Aravind Kailas

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CONTENTS

EDUCATION

Ph.D., Electrical and Computer Engineering
Georgia Institute of Technology, Atlanta, GA, 2010
Dissertation: *Toward perpetual wireless networks: Opportunistic large arrays with transmission thresholds and energy harvesting*
Advisor: *Dr. Mary Ann Weitnauer (formerly Mary Ann Ingram)*

M.Sc., Applied Mathematics
Georgia Institute of Technology, Atlanta, GA, 2010

M.S., Electrical and Computer Engineering
University of Wisconsin–Madison, Madison, WI, 2005
Thesis: *Bit-error probability analysis and comparison of time-hopped UWB systems*
Advisor: *Dr. John A. Gubner*

B.E., Electronics and Telecommunications
Vivekanand Education Society's Institute of Technology, **Mumbai University**, India, 2002

ACADEMIC APPOINTMENTS

- **Instructor**, California State University Long Beach, Long Beach, CA, 2015–present
- **Assistant Professor**, The University of North Carolina at Charlotte, Charlotte, NC, 2011–2013
- **Graduate Assistantships** at Georgia Institute of Technology, Atlanta, GA (2006–2009), Aalborg University, Aalborg, Denmark (Summers of 2007 & 2008), and University of Wisconsin–Madison, Madison, WI (2002–2004)

INDUSTRY EXPERIENCE

- **Advanced Technology Policy Director**, Volvo Group, Costa Mesa, CA, 2020–present
- **Research and Innovation Manager**, Volvo Group, Costa Mesa, CA, 2017–2019
- **Intelligent Transportation Systems Program Manager**, Volvo Group, Costa Mesa, CA, 2014–2016
- **Visiting Research Scientist**, DOCOMO Innovations, Inc., Palo Alto, CA, 2010
- **Engineer**, QUALCOMM, Inc., San Diego, CA, 2004–2006
- **Internships** at DOCOMO Innovations, Inc., Palo Alto, CA (2009), QUALCOMM, Inc., San Diego, CA (2004), and General Electric, Louisville, KY (2003)

HONORS AND AWARDS

- Represented Volvo in establishing **Powering America's Commercial Transportation (PACT)**, a new industry trade association to educate and overcome existing statutory energy and infrastructure barriers for heavy-duty trucks across U.S., 2024.
- Contributed to the first-ever **National Zero-Emission Freight Corridor Strategy** - the action plan for freight decarbonization across U.S. by 2040 - by working with the Joint Office of Energy & Transportation, U.S. Department of Energy, U.S. Department of Transportation, Environmental Protection Agency, and other entities and thought leaders, 2024.

- **California Air Quality Award**, Coalition for Clean Air, 2022 (awarded to Volvo Group North America for corporate environmental leadership).
- **Outstanding Achievement in Sustainability Award**, Southern California Association of Governments (SCAG), 2022 (awarded to the Volvo Low Impact Green Heavy Transport Solutions (LIGHTS) project).
- Elevated to **Senior Member** of the Institute for Electrical and Electronic Engineers (IEEE), 2022.
- **Clean Air Award for Innovative Clean Air Technology**, South Coast Air Quality Management District (SCAQMD), 2021 (awarded to Volvo Group North America for consistently demonstrating a strong commitment to improving air quality through innovative technology).
- **Climate Leadership Award for Innovative Partnership**, Center for Climate and Energy Solutions and The Climate Registry, 2021 (awarded to the Volvo Low Impact Green Heavy Transport Solutions (LIGHTS) project team).
- **Blue Sky Award**, CALSTART, 2020 (awarded to Volvo Group for its Volvo LIGHTS project).
- **Innovation Award**, BREATHE Southern California, 2020 (awarded to the Volvo LIGHTS project team).
- **Outstanding Oral Presentation Award**, The Society of Automotive Engineers (SAE), 2019.
- **Jury Member**, Dubai World Challenge for Self-Driving Transport, 2019 (1 of 13 chosen worldwide).
- **Patricia F. Waller Award**, The Transportation Research Board (TRB), 2018.
- **Deborah Freund Best Paper Award**, TRB Truck and Bus Safety Committee, 2018.
- **Best Paper Award**, 96th TRB Annual Meeting, 2017.
- Identified as **key talent** by the Volvo Group executive management team, 2015 ($\approx 5-8\%$ among more than 100,000 employees globally).
- **Outstanding Service Certificate**, 13th International Symposium on Pervasive Systems, Algorithms, and Networks (I-SPAN 2014), 2014.
- **Publicity Chair Recognition Award**, 15th IEEE International Conference on E-Health Networking, Applications, and Services (HealthCom), 2013.
- **Best Paper Award**, 15th International Symposium on Wireless Personal Multimedia Communications (WPMC), 2012 (awarded to 5 out of ≈ 260 papers).
- **Williams States Lee College of Engineering Faculty Grant**, The University of North Carolina at Charlotte (UNCC), 2011.
- **Faculty Excellence Fellowship**, Wachovia Foundation, 2011 (awarded to 1 faculty member from UNCC for the year 2011–12).
- **Graduate Research Assistant Excellence Award**, Georgia Institute of Technology, 2010 (awarded to 2 out of ≈ 1200 students).
- **Distinguished Alumni** (Listed in the **top 10** most renowned Alumni of the Department in the last 28 years), Vivekanand Education Society's Institute of Technology, Mumbai University, India, 2010.
- **Best Paper Award**, International Conference on Sensor Technologies and Applications (SENSORCOMM), 2007 (awarded to 5 out of ≈ 300 papers).

- **Research travel grants** from IEEE Communications Society (ComSoc) (2007), US National Science Foundation (NSF) (2007, 2009), Georgia Tech (2007–2010), and WPMC (2007).
- **Multiple management awards** for contributions toward commercialization of 3G chipsets, QUALCOMM Inc., 2005–2006.
- **College of Engineering Leadership Award**, University of Wisconsin–Madison, 2004.
- **Gerald Holdridge Excellence in Teaching Award**, University of Wisconsin–Madison, 2004.
- **College of Engineering Teaching Award**, University of Wisconsin–Madison, 2004 (the only student awardee from the Department of Electrical and Computer Engineering).
- **Management award** for re-designing electronic range controls that instrumented **a cost savings of $6 Million**, General Electric, 2003.
- **First** among 83 students of Electronics and Telecommunications Engineering in the class of 2002, Vivekanand Education Society's Institute of Technology, Mumbai University, India.
- **Third** among ≈3000 students of Electronics and Telecommunications Engineering in the class of 2002, Mumbai University, India.
- **J. N. Tata Endowment** National Scholarship Award, India, 2002 (awarded to ≈120 meritorious scholars nationwide for higher studies abroad).
- **K. C. Mahindra National Scholarship**, India, 2002 (awarded to ≈50 meritorious scholars nationwide for higher studies abroad).
- **IEEE Outstanding Student Award**, IEEE Bombay Chapter (Region-10), India, 2001–2002.
- **Sir Ratan Tata Trust Scholarship for Academic Excellence**, India, 1998–2002.

PROFESSIONAL ACTIVITIES

- **Board Memberships**
  - Intelligent Transportation Society of California (ITS CA), 2017–present
  - Institute of Transportation Studies at the University of California, Davis (ITS-Davis) Sustainable Transportation Energy Pathways (STEPS+) program, 2023–present
- **Policy and Technical Committees** in Alliance for Transportation Electrification (ATE), The American Trucking Associations (ATA), Association for Unmanned Vehicle Systems International (AUVSI), CALSTART, Crash Avoidance Metrics Partnership Vehicle-to-Infrastructure Consortium, Car 2 Car Communication Consortium, CharIN North America, Electrification Coalition Business Council, The Truck and Engine Manufacturers Association (EMA), Inland Empire Economic Partnership (IEEP) Southern California Logistics Forum, Intelligent Transportation Society of America (ITSA), PACT, SAE, and TRB
- **Technical Advisory Committees for Projects**
  - Electric Truck Research and Utilization Center's (eTRUC) (funded by California Energy Commission (CEC)), 2022–present
  - WattEV's 21st Century Truck Stop (funded by CEC), 2022–present
  - Artificial Intelligence Based Heavy-Duty Fleet Charging to enable Distributed Energy Resource (funded by CEC), 2022
  - Sacramento Medium- and Heavy-Duty (M/HD) Blueprint (funded by CEC), 2022

  - Defining the Hydrogen-Enabled Airport Ecosystem in 2030-2050 (funded by SoCal Gas), 2022

- **Competitive Grant Review Panels**
  - National Cooperative Highway Research Program, 2018–present
  - Dubai World Challenge for Self-Driving Transport, 2018–2019
  - U.S. NSF, 2012–2014, 2016–2018
  - Chile National Fund for Scientific and Technological Development, 2013

- **Journal Editorships**
  - IEEE Vehicular Technology Magazine, 2020–present (Associate Editor)
  - Digital Signal Processing (Elsevier), 2012–2016
  - IEEE ComSoc Technical Committee (TC) on e-Health Newsletter, 2011–2016
  - International Journal of E-Health and Medical Communications (IJEHMC) (IGI Publisher and supported by the IEEE ComSoc TC on e-Health), 2012–2016
  - International Journal on Advance in Networks and Services (IARIA Journal), 2012–2016
  - Journal of Healthcare Technology and Management (Columbia International Publishing), 2012–2016
  - Cyber Journals: Multidisciplinary Journals in Science and Technology (Hindawi), 2011–2016

- **Conference Committees**
  - **Organizing Committees** for ITS CA Annual Meeting and Conference Exhibition from 2018–present (Board Member), Conference on Body Area Networks (BodyNets) 2013 (Vice-Chair)
  - **Publicity Committees** for ITS CA events from 2015–present, HealthCom 2013 (Co-Chair), and BodyNets 2012 (Co-Chair)
  - **Technical Program Committees** for BodyNets, Annual IEEE Consumer Communications & Networking (CCNC), Annual International IEEE EMBS Conference (EMBC), International Conference on Computing, Networking and Communications (ICNC), Annual IEEE International Conference on Computer Communications (INFOCOM), IEEE Global Telecommunications Conference (GLOBECOM), SENSORCOMM, Association for Computing Machinery (ACM) Conference on Embedded Networked Sensor Systems (SenSys), IEEE Vehicular Technology Conference (VTC), IEEE Wireless Communications and Networking Conference (WCNC), WPMC, and many others.

- **Reviewed** papers for numerous ACM, IEEE, SAE, and TRB flagship conferences, IEEE Transactions on Wireless Communications, IEEE Transactions on Vehicular Technology, IEEE Transactions on Information Theory, IEEE Transactions on Networking, IEEE Transactions on Biomedical Engineering, IEEE Transactions on Industrial Electronics, IEEE Transactions on Parallel and Distributed Systems, The Korean Institute of Communications and Information Sciences (KICS)/IEEE Journal of Communications and Networks, IEEE Wireless Communications Magazine, IEEE Vehicular Technology Magazine, IEEE Communications Magazine, Ad Hoc Networks, Computer Communications, Computers in Biology and Medicine, ACM/Springer, Wireless Networks, ACM/Springer Mobile Networks and Applications, and many others.

- **Educational Outreach and Extra-Curricular Activities**
  - External Advisor, NSF Training Program on Sustainable Transportation (SPEAKS: Science to Policy Education: Activating Knowledge for Sustainable Transportation), University of California Riverside, Riverside, CA, 2023–present

- Advisory Committee Member, Specialized Study in Sustainable Transportation Solutions and Community Impacts, University of California Riverside, Riverside, CA, 2022–present
- Invited Talk, NSF Futures in Transportation, University of Southern California, Los Angeles, CA, Feb. 2021
- Invited Talk, Electric Industry Speaker Series, Long Beach Community College, Long Beach, CA, Feb. 2021
- Panelist, Careers in Energy Discussion, Appalachian State University, Boone, NC, Feb. 2021
- Secretary, Advisory Board of the East Mecklenburg Academy of Engineering, Charlotte, NC, 2011–2013
- Member, National Academy Foundation's Local Advisory Board, Charlotte, NC, 2011–2013
- Juror, The California State University Student Research Competition, San Jose State University, San Jose, CA, Apr. 2010
- Judge, President's Undergraduate Research Award for Undergraduate research proposals, Georgia Institute of Technology, Atlanta, GA, 2010
- Secretary and Treasurer, Georgia Tech Table Tennis Association, Georgia Institute of Technology, 2007–2009
- Chairperson, Teaching Improvement Program, College of Engineering, University of Wisconsin–Madison, 2004–2005
- Vice-Chairperson, IEEE Student Chapter, Vivekanand Education Society's Institute of Technology, Mumbai, 2001–2002
- Editorial Board, IEEE Student Chapter, Vivekanand Education Society's Institute of Technology, Mumbai, 2000–2001

- **Professional Society Memberships**
  - Association for Computing Machinery (ACM)
  - IEEE
  - IEEE Intelligent Transportation Systems Society
  - IEEE Vehicular Technology Society
  - Institution of Electronics and Telecommunication Engineers

TEACHING EXPERIENCE

- **Instructor**
  - Department of Civil Engineering and Construction Engineering Management, California State University Long Beach, Long Beach, CA
    - Graduate course on Transportation Modeling (CE 522), Fall 2021
    - Undergraduate course on Computer Programming and Civil Engineer Application Laboratory (CE 206L), Fall 2018, Spring 2019
    - Undergraduate course on Geographic Information Systems (GIS) Laboratory for Civil Engineers (CE 326), Spring 2019, Summer 2019, Fall 2019
  - The Center for International Trade and Transportation, California State University Long Beach, Long Beach, CA
    - Technology and Policy Solutions to Modernize On-Road Transport (Foundational Course in the Global Logistics Program), 2022

    - Module V - Innovations in Technology and Operations (Industry Trends and Information Technology, Special Topic, Supply Chain Innovation), 2015–2021
    - Module II - Information Technology in Global Logistics, 2016–2020
  - Department of Electrical and Computer Engineering, The University of North Carolina at Charlotte, Charlotte, NC
    - Undergraduate course on Data Communications and Networking I (ECGR 3123), Spring 2011
    - Undergraduate lab course on Electromagnetic and Electronic Devices (ECGR 3156), Spring 2013
    - College of Engineering Senior Design I (ECGR 3243), Fall 2012
    - College of Engineering Senior Design II (ECGR 4200), Fall 2012
    - Graduate course on Application of MIMO and adaptive arrays to enhance wireless networks (Special Topics in Wireless Communications) (ECGR 6090/8090), Spring 2012
    - Graduate course on Wireless Communications (ECGR 6120/8120), Fall 2011, Spring 2013
  - Department of Electrical and Computer Engineering, University of Wisconsin–Madison, Madison, WI
    - Undergraduate course on Fiber Optics and Optoelectronics (ECE 313), Summer 2004 (co-Instructor: Dr. Leon McCaughan)

- **Teaching Assistant**
  - Undergraduate course on Wireless Communications (ECE 4606), School of Electrical and Computer Engineering, Georgia Institute of Technology, Atlanta, GA, 2009
  - Junior level course on Circuit Analysis (ECE 230), Department of Electrical and Computer Engineering, University of Wisconsin–Madison, Madison, WI, 2003–2004
  - Undergraduate course on Circuits and Electronics (General Physics 321), Department of Physics, University of Wisconsin–Madison, Madison, WI, 2002

- **Guest Lecturer**
  - Undergraduate course on Transportation Engineering (CE 426), Department of Civil Engineering and Construction Engineering Management, California State University Long Beach, Long Beach, CA (2016, 2017)
  - Graduate course on Random Processes (ECE 6601) and Undergraduate course on Wireless Communications (ECE 4606), School of Electrical and Computer Engineering, Georgia Institute of Technology, Atlanta, GA (2006, 2008–2009)

- **Tutor and Grader**, Undergraduate course on Information Theory (Math 4280), Department of Mathematics, Georgia Institute of Technology, Atlanta, GA, 2008

STUDENT SUPERVISION AND MENTORING

- Graduate Research Students (in alphabetical order)

  1. Aashish Bhargav Nath Aita, M.S. (CE), Spring–Fall 2013
  2. Mohammad Azari, Ph.D. (EE), Spring–Fall 2013
  3. Bhargavi Chandrakumar, M.S. (EE), Spring 2012–Fall 2013
  4. Madhura Deshpande, M.S. (CE), Fall 2013
     Project: *Real-time implementation of a prototype network for body area networks/gait analysis*
  5. Terrill Massey, M.S. (CE), Fall 2013

6. Md. Majharul Islam Rajib, M.S. (EE), Fall 2013
   Project: *Stochastic modeling and analysis of wireless sensor nodes with hybrid storage systems*
7. Sankarkumar Thandapani, M.S. (CE), Spring 2012
   Thesis: *Accurate energy consumption profiling in wireless motes*
8. Anay Tuljapurkar, M.S. (CE), Fall 2012
   Project: *On demonstrating cooperative diversity-induced range extension using software-defined radios*
9. Chong Vu, M.S. (CE), Fall 2013

- Undergraduate Research Students (in alphabetical order)

1. Derrick Lee, Junior, Spring–Fall 2011
2. Andrew Nichols, Senior, Spring 2011
3. Edwin Rivera Rivera, Junior, Spring–Fall 2011
4. Christian Salazar, Senior, Spring 2011
5. Massey Terrill, Senior, Charlotte Research Scholar Program, Summer 2013
6. Chuong Vu, Senior, Summer–Fall 2013

- Thesis Committees (in alphabetical order)

1. Scott Buscemi, Ph.D. (EE), Spring 2013
   Thesis: *Design and validation of a scalable digital wireless channel emulator*
2. Guangyi Cao, Ph.D. (EE), Spring 2011–2013
   Thesis: *Implementation and analysis of real time scheduling algorithm for embedded multicore platform*
3. Ndubueze Chuku, Ph.D. (EE), Spring 2011–2013
   Thesis: *Localization in heterogenous resource-constrained wireless sensor networks*
4. Ji Li, Ph.D. (EE), Spring 2013
   Thesis: *Cross-layer protocol design for spectrum management in cognitive radio networks*
5. Abilash B. Kollara, M.S. (EE), Spring 2013
   Project: *Building an automobile blackbox using Raspberry Pi and Android smartphone*
6. Rohith Tenneti, M.S. (EE), Spring 2012
   Thesis: *Design space exploration for heterogeneous many core embedded processors for smart grid*
7. Meenu Natarajan, M.S. (CEE), Spring 2012
   Thesis: *Bridge desk damage evaluation using aerial photos*

- COE Senior Design Projects

1. K. Alexander, N. Clontz, T. Healy, and C. Vu, *Shuttle Tracking System*, 2012–13
2. K. Barber, A. Ammons, J. C. Honeycutt, and J. Pennell, *Pet Locator*, 2011–12
3. D. Los Santos, U. Nounagon, K. Morse, C. Wheeler, R. Roseboro, and T. Minor, *Propane Tank Weight Monitoring Scale*, 2011–12

PATENTS AND INVENTION DISCLOSURES

1. **A. Kailas**, C. C. Chong, and F. Watanabe, "Human pose recognition for mobile gaming platforms using mobile embedded accelerometer and gyroscope," DOCOMO USA Labs Inc., Provisional Patent filed in July 2010 (SN: 61/360,581).

2. **A. Kailas**, C. C. Chong, and F. Watanabe, "A statistical approach based on temporal bayesian networks for wireless wellness monitoring," DOCOMO USA Labs Inc., Provisional Patent filed in Aug. 2009 (SN: 61/233,365).

3. **A. Kailas**, C. C. Chong, and F. Watanabe, "Simple iterative algorithms to monitor wellness using wireless handheld devices," DOCOMO USA Labs Inc., Provisional Patent filed in July 2009 (SN: 61/227,388).

4. L. Thanayankizil, M. A. Ingram, and **A. Kailas**, "Reactive multi-hop routing protocol for ad hoc networks using opportunistic large array concentric routing algorithm step-size control (OLACRA-SC)," Georgia Institute of Technology, Sep. 2008 (ID: 4633), Provisional Patent filed in Nov. 2008 (SN: 61/117,606).

5. **A. Kailas** and M. A. Ingram, "Alternating opportunistic large arrays with transmission thresholds for extending the broadcast life of a wireless multi-hop network," Georgia Institute of Technology, Feb. 2008 (ID: 4416), Provisional Patent filed in Mar. 2008 (SN: 61/036,293).

6. **A. Kailas** and M. A. Ingram, "Energy efficient broadcasting using opportunistic large arrays with transmission thresholds," Georgia Institute of Technology, Sep. 2007 (ID: 4313).

BOOK CHAPTERS

1. K. Decas and **A. Kailas**. What are the best strategies to prepare the supply chain workforce for the technologies that will transform the port and intermodal workforces of the future? In T. Reeb (Editor). *Empowering the New Mobility Workforce: Educating, Training, and Inspiring Future Transportation Professionals.* Elsevier, May 2019.

2. X. -Y. Lu, S. E. Shladover, **A. Kailas**, and O. Altan. Proposed message set for cooperative adaptive cruise control using V2V in real traffic. In F. Hu (Editor). *Vehicle-to-Vehicle and Vehicle-to-Infrastructure Communications: A Technical Approach.* Taylor & Francis LLC, CRC Press, May 2017.

3. M. Nogueira, **A. Kailas**, N. Pari, and B. Chandrakumar. A simple, bio-inspired time synchronization protocol for cognitive ad hoc networks. In F. Theoleyre and A. -C. Pang (Eds.) *Internet of Things and M2M Communications.* River Publishers, May 2013.

4. **A. Kailas** and S. Thandapani. An off-line tool for accurately estimating the lifetime of a mote. In F. Theoleyre and A. -C. Pang (Eds.) *Internet of Things and M2M Communications.* River Publishers, May 2013.

5. **A. Kailas**, V. Cecchi, and A. Mukherjee. A survey of contemporary technologies for smart home energy management. In M. S. Obaidat, A. Anpalagan, and I. Woungang (Eds.) *Handbook on "Green Information & Communication Systems."* Wiley, Jan. 2012.

6. A. Mukherjee, V. Cecchi, R. Tenneti, and **A. Kailas**. Embedded computing in the emerging smart grid. In M. S. Obaidat, A. Anpalagan, and I. Woungang (Eds.) *Handbook on "Green Information & Communication Systems."* Wiley, Jan. 2012.

7. M. A. Ingram, L. Thanayankizil, J. W. Jung, and **A. Kailas**. Perspectives on energy-harvesting wireless sensor networks. In R. Prasad, S. Dixit, R. van Nee, and T. Ojanpera (Editors) *Globalisation of Mobile and Wireless Communications: Today and in 2020.* Springer-Verlag, 2010.

REFEREED JOURNAL AND MAGAZINE ARTICLES

1. Z. Wei, P. Hao, **A. Kailas**, P. Amar, K. Palmeter, L. Levin, S. Orens, K. Boriboonsomsin, and M. J. Barth, "Computationally efficient approach for evaluating eco-approach and departure for heavy-duty trucks," *Transportation Research Record: Journal of the Transportation Research Board*, 2024, *accepted for publication.*

2. M. Muratori, B. Borlaug, C. Ledna, P. Jadun, and **A. Kailas**, "Road to zero: Research and industry perspectives on zero-emission commercial vehicles," *iScience*, vol. 26, no. 5, May 2023, doi: `https://doi.org/10.1016/j.isci.2023.106751`

3. S. Yang, S. Shladover, H. Ramezani, X. -Y. Lu, **A. Kailas**, and O. Altan, "A first on-road study of the usage of cooperative adaptive cruise control (CACC) in truck platooning," *Journal of Intelligent Transportation Systems: Technology, Planning, and Operations*, 2021.

4. D. Fenton and **A. Kailas**, "Redefining goods movement: Building an eco-system for the introduction of heavy-duty battery electric vehicles," *World Electric Vehicle Journal (Special Issue on Selected Papers from the 33rd International Electric Vehicles Symposium and Exhibition)*, vol. 12, no. 3, 2021.

5. J. -N. Meier, **A. Kailas**, R. Adla, G. Bitar, O. Abuchaar, M. Ali, E. Moradi-Pari, R. Deering, U. Ibrahim, P. Kelkar, V. Vijaya Kumar, J. Parikh, M. Sakakida, and M. Yamamoto, "Implementation and evaluation of cooperative adaptive cruise control functionalities," *The Institute of Engineering and Technology (IET) Intelligent Transport Systems (Special Issue)*, vol. 12, no. 9, pp. 1110–1115, Nov. 2018.

6. S. Yang, S. Shladover, H. Ramezani, X. -Y. Lu, **A. Kailas**, and O. Altan, "Investigating drivers: On-the-road-experience of using cooperative adaptive cruise control for truck platooning," *Transportation Research Record: Journal of the Transportation Research Board*, no. 788190, 2018.

7. J. -N. Meier, **A. Kailas**, O. Abuchaar, M. Abubakr, R. Adla, M. Ali, G. Bitar, R. Deering, U. Ibrahim, P. Kelkar, V. Vijaya Kumar, E. Moradi-Pari, J. Parikh, S. Rajab, M. Sakakida, and M. Yamamoto, "On augmenting adaptive cruise control systems with vehicular communication for smoother automated following," *Transportation Research Record: Journal of the Transportation Research Board,* no. 796375, 2018.

8. P. Desai, P. Amar, **A. Kailas**, and J. -B. Gallo, "Development of a duty cycle for design and optimization of advanced heavy-duty port drayage truck," *Transportation Research Record: Journal of the Transportation Research Board*, no. 2609, 2017.

9. C. Nowakowski, D. Thompson, S. E. Shladover, **A. Kailas**, and X. -Y. Lu, "Operational concepts for truck cooperative adaptive cruise control maneuvers, " *Transportation Research Record: Journal of the Transportation Research Board*, no. 2559, 2016.

10. **A. Kailas** and C. C. Chong, "Capturing basic movements for mobile gaming platforms using mobile embedded accelerometer and gyroscope," *International Journal of E-Health and Medical Communications (IJEHMC) (A publication of the IEEE ComSoc Technical Committee on e-Health)*, vol. 3, no. 4, pp. 1–14, Dec. 2012.

11. **A. Kailas**, "On the performance of alternating concurrent cooperative transmissions in the high path-loss attenuation regime," *International Journal of Network Protocols and Algorithms (Special Issue on Smart Protocols and Algorithms)*, vol. 4, no. 2, 2012.

12. **A. Kailas**, C. C. Chong, and F. Watanabe, "Simple statistical inference algorithms for task-dependent wellness assessment," *Computers in Biology and Medicine*, vol. 42, no. 7, pp. 725–734, Jul. 2012.

13. **A. Kailas**, V. Cecchi, and A. Mukherjee, "A survey of communications and networking technologies for energy management in buildings and home automation," *Journal of Computer Networks and Communications (JCNC)*, vol. 2012, Article ID 932181, 12 pages, 2012. doi: 10.1155/2012/932181

14. L. Thanayankizil, **A. Kailas**, and M. A. Ingram, "Opportunistic large array concentric routing algorithm (OLACRA) for upstream routing in wireless sensor networks," *Ad Hoc Networks*, pp. 1140–1153, Sep. 2011.

15. **A. Kailas** and M. A. Ingram, "Analysis of a simple recruiting method for cooperative routes and strip networks," *IEEE Transactions on Wireless Communications*, vol. 9 , no. 8, pp. 2415–2419, Aug. 2010.

16. **A. Kailas**, C. C. Chong, and F. Watanabe, "From mobile phones to personal wellness dashboards," *IEEE Engineering in Medicine and Biology Society Magazine (IEEE Pulse)*, vol. 1, no. 1, pp. 57–63, July-Aug. 2010.

17. **A. Kailas** and M. A. Ingram, "Wireless aspects of telehealth," *Springer International Journal on Wireless Personal Communications (Special Issue on TeleHomeCare)*, vol. 51, no. 4, pp. 673–686, Dec. 2009.

18. L. Thanayankizil, **A. Kailas**, and M. A. Ingram, "Routing protocols for wireless sensor networks that have an opportunistic large array (OLA) physical layer," *Ad Hoc & Sensor Wireless Networks*, vol. 8, pp. 79–117, 2009.

19. **A. Kailas** and M. A. Ingram, "Alternating opportunistic large arrays in broadcasting for network lifetime extension," *IEEE Transactions on Wireless Communications*, vol. 6, no. 8, pp. 2831–2835, June 2009.

20. **A. Kailas**, L. Thanayankizil, and M. A. Ingram, "A simple cooperative transmission protocol for energy-efficient broadcasting over multi-hop wireless networks," *KICS/IEEE Journal of Communications and Networks (Special Issue on Wireless Cooperative Transmission and Its Applications)*, vol. 10, no. 2, pp. 213–220, June 2008.

REFEREED CONFERENCE PUBLICATIONS

1. P. MacDougall, **A. Kailas**, and T. Musgrave, "Solving the charging challenge for commercial electric fleets," *Proc. 36th Electric Vehicle Symposium (EVS36)*, Sacramento, CA, July 2023.

2. Z. Wei, P. Hao, **A. Kailas**, P. Amar, K. Palmeter, L. Levin, S. Orens, M. Barth, and K. Boriboonsomsin, "Computationally efficient approach for evaluating eco-approach and departure for heavy-duty truck applications," *Proc. TRB 102nd Annual Meeting*, Washington, DC, Jan. 2023.

3. J. Gordon, C. LeCroy, B. Latif, D. Ichien, M. Arora, K. Johnson, **A. Kailas**, D. Fenton, and K. Brandis, "The zero-emission freight revolution: California case studies," *Proc. 35rd Electric Vehicle Symposium (EVS35)*, Oslo, Norway, June 2022.

4. K. Boriboonsomsin, P. Hao, D. Brown, A. Vu, Z. Wei, D. Sandez, F. Caballero, A. Patil, Y. -P. Hsu, D. Esaid, Z. Wang, X. Liao, G. Wu, M. Barth, **A. Kailas**, P. Amar, E. Garmon, S. Tanugula, S. Orens, K. Palmeter, L. Levin, J. Wright, M. Menaria, K. Cartwright, and E. Alegre, "Understanding connected eco-driving system for class 8 trucks: Lessons learned from real-world implementation and evaluation," *Proc. SAE WCX*, Detroit, MI, April 2022. Presentation.

5. P. Hao, Z. Wei, D. Esaid, N. Williams, **A. Kailas**, P. Amar, K. Palmeter, L. Levin, S. Orens, M. Barth, and K. Boriboonsomsin, "Connected vehicle-based truck eco-driving: A simulation study," *Proc. 24th IEEE Intelligent Transportation Systems Conference (ITSC)*, Indianapolis, IN, Sep. 2021.

6. Z. Zhao, G. Wu, K. Boriboonsomsin, and **A. Kailas**, "Vehicle dispatching and scheduling algorithms for battery-electric, heavy-duty truck fleets considering en route opportunity charging," *Proc. 8th IEEE Technologies for Sustainability Conference (SusTech)*, Orange County, CA, Apr. 2021.

7. D. Fenton and **A. Kailas**, "Redefining goods movement: Building an eco-system for the introduction of heavy-duty battery electric vehicles," *Proc. 33rd Electric Vehicle Symposium (EVS33)*, Portland, OR, June 2020.

8. **A. Kailas**, P. Amar, K. Boriboonsomsin, Z. Wang, Y. -P. Hu, A. Vu, F. Caballero, P. Hao, G. Wu, E. Garmon, S. Tanugula, and M. J. Barth, "Early findings from field trials of Eco-Drive for heavy-duty trucks," *Proc. TRB 99th Annual Meeting*, Washington, DC, Jan. 2020.

9. Z. Wang, Y. -P. Hu, A. Vu, F. Caballero, P. Hao, G. Wu, K. Boriboonsomsin, M. J. Barth, **A. Kailas**, P. Amar, E. Garmon, and S. Tanugula, "Early findings from field trials of heavy-duty truck connected eco-driving system," *Proc. 22nd IEEE Intelligent Transportation Systems Conference (ITSC)*, Auckland, New Zealand, Sep. 2019.

10. S. Anthony, P. Valle, and **A. Kailas**, "Implementation of modified state of mind prediction for local trucking application," *Proc. Automated Vehicles Symposium*, Orlando, FL, July 2019. Poster.

11. P. Desai, E. Garmon, H. Yarmohamadi, J. Strait, P. Amar, and **A. Kailas**, "Implementation of a self-learning, on-board geo-clustering platform for reducing emissions in drayage operations," *Proc. TRB 98th Annual Meeting*, Washington, DC, Jan. 2019.

12. G. Juell-Skielse, A. Hjalmarsson, and **A. Kailas**, "Digital innovation and incubators: A comparative case study from the perspective of the automotive industry," *Proc. 52nd Hawaii International Conference on System Sciences (HICSS)*, Maui, HI, Jan. 2019.

13. J. -N. Meier, **A. Kailas**, R. Adla, G. Bitar, O. Abuchaar, M. Ali, E. Moradi-Pari, R. Deering, U. Ibrahim, P. Kelkar, V. Vijaya Kumar, J. Parikh, M. Sakakida, and M. Yamamoto, "Implementation and evaluation of cooperative adaptive cruise control functionalities," *Proc. World Congress on Intelligent Transportation Systems (ITS World Congress)*, Copenhagen, Denmark, Sep. 2018.

14. X. -Y. Lu, S. Shladover, B. McAuliffe, S. Bergquist, and **A. Kailas**, "3 truck CACC field test for fuel consumption and control performance," *Proc. Automated Vehicles Symposium*, San Francisco, CA, July 2018. Poster.

15. J. Parikh, **A. Kailas**, R. Adla, S. Rajab, M. Ali, V. Vijaya Kumar, J. -N. Meier, R. Goudy, H. Yoshida, and R. Deering, "Validating prototype connected vehicle-to-infrastructure safety applications in real-world settings," *Proc. SAE World Congress*, Detroit, MI, Apr. 2018.

16. J. Parikh, **A. Kailas**, R. Adla, S. Rajab, M. Ali, V. Vijaya Kumar, J. -N. Meier, R. Goudy, H. Yoshida, and R. Deering, "Development of wireless message for vehicle-to-infrastructure safety applications," *Proc. SAE World Congress*, Detroit, MI, Apr. 2018.

17. B. McAuliffe, X. -Y. Lu, S. E. Shladover, **A. Kailas**, M. Lammert, M. Belzile, and M. Surcel, "Influences on energy savings by heavy trucks using cooperative ACC," *Proc. SAE World Congress*, Detroit, MI, Apr. 2018.

18. J. -N. Meier, **A. Kailas**, O. Abuchaar, M. Abubakr, R. Adla, M. Ali, G. Bitar, R. Deering, U. Ibrahim, P. Kelkar, V. Vijaya Kumar, E. Moradi-Pari, J. Parikh, S. Rajab, M. Sakakida, and M. Yamamoto, "On augmenting adaptive cruise control systems with vehicular communication for smoother automated following," *Proc. TRB 97th Annual Meeting*, Washington, DC, Jan. 2018.

19. S. Yang, S. Shladover, H. Ramezani, X. -Y. Lu, **A. Kailas**, and O. Altan, "Investigating drivers: On-the-road-experience of using cooperative adaptive cruise control for truck platooning," *Proc. TRB 97th Annual Meeting*, Washington, DC, Jan. 2018. **Best Paper Award**.

20. S. Yang, X. -Y. Lu, H. Ramezani, S. Shladover, and **A. Kailas**, "A first investigation of truck drivers' on-the-road experience using cooperative ACC," *Proc. Automated Vehicles Symposium*, San Francisco, CA, July 2017. Poster.

21. X. -Y. Lu, S. E. Shladover, B. McAuliffe, B. Pekilis, S. Bergquist, **A. Kailas**, M. Hanson, and O. Altan, "Partially automated truck platoon field tests for maneuvers and fuel economy," *Proc. Automated Vehicles Symposium*, San Francisco, CA, July 2017. Poster.

22. P. Desai, P. Amar, **A. Kailas**, and J. -B. Gallo, "Development of a duty cycle for design and optimization of advanced heavy-duty port drayage truck," *Proc. TRB 96th Annual Meeting*, Washington, DC, Jan. 2017. **Best Paper Award**.

23. M. Shulman, C. K. Andersen, J. Parikh, **A. Kailas**, G. Bitar, H. Konet, J. N. Meier, M. Abubakr, M. Burchard, M. Sakakida, M. Yamamoto, O. Abuchaar, S. Rajab, U. Ibrahim, and V. Vijaya Kumar, "Development of vehicle-to-infrastructure safety applications in the united states," *Proc. ITS World Congress*, Melbourne, Australia, Oct. 2016. **Invited paper**.

24. X. -Y. Lu, S. E. Shladover, S. Bergquist, **A. Kailas**, D. Thompson, M. Hanson, and O. Altan, "Integrated control for platooning in truck partial automation," *Proc. Automated Vehicles Symposium*, San Francisco, CA, July 2016.

25. **A. Kailas**, S. Bergquist, D. Thompson, S. E. Shladover, X. -Y. Lu, M. Hanson, and O. Altan, "Heavy truck cooperative adaptive cruise control testing and demonstration plans," *Proc. Automated Vehicles Symposium*, San Francisco, CA, July 2016.

26. C. Nowakowski, D. Thompson, S. E. Shladover, **A. Kailas**, and X. -Y. Lu, "Operational concepts for truck cooperative adaptive cruise control maneuvers," *Proc. TRB 95th Annual Meeting*, Washington, DC, Jan. 2016.

27. X. -Y. Lu, C. Nowakowski, D. Thompson, S. E. Shladover, **A. Kailas**, and O. Altan,"Cooperative adaptive cruise control (CACC) for near-term truck platooning," *Proc. TRB 95th Annual Meeting*, Washington, DC, Jan. 2016.

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30. M. M. I. Rajib, **A. Kailas**, and D. Brunelli, "Stochastic modeling and analysis of wireless sensor nodes with hybrid storage systems," *Proc. First International Workshop on Energy Neutral Sensing Systems (ENSSys), 11th ACM Conference on Embedded Networked Sensor Systems (SenSys)*, Rome, Italy, Nov. 2013.

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33. P. Ganapathy, T. Tamminedi, E. Dong, S. Keshavamurthy, J. Yadegar, **A. Kailas**, P. Juneja, B. Davis, and D. Shenk, "An automated video recommendation system to enhance engagement levels in moderate-Dementia care patients," *Proc. Wireless Health*, Balitmore, MD, Aug. 2013.

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35. **A. Kailas** and S. Thandapani, "On accurately predicting mote deaths," *Proc. 31st Annual IEEE Military Communications Conference (MILCOM)*, Orlando, FL, Oct. 2012, pp. 1–6.

36. **A. Kailas**, "Basic human motion tracking using a pair of gyro + accelerometer MEMS devices," *Proc. 14th IEEE International Conference on e-Health Networking, Application & Services (HealthCom)*, Beijing, China, Oct. 2012, pp. 1–5.

37. **A. Kailas** and S. Thandapani, "An off-line tool for accurately estimating the lifetime of a mote," *Proc. 15th International Symposium on Wireless Personal Multimedia Communications (WPMC)*, Taipei, Taiwan, Sep. 2012, pp. 1–5.

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39. **A. Kailas**, "Capturing basic movements for mobile platforms using mobile embedded accelerometer and gyroscope," *Proc. 34th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC)*, San Diego, CA, Aug. 2012, pp. 1–4.

40. C. Estevez and **A. Kailas**, "Energy-efficient process-stacking multiplexing access for 60-GHz mm-wave wireless personal area networks," *Proc. 34th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC)*, San Diego, CA, Aug. 2012, pp. 1–4.

41. S. Thandapani and **A. Kailas**, "On estimating mote operation times during typical cross-layer functions," *Proc. Sixth International Conference on Sensor Technologies and Applications (SENSORCOMM)*, Rome, Italy, Aug. 2012, pp. 1–6. **Best Paper Award Finalist**.

42. C. Estevez, D. Fuentealba, and **A. Kailas**, "Process-stacking multiplexing access for 60 GHz millimeter-wave WPANs," *Proc. Third International Conference on Access Networks (ACCESS)*, Venice, Italy, June 2012.

43. R. Pal, **A. Kailas**, and P. Hui, "On social community networks: The cost sharing problem," *Proc. Fourth Annual Workshop on Simplifying Complex Networks for Practitioners (SIMPLEX), Co-located with World Wide Web (WWW)*, Lyon, France, Mar. 2012.

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45. **A. Kailas**, M. A. Ingram, and D. Brunelli, "A simple model for the harvesting and leakage in a supercapacitor," *Proc. First International Workshop on Novel approaches to Energy Measurement and Evaluation in Wireless Networks (NovaEnEv), IEEE International Conference on Communications (ICC)*, Ottawa, Canada, Feb. 2012, pp. 1–5.

46. R. Tenneti, A. Mukherjee, V. Cecchi, and **A. Kailas**, "Design space exploration of heterogeneous embedded processor for the smart grid," *Proc. IEEE SoutheastCon*, Orlando, FL, Jan. 2012.

47. **A. Kailas**, "Establishing performance bounds on alternating concurrent cooperative transmissions under high path-loss," *Proc. International IEEE Workshop on Smart Communication Protocols & Algorithms (SCPA), 53rd Annual IEEE Global Telecommunications Conference (GLOBECOM)*, Houston, TX, Dec. 2011.

48. **A. Kailas**, "Power allocation strategies to minimize energy consumption in wireless body area networks," *Proc. 33rd Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC)*, Boston, MA, Aug. 30–Sep. 3, 2011. Poster.

49. C. I. Estevez, **A. Kailas**, W. Jian, D. Fuentealba, and G. K. Chang,"Very-high-throughput millimeter-wave system oriented for health monitoring applications," *Proc. 13th IEEE International Conference on E-Health Networking, Applications, and Services (HealthCom)*, Columbia, MO, June 2011.

50. **A. Kailas**, "A generic conceptual model linking wellness, health lifestyles, and user assistance," *Proc. 13th IEEE International Conference on E-Health Networking, Applications, and Services (HealthCom)*, Columbia, MO, June 2011.

51. **A. Kailas** and M. A. Ingram,"Equitable energy consumption during repeated transmissions in a multihop wireless network," *Proc. 52nd Annual IEEE Global Telecommunications Conference (GLOBECOM)*, Miami, FL, Dec. 6–10, 2010, pp. 1–5.

52. **A. Kailas**, C. C. Chong, and F. Watanabe, "Wellness support using mobile handsets," *Proc. 72nd IEEE Vehicular Technology Conference*, Ottawa, Canada, Sep. 6–9, 2010, pp. 1–6.

53. M. A. Ingram and **A. Kailas**, "Advanced wireless transmission for skin patches and implants," *Georgia Tech Integrative BioSystems Institute (IBSI) Poster Session*, Atlanta, GA, Mar. 2010. Poster.

54. **A. Kailas**, C. C. Chong, and F. Watanabe, "A first-order Markov model for wellness mobile applications," *Proc. 71st IEEE Vehicular Technology Conference*, Taipei, Taiwan, May 16–19, 2010, pp. 1–6.

55. **A. Kailas**, C. C. Chong, and F. Watanabe, "A simple iterative algorithm for wellness applications," *Proc. IEEE Wireless Communications & Networking Conference (WCNC)*, Sydney, Australia, Apr. 18–21, 2010, pp. 1–6.

56. **A. Kailas** and M. A. Ingram,"Alternating cooperative transmissions for a strip-shaped sensor network," *Proc. 44th Annual Conference on Information Sciences and Systems (CISS)*, Princeton University, Princeton, NJ, Mar. 17–19, 2010, pp. 1–6.

57. **A. Kailas**, "Concurrent cooperative transmissions and energy scavenging for wireless networks," IEEE Information Theory Society Student Event, 44th Annual Conference on Information Sciences and Systems (CISS), Princeton, NJ, Mar. 17–19, 2010. Poster.

58. M. A. Ingram, J. W. Jung, Y. J. Chang, **A. Kailas**, and Y. Zhang, "On cooperative transmission in energy harvesting wireless sensor networks," *Proc. Energy Harvesting & Storage USA*, Denver, CO, Oct. 2009.

59. **A. Kailas** and M. A. Ingram, "OLA with transmission threshold for strip networks," *Proc. 28th Annual IEEE Military Communications Conference (MILCOM)*, Boston, MA, Oct. 18–21, 2009, pp. 1–7.

60. **A. Kailas** and M. A. Ingram, "Investigating multiple alternating cooperative broadcasts to enhance network longevity," *Proc. IEEE International Conference on Communications (ICC)*, Dresden, Germany, June 14–18, 2009, pp. 1–5.

61. **A. Kailas**, M. A. Ingram, and Y. Zhang, "A novel routing metric for environmentally-powered sensors with hybrid energy storage systems," *Proc. First International Conference on Wireless VITAE*, Aalborg, Denmark, May 2009, pp. 42–46.

62. **A. Kailas** and M. A. Ingram, "Wireless communications technology in telehealth systems," *Proc. First International Conference on Wireless VITAE*, Aalborg, Denmark, May 2009, pp. 926–930.

63. **A. Kailas** and M. A. Ingram, "Alternating cooperative transmission for energy-efficient broadcasting," *Proc. 51st Annual IEEE Global Telecommunications Conference (GLOBECOM)*, New Orleans, LA, Nov. 30–Dec. 4, 2008, pp. 1–5.

64. J. W. Jung, **A. Kailas**, M. A. Ingram, and E. Popovici, "An evaluation of cooperation transmission considering practical energy models and passive reception," *Proc. First International Symposium on Applied Sciences in Bio-Medical and Communication Technologies (ISABEL)*, Aalborg, Denmark, Oct. 25–28, 2008, pp. 1–5. **Invited Paper**.

65. M. A. Ingram, **A. Kailas**, L. Thanayankizil, and J. W. Jung, "The power of cooperative wireless communications," *Proc. Antenna Systems Conference*, Austin, TX, Sep. 25–26, 2008.

66. **A. Kailas** and M. A. Ingram, "Transmit diversity for long-term body implants," *Proc. 11th International Symposium on Wireless Personal Multimedia Communications (WPMC)*, Lapland, Finland, Sep. 8–11, 2008.

67. **A. Kailas** and M. A. Ingram, "A cooperative transmission technique for telehealth," *Proc. 10th International Symposium on Wireless Personal Multimedia Communications (WPMC)*, Jaipur, India, Dec. 3–6, 2007. **Invited Paper**.

68. M. A. Ingram, M. Prasad, **A. Kailas**, and R. Prasad, "An investigation of cooperative transmission applied to agriculture," *Proc. 10th International Symposium on Wireless Personal Multimedia Communications (WPMC)*, Jaipur, India, Dec. 3–6, 2007.

69. R. Scott Frazier, **A. Kailas**, and M. A. Ingram, "Numerical evaluation of the energy for upstream opportunistic large array-based transmissions," *Proc. 10th International Symposium on Wireless Personal Multimedia Communications (WPMC)*, Jaipur, India, Dec. 3–6, 2007.

70. L. Thanayankizil, **A. Kailas**, and M. A. Ingram, "Two energy-saving schemes for cooperative transmission with opportunistic large arrays," *Proc. 50th Annual IEEE Global Telecommunications Conference (GLOBECOM)*, Washington, DC, Nov. 26–30, 2007, pp. 1038–1042.

71. **A. Kailas**, L. Thanayankizil, and M. A. Ingram, "Power allocation and self-scheduling for cooperative transmission using opportunistic large arrays," *Proc. 26th Annual IEEE Military Communications Conference (MILCOM)*, Orlando, FL, Oct. 29–31, 2007, pp. 1–7.

72. L. Thanayankizil, **A. Kailas**, and M. A. Ingram, "Energy-efficient strategies for cooperative communications in wireless sensor networks," *Proc. First IEEE International Conference on Sensor Technologies and Applications (SENSORCOMM)*, Valencia, Spain, Oct. 14–20, 2007, pp. 541–546. **Best Paper Award**.

73. **A. Kailas** and J. A. Gubner, "Upper bounds for the average error probability of a time-hopping wideband system," *Proc. 40th Annual Conference on Information Sciences and Systems (CISS)*, Princeton University, Princeton, NJ, Mar. 22–24, 2006, pp. 914–919.

74. **A. Kailas** and S. S. Courter, "Discussion classes: Complementing the lectures in a more efficient way," *Proc. 2005 ASEE North Midwest Section Annual Conference*, Brookings, SD, Oct. 2005.

75. **A. Kailas** and S. S. Courter, "Teaching an undergraduate engineering class for the first time," *Proc. 2005 ASEE Midwest Section Annual Conference*, University of Arkansas, Fayetteville, AR, Sep. 2005.

76. **A. Kailas** and J. A. Gubner, "Performance measures of a UWB multiple-access system: DS/CDMA versus TH/PPM," *Proc. 42nd Annual Allerton Conference on Communication, Control and Computing*, University of Illinois, Urbana, IL, Sept. 29–Oct. 1, 2004, pp. 1901–1907.

TECHNICAL REPORTS

1. Bringing battery-electric freight trucks to market: From demonstration to commercialization, 2022 (published by Volvo Group North America to commemorate the end of its innovative Volvo LIGHTS (Low Impact Green Heavy-Transport Solutions) project).

2. S. E. Shladover, X. Y. Lu, S. Yang, H. Ramezani, J. Spring, C. Nowakowski, D. Nelson, D. Thompson, **A. Kailas**, B. McAuliffe, and D. K. Glover, "Partial automation for truck platooning," United States Department of Transportation, FHWA-HRT-19-028, 2019.

3. S. E. Shladover, X. -Y. Lu, S. Yang, H. Ramezani, J. Spring, C. Nowakowski, D. Nelson, D. Thompson, **A. Kailas**, and B. McAuliffe, "Cooperative adaptive cruise control (CACC) for partially automated truck platooning: Final report," UC Berkeley: California Partners for Advanced Transportation Technology, 2018.

4. S. Yang, S. E. Shladover, X. -Y. Lu, J. Spring, D. Nelson, H. Ramezani, and **A. Kailas**, "A first investigation of truck drivers' on-the-road experience using cooperative adaptive cruise control," UC Berkeley: California Partners for Advanced Transportation Technology, 2018.

5. X. -Y. Lu, S. E. Shladover, and **A. Kailas**, "Truck CACC system design and DSRC messages," UC Berkeley: California Partners for Advanced Transportation Technology, 2018.

6. J. Parikh, M. Abubakr, R. Adla, G. Bitar, R. Goudy, **A. Kailas**, A. Kelkar, J. Meier, M. Sakakida, V. Vijayakumar, M. Yamamoto, R. Deering, and S. Kiger, "Vehicle-to-Infrastructure program safety applications project: Final report," United States Department of Transportation, FHWA-JPO-18-606, 2017.

7. L. Stowe, M. Abubakr, R. Adla, S. Casadei, R. Goudy, **A. Kailas**, V. Kumar, H. Tafish, M. Yamamoto, Z. R. Doerzaph, M. Song, R. Viray, E. White, and R. Deering, "Advanced messaging concept development (AMCD) project Vehicle-to-Infrastructure Program," United States Department of Transportation, FHWA-JPO-16-400, 2017.

8. O. Abuchaar, M. Buchard, S. Casadei, R. Goudy, U. Ibrahim, **A. Kailas**, V. Kumar, H. Nakajima, H. Tafish, M. Yamamoto, A. Alden, C. Druta, and R. Deering, "Road weather management program (RWMP) connected vehicle-infrastructure (CVI) research," United States Department of Transportation, FHWA-JPO-16-400, 2016.

9. M. Abubakr, O. Abuchaar, S. Al-Stouhi, M. Buchard, S. Das, U. Ibrahim, **A. Kailas**, H. Konet, V. Kumar, J. Meier, M. Yamamoto, K. Balke, M. Lukuc, C. Poe, D. LeBlanc, M. Barth, R. Deering, and R. Goudy, "Eco-approach and eco-departure planning study," United States Department of Transportation, FHWA-JPO-16-335, 2016.

10. C. Nowakowski, S. E. Shladover, X. -Y. Lu, D. Thompson, and **A. Kailas**, "Cooperative adaptive cruise control (CACC) for truck platooning: Operational concept alternatives," UC Berkeley: California Partners for Advanced Transportation Technology, 2015.

11. S. E. Shladover, R. Campbell, **A. Kailas**, S. Boyd, and F. Torrey, "Industry needs and opportunities for truck platooning," UC Berkeley: California Partners for Advanced Transportation Technology, 2015.

12. J. Parikh, O. Abuchaar, E. Haidar, **A. Kailas**, H. Krishnan, H. Nakajima, M. Maile, J. Meier, S. Rajab, Y. Sharrab, S. Siko, J. Thompson, M. Yamamoto, and R. Deering, "Vehicle-to-infrastructure program cooperative adaptive cruise control," United States Department of Transportation, FHWA-JPO-16-257, 2015.

TUTORIALS

1. M. A. Ingram, **A. Kailas**, L. Thanyankizil, J. W. Jung, and G. Zhen,"Cooperative transmission for ad hoc and sensor networks," *First International Conference on Wireless VITAE*, Aalborg, Denmark, May 2009.

PRESENTATIONS

1. "California's race to zero," *2024 ITS CA Annual Conference and Exhibition*, Aug. 2024. San Francisco, CA. Moderator.
2. "Decarbonizing freight," *Maryland State Freight Advisory Committee Meeting*, Apr. 2024. Online. Panelist.
3. "Preparing charging infrastructure for heavy-duty electric trucks," *EV Charging Infrastructure USA 2024 Exhibition & Conference*, Mar. 2024. Orange County, CA. Speaker.
4. "Proactive infrastructure investment: Regulatory challenges and paradigm," *ATE Annual Meeting*, Mar. 2024. Washington, DC. Panelist.
5. "Developing energy storage and sustainable solutions to optimize renewables integration for a clean and green grid," *Green Transition Summit*, Feb. 2024. Palo Alto, CA. Panelist.
6. "Customer experience requesting new or upgraded electric service from the utility," *Rulemaking (R.)24-01-018 - Public Workshop on the Order Instituting Rulemaking to Implement Assembly Bill 50 and Senate Bill 410 – Electrical Energization Timing Targets*, Jan. 2024. Online. Panelist.
7. "Decarbonizing urban freight: Planning, equity, and engagement strategies to meet our national goals," *TRB Annual Meeting*, Jan. 2024. Washington, DC. Panelist.
8. "Harnessing ITS to address climate challenges," *2023 ITS CA Annual Conference and Exhibition*, Oct. 2023. Anaheim, CA. Moderator.
9. "Getting it built and energized ," *National EV Charging Initiative (NEVCI) Energize Summit: Accelerating EV Charging with Bold Policies + Action*, Sep. 2023. Online. Panelist.
10. "Taking you further with electric," *California Council for Environmental and Economic Balance Transportation Energy Task Force*, June 2023. Online. Panelist.
11. "Solution shark tank," *NEVCI Energize Workshop*, May 2023. Portland, OR. Panelist.
12. "Drayage business models and their ecosystem," *CALSTART Zero-Emission Drayage Coordination Group Meeting*, Apr. 2023. Online. Panelist.
13. "Making charging accessible and equitable – Who builds it? Who maintains it? Who pays for it?," *The Future of Electric Vehicles – Challenges and Opportunities Conference*, Feb. 2023. Chapel Hill, NC. Panelist.
14. "What are the implications for electricity demand and grid integrity for a range of EV scenarios?," *The Future of Electric Vehicles – Challenges and Opportunities Conference*, Feb. 2023. Chapel Hill, NC. Panelist.
15. "Lack of infrastructure on alternative fuel journey," *BizFed Institute's Sustainable Commerce and Supply Chain Forum*, Feb. 2023. Online. Panelist.
16. "Electric vehicles and green transportation," *Intelligent Transportation Society of the District of Columbia Annual Meeting*, Oct. 2022. Online. Panelist.

17. "Interactions between fleets and utilities," *New York and New Jersey Medium- and Heavy-Duty Fleet Workshop*, Oct. 2022. Online. Moderator.

18. "Volvo medium- and heavy-duty zero-emission vehicle (ZEV) current offerings, future plans, deployment considerations," *Maine Medium- and Heavy-Duty Vehicle Industry Stakeholder Group*, Sep. 2022. Online. Panelist.

19. "What does freight mobility have to do with you: A conversation with experts," *ITS World Congress*, Sep. 2022. Los Angeles, CA. Panelist.

20. "California – Leading the way in connected and automated vehicle advancements," *ITS World Congress*, Sep. 2022. Los Angeles, CA. Panelist.

21. "Building the road to a zero-emissions future," *8th Annual Environmental Justice Conference*, Sep. 2022. Online. Panelist.

22. "ZEVs: Planning, regulations, and technology," *Mobilize California Summit*, July 2022. Temecula, CA. Panelist.

23. "Designing incentives for commercial ZEVs and infrastructure," *CALSTART IIJA Workshop #3*, July 2022. Online. Panelist.

24. "Bringing battery-electric freight trucks to market: From demonstration to commercialization," *The Drive Electric Pennsylvania Coalition Meeting*, July 2022. Online. Invited Talk.

25. "Unscrambling the automated vehicle policy puzzle," *TRB Automated Road Transportation Symposium (ARTS)*, July 2022. Garden Grove, CA. Panelist.

26. "National Electric Vehicle Infrastructure (NEVI) considerations for commercial ZEV infrastructure," *CALSTART IIJA Workshop #2*, June 2022. Online. Panelist.

27. "Heavy-duty electrification: Lessons learned," *Sustain Southern California Driving Mobility 9*, June 2022. Irvine, CA. Panelist.

28. "What's ahead?," *IEEP Southern California E-Commerce & Logistics Summit*, June 2022. Ontario, CA. Panelist.

29. "The future of clean trucks," *Harbor Trucking Association Dray Tech 2022*, May 2022. Long Beach, CA. Panelist.

30. "Preparing for the zero-emission paradigm shift," *2022 ITS CA Annual Conference and Exhibition*, May 2022. Burlingame, CA. Moderator.

31. "The region's zero-emission transformation," *Southern California Association of Governments (SCAG) Regional Conference & General Assembly*, May 2022. Palm Springs, CA. Panelist.

32. "Redefining goods movement: Building an eco-system for the introduction of heavy-duty battery electric vehicles," *Inland Action Speaker Series*, May 2022. Online.

33. "Bringing ZEVs to market - Lessons from Volvo Group," *IEEP Southern California Logistics Policy Forum*, Apr. 2022. Online. Invited Talk.

34. "Bringing ZEVs to market - Lessons from Volvo Group," *California Council for Environmental and Economic Balance*, Mar. 2022. Online. Invited Talk.

35. *Joint Utilities' Public Workshop on Energization Timelines Associated with the Utilities' Electric Vehicle Infrastructure Tariffs*, Mar. 2022. Online. Panelist.

36. *California Air Resources Board (CARB) Medium and Heavy-Duty Infrastructure Work Group on Electricity and the Grid - Part 2*, Mar. 2022. Online. Panelist.

37. "Reducing air pollution and health impacts of freight movement in environmental justice communities through truck electrification," *Center for Advancing Research in Transportation Emissions, Energy and Health (CARTEEH) Webinar*, Mar. 2022. Online. Panelist.

38. *CARB Medium and Heavy-Duty Infrastructure Work Group on Costing and Funding*, Feb. 2022. Online. Panelist.

39. "Future of transportation," *California Transportation Foundation Mobility Symposium*, Feb. 2022. Online. Panelist.

40. "Decarbonizing heavy-duty transportation: Pathways and innovation," *Cleantech Forum San Francisco*, Jan. 2022. Rancho Mirage, CA. Panelist.

41. "Heavy-duty transportation - Technology advancements for emission improvements and efficiency considerations," *SAE Government Industry Meeting*, Jan. 2022. Washington, DC. Panelist.

42. "Transitioning to Class 8 battery-electric trucks - Infrastructure and policy," *Washington Trucking Associations' ZEVinar Series*, Jan. 2022. Online. Panelist.

43. *CARB Medium and Heavy-Duty Infrastructure Work Group on Electricity and the Grid*, Jan. 2022. Online. Panelist.

44. "Transitioning to zero-emission solutions for commercial vehicles and industrial applications," *TRB Annual Meeting*, Jan. 2022. Washington, DC. Invited Talk.

45. "Developing a workforce ecosystem for zero-emission freight operations," *TRB Workshop on Zero-Emission Freight Implementation: Issues, Challenges, and Solutions*, Jan. 2022. Washington, DC. Industry Discussant.

46. *CARB Medium and Heavy-Duty Infrastructure Work Group on Hydrogen*, Dec. 2021. Online. Panelist.

47. "Fueling the future for medium- and heavy-duty vehicles," *ITSA Annual Meeting*, Dec. 2021. Charlotte, NC. Panelist.

48. *Electrification Coalition Virginia Medium and Heavy-Duty EV Bootcamp*, Dec. 2021. Online. Panelist.

49. *SCAQMD Proposed Rule 2306 Working Group Meeting*, Dec. 2021. Invited Talk.

50. *U.S. White House Meeting on EV Charging Network*, Dec. 2021. Oral Testimony.

51. "Unlocking pilot and demonstration partnerships: A critical step to accelerating commercialization and deployment," *2021 CalTestBed Symposium*, Dec. 2021. Online. Panelist.

52. *CARB Medium and Heavy-Duty Infrastructure Work Group on Business Considerations*, Dec. 2021. Online. Panelist.

53. "Autonomous and electromobility solutions in commercial vehicle & industrial applications," *Association of Supply Chain Management (ASCM) Student Chapter at California State University San Bernardino Guest Speaker Series*, Nov. 2021. Online. Invited Talk.

54. "Driving the economy: The role of medium- and heavy-duty vehicles," *Forth's 2021 E-Mobility Diversity, Equity, and Inclusion Conference*, Nov. 2021. Online. Panelist.

55. "Decarbonization of transportation," *Sustainable Production Forum 2021*, Oct. 2021. Online. Panelist.

56. *SCAQMD Marine Port Committee Meeting*, Oct. 2021. Oral Testimony.

57. "The future of clean trucks," *Harbor Trucking Association Dray Tech 2021*, Sep. 2021. Long Beach, CA. Panelist.

58. "Battery tech workshop: Big tech breakthroughs for ultra-fast EV charging and wide-scale adoption," *Advanced Clean Transportation Expo*, Aug. 2021. Long Beach, CA. Panelist.

59. "Sustainable freight," *IEEE ITS Society Industry Webinar Series*, Aug. 2021. Online. Industry Discussant.

60. "Reaching Carbon neutral transportation sector," *2021 ITS CA Annual Conference and Exhibition*, Aug. 2021. San Diego, CA. Moderator.

61. "Introducing electromobility solutions into real-world trucking," *2021 ITS CA Annual Conference and Exhibition*, Aug. 2021. San Diego, CA. Panelist.

62. "Enabling EV technologies for commercial vehicles," *Go-Biz, LAEDC, Baden-Württemberg Electric Vehicle Workshop*, July 2021. Online. Panelist.

63. "How technology can create a more sustainable and resilient transportation system," *ITSA Sustainable Transportation Webinar*, July 2021.Online. Panelist.

64. "Trucking automation: Delivering freight on automated trucks today (Federal policy and legislation panel)," *2021 Automated Road Transportation Symposium*, July 2021. Online. Panelist.

65. "The societal impacts of automated freight," *AUVSI Automated Freight Summit*, July 2021. Online. Panelist.

66. "Solutions for heavy duty transportation – Now and in the future," *Sustainable Production Forum (SPF)*, June 2021. Online. Panelist.

67. "Planning for a zero emissions logistics future to maximize community benefits," *National Innovative Communities Conference 2021*, June 2021. Ontario, CA. Panelist.

68. "Port electrification strategies and programs," *Forth Webinar Series*, Apr. 2021. Online. Panelist.

69. "Moving towards greener mobility," *ITSA Sustainability and Transportation Series Part 2*, Feb. 2021. Online. Panelist.

70. "Electrification of heavy-duty trucks," *Colorado Energy Research Collaboratory Series*, Aug. 2020. Online. Panelist.

71. "Smart cities & the value of public-private partnerships," *TU Automotive Detroit*, Aug. 2020. Online. Panelist.

72. "Getting ready for electric commercial fleets: A panel of experts gives us their vision," *Inland Empire Regional Mobility Dialogue Series*, June 2020. Online. Moderator.

73. "Dude! Where's my CV?," *ITE Southern California and ITS CA Webinar*, June 2020. Online. Panelist.

74. "The unpaved road to commercializing battery electric freight trucks," *Advanced Clean Transportation Webinar*, May 2020. Online. Panelist.

75. "Industry insights on getting to scale for electric & hydrogen," *CALSTART M/HD ZE Infrastructure Working Group*, Apr. 2020. Online. Invited Talk.

76. "Volvo Group approach to connectivity and automated driving," *2019 Dubai World Congress For Self-Driving Transport*, Oct. 2019. Dubai, UAE. Invited Talk.

77. "Transportation innovation: What lies ahead?," *2019 Mobility 21 Southern California Transportation Summit Beyond the Limits*, Sep. 2019. Los Angeles, CA. Panelist.

78. "Modernizing America's seaports and airports," *2019 ITS CA Annual Conference and Exhibition*, Sep. 2019. Los Angeles, CA. Moderator.

79. "Electric trucks are not big cars," *Mobilize California*, Aug. 2019. Temecula, CA. Moderator.

80. "Freight breakthroughs," *CALSTART Leadership Circle Meeting*, July 2019. Long Beach, CA. Panelist.

81. "Automation in trucking," *Automated Vehicles Symposium*, July 2019. Orlando, FL. Panelist.

82. "ADAS and autonomous trucks," *Advanced Mobility 2025 conference*, June 2019. Detroit, MI. Panelist.

83. "Creating effective cross-sector collaborations for rolling out advanced technologies in society," *Advanced Mobility 2025 conference*, June 2019. Detroit, MI. Panelist.

84. "Partnerships & collaboration driving mobility," *TU Automotive Detroit*, June 2019. Detroit, MI. Panelist.

85. "Application pathways for connected and automated commercial vehicles" *ACEEE Forum on Connected and Automated Vehicles: Energy Impacts*, May 2019. Washington, DC. Panelist.

86. "Creating effective cross-sector collaborations for rolling out advanced technologies in society," *Advanced Clean Transportation Expo*, Apr. 2019. Long Beach, CA. Panelist.

87. "Application pathways for connected and automated commercial vehicles," *SAE Government Industry Meeting*, Apr. 2019. Washington, DC. Panelist.

88. "The race for autonomous vehicles - Are we there yet?," *ABA Transportation Mega-Conference*, Mar. 2019. New Orleans, LA. Panelist.

89. "New paradigm for managing emissions from transportation sources," *TRB Workshop*, Jan. 2019. Washington, DC. Panelist.

90. "Smart cities: Opportunity or threat? Building tech and partnership for new mobility," *Consumer Telematics Show*, Jan. 2019. Las Vegas, NV. Panelist.

91. "Evaluating connected and automated vehicle scenarios using test beds and deployments," *ITS CA Southern California Luncheon*, Dec. 2018. Buena Park. CA. Panelist.

92. "Logistics and fleet management," *IoT Expo NA*, Nov. 2018. Santa Clara, CA. Panelist.

93. "ADAS, platooning and the autonomous fleet," *Connected Fleets USA*, Nov. 2018. Atlanta, GA. Panelist.

94. "V2X - Going further with connectivity," *Connected Fleets USA*, Nov. 2018. Atlanta, GA. Panelist.

95. "Promoting sustainable transport solutions," *Southern California Association of Governments Transportation Committee*, Nov. 2018. Los Angeles, CA. Invited Talk.

96. "Taking the legislative temperature," *ADAS and Autonomous Vehicles USA,* Oct. 2018. Novi, MI. Panelist.

97. "E-commerce may double the number of urban truck trips by 2023: How can cities manage skyrocketing demand for load/unload spaces?," *2018 APA California Conference*, Oct. 2018. San Diego, CA. Panelist.

98. "Transformative developments in freight technology," *24th ITS CA Annual Conference and Exhibition*, Oct. 2018. Anaheim, CA. Invited Talk.

99. "CV private/public partnership," *OCTA Traffic Forum*, Sep. 2018. Orange, CA. Invited Talk.

100. "Accelerating climate action in the United States: What are we doing and what more can be done?," *Princeton University*, Sep. 2018. Princeton, NJ. Panelist.

101. "Autonomous freight vehicles: Benefits, risks, and governance," *ITS World Congress*, Sep. 2018. Copenhagen, Denmark. Invited Talk.

102. "Exploring technology in the future of goods movement," *Joint Transportation & Goods Movement and Innovation & Technology Council Meeting at the LA Chamber of Commerce*, Aug. 2018. Los Angeles, CA. Panelist.

103. "Connected vehicles," *Sustain OC Summer Reception with Tech in Motion*, July 2018. Irvine, CA. Panelist.

104. "On dedicated lanes for connected and autonomous vehicles," *Automated Vehicles Symposium*, July 2018. San Francisco, CA. Panelist.

105. "Trucking automation: Deployment challenges and opportunities," *Automated Vehicles Symposium*, July 2018. San Francisco, CA. Panelist.

106. "Mobility to address societal needs...the why," *Sustain Southern California Driving Mobility 5*, June 2018. Irvine, CA. Panelist.

107. "Approach to connected and automated driving - a Volvo Group perspective," *Automated Driving Systems Conference & Expo*, June 2018. Washington, DC. Invited Talk.

108. "Connecting cars & infrastructure," *TU Automotive Detroit*, June 2018. Detroit, MI. Panelist.

109. "Autonomous transport solutions are here. Are you ready?," *Rotary Club of Long Beach*, May 2018. Long Beach, CA. Invited Talk.

110. "Gaining efficiencies through connected and automated technologies," *Advanced Clean Transportation Expo*, May 2018. Long Beach, CA. Panelist.

111. "Cleaner future for goods movement," *IEEP Southern California E-Commerce & Logistics Summit*, Apr. 2018. Pomona, CA. Panelist.

112. "Preparing for autonomous vehicles," *19th APWA Annual Complete Streets and Technology Conference*, Apr. 2018. Carson, CA. Invited Talk.

113. "Clean air action plan (CAAP) 3.0," *Annual CITT State of the Trade and Transportation Industry Town Hall Meeting*, Mar. 2018. Long Beach, CA. Panelist.

114. "Truck fleet needs: What do you commercial customers want?," *Autonomous Vehicles Silicon Valley*, Feb. 2018. San Francisco, CA. Panelist.

115. "Autonomous vehicles," *Focus on the Future Conference*, Oct. 2017. San Francisco, CA. Panelist.

116. "Connecting AVs to X," *ADAS and Autonomous Vehicles USA*, Oct. 2017. Novi, MI. Panelist.

117. "How autonomous vehicles will change the way you drive," *Automotive Driving Museum Panel Discussion*, Oct. 2017. El Segundo, CA. Panelist.

118. "Interstate platooning," *Connected Fleets USA*, Sep. 2017. Atlanta, GA. Panelist.

119. "Overview of Volvo Group truck platooning activities," *Cooperative Truck Platooning System Demonstration Event by Transport Canada*, Aug. 2017. Montréal, QC, Canada. Invited Talk.

120. "The future of trucking is here: Platooning on the 110 freeway," *FuturePorts General Membership Meeting*, Aug. 2017. Long Beach, CA. Invited Talk. item "Supporting transportation innovations - Keeping California competitive," *California Transportation Commission's Technology Policy Forum*, Aug. 2017. Sacramento, CA. Invited Talk.

121. "Freight perspectives connected work zones," *Connected Vehicle Work Zone Notification System Commercial Vehicle information Systems & Network Stakeholder Workshop*, July 2017. Phoenix, AZ. Invited Talk.

122. "The disconnect with connected vehicle technology," *Association of California Cities - Orange County Transportation Forum*, July 2017. Brea, CA. Panelist.

123. "Trucking automation technology developments," *Automated Vehicles Symposium*, July 2017. San Francisco, CA. Panelist.

124. "Connected and automated vehicle status developments," *Sustain Southern California Driving Mobility 4*, June 2017. Irvine, CA. Panelist.

125. "Freight operations and innovation," *California Transportation Planning Conference*, May 2017. Walnut Creek, CA. Panelist.

126. "Autonomous and platooning trucks: How Soon? How Disruptive?," *California Trucking Association's 63rd Annual Membership Conference*, Jan. 2017. Monterey, CA. Panelist.

127. "Social, economic, environmental, and safety benefits of connected and autonomous vehicles," *Fifth Connected & Autonomous Vehicles Symposium*, Dec. 2016. Brooklyn, NY. Panelist.

128. "The roadmap to autonomous vehicles," *CALSTART Leadership Circle Meeting*, Nov. 2016. Milpitas, CA. Panelist.

129. "Train of trucks: The platooning challenge," *Connected Fleets USA: The Future of Fleets*, Nov. 2016. Atlanta, GA. Panelist.

130. "Advanced messaging concept development (AMCD)," *3rd SIP-adus Workshop on Connected and Automated Driving Systems*, Nov. 2016. Tokyo, Japan. Invited Talk.

131. "Automated trucks," *Department of Civil Engineering and Construction Engineering Management Seminar*, California State University at Long Beach, Nov. 2016. Long Beach, CA. Invited Talk.

132. "Connected and automated HD transportation solutions," *21st Century Truck Partnership Meeting*, Aug. 2016. Invited Talk.

133. "Automated trucks breakout session," *Automated Vehicles Symposium*, July 2016. San Francisco, CA. Panelist.

134. "CACC - V2X solutions to ACC challenges," *Automated Vehicles Symposium*, July 2016. San Francisco, CA. Invited Talk.

135. "Connected vehicle and assisted driving: Behavior in transition," *Sustain Southern California Driving Mobility 3*, June 2016. Irvine, CA. Invited Talk.

136. "Automated trucks," *ATA Leadership Conference*, Apr. 2016. Washington, D.C. Invited Talk.

137. "Solving the last-mile problems," *Department of Civil Engineering and Construction Engineering Management Seminar*, California State University at Long Beach, Apr. 2016. Long Beach, CA. Invited Talk.

138. "Heavy Metal: Should bus and truck automation come first?," *21st ITS CA Annual Meeting and Conference Exhibition*, Sep. 2015. Los Angeles, CA. Invited Talk.

139. "Intelligent transportation systems," *CleanTechOC Advanced Transportation Symposium*, June 2015. Irvine, CA. Invited Talk.

140. "Beyond your dashboard GPS ? Way Beyond," *SCAG Regional Conference & General Assembly*, May 2015. Palm Springs, CA. Panelist.

141. "Advancing Autonomous Vehicle Industry in Los Angeles," *Los Angeles Economic Development Council (LAEDC) e4Mobility Alliance*, Mar. 2015. Los Angeles, CA. Panelist.

142. "Directed discussion on the I-710 zero emissions truck corridor," *The First ASCE International Conference on Sustainable Infrastructure*, Nov. 2014. Long Beach, CA. Panelist.

143. "Vehicle, safety, and products - Intelligent transportation systems," *Fall North American Regulation Conference*, Volvo Group, Oct. 2014. Greensboro, NC. Invited Talk.

144. "Autonomous vehicle enablers", *Automated Driving and Truck Platooning Task Force* at the Technology and Maintenance Council Fall Meeting, Sep. 2014. Orlando, FL. Invited Talk.

145. "The future of California multi-modal integrated transportation system," *Transportation Research Board (TRB) Integrated Corridor Transportation Management Workshop*, June 2014. Irvine, CA. Panelist.

146. "Effectively using virtual antenna arrays in wireless networks," Olympus Communications Technology of America (CTA), Dec. 2013. San Diego, CA. Invited Talk.

147. "Effectively using virtual antenna arrays in wireless networks," Nokia Research Center, Oct. 2013. Berkeley, CA. Invited Talk.

148. "To cloud or not to cloud in e-Health," *15th IEEE International Conference on E-Health Networking, Applications, and Services (HealthCom)*, Oct. 2013. Lisbon, Portugal. Panelist.

149. "Toward perpetual wireless networks: Opportunistic large arrays with thresholds and energy harvesting," Corp. R&D, QUALCOMM, Inc., July 2013. San Diego, CA. Invited Talk.

150. Research outline talk at the *Small Businesses & Universities SBIR/STTR Summit* organized by SCRA-Boeing, Feb. 2013. Charleston, SC. Invited Talk.

151. Research outline talk at the *Dept. of Electrical Engineering & Institute of Communications Engineering Seminar*, National Tsing Hua University (NTHU), Sep. 2012. Hsinchu, Taiwan. Invited Talk.

152. "Advanced mobile applications and energy savings management in beyond LTE systems," *Research Seminar Series*, DOCOMO Communications Laboratories USA, Inc., Dec. 2010. Palo Alto, CA. Invited Talk.

153. "Toward perpetual wireless networks: Opportunistic large arrays with thresholds and energy harvesting," *School of Engineering Seminar*, University of California Santa Cruz, Oct. 2010. Santa Cruz, CA. Invited Talk.

154. "On wireless networking using concurrent cooperative transmissions and energy harvesting," *Engineering Seminar*, Gary and Mary West Wireless Health Institute, May 2010. San Diego, CA. Invited Talk.

155. "On wireless networking using concurrent cooperative transmissions and energy harvesting," *Department of Electrical and Computer Engineering Seminar*, University of North Carolina Charlotte, Apr. 2010. Charlotte, NC. Invited Talk.

156. "Releasing the green potential in wireless networks using cooperation and energy harvesting," *Department of Electrical and Computer Engineering Seminar*, Florida A&M University-Florida State University (FAMU-FSU) College of Engineering, Mar. 2010. Tallahassee, FL. Invited Talk.

157. "Concurrent cooperative transmissions and energy scavenging for wireless networks," *Department of Electrical Engineering Seminar*, University of North Texas, Mar. 2010. Denton, TX. Invited Talk.

158. "Concurrent cooperative transmissions and energy scavenging for wireless networks," *IEEE Information Theory Society Student Event, 44th Annual Conference on Information Sciences and Systems (CISS)*, Princeton University, Mar. 2010. Princeton, NJ. Poster.

159. "Concurrent cooperative transmissions and energy scavenging for wireless networks," *Electrical Engineering Department Seminar*, San Jose State University, Mar. 2010. San Jose, CA. Invited Talk.

160. "Wireless networking using multiple-relay cooperation and energy scavenging," *Department of Engineering Science Seminar*, Trinity University, Feb. 2010. San Antonio, TX. Invited Talk.

161. "Wireless networking using multiple-relay cooperation and energy scavenging," *Department of Electrical and Computer Engineering Seminar*, University of Denver, Jan. 2010. Denver, CO. Invited Talk.

162. "Toward designing sustainable wireless networks," *Department of Physics and Engineering Seminar*, Elizabethtown College, Dec. 2009. Elizabethtown, PA. Invited Talk.