for Hospital Emergency Room Services", Dissertation by TAN Kar Way, PhD in Information Systems, Singapore Management University, 2014

## **OTHER ACADEMIC AND PROFESSIONAL ACTIVITIES**

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### **Other Grants and Funding Received (Non-Research)**

Infosys Professional Course Design and Delivery Project, Infosys, Jan 2014, S\$150,000

Infosys Professional Course Design and Delivery Project, Infosys, Jan 2012, S\$150,000

### **Presentation and Talks**

#### Presentations

Panel: IS2020 Curriculum, (15 Dec 2020). *ICIS 2020*,

Panel: IS2020 Curriculum, (12 Dec 2020). *AIS SIGED Conference*,

Invited Talk: Technology-Enhanced Pedagogy: Student Feedback, (25 Jun 2020). *Science Po International Conference*, Online.

Keynote: Learning Analytics for Enhancing Student Learning Experience, (27 Feb 2020). *Asian Universities Network-Technology Enhanced Personalized Learning Symposium*, Online.

Panel: IS2020 Curriculum, (19 Aug 2019). *AMCIS 2019*,

Tutorial: Application of Text Analytics to Enhance Teaching and Learning Experience, (27 Nov 2018). *26th International Conference on Computers in Education*, Manila. Philippines

Keynote: Technology Enhanced Learning (TEL) Opportunities and Challenges, (24 Sep 2018). *8th Annual International Conference on Education and e-Learning (EeL 2018)*, Singapore.

Tutorial: Curriculum Analytics: Concepts, Techniques and Tools Gain insights into the curriculum, (28 Nov 2016). *International Conference on Computers in Education 24th ICCE 2016, November 28 - December 2, 02/12/2016*. India

### Invited Seminars, Talks and Lectures

Invited Talk: Readjusting the Campus Universities Adapting to a Pandemic Environment, 17 Feb 2021. Korea-ASEAN Webinar: Responses from Higher Education to Global Pandemic in 2020

Invited Talk: Digital Transformation, 20 Sep 2018. Invited Academic Talk, Singapore

Invited Talk: Technology enhanced learning in a live classroom, 08 Nov 2017. EduTECH Asia, Singapore

Workshop: Curriculum Analytics: Concepts, Techniques and Tools, 26 Sep 2017. 7th Annual International Conference on Education and e-Learning, Singapore

Workshop: Digital Business: Technologies and Transformation, 21 Aug 2017. 8th Annual International Conference on ICT: Big Data, Cloud and Security

Invited Talk: Digital Business and Technology, 09 Mar 2017. Cognizant Corporation Network Session

### **Media Contributions and Citations**

QS Coursera Roundtable themed Creating international hubs for teaching and research: digital transformation in Malaysia & Singapore, QS, 22 Oct 2020

How businesses can gain an advantage from digital technology and transformation, MONEY FM, 89.3, 27 Mar 2018

### **UNIVERSITY SERVICE**

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#### **Singapore Management University**

Committee Member and Lead for Teaching & Research Space Strategy, Campus Transformation Committee, Dec 2020 - Present

Committee Member, Digital Learning Strategy-Task and Finish Group, Dec 2020 - Present

Committee Member, Manpower Review Committee, Jul 2020 - Present

Committee Chair, Data Access and Use Committee, May 2020 - Present

Committee Chair, University Curriculum Committee, Jan 2020 - Present

Faculty Advisor, MBA Curriculum Review Committee, Dec 2017 - Feb 2018

Task Force Member, Curriculum Structure Work-group- SMU BRC, Apr 2017 - Dec 2017

Committee Member, Blue Ribbon Commission, Apr 2017 - Present

Task Force Chair, Technology Enhanced Learning Work-group of SMU, Apr 2017 - Dec 2017

Task Force Member, SMU-X Work-group (part of the SMU BRC), Apr 2017 - Dec 2017

Committee Member, QAFU Workgroup, Jan 2010 - Jan 2011

Committee Chair, SIS Curriculum Renewal Committee, Jan 2007 - Present

Committee Member, SMU Undergraduate Curriculum Committee, Jan 2007 - Dec 2019

## **EXTERNAL SERVICE PROFESSIONAL**

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Committee Member, IT Leader Awards Judging Panel, Singapore Computer Society, 2020 - Present

Member Board of Directors, Asia Pacific Association of International Education (APAIE), 2020 - Present

Editorial Review Board Member, Communications of the Association for Information Systems (CAIS), 2020 - Present

Task Force Member, IS2020 Curriculum Taskforce, ACM- AIS, 2019 - Present

Committee Member, Advisory Committee, International Conference: Vision 2020 Competing in a World of Sectors without Borders, 2017 - Present

Committee Member, IT Youth of the Year Award Judging Panel, Singapore Computer Society, 2017 - Present

Member, Program Committee, IEEE International Conference on Business Informatics, Geneva, 2014 - Present

Chairperson, IS Education, Pacific Asia Conference on Information Systems, Chengdu, 2014 - Present

Member, Program Committee, IEEE International Conference on Services Computing (SCC 2014), 2014 - Present

Member, Program Committee, IEEE International Conference on Services Computing (SCC 2013), 2013 - Present

Other, Treasurer, Association of Information Systems, Special Interest Group on Enterprise Systems (ENTSYS), 2012 - 2015

Other, Publication Director, Association of Information Systems, Special Interest Group on Education (SIGED), 2012 - 2015

Member, Program Committee, IEEE International Conference on Services Computing (SCC 2012), 2012 - Present

Member, Program Committee, IEEE International Conference on Services Computing (SCC 2011), 2011 - Present

Member, Program Committee, IEEE International Conference on Services Computing (SCC 2010), 2010 - Present

Member, Editorial Board, International Journal of Business Insights and Transformation (IJBIT), 2010 - Present

Member, Program Committee, IEEE International Conference on Services Computing (SCC 2009), 2009 - Present

Member, Programme Committee, IEEE International Conference on Services Computing (SCC 2008), 2008 - Present

Member, Programme Committee, IEEE International Conference on Services Computing (SCC 2007), 2007 - Present

Member, Program Committee, IEEE International Conference on Services Computing, Chicago, September, 2006 - Present

Member, Programme Committee, Workshop on Conceptual Modeling of Service-Oriented Software Systems (CoSS2006), 2006 - Present

Member Advisory Committee, External Advisor, Queensland University of Technology, Brisbane, Australia, Advisor to the BSc Corporate Information Systems Programme, 2006 - Present

Member, Programme Committee, Hawaii International Conference on Systems Sciences, 2006 - Present

Member, Program Committee, International Conference on Enterprise Information Systems, Ciudad Real, Spain, April, 2002 - Present

Member, Program Committee, 6th UK Case-Based Reasoning Workshop, Cambridge University, UK, December, 2001 - Present

Member, Program Committee, International Conference on Enterprise Information Systems, Portugal, July, 2001 - Present

Chairperson, Workshop, 5th UK Case-Based Reasoning Workshop, Cambridge University, UK, December, 2000 - Present

Member, Program Committee, International Conference on Software Development and Management', Hong Kong, October 12-13, 2000 - Present

Member, Program Committee, International Conference on Enterprise Information Systems, July 5-7, Staffordshire, UK, 2000 - Present

Chairperson, Workshop on Autonomous Agents in Health Care, International Conference on Autonomous Agents, Agents, Barcelona, Spain, June 2-7, 2000 - Present

Member, Workshop on Practical Case-Based Reasoning Strategies for Building and Maintaining Corporate Memories, International Conference on Case-Based Reasoning, Munich, July 28-30, 1999 - Present

Workshop Organizer, Workshop on Hybrid CBR Systems, International Conference on Case-Based Reasoning, Munich, July 28-30, 1999 - Present

## **EXTERNAL SERVICE PUBLIC SECTOR AND COMMUNITY SERVICE**

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Member, AU Digital Readiness Workgroup, MOE, 2019 - 2020

Committee Member, Industry Transformation Maps (ITMs) Sector for IT, MOE, 2017 - Present

Member, Advisory Board, School of Digital Media and Infocomm Technology, Singapore Polytechnic, 2012 - Present

Reviewer and Subject Matter Expert, National Infocom Certification Framework, Singapore Workforce Development Authority, 2006 - 2016