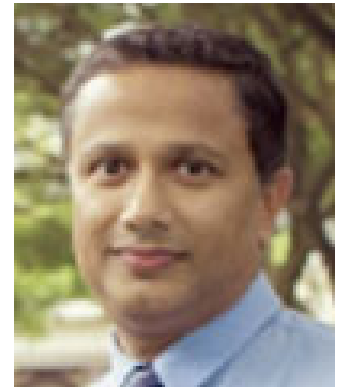


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## **Education**

PhD, University of Maryland, United States of America, 2000  
Master of Science, University of Maryland, United States of America, 1996  
Bachelor of Science, Indian Institute of Technology, Kharagpur, India, 1993

## **Academic Appointments**

Professor of Computer Science, School of Computing and Information Systems, SMU, Apr 2021 - Present  
Professor of Information Systems, School of Computing and Information Systems, SMU, Jul 2017 - Mar 2021  
Associate Professor of Information Systems, School of Computing and Information Systems, SMU, Sep 2010 - Jun 2017

## **Academic Administrative Positions**

Co-Director, A\*STAR-SMU Joint Lab in Social and Human-Centered Computing, School of Computing and Information Systems, SMU, Apr 2022 - Present  
Vice Provost (Research), Office of the Provost, SMU, Jul 2020 - Present  
Deputy Institutional Official for Research, SMU Institutional Review Board, SMU, Jul 2020 - Jun 2022  
Director, Center for Applied Smart-Nation Analytics, Center for Applied Smart-Nation Analytics, SMU, Jul 2017 - Mar 2021  
Associate Dean (Research), School of Computing and Information Systems, SMU, Jul 2015 - Jun 2020  
Director, Livelabs Urban Lifestyle Innovation Platform, SMU, Apr 2012 - Jun 2018  
Deputy Director, Living Analytics Research Centre, SMU, Apr 2011 - Jun 2015

## **RESEARCH**

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### **Research Interests**

Real-time analytics and mobile computing (embedded sensor stream analytics, collaborative mobile sensing, activity recognition, deep context monitoring, spatiotemporal data mining)  
 Pervasive e-healthcare technologies (Energy-efficient remote monitoring, query optimization for body-worn sensor streams, provenance support for medical context)  
 Smart Appliance and Electrical Grid Management (e.g., distributed demand response (DR), dynamics of community-level DR).

## Publications

### Journal Articles [Refereed]

- W8-Scope: Fine-grained, practical monitoring of weight stack-based exercises, by RADHAKRISHNAN, Meera; MISRA, Archan; BALAN, Rajesh Krishna. (2021). *Pervasive and Mobile Computing*, 75 1-20. <https://doi.org/10.1016/j.pmcj.2021.101418> (Published)
- COSM2IC: Optimizing real-time multi-modal instruction comprehension, by WEERAKOON, Dulanga; SUBBARAJU, Vignesh; TRAN, Tuan; MISRA, Archan. (2022). *IEEE Robotics and Automation Letters*, 7 (4), 10697-10704. <https://doi.org/10.1109/LRA.2022.3194683> (Published)
- STranGAN: Adversarially-learned Spatial Transformer for scalable human activity recognition, by Faridee, Abu Zaher Md; Chakma, Avijoy; Misra, Archan; Roy, Nirmalya. (2022). *Smart Health*, 23 1-17. <https://doi.org/10.1016/j.smhl.2021.100226> (Published)
- Practical server-side WiFi-based indoor localization: Addressing cardinality and outlier challenges for improved occupancy estimation, by RAVI, Anuradha; MISRA, Archan. (2021). *Ad Hoc Networks*, 115 1-15. <https://doi.org/10.1016/j.adhoc.2021.102443> (Published)
- Tracking and behavior augmented activity recognition for multiple inhabitants, by UL ALAM, Mohammad Arif; ROY, Nirmalya; MISRA, Archan. (2021). *IEEE Transactions on Mobile Computing*, 20 (1), 247-262. <https://doi.org/10.1109/TMC.2019.2936382> (Published)
- Annapurna: An automated smartwatch-based eating detection and food journaling system, by SEN, Sougata; SUBBARAJU, Vigneshwaran; MISRA, Archan; BALAN, Rajesh, LEE, Youngki. (2020). *Pervasive and Mobile Computing*, 68 1-19. <https://doi.org/10.1016/j.pmcj.2020.101259> (Published)
- Five challenges in cloud-enabled intelligence and control, by ABDELZAHER, Tarek; HAO, Yifan; JAYARAJAH, Kasthuri; MISRA, Archan; SKARIN, Per; YAO, Shuochao; WEERAKOON, Dulanga; ARZEN, Karl-Erik. (2020). *ACM Transactions on Internet Technology*, 20 (1), 1-19. <https://doi.org/10.1145/3366021> (Published)
- Predicting episodes of non-conformant mobility in indoor environments, by JAYARAJAH, Kasthuri; MISRA, Archan. (2018). *Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies*, 2 (4), 1-25. <https://doi.org/10.1145/3287050> (Published)
- Performance characterization of deep learning models for breathing-based authentication on resource-constrained devices, by CHAUHAN, Jagmohan; RAJASEGARAN, Jathusan; SENEVIRATNE, Surang; MISRA, Archan; SENEVIRATNE, Aruan; LEE, Youngki. (2018). *Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies*, 2 (4), 1-26. <https://doi.org/10.1145/3287036> (Published)
- The role of urban mobility in retail business survival, by D'SILVA, Kritika; JAYARAJAH, Kasthuri; NOULAS, Anastasios; MASCOLO, Cecilia; MISRA, Archan. (2018). *Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies*, 2 (3), 100: 1-22. <https://doi.org/10.1145/3264910> (Published)
- Breathing-based authentication on resource-constrained IoT devices using recurrent neural networks, by CHAUHAN, Jagmohan; SENEVIRATNE, Suranga; HU, Yining; MISRA, Archan; SENEVIRATNE, Aruna; LEE, Youngki. (2018). *Computer*, 51 (5), 60-67. <https://doi.org/10.1109/MC.2018.2381119> (Published)
- Obfuscation at-source: Privacy in context-aware mobile crowd-sourcing, by KANDAPPU, Thivya; MISRA, Archan; CHENG, Shih-Fen; TANDRIANSYAH, Randy; LAU, Hoong Chuin. (2018). *Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies*, 2 (1), 16: 1-24.

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Determining quality- and energy-aware multiple contexts in pervasive computing environments, by ROY, Nirmalya; MISRA, Archan; DAS, Sajal; JULIEN, Christine. (2016). *IEEE/ACM Transactions on Networking*, 24 (5), 3026-3042. <https://doi.org/10.1109/TNET.2015.2502580> (Published)

Fine-grained appliance usage and energy monitoring through mobile and power-line sensing, by ROY, Nirmalya; PATHAK, Nilavra; MISRA, Archan. (2016). *Pervasive and Mobile Computing*, 30 (C), 132-150. <https://doi.org/10.1016/j.pmcj.2016.01.003> (Published)

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High-throughput reliable multicast in multi-hop wireless mesh networks, by ZHAO, Xin; GUO, Jun; CHOU, Chun Tung; MISRA, Archan; JHA, Sanjay K.. (2015). *IEEE Transactions on Mobile Computing*, 14 (4), 728-741. <http://doi.org/10.1109/TMC.2014.2333731> (Published)

Fundamental limits on end-to-end throughput of network coding in multi-rate and multicast wireless networks, by VIERA, Luiz Felipe; GERLA, Mario; MISRA, Archan. (2013). *Computer Networks*, 57 (17), 3267-3275. <http://doi.org/10.1016/j.comnet.2013.07.015> (Published)

LiveLabs: Initial reflections on building a large-scale mobile behavioral experimentation testbed, by MISRA, Archan; BALAN, Rajesh Krishna. (2013). *ACM SIGMOBILE Mobile Computing and Communications Review*, 17 (4), 47-59. <http://doi.org/10.1145/2557968.2557975> (Published)

Adaptive in-network processing for bandwidth and energy constrained mission-oriented multi-hop wireless networks, by ESWARAN, Sharanya; EDWARDS, James; MISRA, Archan; LA PORTA, Thomas. (2012). *IEEE Transactions on Mobile Computing*, 11 (9), 1484-1498. <https://doi.org/10.1109/TMC.2011.169> (Published)

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Rate-diversity and resource-aware broadcast and multicast in multi-rate wireless mesh networks, by LIU, Bao Hua; CHOU, Chun Tung; MISRA, Archan; JHA, Sanjay. (2008). *Mobile Networks and Applications*, 13 (1/2), 38-53. <http://doi.org/10.1007/s11036-008-0029-5> (Published)

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DCMA: A label-switching MAC for efficient packet forwarding in multi-hop wireless networks, by ACHARYA, Arup; GANU, Sachin; MISRA, Archan. (2006). *IEEE Journal on Selected Areas in Communications*, 24 (11), 1995-2004. <http://doi.org/10.1109/JSAC.2006.881636> (Published)

Low-latency broadcast in multirate wireless mesh networks, by CHOU, Chun Tung; MISRA, Archan; QADIR, Junaid. (2006). *IEEE Journal on Selected Areas in Communications*, 24 (11), 2081-2091. <https://doi.org/10.1109/JSAC.2006.881621> (Published)

Energy efficiency and capacity for TCP traffic in multi-hop wireless networks, by BANSAL, Sorav; SHOREY, Rajeev; GUPTA, Rajeev; MISRA, Archan. (2006). *Wireless Networks*, 12 (1), 5-21. <http://doi.org/10.1007/s11276-006-6146-9> (Published)

An efficient and robust computational framework for studying lifetime and information capacity in sensor networks, by DUARTE-MELO, Enrique J.; LIU, Mingyan; MISRA, Archan. (2005). *Mobile Networks and Applications*, 10 (6), 811-824. <http://doi.org/10.1007/s11036-005-4440-x> (Published)

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Routing algorithms for energy-efficient reliable packet delivery in multihop wireless networks, by BANERJEE, Suman; MISRA, Archan. (2006). In R. Shorey, A. L. Ananda, M. C. Chan and W. T. Ooi (Ed.), *Mobile, wireless and sensor networks: Technology, applications and future directions* (pp. 105-139) Hoboken, NJ: Wiley. <https://doi.org/10.1002/0471755591.ch5> (Published)

Location estimation techniques (determination and prediction) techniques in smart environments, by MISRA, Archan; DAS, Sajal K.. (2005). In Diane J. Cook & Sajal K. Das (Ed.), *Smart environments: Technologies, protocols and applications* (pp. 193-228) Hoboken, NJ: Wiley. <https://doi.org/10.1002/047168659X.ch9> (Published)

### Conference Proceedings

SoftSkip: empowering multi-modal dynamic pruning for single-stage referring comprehension, by WEERAKOON, Dulanga; SUBBARAJU, Vigneshwaran; TRAN, Tuan; MISRA, Archan. (2022.0). *Proceedings of the 30th ACM International Conference on Multimedia, Lisboa, Portugal, 2022 October 10-14.*, (pp. 3608-3616) New York, USA: Association for Computing Machinery. <https://doi.org/10.1145/3503161.3548432> (Published)

ComAI: Enabling lightweight, collaborative intelligence by retrofitting vision DNNs, by JAYARAJAH, Kasthuri; WANNIARACHCHIGE, Dhanuja; ABDELZAHER, Tarek; CHAMPAIGN, Urbana; MISRA, Archan. (2022.0). *Proceedings of the 2022 IEEE International Conference on Computer Communications, Virtual Conference, May 2-5*, (pp. 1-10) Virtual Conference: IEEE. (Accepted)

MRIM: Enabling Mixed-Resolution Imaging for low-power pervasive vision tasks, by WU, Ji-Yan; SUBASHARAN, Vithurson; TRAN, Tuan; SUBASHARAN, Vithurson . (2022.0). *Proceedings of the 2022 IEEE International Conference on Pervasive Computing and Communications (PerCom), Pisa Italy, March 21-25*, (pp. 1-10) Pisa, Italy: IEEE. (Published)

CS-light: Camera sensing based occupancy-aware robust smart building lighting control, by RAVI, Anuradha; GAMLATH, Kasun; HU, Siyan; MISRA, Archan. (2021.0). *BuildSys '21: Proceedings of the 8th ACM International Conference on Systems for Energy-Efficient Buildings, Cities, and Transportation*, (pp. 61-70) New York: ACM. <https://doi.org/10.1145/3486611.3486657> (Published)

VibrantSee: Enabling simultaneous visible light communication and sensing, by GOKARN, Ila; MISRA, Archan. (2021.0). *2021 18th IEEE International Conference on Sensing, Communication, and Networking (SECON): July 6-9, Rome, Virtual: Proceedings*, (pp. 1-9) Piscataway, NJ: IEEE. <https://doi.org/10.1109/SECON52354.2021.9491608> (Published)

DeepLight: Robust and unobtrusive real-time screen-camera communication for real-world displays, by TRAN, Vu; JAYATILAKA, Gihan; ASHOK, Ashwin; MISRA, Archan. (2021.0). *IPSN '21: Proceedings of the 20th International Conference on Information Processing in Sensor Networks: Virtual, Nashville, TN, May 18-21*, (pp. 238-253) New York: ACM. <https://doi.org/10.1145/3412382.3458269> (Published)

Low-power downlink for the Internet of Things using IEEE 802.11-compliant wake-up receivers, by BLOBEL, Johannes; TRAN, Vu Huy; MISRA, Archan; DRESSLER, Falko. (2021.0). *2021 IEEE International Conference on Computer Communications INFOCOMM: Virtual, May 10-13: Proceedings*, (pp. 1-10) Piscataway, NJ: IEEE. <https://doi.org/10.1109/INFOCOM42981.2021.9488838> (Published)

Adaptive simultaneous pervasive visible light communication and sensing, by GOKARN, Ila; MISRA, Archan. (2021.0). *2021 IEEE International Conference on Pervasive Computing and Communications Workshops and other affiliated events (PerCom Workshops): March 22-26, Kassel, Germany: Proceedings*, (pp. 344-347) Los Alamitos, CA: IEEE Computer Society. <https://doi.org/10.1109/PerComWorkshops51409.2021.9431014> (Published)

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Robust, fine-grained occupancy estimation via combined camera & WiFi indoor localization, by RAVI, Anuradha; MISRA, Archan. (2020.0). *2020 IEEE 17th International Conference on Mobile Ad-Hoc and Smart Systems (MASS): Delhi, India, 10-13 December: Proceedings*, (pp. 558-566) Piscataway, NJ: IEEE. <https://doi.org/10.1109/MASS50613.2020.00074> (Published)

Jointly optimizing sensing pipelines for multimodal mixed reality interaction, by RATHNAYAKE, Darshana; DE SILVA, Ashen; PUWAKDANDAWA, Dasun; MEEGAHAPOLA, Lakmal; MISRA, Archan; PERERA, Indika. (2020.0). *2020 17th IEEE International Conference on Mobile Ad-Hoc and Smart Systems (MASS): Delhi, India, 10-13 December: Proceedings*, (pp. 309-317) Piscataway, NJ: IEEE. <https://doi.org/10.1109/MASS50613.2020.00046> (Published)

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Gesture enhanced comprehension of ambiguous human-to-robot instructions, by WEERAKOON, Dulanga; SUBBARAJU, Vigneshwaran; KARUMPULLI, Nipuni; TRAN, Tuan; XU, Qianli; TAN, U-Xuan; LIM, Joo Hwee; MISRA, Archan. (2020.0). *ICMI '20: Proceedings of the 2020 International Conference on Multimodal Interaction*, (pp. 251-259) New York: ACM. <https://doi.org/10.1145/3382507.3418863> (Published)

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DETECTIF: Unified detection and correction of IoT faults in smart homes, by MALLICK, Madhumita; MISRA, Archan; GANGULY, Niloy; LEE, Youngki. (2020.0). *2020 21st IEEE International Symposium on a World of Wireless, Mobile and Multimedia Networks (WoWMoM): Virtual, Cork, August 31 - September 3*, (pp. 78-87) Los Alamitos, CA: IEEE Computer Society. <https://doi.org/10.1109/WoWMoM49955.2020.00028> (Published)

W8-Scope: Fine-grained, practical monitoring of weight stack-based exercises, by RADHAKRISHNAN, Meera; MISRA, Archan; BALAN, Rajesh Krishna. (2020.0). *2020 IEEE International Conference on Persuasive Computing and Communications (PerCom): March 23-27, Austin, TX: Proceedings*, (pp. 1-10) Piscataway, NJ: IEEE. <https://doi.org/10.1109/PerCom45495.2020.9127379> (Published)

PokeME: Applying context-driven notifications to increase worker engagement in mobile crowd-sourcing, by KANDAPPU, Thivya; MEHROTRA, Abhinav; MISRA, Archan; MUSOLESI, Mirco; CHENG, Shih-fen; MEEGAHAPOLA, Lakmal Buddika. (2020.0). *CHIIR '20: Proceedings of the 5th Conference on Human Information Interaction and Retrieval, Vancouver, March 14-18*, (pp. 3-12) New York: ACM. <https://doi.org/10.1145/3343413.3377965> (Published)

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SmrtFridge: IoT-based, user interaction-driven food item & quantity sensing, by SHARMA, Amit; MISRA, Archan; SUBRAMANIAM, Vengateswaran; LEE, Youngki. (2019.0). *SenSys '19: Proceedings of the 17th Conference on Embedded Networked Sensor Systems, New York, November 10-13*, (pp. 245-257) New York: ACM. <https://doi.org/10.1145/3356250.3360028> (Published)

Inferring accurate bus trajectories from noisy estimated arrival time records, by MEEGAHAPOLA, Lakmal; ATHAIDE, Noel; JAYARAJAH, Kasthuri; XIANG, Shili; MISRA, Archan. (2019.0). *2019 22nd IEEE Intelligent Transportation Systems Conference ITSC: Auckland, October 27-30: Proceedings*, (pp. 4517-4524) Piscataway, NJ: IEEE. <https://doi.org/10.1109/ITSC.2019.8916939> (Published)

Can earables support effective user engagement during weight-based gym exercises?, by RADHAKRISHNAN, Meeralakshmi; MISRA, Archan. (2019.0). *EarComp '19: Proceedings of the 1st International Workshop on Earable Computing, London, September 9-10*, (pp. 42-47) New York: ACM. <https://doi.org/10.1145/3345615.3361132> (Published)

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Resilient collaborative intelligence for adversarial IoT environments, by DULANGA, Weerakoon; JAYARAJAH, Kasthuri; TANDRIANSYAH, Randy; MISRA, Archan. (2019.0). *2019 22nd International Conference on Information Fusion, FUSION: Ottawa, Canada, July 2-5*, (pp. 1-9) Piscataway, NJ: IEEE. (Published)

BuSCOPE: Fusing individual & aggregated mobility behavior for Live smart city services, by MEEGAHAPOLA, Lakmal Buddika; KANDAPPU, Thivya; JAYARAJAH, Kasthuri; AKOGLU, Leman; XIANG, Shili; MISRA, Archan. (2019.0). *Proceedings of the 17th Annual International Conference on*

*Mobile Systems, Applications, and Services, Seoul, South Korea, 2019 June 17-21*, (pp. 41-53) Seoul, South Korea: ACM. <https://doi.org/10.1145/3307334.3326091> (Published)

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- Implementation and experimental evaluation of TeleMIP, by CHAKRABORTY, Kaushik; MISRA, Archan; DAS, Subir; MCAULEY, Anthony J.; DUTTA, Ashutosh; DAS, Sajal K.. (2001.0). *ICC 2001: Proceedings of IEEE International Conference on Communications: Helsinki, Finland, June 11-14*, Piscataway, NJ: IEEE. (Published)
- Effect of exponential averaging on the variability of a RED queue, by MISRA, Archan; OTT, Teunis; BARAS, John. (2001.0). *ICC 2001: Proceedings of IEEE International Conference on Communications*,

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### Conference Papers

WiWear: Wearable sensing via directional wifi energy harvesting, by TRAN, Vu H.; MISRA, Archan; XIONG, Jie; BALAN, Rajesh Krishna. (2019.0). *2019 IEEE International Conference on Pervasive Computing and Communications (PerCom), Kyoto, Japan, March 11-15*, Kyoto.  
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Smart bundling for crowdsourced package deliveries, by LIN, Larry; HAN, Chung-Kyun; CHENG, Shih-Fen; LAU, Hoong Chuin; MISRA, Archan. (2018.0). *6th INFORMS Transportation Science and Logistics Society Workshop 2018, January 7-10, Hong Kong*. (Presented)

Low latency multimedia broadcast in multi-rate wireless meshes, by CHOU, Chun Tung; MISRA, Archan. (2005.0). *IEEE Workshop on Wireless Mesh Networks 1st WIMESH 2005, September 26, Santa Clara, CA*. (Presented)

The minimum expected cost paging problem for multi-system wireless, by ROY, Abhishek; MISRA, Archan; DAS, Sajal K.. (2004.0). *Workshop on Modeling and Optimization in Mobile, Ad Hoc and Wireless Networks WiOpt 2004, March 24-26, Cambridge*. (Presented)

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Using 'drop-biasing' to stabilize the occupancy of random-drop queues with TCP traffic, by MISRA, Archan; OTT, Teunis; BARAS, John. (2000.0). *IEEE International Conference on Communications Systems 7th ICCS 2000, November 20, Singapore*. (Presented)

### Magazine Articles

Quality and context-aware smart health care: Evaluating the cost-quality dynamics, by ROY, Nirmalya; JULIEN, Christine; MISRA, Archan; DAS, Sajal K.. (2016, April). *IEEE Systems, Man, and Cybernetics Magazine*, 2 (2), 15-25. <https://doi.org/10.1109/MSMC.2015.2501163> (Published)

Advances and challenges with data broadcasting in wireless mesh networks, by CHOU, Chun Tung; QADIR, Junaid; LIM, Joo Ghee; MISRA, Archan. (2007, November). *IEEE Communications Magazine*, 45 (11), 78-85. <http://doi.org/10.1109/MCOM.2007.4378325> (Published)

BusinessFinder: Harnessing presence to enable live Yellow Pages for small, medium and micro mobile businesses, by CHAKRABORTY, Dipanjan; DASGUPTA, Koustuv; MITTAL, Sumit; MISRA, Archan; GUPTA, Anuj; NEWMARK, Eileen; OBERLE, Christopher L.. (2007, January). *IEEE Communications Magazine*, 45 (1), 144-151. <https://doi.org/10.1109/MCOM.2007.284550> (Published)

airConn: A framework for tiered services in public wireless LAN hot spots, by Acharya, A.; Bisdikian, C.; MISRA, Archan; Ko, Y.. (2004, October). *IEEE Communications Magazine*, 42 (9), 124-132. <https://doi.org/10.1109/MCOM.2004.1336728> (Published)

Exploiting information theory for adaptive mobility and resource management in future cellular networks, by ROY, Abhishek; DAS, Sajal K.; MISRA, Archan. (2004, August). *IEEE Wireless Communications*, 11 (4), 59-65. <https://doi.org/10.1109/MWC.2004.1325892> (Published)

High-performance architectures for IP-based multihop 802.11 networks, by ACHARYA, Arup; MISRA, Archan; BANSAL, Sorav. (2003, October). *IEEE Wireless Communications*, 10 (5), 22-28. <https://doi.org/10.1109/MWC.2003.1241091> (Published)

IDMP-based fast handoffs and paging in IP-based 4G mobile networks, by MISRA, Archan; DAS, Subir; McAULEY, Anthony; DAS, Sajal K.. (2002, March). *IEEE Communications Magazine*, 40 (3), 138-145. <https://doi.org/10.1109/35.989774> (Published)

Autoconfiguration, registration and mobility management for pervasive computing, by MISRA, Archan; DAS, Subir; McAULEY, Anthony; DAS, Sajal K.. (2001, August). *IEEE Personal Communications*, 8 (4), 24-31. <https://doi.org/10.1109/98.944000> (Published)

TeleMIP: Telecommunications-enhanced mobile IP architecture for fast intradomain mobility, by DAS, Subir; MISRA, Archan; AGRAWAL, Prathima; DAS, Sajal K.. (2000, August). *IEEE Personal Communications*, 7 (4), 50-58. <https://doi.org/10.1109/98.863996> (Published)

## Working Papers

*Choice-based crowdshipping: A dynamic task display problem*, by ARSLAN, Alp; KILCI, Firat; CHENG, Shih-Fen; MISRA, Archan. (2022). <https://doi.org/10.2139/ssrn.4217416> (Published)

*Enabling collaborative video sensing at the edge through convolutional sharing*, by JAYARAJAH, Kasthuri; WANNIARACHCHIGE, Dhanuja; MISRA, Archan. (2020). <https://doi.org/10.48550/arXiv.2012.08643> (Published)

## Theses and Dissertations

*Jointly optimizing paging and location costs in cellular networks* (Master's thesis), by MISRA, Archan. (1997). College Park, MD: University of Maryland at College Park.

## Other Outputs and Contributions

### Reports

*Fusing social media and mobile analytics for urban sense-making* by MISRA, Archan. (2017). (Published)

## Research Grants

### Singapore Management University

C2SEA: Coordinated Cyber-physical Sensing & Edge Analytics, NRF Investigatorship, National Research Foundation (NRF) , PI (Project Level): Archan MISRA, 2019, S\$2,916,012

Socio-Physical Sensing & Analytics for Urban Anomaly Detection (Year 2), US Army Research, Development and Engineering Command (RDECOM) International Technology Center Pacific (ITC-PAC) ,

PI (Project Level): Archan MISRA, 2018, S\$212,667

Socio-Physical Sensing & Analytics for Urban Anomaly Detection, US Army Research, Development and Engineering Command (RDECOM) International Technology Center Pacific (ITC-PAC) , PI (Project Level): Archan MISRA, 2017, S\$221,685

Personalized Participatory Nation: The Proposal for 2nd Phase Funding of Living Analytics Research Centre (LARC) CMU Partnership & International Collaborations, Interactive Digital Media (IDM) International Research Centres (IRCs) Funding Scheme, National Research Foundation (NRF) , PI (Programme Level): LIM Ee Peng , PI (Project Level): Archan MISRA, ZHENG Baihua, Steven HOI, Jing JIANG, 2017, S\$6,984,929

Center for Applied Smart-Nation Analytics (CASA), Translational R&D for Application to Smart Nation (TRANS), National Research Foundation (NRF) , PI (Project Level): Archan MISRA , Co-PI (Project Level): LIM Ee Peng, 2016, S\$3,000,000

Personalized Participatory Nation: The Proposal for 2nd Phase Funding of Living Analytics Research Centre (LARC), Interactive Digital Media (IDM) International Research Centres (IRCs) Funding Scheme, National Research Foundation (NRF) , PI (Programme Level): LIM Ee Peng , PI (Project Level): Archan MISRA, ZHENG Baihua, Steven HOI, Jing JIANG, 2016, S\$18,015,071

Fusing Social Media and Mobile Analytics for Urban Sense-Making, Asian Office of Aerospace R&D , PI (Project Level): Archan MISRA, 2015, S\$332,500

Multi-Device Adaptive Gestures & Interfaces (MAGI):Creating a Wearable Ecosystem, Academic Research Fund (AcRF) Tier 2, Ministry of Education (MOE) , PI (Project Level): Archan MISRA , Co-PI (Project Level): Richard C. DAVIS, LEE Youngki, 2014, S\$790,834

Develop and test payment mechanisms and incentives that leverage on and use user context data generated from cellphones and other sensors., Paypal , PI (Project Level): Archan MISRA, 2014, S\$6,250

Content-Aware Large-Scale Mobile Crowd Sourcing, Xerox Corporation , PI (Project Level): Archan MISRA , Co-PI (Project Level): CHENG Shih-Fen, 2013, S\$187,500

Fusing Social Media and Mobile Analytics for Urban Sense-Making, Asian Office of Aerospace R&D , PI (Project Level): Archan MISRA, 2013, S\$150,000

Pervasive Urban Lifestyle Sensing & Experimentation, IBM Open Collaborative Faculty Award, IBM International Business Machines Corporation , PI (Project Level): Archan MISRA, 2013, S\$37,500

LiveLabs Urban Lifestyle Innovation Platform, Digital Technology Development Scheme, Media Development Authority of Singapore (MDA) , PI (Programme Level): Rajesh Krishna BALAN , PI (Project Level): Archan MISRA, 2012, S\$9,994,000

Energy-Efficient Stream Analytics on Smartphones for Realtime Contextual Insight, Academic Research Fund (AcRF) Tier 2, Ministry of Education (MOE) , PI (Project Level): Archan MISRA , Co-PI (Project Level): Rajesh Krishna BALAN, 2011, S\$1,167,365

Living Analytics Centre, Interactive Digital Media (IDM) International Research Centres (IRCs) Funding Scheme, National Research Foundation (NRF) , PI (Programme Level): LIM Ee Peng , PI (Project Level): LAU Hoong Chuin, Archan MISRA, 2010, S\$52,476,910

Multi-modal, Real-time Comprehension for Interactive Intelligent Human-Agent Interaction, SMU Internal Grant, Ministry of Education (MOE) Tier 1 , PI (Project Level): Jing JIANG , Co-PI (Project Level): Archan MISRA, HARA, Kotaro, 2019, S\$499,750

### Other Institutions

Transition from Living Analytics Research Centre to Social Urban Observatory, NRF, National Research Foundation PI (Project Level): LIM Ee Peng, Co-PI (Project Level): Archan MISRA, ZHENG Baihua, Jing JIANG, 2021, SGD2,687,280

Transition from Living Analytics Research Centre to Social Urban Observatory, Strategic Capabilities Research Centres Funding Initiative, NRF PI (Project Level): LIM Ee Peng, Co-PI (Project Level): ZHENG Baihua, Archan MISRA, Jing JIANG, Wei GAO, SUN Qianru, HARA, Kotaro, Palakorn ACHANANUPARP,

2021, SGD2,687,280

Transition from Living Analytics Research Centre to Social Urban Observatory, NRF, National Research Foundation - Strategic Capabilities Research Centres Funding Initiative , PI (Programme Level): LIM Ee Peng, PI (Project Level): LIM Ee Peng, Archan MISRA, Jing JIANG, ZHENG Baihua, Co-PI (Project Level): HARA, Kotaro, SUN Qianru, Palakorn ACHANANUPARP, Wei GAO, 2021, SGD2,687,280

LARC 2.0 - Living Analytics Research Centre Phase II (Project PI for 1 of 4 work packages, Smart Consumption & Healthy LifeStyle), International Research Centre, National Research Foundation , PI (Programme Level): LIM Ee Peng, Mark Kamlet, PI (Project Level): LIM Ee Peng, Co-PI (Project Level): Archan MISRA, Jing JIANG, ZHENG Baihua, Steven HOI, 2016, SGD25,000,000

## TEACHING

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### Courses Taught

Singapore Management University

Postgraduate Professional Programmes :

- Capstone Project - Software and Cyber-Physical Systems
- Empirical Research Project 1
- Empirical Research Project 3
- Mobile and Distributed Systems

Postgraduate Research Programmes :

- Empirical Research Project 1
- Empirical Research Project 2
- Empirical Research Project 3
- Empirical Research Project 4
- Mobile and Distributed Systems

### Teaching Publications

#### Cases

*NLT fibre broadband: Unlocking the RAB model in telecom* , by MISRA, Archan; BHATTACHARYA, Lipika; JOSEPH, Flocy. (2022). SMU-21-0040. <https://cmp.smu.edu.sg/case/5296> (Published)

#### Teaching Notes

*NLT fibre broadband: Unlocking the RAB model in telecom*, by MISRA, Archan; BHATTACHARYA, Lipika; JOSEPH, Flocy. (2022). SMU-21-0040TN. <https://cmp.smu.edu.sg/case/5296> (Published)

## THESES AND DISSERTATIONS

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### **Theses and Dissertations Supervised**

#### Singapore Management University

Supervisor, "Fusing Mobile, Wearable and Infrastructure Sensing for Daily Lifestyle Analytics", Dissertation by SOUGATA SEN, PhD in Information Systems, Singapore Management University, 2017

### **Theses and Dissertations Assessed**

#### Singapore Management University

Committee Member, "Enabling Real-Time In-Situ Context-based Experimentation to Observe User Behaviour", Dissertation by KARTIK MURALIDHARAN, PhD in Information Systems, Singapore Management University, 2015

Committee Member, "Social Correlation in Latent Spaces for Complex Networks", Dissertation by CHUA CHONG TAT FREDDY, PhD in Information Systems, Singapore Management University, 2014

## EXTERNAL SERVICE PROFESSIONAL

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Workshop Organizer, ACM Mobicom 2018 Conference, 2018