Christian Poellabauer

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Higher Education

Georgia Institute of Technology — Atlanta, GA
Ph.D. in Computer Science — 2004
- Outstanding Dissertation Award
- Thesis: Q-Fabric: System Support for Continuous Online Quality Management
- Advisor: Professor Karsten Schwan

Vienna University of Technology — Vienna, Austria
Diplom-Ingenieur (M.S. in Computer Science/Engineering) — 1998
- Graduated with Distinction
- Thesis: A TTP-Based Measuring System
- Advisor: Professor Hermann Kopetz

Experience

- **Florida International University** (Miami, FL)
  - **College of Engineering & Computing** — 2024 - date
    Interim Associate Dean for Research & Graduate Studies
  - **Knight Foundation School of Computing and Information Sciences** — 2021 - date
    Professor
  - **Knight Foundation School of Computing and Information Sciences** — 2022 - 2024
    Graduate Program Director

- **University of Notre Dame** (Notre Dame, IN)
  - **Department of Computer Science and Engineering** — 2019 - 2021
    Full Professor
  - **Lucy Family Institute for Data & Society** — 2020 - 2021
    Associate Director
  - **Applied Analytics & Emerging Technologies Lab** — 2020 - 2021
    Founding Director
  - **Pulte Institute for Global Development** — 2019 - 2021
    Faculty Fellow
  - **iNDustry Labs** — 2020 - 2021
    Faculty Affiliate
  - **Institute for Precision Health** — 2015 - 2021
    Affiliated Faculty
  - **Center for Civic Innovation** — 2018 - 2021
    Affiliated Faculty
  - **Department of Computer Science and Engineering** — 2010 - 2019
    Associate Professor of Computer Science and Engineering

- **Wireless Institute, University of Notre Dame** (Notre Dame, IN)   2010 - 2012
  Executive Board Member
- **Department of Computer Science and Engineering**   2004 - 2010
  Assistant Professor of Computer Science and Engineering

- **Graz University of Technology** (Graz, Austria)   2018 - 2019
  Fulbright Scholar & Visiting Professor
- **Georgia Institute of Technology** (Atlanta, GA)   1998 - 2002
  Research and Teaching Assistant
- **Vienna University of Technology** (Vienna, Austria)   1997 - 1998
  Junior Lecturer
- **Universitat Politècnica de Catalunya** (Barcelona, Spain)   1997
  Erasmus Exchange Student
- **City University of New York (City College)** (New York, NY)   1996
  Exchange Student
- **Vienna University of Technology** (Vienna, Austria)   1994 - 1995
  Teaching Assistant

Industrial and Other Non-Academic Experience

- **HealthyPoints, LLC (South Bend, IN)**   2013 - 2021
  Co-founder and Chief Technology Officer
- **Call Light, LLC (Carmel, IN)**   2020 - 2021
  Co-founder
- **PatientsVoices, LLC (Kansas City, MO)**   2018 - 2021
  Consultant
- **Contect, Inc. d/b/a SpeechLight, Inc. (Chicago, IL)**   2013 - 2019
  Co-founder and Scientific Advisor
- **Emerald Active, LLC (South Bend, IN)**   2014 - 2017
  Co-founder
- **CloverApps, LLC (South Bend, IN)**   2010 - 2015
  Co-founder
- **Corporación Universitaria de Ibagué** (Ibagué, Colombia)   1998
  Summer Intern
- **Computer Associates** (Vienna, Austria)   1998
  Part-time Software Developer
- **Inter-American Development Bank** (Washington, DC)   1997
  Summer Intern
- **Philips iR3 Videowerk** (Vienna, Austria)   1995
  Summer Intern
- **Krone Ges.m.b.H.** (Vienna, Austria)   1993
  Electrical Engineer (financial transaction systems)

Honors and Awards

- **KFSCIS Excellence in Research Award** 2023
- **IEEE Computer Society Distinguished Contributor** 2021
- **Fulbright U.S. Scholar (Graz University of Technology Visiting Professor)** 2018 - 2019
- **Faculty Fellow, John A. Kaneb Center for Teaching and Learning** 2017 - 2019
- **First Place in Startup South Bend-Elkhart/Elevate Ventures** (Healthy Points, LLC) 2018
- **Edmund P. Joyce, C.S.C. Award for Excellence in Undergraduate Teaching** 2017
- **7th Audio/Visual Emotion Challenge, Winner of Depression Detection Task** 2017
- **IEEE Access Multimedia Contest, Winner** 2014
- **Meritorious Service Award, IEEE Computer Society** 2014
- **Best Paper Award, MobiHealth** 2020
- **ISCA Best Student Paper Award Nomination, INTERSPEECH** 2019
- **Best Paper Nomination, ICHI** 2016
- **Best Paper Award, HotPlanet** 2013
- **Best Student Paper Award, SensorKDD** 2012
- **Best Graduate Student Poster Award, Richard Tapia Celebration of Diversity in Computing Conference** 2008
- **Semifinalist in McCloskey Business Plan Competition** (Emerald Active, LLC) 2014
- **First Place in McCloskey Business Plan Competition** (Contect, Inc.) 2013
- **IEEE ICCCN Leadership Award** 2011
- **IBM Real-Time Innovation Award** 2008
- **NSF CAREER Award** 2006
- **Outstanding Doctoral Dissertation Award** 2005
  Awarded by the College of Computing of the Georgia Institute of Technology
- **Nomination for ACM Outstanding Dissertation Award** 2005
- **IBM Ph.D. Research Fellowship** 2002 - 2004
  Mentor: Dr. Hubertus Franke (IBM T. J. Watson Research Center)
- **Scholarship for Excellent Performance as a Student** 1998
  Awarded by the Faculty of Technical and Natural Sciences
  of the Vienna University of Technology
- **Scholarship for Excellent Performance as a Student** 1998
  Awarded by the Rector of the Vienna University of Technology
- **Info-Academy Award** 1997
  Awarded by Computer Associates
- **Erasmus Scholarship** 1996
  Scholarship for an exchange semester at the Universitat Politècnica de Catalunya
- **Joint Study Scholarship** 1995 - 1996
  Scholarship for an exchange semester at the City University of New York

Professional Memberships

- **Institute of Electrical and Electronics Engineers (IEEE)**, senior member   1997 - date
  IEEE Computer Society
  IEEE Communications Society
  Technical Committee on Real-Time Systems

- **Association for Computing Machinery (ACM)**, senior member   1997 - date
  SIGOPS Membership
  SIGMOBILE Membership
  SIGBED Membership
  SIGCOMM Membership
  SIGKDD Membership

- **USENIX (The Advanced Computing Systems Association)**, full member   1997 - date
- **American Association for the Advancement of Science**, member   2009 - date
- **Institute for Computer Sciences, Social-Informatics, and
  Telecommunications Engineering**, member   2009 - date
- **Austrian Computer Society (OCG)**, member   2004 - date

Technical Publications

Doctoral Thesis

- Christian Poellabauer, **"Q-Fabric: System Support for Continuous Online Quality
  Management"**, Georgia Institute of Technology, April 2004.

Books and Monographs

1. Waltenegus Dargie and Christian Poellabauer, **"Fundamentals of Wireless Sensor Networks:
   Theory and Practice"** (textbook; translated into Chinese and Persian), Wiley-Blackwell, John Wiley
   and Sons, Ltd., September 2010.

Book Chapters (@ indicates graduate student)

1. Sudip Vhaduri and Christian Poellabauer, **"Biometrics for Wearable Devices"**, In: Jajodia S.,
   Samarati P., Yung M. (eds) Encyclopedia of Cryptography, Security and Privacy. Springer, Berlin,
   Heidelberg, 2021.

2. Josh Siva[@] and Christian Poellabauer, **"Robot and Drone Localization in GPS-Denied Areas"**,
   The Philosophy of Mission-Oriented Wireless Sensor Networks, Habib Ammari, ed., pp. 597-631,
   Springer, September 2019.

3. Mehdi Golestanian[@], Joshua Siva[@], and Christian Poellabauer, **"Radio Frequency Based Indoor
   Localization in Ad-Hoc Networks"**, Ad Hoc Networks, Jesus Hamilton Ortiz and Alvaro Pachon de
   la Cruz, eds., InTech, ISBN 978-953-51-4924-8, 2017.

4. Pramita Mitra[@] and Christian Poellabauer, **"Asymmetric Link Routing in Location-Aware
   Mobile Ad-Hoc Networks"**, Advancing Embedded Systems and Real-Time Communications with
   Emerging Technologies, Seppo Virtanen Ed., IGI Global, 2014.

5. Christian Poellabauer, **"Range-Free Localization Techniques"**, The Art of Wireless Sensor
   Networks, Habib Ammari Ed., Springer, 2013.

6. Pramita Mitra[@] and Christian Poellabauer, **"Opportunistic Routing in Mobile Ad-Hoc Networks"**, Routing in Opportunistic Networks, Isaac Woungang Ed., Springer, 2013.

7. Nikhil Yadav[@] and Christian Poellabauer, **"Challenges of Mobile Health Applications in Developing Countries"**, E-Healthcare Systems and Wireless Communications: Current and Future Challenges, Mohamed Watfa Ed., IGI Global, 2011.

8. Pramita Mitra[@] and Christian Poellabauer, **"Routing in Asymmetric Wireless Ad-Hoc Networks"**, Handbook of Research on Next Generation Networks and Ubiquitous Computing, Samuel Pierre Ed., IGI Global, 2009.

Refereed Journal Publications ([@] indicates graduate student)

1. Sajad Farrokhi[@], Waltenegus Dargie, and Christian Poellabauer, **"Human Activity Recognition Based on Wireless Electrocardiogram and Inertial Sensors"**, IEEE Sensors Journal (to appear), 2024. (Impact factor 4.325)

2. Rafael Trujillo[@], Enshi Zhang[@], John Michael Templeton, and Christian Poellabauer, **"Predicting Long-Term Sleep Deprivation Using Wearable Sensors and Health Surveys"**, Computers in Biology and Medicine (to appear), 2024. (Impact factor 7.7)

3. Morteza Rahimi[@], Zeina Al Masry, John Michael Templeton, Sandra Schneider, and Christian Poellabauer, **"A Comprehensive Multi-Functional Approach for Measuring Parkinson's Disease Severity"**, Applied Clinical Informatics (to appear), 2024. (Impact factor 2.1)

4. Enshi Zhang[@], Rafael Trujillo[@], John Michael Templeton, and Christian Poellabauer, **"A Study on Mobile Crowd Sensing Systems for Healthcare Scenarios"**, IEEE Access, Vol. 11, December 2023. (Impact factor 3.9)

5. John Michael Templeton, Christian Poellabauer, and Sandra Schneider, **"Classification of Parkinson's Disease and its Stages using Machine Learning"**, Scientific Reports, August 2022. (Impact factor 4.9)

6. John Michael Templeton, Christian Poellabauer, and Sandra Schneider, **"Negative Effects of COVID-19 Stay-at-Home Mandates on Physical Intervention Outcomes: A Preliminary Study"**, Journal of Parkinson's Disease, 2021. (Impact factor 5.2)

7. Shikang Liu[@], Fatemeh Vahedian[@], David Hachen, Omar Lizardo, Christian Poellabauer, Aaron Striegel, and Tijana Milenkovic, **"Heterogeneous Network Approach to Predict Individuals? Mental Health"**, ACM Transactions on Knowledge Discovery from Data, 2020. (Impact factor 3.290)

8. Yuan Gong[@], Jian Yang[@], and Christian Poellabauer, **"Detecting Replay Attacks Using Multi-Channel Audio: A Neural Network-Based Method"**, IEEE Signal Processing Letters, vol. 27, pp. 920-924, 2020, doi:10.1109/LSP.2020.2996908. (Impact factor 4.180)

9. John Michael Templeton[@], Christian Poellabauer, and Sandra Schneider, **"Enhancement of Neurocognitive Assessments Using Smartphone Capabilities: A Survey"**, Journal of Medical Internet Research (JMIR) Mhealth and Uhealth, 2020. (Impact factor 4.945)

10. Jian Yang[@], Christian Poellabauer, Pramita Mitra, and Cynthia Neubecker, **"Beyond Beaconing: Emerging Applications and Challenges of BLE"**, Ad Hoc Networks vol. 97, no. 102015, February 2020. (Impact Factor: 3.643)

11. Sudip Vhaduri[@] and Christian Poellabauer, **"Multi-modal Biometric-based Implicit Authentication of Wearable Device Users"**, IEEE Transactions on Information Forensics and Security, April 2019. (Impact Factor: 6.211)

12. Mehdi Golestanian[@] and Christian Poellabauer, **"VariLoc: Path Loss Exponent Estimation and Localization Using Multi-Range Beaconing"**, IEEE Communications Letters, vol. 23, no. 4, pp. 724-727, April 2019. (Impact Factor: 3.457)

13. Shikang Liu, David Hachen, Omar Lizardo, Christian Poellabauer, Aaron Striegel, and Tijana Milenkovic, **"Network analysis of the NetHealth data: Exploring co-evolution of individuals' social network positions and physical activities"**, Applied Network Science, 3:45, November 2018.

14. Sudip Vhaduri[@] and Christian Poellabauer, **"Opportunistic Discovery of Personal Places Using Multi-source Sensor Data"**, IEEE Transactions on Big Data, September 2018. (Impact Factor: 5.67)

15. Jose Benedetto[@], Guillermo Valenzuela, Pablo Sanabria, Andres Neyem, Jaime Navon, and Christian Poellabauer, **"MobiCOP: A Scalable and Reliable Mobile Code Offloading Solution**, Wireless Communications and Mobile Computing, vol. 2018, Article ID 8715294, 2018.

16. Sudip Vhaduri[@] and Christian Poellabauer, **"Hierarchical Cooperative Discovery of Personal Places from Location Traces"**, IEEE Transactions on Mobile Computing, November 2017. (Impact factor 3.822)

17. Sudip Vhaduri[@] and Christian Poellabauer, **"Design Factors of Longitudinal Smartphone-based Health Surveys"**, Journal of Healthcare Informatics, volume 1, issue 1, pp. 52-91, June 2017. (Impact factor 3.210)

18. Megan K. O'Brien, Nicholas Shawen, Chaithanya K. Mummidisetty, Saninder Kaur, Xiao Bo[@], Christian Poellabauer, Konrad Kording, and Arun Jayaraman, **"Activity Recognition for Persons with Stroke using Mobile Phone Technology"**, Journal of Medical Internet Research, 19(5):e184, May 2017. (Impact factor 4.671)

19. Jian Yang[@], Christian Poellabauer, and Pramita Mitra, **"Using Bluetooth Low Energy for Dynamic Information-Sharing in Vehicle-to-Vehicle Communication"**, SAE International Journal of Passenger Cars - Electronic and Electrical Systems, vol. 10, no. 2017-01-1650, 2017.

20. Louis Daudet[@], Nikhil Yadav[@], Matthew Perez*, Christian Poellabauer, Sandra Schneider, and Alan Huebner, **"Portable mTBI Assessment Using Temporal and Frequency Analysis of Speech"**, Journal of Biomedical and Health Informatics, 2017. (Impact factor 3.850)

21. Pramita Mitra, Mehdi Golestanian[@], and Christian Poellabauer, **"Quality of Service Specifications in Small-Scale Proximity-Aware Mobile Sensor Sharing Frameworks"**, Journal on Mobile Information Systems, vol. 2016, Article ID 8186310, 2016.

22. Nikhil Yadav[@], Mehrdad Aliasgari[@], and Christian Poellabauer, **"Mobile Healthcare in an Increasingly Connected Developing World"**, International Journal of Privacy and Health Information Management (IJPHIM), 4(2), July-December 2016.

23. Zhen Tong[@], Hongsheng Lu[@], Martin Haenggi, and Christian Poellabauer, **"A Stochastic Geometry Approach to the Modeling of DSRC for Vehicular Safety Communication"**, IEEE Transactions on Intelligent Transportation Systems, 2016. (Impact factor 4.051)

24. Christian Poellabauer, Nikhil Yadav[@], Louis Daudet[@], Sandra Schneider, Carlos Busso, and Patrick Flynn, **"Challenges in Concussion Detection Using Vocal Acoustic Biomarkers"**, IEEE Access, vol. 3, pp. 1143-1160, July 2015. (Impact factor 3.557)

25. Pramita Mitra[@] and Christian Poellabauer, **"Efficient Group Communications in Location Aware Mobile Ad-Hoc Networks"**, Pervasive and Mobile Computing (Elsevier), 2013. (Impact factor 2.974)

26. Jun Yi[@], Christian Poellabauer, and Liqiang Zhang, **"Configurable Time Synchronization for Mobile Multihop Networks"**, Journal of Communications, Special Issue on Advances in Communications and Networking, 2013. (Impact factor: 3.753)

27. Pramita Mitra[@] and Christian Poellabauer, **"Efficient Group Communications in Location Aware Mobile Ad-Hoc Networks"**, Pervasive and Mobile Computing (Elsevier), 2012. (Impact factor 2.974)

28. Dinesh Rajan[@] and Christian Poellabauer, **"Cooperative Energy Management in Distributed Wireless Real-Time Systems**, Wireless Networks (Springer), 2011. (Impact factor 1.59)

29. Pramita Mitra[@] and Christian Poellabauer, **"Asymmetric Geographic Forwarding: Exploiting Link Asymmetry in Location Aware Routing"**, International Journal of Embedded and Real-Time Communication Systems (IJERTCS), 2011.

30. Jun Yi[@], Christian Poellabauer, Xiaobo Sharon Hu, and Liqiang Zhang, **"Minimum Bandwidth Reservations for Periodic Streams in Wireless Real-Time Systems**, IEEE Transactions on Mobile Computing, Volume 10, Number 4, April 2011. (Impact factor 3.822)

31. Nadine Shillingford[@] and Christian Poellabauer, **"A Framework for Route Configurability in Power-Constrained Wireless Mesh Networks"**, Ad Hoc Networks Journal, Volume 8, Number 8, 857-871, November 2010. (Impact factor 3.151)

32. Hongsheng Lu[@] and Christian Poellabauer, **"Balancing Broadcast Reliability and Transmission Range in VANETs"**, Mobile Computing and Communications Review, Volume 14, Number 4, Oktober 2010. (Impact factor: 3.57)

33. Chris Miller[@] and Christian Poellabauer, **"Reliable and Efficient Reprogramming in Sensor Networks"**, ACM Transactions on Sensor Networks, 2010. (Impact factor 5.55)

34. Jun Yi[@], Christian Poellabauer, Xiaobo Sharon Hu, Thidapat Chantem, Liqiang Zhang, **"Dynamic Channel Reservations for Wireless Multihop Communication"**, Mobile Computing and Communications Review, Volume 14, Number 3, July 2010. (Impact factor: 3.57)

35. Jun Yi[@] and Christian Poellabauer, **"Real-Time Multicast for Wireless Multihop Networks"**, Elsevier Journal on Computers and Electrical Engineering, Special Issue on Emerging Wireless Networks, 2009.

36. Thidapat Chantem[@], X. Sharon Hu, Christian Poellabauer, Jun Yi[@], and Liqiang Zhang, **"Network-Aware, Energy-Conscious, Fair Service for Real-Time Applications on Multiprocessor SoC"**, ACM SIGBED Review, Volume 7, Number 1, January 2010.

37. Christian Poellabauer, Dinesh Rajan[@] and Russell Zuck*, **"LD-DVS: Load-Aware Dual-Speed Dynamic Voltage Scaling"**, International Journal of Embedded Systems, Vol. 4, No. 2, pp. 112-126, 2009.

38. David Salyers[@], Yingxin Jiang[@], Aaron Striegel, and Christian Poellabauer, **"JumboGen: Dynamic Jumbo Frame Generation for Network Performance Scalability"**, ACM Computer Communications Review (CCR), October 2007. (Impact factor 3.81)

39. Christian Poellabauer and Karsten Schwan, **"Flexible Cross-Domain Event Delivery for Quality-Managed Multimedia Applications"**, ACM Transactions on Multimedia Computing, Communications and Applications (TOMCCAP), Vol. 1, No. 3, August 2005. (Impact factor 2.28)

40. Richard West, Yuting Zhang, Karsten Schwan, and Christian Poellabauer, **"Dynamic Window-Constrained Scheduling of Real-Time Streams in Media Servers"**, IEEE Transactions on Computers, Vol. 53, No. 6, pp. 774-659, 2004. (Impact factor 2.916)

41. Sandip Agarwala, Christian Poellabauer, Jiantao Kong, Karsten Schwan, and Matthew Wolf, **"System-Level Resource Monitoring for Distributed Applications"**, Journal of Grid Computing, Vol. 1, No. 3, 2003. (Impact factor 1.556)

Refereed Conference and Workshop Publications ([@] indicates graduate student)

1. Enshi Zhang[@], Rafael Trujillo[@], and Christian Poellabauer, **"Participant Engagement and Data Quality: Lessons Learned from a Mental Wellness Crowdsensing Study"**, Proceedings of the 27th ACM SIGCHI Conference on Computer-Supported Cooperative Work & Social Computing (CSCW), San Jose, Costa Rica, November 2024.

2. Enshi Zhang[@], Rafael Trujillo[@], and Christian Poellabauer, **"The MERSA Dataset and a Transformer-Based Approach for Speech Emotion Recognition"**, Proceedings of the 62nd Annual Meeting of the Association for Computational Linguistics (ACL), Bangkok, Thailand, August 2024.

3. Arpan Mahara[@], Jose Fuentes, Christian Poellabauer, and Naphtali D. Rishe, **"STRCacheML: A Machine Learning and Simulation Assisted Content Caching Policy for Streaming Services"**, Proceedings of the 5th International Conference on Machine Learning and Soft Computing (MLSC 2024), Vancouver, Canada, February 2024.

4. Upeka De Silva, Samaneh Madanian, John Michael Templeton, Christian Poellabauer, Sandra L. Schneider, and Ajit Narayanan, **"Design Concept of a Mental Health Monitoring Application with Explainable Assessments"**, Proceedings of the 34th Australasian Conference on Information Systems (ACIS), Wellington, New Zealand, December 2023.

5. Abhay Goyal, Nimay Parekh, Lam Yin Cheung, Koustuv Saha, Frederick L Altice, Robin O'Hanlon, Roger Ho Chun Man, Chunki Fong, Christian Poellabauer, Honoria Guarino, Pedro Mateu Gelabert, and Navin Kumar, **"Predicting Opioid Use Outcomes in Minoritized Communities (Abstract)"**, Proceedings of the 14th ACM Conference on Bioinformatics, Computational Biology, and Health Informatics (ACM-BCB), Houston, Texas, September 2023.

6. Morteza Rahimi[@], Zeina Al Masry, John Michael Templeton, Sandra Schneider, and Christian Poellabauer, **"Beyond Motor Symptoms: Toward a Comprehensive Grading of Parkinson's Disease Severity"**, Proceedings of the 14th ACM Conference on Bioinformatics, Computational Biology, and Health Informatics (ACM-BCB), Houston, Texas, September 2023.

7. Jian Yang, Bryan (Ning) Xia, John Bailey, Yuan Gong, John Michael Templeton, and Christian Poellabauer, **"Improving Computational Efficiency of Voice Anti-Spoofing Models"**, Proceedings of the 20th IEEE International Conference on Mobile Ad-Hoc and Smart Systems (MASS), Toronto, Canada, September 2023.

8. Upeka De Silva, Samaneh Madanian, John Michael Templeton, Christian Poellabauer, Sandra L. Schneider, and Dave Parry, **Mental Health Monitoring: Design Concept of a Smartphone Application"**, Poster presentation at the upcoming MedInfo 2023 conference, Sydney, Australia, July 2023.

9. Samar Swaid, Selcuk Uluagac, Christian Poellabauer, **"Creating a Community-of-Practice Around Hardware Cybersecurity Education: The HaHa Project"**, Proceedings of the International Conference on Contemporary Issues in Science, Engineering, and Technology (ICCISET), New York, NY, July 2023.

10. John Michael Templeton, Christian Poellabauer, and Sandra Schneider, **"Using Wearable Devices to Mitigate Bias in Patient Reported Outcomes for Aging Populations"**, Proceedings of the 11th EAI International Conference on Wireless Mobile Communication and Healthcare (MobiHealth), October 2022.

11. Samaneh Madanian, David Parry, Olayinka Adeleye, Christian Poellabauer, Farhaan Mirza, Shilpa Mathew, Sandy Schneider, **"Automatic Speech Emotion Recognition Using Machine Learning: Digital Transformation of Mental Health"**, Proceedings of the Annual Pacific Asia Conference on Information Systems (PACIS), Taipei-Sydney, July 2022.

12. John Michael Templeton[@], Christian Poellabauer, and Sandra Schneider, **"Towards Symptom-Specific Intervention Recommendation Systems"**, Journal of Parkinson's Disease, July 2022.

13. Yu Jiang[@] and Christian Poellabauer, **"Medication Error Detection Using Contextual Language Models"**, Proceedings of the 6th International Workshop on Health Intelligence (W3PHIAI), Vancouver, Canada, February – March 2022.

14. Yu Jiang[@] and Christian Poellabauer, **"A Sequence-to-sequence Based Error Correction Model for Medical Automatic Speech Recognition"**, Proceedings of the 3rd Workshop on Artificial Intelligence Techniques for BioMedicine and HealthCare (AIBH), Virtual Conference, December 2021.

15. John Michael Templeton[@], Christian Poellabauer, and Sandra Schneider, **"The Case for Symptom-Specific Neurological Digital Biomarkers"**, Proceedings of the 10th EAI International Conference on Wireless Mobile Communication and Healthcare (MobiHealth), Chongqing, China, November 2021.

16. John Michael Templeton[@], Christian Poellabauer, and Sandra Schneider, **"Design of a Neurocognitive Digital Health System (NDHS) for Neurodegenerative Diseases"**, Proceedings of the ACM Workshop on Future of Digital Biomarkers (MobiSys '21 Biomarkers Workshop), Virtual Conference, June 2021, doi: 10.1145/3469266.3471157

17. Jian Yang[@], Christian Poellabauer, Pramita Mitra, Arpita Chand, Abhishek Sharma and Cynthia Neubecker, **"Intentions Prediction at Road Intersections using Ensemble Hidden Markov Models"**, Proceedings of the 23rd International Conference on Artificial Intelligence (ICAI), Las Vegas, Nevada, July 2021.

18. Sayanton Vhaduri Dibbo, Yugyeong Kim, Sudip Vhaduri and Christian Poellabauer, **"Visualizing College Students' Geo-Temporal Context-Varying Significant Phone Call Patterns"**, Proceedings of the 9th IEEE International Conference on Healthcare Informatics (ICHI), Virtual Conference, August 2021.

19. Chih-You Chen, Sayanton Vhaduri Dibbo, Sudip Vhaduri and Christian Poellabauer, **"Predicting Next Call Duration: A Future Direction to Promote Mental Health in the Age of Lockdown"**, Proceedings of the 45th IEEE Signature Conference on Computers, Software, and Applications (COMPSAC), Virtual Conference, July 2021.

20. Jian Yang[@] and Christian Poellabauer, **"SATSS: A Self-Adaptive Task Scheduling Scheme for Mobile Edge Computing"**, Proceedings of the 30th International Conference on Computer Communications and Networks (ICCCN), Virtual Conference, July 2021.

21. Yugyeong Kim, Sudip Vhaduri, and Christian Poellabauer, **"Understanding College Students' Phone Call Behaviors Towards a Sustainable Mobile Health and Wellbeing Solution"**, Proceedings of the 3rd International Conference on Systems Engineering (CIIS), Virtual Conference, November 2020.

22. Louis Daudet[@], Christian Poellabauer, and Sandra Schneider, **"Experiences in Designing a Mobile Speech-Based Assessment Tool for Neurological Diseases"**, Proceedings of the 9th EAI International Conference on Wireless Mobile Communication and Healthcare (MobiHealth), Virtual Conference, November 2020.

23. John Michael Templeton[@], Christian Poellabauer, and Sandra Schneider, **"Design of a Mobile-Based Neurological Assessment Tool for Aging Populations"**, Proceedings of the 9th EAI International Conference on Wireless Mobile Communication and Healthcare (MobiHealth), Virtual Conference, November 2020 **(Best Paper Award)**.

24. Jian Yang[@], Christian Poellabauer, Pramita Mitra, Abhishek Sharma, Cynthia Neubecker, and Arpita Chand, **"Generating Contextual Trajectories From User Profiles"**, Proceedings of the 3rd ACM SIGSPATIAL International Workshop on GeoSpatial Simulation (GeoSim), Virtual Conference, November 2020.

25. Chih-You Chen[@], Sudip Vhaduri, and Christian Poellabauer, **"Estimating Sleep Duration from Temporal Factors, Daily Activities, and Smartphone Use"**, IEEE Computer Society Signature Conference on Computers, Software and Applications (COMPSAC), Virtual Conference, July 2020.

26. Josh Siva[@] and Christian Poellabauer, **"Connection-Oriented BLE Traffic Servicing Characteristics on Android Devices"**, IEEE ComSoc International Communications Quality and Reliability Workshop, Virtual Conference, May 2020.

27. Shikang Liu[@], David Hachen, Omar Lizardo, Christian Poellabauer, Aaron Striegel, and Tijana Milenkovic, **"The Power of Dynamic Social Networks to Predict Individuals' Mental Health"**, Proceedings of the 2020 Pacific Symposium on Biocomputing (PSB), The Big Island, Hawaii, January 2020.

28. Bryan Xia[@], Yuan Gong[@], Yizhe Zhang, and Christian Poellabauer, **"Second-order Non-local Attention Networks for Person Re-identification"**, Proceedings of the 2019 International Conference on Computer Vision (ICCV), Seoul, Korea, October-November 2019.

29. Yuan Gong[@], Jian Yang[@], Jacob Huber*, Mitchell MacKnight*, and Christian Poellabauer, **"ReMASC: Realistic Replay Attack Corpus for Voice Controlled Systems"**, Proceedings of the 20th Annual Conference of the International Speech Communication Association (INTERSPEECH), Graz, Austria, September 2019 **(ISCA Best Student Paper Award Nomination)**.

30. Josh Siva[@], Jian Yang[@], and Christian Poellabauer, **"Connection-less BLE Performance Evaluation on Smartphones"**, Proceedings of the 16th International Conference on Mobile Systems and Pervasive Computing (MobiSPC), August 2019, Halifax, Canada.

31. Yuan Gong[@], Boyang Li, Christian Poellabauer, and Yiyu Shi, **"Real-time Adversarial Attacks"**, Proceedings of the 28th International Joint Conference on Artificial Intelligence (IJCAI), Macao, China, August 2019.

32. Yuan Gong[@] and Christian Poellabauer, **"Crafting Adversarial Examples for Speech Paralinguistics Applications"**, Proceedings of the DYnamic and Novel Advances in Machine Learning and Intelligent Cyber Security (DYNAMICS) Workshop, San Juan, Puerto Rico, December 2018.

33. Yuan Gong[@] and Christian Poellabauer, **"Deep Obfuscation: Precise Masking of Sensitive Information to Protect Against Machine Learning Adversaries"**, Proceedings of the 2018 Annual Computer Security Applications Conference Poster Session, San Juan, Puerto Rico, December 2018.

34. Jose Benedetto[@], Pablo Sanabria, Andres Neyem, Jaime Navon, Christian Poellabauer, and Bryan Xia[@], **"Deep Neural Networks on Mobile Healthcare Applications: Practical Recommendations"**, Proceedings of the 12th International Conference on Ubiquitous Computing and Ambient Intelligence (UCAmI), Punta Canta, Dominican Republic, December 2018.

35. Afzal Hossain[@] and Christian Poellabauer, **"Efficient Location Sensing in Longitudinal Cohort Studies"**, Proceedings of 43rd IEEE Conference on Local Computer Networks (LCN), Chicago, IL, October 2018.

36. Yuan Gong[@] and Christian Poellabauer, **Impact of Aliasing on Deep CNN-Based End-to-End Acoustic Models"**, Proceedings of InterSpeech 2018, Hyderabad, India, September 2018.

37. Yuan Gong[@], Hasini Yatawatte[@], Christian Poellabauer, Sandra Schneider and Susan Latham, **"Automatic Autism Spectrum Disorder Detection Using Everyday Vocalizations Captured by Smart Devices"**, Proceedings of the 9th ACM Conference on Bioinformatics, Computational Biology, and Health Informatics (ACM-BCB), Washington, DC, August-September 2018.

38. Mehdi Golestanian[@], Hongsheng Lu, Christian Poellabauer, and John Kenney, **"RSSI-Based Ranging for Pedestrian Localization"**, Proceedings of the 88th IEEE Vehicular Technology Conference (VTC2018-Fall), Chicago, IL, August 2018.

39. Yuan Gong[@] and Christian Poellabauer, **"Protecting Voice Controlled Systems Using Sound Source Identification Based on Acoustic Cues"**, Proceedings of the 27th International Conference on Computer Communications and Networks (ICCCN), Hangzhou, China, July-August 2018.

40. Hasini Yatawatte[@], Christian Poellabauer, Sandra Schneider, and Susan Latham, **"Deviations of Acoustic Low-Level Descriptors in Speech Features of a Set of Triples, One With Autism"**, Proceedings of the 40th International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC), Honolulu, HI, July 2018.

41. Sudip Vhaduri[@] and Christian Poellabauer, **"Opportunistic Discovery of Personal Places Using Smartphone and Fitness Tracker Data"**, Proceedings of the Sixth IEEE International Conference on Healthcare Informatics (ICHI 2018), New York, NY, June 2018.

42. Pablo Sanabria[@], Jose Benedetto[@], Andres Neyem, Jaime Navon, and Christian Poellabauer, **"Code Offloading Solutions for Audio Processing in Mobile Healthcare Applications: A Case Study"**, Proceedings of the 5th IEEE/ACM International Conference on Mobile Software Engineering and Systems, Gothenburg, Sweden, May 2018.

43. Yuan Gong[@] and Christian Poellabauer, **"An Overview of Vulnerabilities of Voice Controlled Systems"**, Proceedings of the 1st International Workshop on Security and Privacy for the Internet-of-Things (IoTSec), Orlando, FL, April 2018.

44. Sudip Vhaduri[@] and Christian Poellabauer, **"Implicit Authentication in Wearables Using Multiple Biometrics"**, Proceedings of the 1st International Workshop on Security and Privacy for the Internet-of-Things (IoTSec), Orlando, FL, April 2018.

45. Xiao Bo[@], Christian Poellabauer, Megan K. O'Brien, Chaithanya Krishna Mummidisetty, and Arun Jayaraman, **"Detecting Label Errors in Crowd-Sourced Smartphone Sensor Data"**, Proceedings of the 3rd International Workshop on Social Sensing (SocialSens), Orlando, FL, April 2018.

46. Sudip Vhaduri[@] and Christian Poellabauer, **"Impact of Different Pre-Sleep Phone Use Patterns on Sleep Quality"**, Proceedings of the 15th International Conference on Wearable and Implantable Body Sensor Networks, Las Vegas, NV, March 2018.

47. Yuan Gong[@] and Christian Poellabauer, **"Topic Modeling Based Multi-modal Depression Detection"**, Proceedings of the 7th Audio/Visual Emotion Challenge and Workshop (AVEC), Mountain View, CA, October 2017. **(Depression Challenge Winner)**

48. Sudip Vhaduri[@] and Christian Poellabauer, **"Reliable Wearable-User Authentication Using Phsyiological and Behavioral Metrics"**, Proceedings of the IEEE 28th Annual International Symposium on Personal, Indoor, and Mobile Radio Communications (PIMRC), Montreal, QC, Canada, October 2017.

49. Yuan Gong[@] and Christian Poellabauer, **"Continuous Assessment of Children's Emotional States using Acoustic Analysis"**, Proceedings of the 5th IEEE International Conference on Healthcare Informatics (ICHI), Park City, UT, August 2017.

50. Xiao Bo[@], Alan Huebner, Christian Poellabauer, Megan K. O'Brien, Chaithanya Krishna Mummidisetty, and Arun Jayaraman, **"Evaluation of Sensing and Processing Parameters for Human Action Recognition"**, Proceedings of the 5th IEEE International Conference on Healthcare Informatics (ICHI), Park City, UT, August 2017.

51. Sudip Vhaduri[@] and Christian Poellabauer, **"Towards Reliable Wearable-User Identification (Extended Abstract)"**, Proceedings of the Doctoral Consortium at ICHI 2017, Park City, UT, August 2017.

52. Jian Yang[@], Christian Poellabauer, Pramita Mitra, Jayanthi Rao, and Cynthia Neubecker, **"BlueNet: BLE-Based Ad-Hoc Communications Without Predefined Roles"**, Proceedings of the 2017 IEEE Smart World Congress (SmartWorld 2017), San Francisco, CA, August 2017.

53. Sudip Vhaduri[@], Christian Poellabauer, Aaron Striegel, Omar Lizardo, and David Hachen, **"Discovering Places of Interest Using Sensor Data from Smartphones and Wearables"**, Proceedings of the IEEE Ubiquitous Intelligence and Computing (UIC) Conference, East Bay, Silicon Valley, CA, August 2017.

54. Louis Faust[@], Rachael Purta[@], David Hachen, Aaron Striegel, Christian Poellabauer, Omar Lizardo, Nitesh Chawla, **"Exploring Compliance: Observations from a Large Scale Fitbit Study"**, Proceedings of the 2nd International Workshop on Social Sensing (SocialSens), Pittsburgh, PA, April 2017.

55. Sudip Vhaduri[@], Andrew Munch*, and Christian Poellabauer, **"Assessing Health Trends of College Students Using Smartphones"**, Proceedings of the IEEE-NIH 2016 Special Topics Conference on Healthcare Innovations and Point-of-Care Technologies, Cancun, Mexico, November 2016.

56. Sudip Vhaduri[@] and Christian Poellabauer, **"Human Factors in the Design of Longitudinal Smartphone-based Wellness Surveys"**, Proceedings of the IEEE International Conference on Healthcare Informatics (ICHI), Chicago, IL, October 2016. **(Best Paper Nomination)**

57. Mehdi Golestanian[@] and Christian Poellabauer, **"A Constraint-Based Routing Algorithm for Cognitive Ad-hoc Networks"**, Proceedings of the 9th IEEE International Workshop on Selected Topics in Wireless and Mobile Computing, New York, NY, October 2016.

58. Afzal Hossain[@] and Christian Poellabauer, **"Challenges in Building Continuous Smartphone Sensing Applications"**, Proceedings of the 9th IEEE International Workshop on Selected Topics in Wireless and Mobile Computing, New York, NY, October 2016.

59. Rachael Purta[@], Stephen Mattingly[@], Lixing Song[@], Omar Lizardo, David Hachen, Christian Poellabauer, and Aaron Striegel, **"Experiences Measuring Sleep and Physical Activity Patterns Across a Large College Cohort With Fitbits"**, Proceedings of the 20th International Symposium on Wearable Computing, Heidelberg, Germany, September 2016.

60. Fei Tao+, Louis Daudet[@], Christian Poellabauer, Sandra Schneider, and Carlos Busso, **"A Portable Automatic PA-TA-KA Syllable Detection System to Derive Biomarkers for Neurological Disorders"**, Proceedings of InterSpeech 2016, San Francisco, CA, September 2016.

61. Sudip Vhaduri[@] and Christian Poellabauer, **"Cooperative Discovery of Personal Places from Location Traces"**, Proceedings of the 25th International Conference on Computer Communication and Networks (ICCCN), Waikoloa, Hawaii, August 2016.

62. Mehdi Golestanian[@] and Christian Poellabauer, **"Localization in Heterogeneous Wireless Sensor Networks Using Elliptical Range Estimation"**, Proceedings of the International Conference on Computing, Networking and Communications (ICNC), Kauai, Hawaii, February 2016.

63. Vijay Gupta, Christian Poellabauer, and Greg Madey, **"Distributed DDDAS Through Receding Horizon Control"**, Proceedings of the Workshop on Architectural Support and Middleware for InfoSymbiotics / Dynamic Data Driven Applications Systems (DDDAS), Bangalore, India, December 2015.

64. Sudip Vhaduri[@] and Christian Poellabauer, **"Design and Implementation of a Remotely Configurable and Manageable Well-being Study"**, Proceedings of the EAI International Conference on Smart Wearable Devices and IoT for Health and Wellbeing Applications (SWIT-Health), Toronto, Canada, October 2015.

65. Juuso Nurmio, Ethiopia Nigussie, and Christian Poellabauer, **"Equalizing Energy Distribution in Sensor Nodes through Optimization of RPL"**, Proceedings of the 15th IEEE International Conference on Computer and Information Technology (CIT-2015), Liverpool, England, UK, October 2015.

66. Mehdi Golestanian[@] and Christian Poellabauer, **"Joint Route Discovery and Localization in Heterogeneous Wireless Sensor Networks"**, Proceedings of the 4th IEEE Annual International Workshop on Mission-Oriented Wireless Sensor Networking (IEEE MiSeNet), Dallas, TX, October 2015.

67. Nikhil Yadav[@], Christian Poellabauer, Louis Daudet[@], Tomas Collins[@], Shane McQuillan[@], Patrick Flynn, and Sandra Schneider, **"Portable Neurological Disease Assessment Using Temporal Analysis of Speech"**, Proceedings of the 6th ACM Conference on Bioinformatics, Computational Biology, and Health Informatics, Atlanta, GA, September 2015.

68. Christian Poellabauer, Nikhil Yadav[@], Patrick Flynn, and Sandra Schneider, **"Using Speech Analysis for TBI Detection"**, Proceedings of INFORMS Healthcare, Nashville, TN, June 2015.

69. Nikhil Yadav[@], Louis Daudet[@], Christian Poellabauer and Patrick Flynn, **"Noise Management in Mobile Speech Based Health Tools"**, IEEE Healthcare Innovation and Point-of-Care Technologies (HIPOCT), Seattle, Washington, October 2014.

70. Christopher Miller[@] and Christian Poellabauer, **"Configurable Integrated Monitoring System for Mobile Devices"**, Proc. of the 11th International Conference on Mobile Systems and Pervasive Computing (MobiSPC), Niagara Falls, Canada, August 2014.

71. Gaurav Bansal, Hongsheng Lu[@], John B. Kenney, and Christian Poellabauer, **"Assigning Safety Message Priority Based on Vehicle Dynamics"**, 20th ITS World Congress, Tokyo, Japan, October 2013.

72. Aaron Striegel, Shu Liu[@], Lei Meng[@], Christian Poellabauer, David Hachen, and Omar Lizardo, **"Lessons Learned from the NetSense Smartphone Study"**, 5th HotPlanet Workshop, Hong Kong, August 2013. **(Best Paper Award)**.

73. Salvador Aguinaga[@] and Christian Poellabauer, **"Stealthy Health Sensing to Objectively Characterize Motor Movement Disorders"**, 3rd International workshop on Sensor Networks for Intelligence Gathering and Monitoring, Halifax, Nova Scotia, Canada, June 2013.

74. Gaurav Bansal, Hongsheng Lu[@], John Kenney, and Christian Poellabauer, **"Error Model based Adaptive Rate Control for Vehicle-to-Vehicle Communications"**, Tenth ACM International Workshop on VehiculAr Inter-NETworking, Systems, and Applications (ACM VANET 2013), Taipei, Taiwan, June 2013.

75. Michael Falcone*, Nikhil Yadav[@], Christian Poellabauer, and P. Flynn, **"Using Isolated Vowel Sounds for Classification of Mild Traumatic Brain Injury"**, 38th IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP 2013), Vancouver, Canada, May 2013.

76. Nikhil Yadav[@] and Christian Poellabauer, **"An Architecture for Personalized Health Information Retrieval from Credible Websites"**, International Workshop on Smart Health and Wellbeing (SHB), Maui, Hawaii, October-November 2012.

77. Pramita Mitra[@] and Christian Poellabauer, **"Emergency Response in Smartphone-Based Mobile Ad-Hoc Networks"**, Proceedings of the International Workshop on Mobile Consumer Health Care Networks, Systems and Services (MobiCHeSS), Ottawa, Canada, June 2012.

78. Greg Madey, M. Brian Blake, and Christian Poellabauer, **"Applying DDDAS Principles to Command, Control and Mission Planning for UAV Swarms"**, International Conference on Computational Science (ICCS), Omaha, Nebraska, June 2012.

79. Salvador Aguinaga[@] and Christian Poellabauer, **"Method for Privacy-Protecting Display and Exchange of Emergency Information on Mobile Devices"**, International Conference on Collaboration Technologies and Systems (CTS 2012), Denver, Colorado, May 2012.

80. Timothy Wright and Christian Poellabauer, **"Improved Mobile Device Security through Privacy Risk Assessment and Visualization"**, ICDE Workshop on Secure Data Management on Smartphones and Mobiles, Washington, DC, April 2012.

81. Pramita Mitra[@] and Christian Poellabauer, **"Service Sharing in Mobile Sensing Systems"**, Proceedings of the Joint Workshop on Complex Networks and Pervasive Group Communication (in conjunction with GLOBECOM 2011), Houston, TX, December 2011.

82. Hongsheng Lu[@] and Christian Poellabauer, **"Analysis of Application-Specific Broadcast Reliability for Vehicle Safety Communications"**, Proceedings of the 8th ACM International Workshop on Vehicular Internetworking (VANET), Las Vegas, NV, September 2011.

83. Thidapat Chantem[@], Jun Yi[@], Shengyan Hong[@], X. Sharon Hu, Christian Poellabauer, and Liqiang Zhang, **"An Online Holistic Scheduling Framework for Energy-Constrained Wireless Real-Time Systems"**, Proceedings of the 17th IEEE International Conference on Embedded and Real-Time Computing Systems and Applications (RTCSA), Toyama, Japan, August 2011.

84. Jun Yi[@], Christian Poellabauer, and Liqiang Zhang, **"Mobi-Sync: Configurable Time Synchronization for Mobile Multihop Networks"**, Proceedings of the 20th International Conference on Computer Communication Networks (ICCCN), Maui, Hawaii, August 2011.

85. Hongsheng Lu[@] and Christian Poellabauer, **"Balancing Broadcast Reliability and Transmission Range in VANETs**, Proceedings of the 2nd IEEE Vehicular Networking Conference (VNC), Jersey City, NJ, December 2010.

86. Christopher Miller[@], Sarah Chasins*, Carolyn Farris*, Justin Varner*, Curtis Carmony*, Christian Poellabauer, and Aaron Striegel, **"An Integrated Monitoring System for Mobile Phones"**, Proceedings of the 1st International Workshop on Sensing for App Phones (PhoneSense), Zurich, Switzerland, November 2010.

87. Nadine Shillingford[@] and Christian Poellabauer, **"On Improving the Agility and Quality of Adaptation in QoS-Aware Routing"**, Proceedings of the 1st Networking Networking Women Workshop (in conjunction with ACM Mobicom 2010), Chicago, IL, September 2010.

88. Thidapat Chantem[@], X. S. Hu, Christian Poellabauer, Jun Yi[@], and Liqiang Zhang, **"Network-Aware, Energy-Conscious, Fair Service for Real-Time Applications on Multiprocessor SoC"**, Refereed Work-in-Progress at the 30th IEEE Real-Time Systems Symposium (RTSS), Washington, DC, December 2009.

89. Jeffrey Hemmes[@], Douglas Thain, and Christian Poellabauer, **"Cooperative Localization in GPS-Limited Urban Environments"**, Proceedings of the First International Conference on Ad Hoc Networks (AdHocNets), Niagara Falls, Canada, September 2009.

90. Chris Miller[@] and Christian Poellabauer, **"A Decentralized Approach to Minimum-Energy Broadcasting in Static Ad Hoc Networks"**, Proceedings of the 8th International Conference on Ad Hoc Networks and Wireless (ADHOC NOW), Murcia, Spain, September 2009.

91. Sean McRoskey*, Jim Notwell*, Nitesh Chawla, and Christian Poellabauer, **"Mining in a Mobile Environment"**, Proceedings of the Third International Workshop on Knowledge Discovery from Sensor Data (SensorKDD), Paris, France, June 2009. **(Best student paper award)**

92. Nadine Shillingford[@] and Christian Poellabauer, **"Customized Routing in Mesh Networks"**, Proceedings of the First IEEE WoWMoM Workshop on Hot Topics in Mesh Networking (HotMESH), Kos, Greece, June 2009.

93. Jun Yi[@], Christian Poellabauer, Xiaobo Sharon Hu, Jeff Simmer*, and Liqiang Zhang, **"Energy-Conscious Co-Scheduling of Tasks and Packets in Wireless Real-Time Environments"**, Proceedings of the 15th IEEE Real-Time and Embedded Technology and Applications Symposium, San Francisco, CA, April 2009.

94. David C. Salyers[@], Aaron D. Striegel, and Christian Poellabauer, **"Opportunistic Wireless Broadcast (OWB): Dynamic Redundancy Detection in the Wireless Medium"**, Proceedings of the 8th IEEE International Workshop on Wireless Local Networks (WLN), Montreal, Canada, October 2008.

95. Dinesh Rajan[@], Christian Poellabauer, Xiaobo Sharon Hu, Liqiang Zhang, and Kathleen Otten*, **"Wireless Channel Access Reservation for Embedded Real-time Systems"**, Proceedings of the International Conference on Embedded Software (EMSOFT), Atlanta, GA, October 2008.

96. David Salyers[@], Aaron Striegel, and Christian Poellabauer, **"A Light Weight Method for Maintaining Clock Synchronizaion for Networked Systems"**, Proceedings of the 17th International Conference on Computer Communications and Networks (Wireless Platform - Applications and Testbeds Track), St. Thomas, U.S. Virgin Islands, August 2008.

97. Chris Miller[@] and Christian Poellabauer, **"PALER: A Reliable Transport Protocol for Code Distribution in Large Sensor Networks"**, Proceedings of the 5th IEEE Communications Society Conference on Sensor, Mesh and Ad Hoc Communications and Networks (SECON), San Francisco, CA, June 2008.

98. David C. Salyers[@], Aaron D. Striegel, and Christian Poellabauer, **"Wireless Reliability: Rethinking 802.11 Packet Loss"**, Proceedings of the 9th IEEE International Symposium on a World of Wireless, Mobile and Multimedia Networks (short paper), Newport Beach, CA, June 2008.

99. Kyle O'Brien*, David C. Salyers[@], Aaron D. Striegel, and Christian Poellabauer, **"Power and Performance Characteristics of USB Flash Drives"**, Proceedings of the 9th IEEE International Symposium on a World of Wireless, Mobile and Multimedia Networks (short paper), Newport Beach, CA, June 2008.

100. Jeffrey Hemmes[@], Christian Poellabauer, and Douglas Thain, **"On-Demand Transient Data Storage and Backup in Mobile Systems"**, Proceedings of the Military Communications Conference (MILCOM), Orlando, FL, October 2007.

101. Pramita Mitra[@], Christian Poellabauer, and Shivajit Mohapatra, **"Stability Aware Routing: Exploiting Transient Route Availability in MANETs"**, Proceedings of the High Performance Computation Conference (HPCC), Houston, TX, September 2007.

102. Dinesh Rajan[@], Christian Poellabauer, Andrew Blanford*, and Bren Mochocki[@], **"Cooperative Dynamic Voltage Scaling using Hierarchical Slack Distribution in Distributed Real-Time Systems"**, Proceedings of the 4th Annual International Conference on Mobile and Ubiquitous Systems (Mobiquitous), Philadelphia, PA, August 2007.

103. Nadine Shillingford[@], David Salyers[@], Christian Poellabauer, and Aaron Striegel, **"Energy- and Latency-Aware Routing in Multi-Homed Wireless Ad Hoc Networks"**, Proceedings of the 4th Annual International Conference on Mobile and Ubiquitous Systems (Mobiquitous), Philadelphia, PA, August 2007.

104. Pramita Mitra[@], Christian Poellabauer, and Shivajit Mohapatra, **"On Improving Dynamic Source Routing for Intermittently Available Nodes in MANETs"**, Proceedings of the 4th Annual International Conference on Mobile and Ubiquitous Systems (Mobiquitous, short paper), Philadelphia, PA, August 2007.

105. Dinesh Rajan[@] and Christian Poellabauer, **"Adaptive Fragmentation for Latency Control and Energy Management in Wireless Real-time Environments"**, Proceedings of the International Conference on Wireless Algorithms, Systems and Applications (WASA), Chicago, IL, August 2007.

106. Jeffrey Hemmes[@], Douglas Thain, Christian Poellabauer, Christopher Moretti[@], Phil Snowberger[@], and Brendan McNutt*, **"Lessons Learned Building TeamTrak: An Urban/Outdoor Mobile Ad Hoc Network Testbed"**, Proceedings of the International Conference on Wireless Algorithms, Systems and Applications (WASA), Chicago, IL, August 2007.

107. Bren Mochocki[@], Dinesh Rajan[@], Xiaobo Sharon Hu, Christian Poellabauer, Kathleen Otten*, and Thidapat Chantem[@], **"Network-Aware Dynamic Voltage and Frequency Scaling"**, Proceedings of the 13th IEEE Real-Time and Embedded Technology and Applications Symposium (RTAS), Bellevue, WA, April 2007.

108. Douglas Thain and Christian Poellabauer, **"Experience With A Literate Approach to Computer Science"**, Proceedings of the 36th Annual Frontiers in Education Conference, San Diego, CA, October 2006.

109. Dinesh Rajan[@], Christian Poellabauer, and Nitesh Chawla, **"Resource Access Pattern Mining for Dynamic Energy Management"**, Proceedings of the Workshop on Autonomic Computing: A New Challenge for Machine Learning, Berlin, Germany, September 2006.

110. Dinesh Rajan[@], Russell Zuck[@], and Christian Poellabauer, **"Workload-Aware Dual-Speed Dynamic Voltage Scaling"**, Proceedings of the 12th IEEE International Conference on Embedded and Real-Time Systems and Applications (RTCSA 2006, short paper), Sydney, Australia, August 2006.

111. Karsten Steinhaeuser[@], Nitesh V. Chawla, and Christian Poellabauer, **"Towards Learning-based Sensor Management"**, Proceedings of the First Workshop on Tackling Computer Systems Problems with Machine Learning Techniques (SysML), Saint-Malo, France, June 2006.

112. Christian Poellabauer, Tao Zhang[@], Santosh Pande, and Karsten Schwan, **"An Efficient Frequency Scaling Approach for Energy-Aware Embedded Real-Time Systems"**, Proceedings of the International Conference on Architecture of Computing Systems (ARCS), Innsbruck, Austria, March 2005.

113. Christian Poellabauer, Leo Singleton*, and Karsten Schwan, **"Feedback-Based Dynamic Frequency Scaling for Memory-Bound Real-Time Applications"**, Proceedings of the 11th Real-Time and Embedded Technology and Applications Symposium (RTAS), San Francisco, CA, March 2005.

114. Leo Singleton*, Christian Poellabauer, and Karsten Schwan, **"Monitoring of Cache Miss Rates for Accurate Dynamic Voltage and Frequency Scaling"**, Proceedings of the 12th Annual Multimedia Computing and Networking Conference (short paper), San Jose, CA, January 2005.

115. Christian Poellabauer and Karsten Schwan, **"Energy-Aware Traffic Shaping for Wireless Real-Time Applications"**, Procedings of the 10th Real-Time and Embedded Technology and Applications (RTAS), Toronto, Canada, May 2004.

116. Zhongtang Cai[@], Greg Eisenhauer, Christian Poellabauer, Karsten Schwan, and Matthew Wolf, **"IQ-Services: Resource-Aware Middleware for Heterogeneous Applications"**, Proceedings of the 13th Heterogeneous Computing Workshop (HCW 2004), Santa Fe, NM, April 2004.

117. Christian Poellabauer and Karsten Schwan, **"Energy-Aware Media Transcoding in Wireless Systems"**, Proceedings of the Second IEEE International Conference on Pervasive Computing and Communications (PerCom), Orlando, FL, March 2004.

118. Christian Poellabauer, Karsten Schwan, Sandip Agarwala[@], Ada Gavrilovska[@], Greg Eisenhauer, **"Service Morphing: Integrated System- and Application-Level Service Adaptation in Autonomic Systems"**, Proceedings of the 5th Annual International Workshop on Active Middleware Services (AMS 2003), Seattle, Washington, June 2003.

119. Sandip Agarwala[@], Christian Poellabauer, Jiantao Kong[@], Karsten Schwan, and Matthew Wolf, **"Resource-Aware Stream Management with the Customizable dproc Distributed Monitoring Mechanisms"**, Proceedings of the 12th IEEE International Symposium on High Performance Distributed Computing (HPDC-12), Seattle, Washington, June 2003.

120. Karsten Schwan, Christian Poellabauer, Greg Eisenhauer, Santosh Pande, and Calton Pu, **"InfoFabric: Adaptive Services in Distributed Embedded Systems"**, Proceedings of the IEEE Workshop on Large Scale Real-Time and Embedded Systems (in conjunction with RTSS 2002), Austin, TX, December 2002.

121. Hasan Abbasi[@], Christian Poellabauer, Gregory Losik*, Karsten Schwan, and Richard West[@], **"A Quality-of-Service Enhanced Socket API in GNU/Linux"**, Proceedings of the 4th Real-Time Linux Workshop, Boston, Massachusetts, December 2002.

122. Christian Poellabauer, Hasan Abbasi[@], and Karsten Schwan, **"Cooperative Run-time Management of Adaptive Applications and Distributed Resources"**, Proceedings of the 10th ACM Multimedia Conference, Juan-les-Pins, France, December 2002.

123. Christian Poellabauer and Karsten Schwan, **"Power-Aware Video Decoding using Real-Time Event Handlers"**, Proceedings of the 5th International Workshop on Wireless Mobile Multimedia (WoWMoM), Atlanta, Georgia, September 2002.

124. Christian Poellabauer and Karsten Schwan, **"Kernel Support for the Event-based Cooperation of Distributed Resource Managers"**, Proceedings of the 8th IEEE Real-Time and Embedded Technology and Applications Symposium (RTAS 2002), San Jose, California, September 2002.

125. Fabian E. Bustamante[@], Christian Poellabauer, and Karsten Schwan, **"AIMS: Robustness Through Sensible Introspection (Extended Abstract)"**, Proceedings of the 10th ACM SIGOPS European Workshop, Saint-Emilion, France, September 2002.

126. Jasmina Jancic[@], Christian Poellabauer, Karsten Schwan, Matthew Wolf, and Neil Bright, **"dproc - Extensible Run-Time Resource Monitoring for Cluster Applications"**, Proceedings of the International Conference on Computational Science (ICCS '02), Amsterdam, The Netherlands, April 2002.

127. Christian Poellabauer, Karsten Schwan, Greg Eisenhauer, and Jiantao Kong[@], **"KECho - Event Communication for Distributed Kernel Services"**, Proceedings of the International Conference on Architecture of Computing Systems (ARCS'02), Karlsruhe, Germany, April 2002.

128. Christian Poellabauer, Karsten Schwan, and Richard West[@], **"Coordinated CPU and Event Scheduling for Distributed Multimedia Applications"**, Proceedings of the 9th ACM Multimedia Conference, Ottawa, Canada, October 2001.

129. Christian Poellabauer, Karsten Schwan, and Richard West[@], **"Lightweight Kernel/User Communication for Real-Time and Multimedia Applications"**, Proceedings of the 11th International Workshop on Network and Operating Systems Support for Digital Audio and Video (NOSSDAV), Port Jefferson, NY, June 2001.

130. Christian Poellabauer, Karsten Schwan, Richard West[@], Ivan Ganev[@], Neil Bright, and Gregory Losik*, **"Flexible User/Kernel Communication for Real-Time Applications in ELinux"**, Proceedings of the Workshop on Real Time Operating Systems and Applications and Second Real Time Linux Workshop (in conjunction with RTSS 2000), Orlando, FL, November 2000.

131. Richard West[@] and Christian Poellabauer, **"Analysis of a Window-Constrained Scheduler for Real-Time and Best-Effort Packet Streams"**, Proceedings of the 21st IEEE Real-Time Systems Symposium (RTSS 2000), Orlando, FL, November 2000.

132. Richard West[@], Karsten Schwan, and Christian Poellabauer, **"Scalable Scheduling Support for Loss and Delay Constrained Media Streams"**, Proceedings of the 5th IEEE Real-Time Technology and Applications Symposium (RTAS 1999), pp. 24–33, Vancouver, Canada, June 1999.

Refereed Work-In-Progress and Poster Publications ([@] indicates graduate student)

1. Abhay Goyal, Roger Ho Chun Man, Roy Ka-Wei Lee, Koustuv Saha, Frederick L. Altice, Christian Poellabauer, Orestis Papakyriakopoulos, Lam Yin Cheung, Munmun De Choudhury, Kanica Allagh, and Navin Kumar, **"Using Voice Data to Facilitate Depression Risk Assessment in Primary Health Care (Poster)"**, 16th ACM Web Science Conference, Stuttgart, Germany, May 2024.

2. Joshua Siva[@], Abrar Ahmed, and Christian Poellabauer, **"Energy Consumption and Parameter Effects for BLE Performance on Smartphones (Poster)"**, Proceedings of the 8th Greater Chicago Area Systems Research Workshop, May 2019.

3. Louis Daudet[@], Sandra Schneider, and Christian Poellabauer, **"Using an Objective Mobile Based Instrument for the Detection of Speech Features in Parkinson's Disease (Poster)"**, Proceedings of the American Speech-Language-Hearing Association (ASHA) Convention, Boston, MA, November 2018.

4. Yuan Gong[@], Kevin Shin*, and Christian Poellabauer, **"Improving LIWC Using Soft Word Matching (Poster)"**, Proceedings of the 9th ACM Conference on Bioinformatics, Computational Biology, and Health Informatics (ACM-BCB), Washington, DC, August-September 2018.

5. Shikang Liu[@], David Hachen, Omar Lizardo, Christian Poellabauer, Aaron Striegel, and Tijana Milenkovic, **"Exploring Co-Evolution between Individuals' Social Networks and Physical Activities in NetHealth Data (Poster)"**, Proceedings of the 26th Conference on Intelligent Systems for Molecular Biology, Chicago, IL, July 2018.

6. Mehdi Golestanian[@], Christian Poellabauer, and Nitesh Chawla, **"Poster: RSSI-Based Pedestrian Localization Using Artificial Neural Networks**, Proceedings of the ACM International Workshop on Connected and Automated Vehicle Mobility (CarSys), Snowbird, UT, October 2017.

7. Megan K. O'Brien, Chaithanya Mummidisetty, Xiao Bo[@], Christian Poellabauer, and Arun Jayaraman, **"Quantifying Community Mobility After Stroke Using Mobile Phone Technology (Poster)"**, Proceedings of the 2017 ACM International Joint Conference on Pervasive and Ubiquitous Computing (Ubicomp), Maui, Hawaii, September 2017.

8. Bryan Xia[@], Louis Daudet[@], Christian Poellabauer, and Sandra Schneider, **"Using Speech for the Diagnosis of Mild Traumatic Brain Injuries"**, Proceedings of the ACRM 93rd Annual Conference (Poster), Chicago, IL, October - November 2016.

9. Hasini Yatawatte[@], Christian Poellabauer, and Susan Latham, **"Automated Capture of Naturalistic Child Vocalizations for Health Research"**, Proceedings of the 7th ACM Conference on Bioinformatics, Computational Biology, and Health Informatics (Poster), Seattle, WA, October 2016.

10. Suwen Lin[@], Vijay Gupta, Greg Madey, and Christian Poellabauer, **"A DDDAS Approach to Sensor Trajectory Generation"**, Proceedings of the InfoSymbiotics/DDDAS Conference (Abstract), Hartford, Connecticut, August 2016.

11. Mehdi Golestanian[@] and Christian Poellabauer, **"Poster: Indoor Localization using Multi-Range Beaconing"**, Poster at the 17th International Symposium on Mobile Ad Hoc Networking and Computing, Paderborn, Germany, July 2016.

12. Pramita Mitra[@] and Christian Poellabauer, **"Beyond Talk, Text, Web and Apps: Sensor Sharing in Smartphone-based Mobile Ad-Hoc Networks"**, Refereed Poster at the Grace Hopper Celebration of Women in Computing Conference, Baltimore, MD, October 2012.

13. Pramita Mitra[@] and Christian Poellabauer, **"Efficient Group Communication and Service Sharing in Mobile Environments"**, Refereed Poster at the Richard Tapia Celebration of Diversity in Computing Conference, San Francisco, CA, April 2011.

14. Hongsheng Lu[@] and Christian Poellabauer, **Reliable Broadcasting in VANETs Using Power Control"**, Refereed Poster at the 16th Annual International Conference on Mobile Computing and Networking (Mobicom), Chicago, IL, September 2010.

15. Jun Yi[@], Christian Poellabauer, X. Sharon Hu, Thidapat Chantem, and Liqiang Zhang, **"Energy Efficient Real-Time Communication for Wireless Multihop Networks"**, Refereed Poster at the 16th Annual International Conference on Mobile Computing and Networking (Mobicom), Chicago, IL, September 2010.

16. Tam Chantem[@], X. Sharon Hu, Christian Poellabauer, Jun Yi[@], and Liqiang Zhang, **"Network-Aware, Energy-Conscious, Fair Service for Real-Time Applications on Multiprocessor SoC"**, Refereed Work-in-Progress at the 30th IEEE Real-Time Systems Symposium (RTSS), Washington, DC, December 2009.

17. Pramita Mitra[@] and Christian Poellabauer, **"On Improving Performance and Reliability of Location Aware Routing in Asymmetric Networks"**, Refereed Poster at the Richard Tapia Celebration of Diversity in Computing Conference, Portland, Oregon, April 2009. Notes: **best graduate student poster award**.

18. Jun Yi[@], Christian Poellabauer, Xiaobo Sharon Hu, Dinesh Rajan[@], and Liqiang Zhang, **"Cooperative Network and Energy Management for Reservation-based Wireless Real-Time Environments"**, Refereed Work-in-Progress at the 14th IEEE Real-Time and Embedded Technology and Applications Symposium, St. Louis, MO, April 2008.

19. Nadine Shillingford[@] and Christian Poellabauer, **"Configurable Routing in Ad-Hoc Networks"**, Refereed Poster at the Ninth Workshop on Mobile Computing Systems and Applications (HotMobile), Napa Valley, CA, February 2008.

20. Jeffrey Hemmes[@], Douglas Thain, and Christian Poellabauer, **"Work In Progress - Integrating Undergraduate Research and Education with the TeamTrak Mobile Computing System"**, Proceedings of the Frontiers in Education Conference (FIE), Milwaukee, WI, October 2007.

21. Christian Poellabauer and Timothy Durnan[@], **"The Case for Altruistic Resource Management"**, Refereed Poster at the 20th Symposium on Operating Systems Principles (SOSP), Brighton, UK, October 2005.

22. Timothy Durnan[@] and Christian Poellabauer, **"DDVS: Distributed Dynamic Voltage Scaling"**, Refereed Work-in-Progress at the 20th Symposium on Operating Systems Principles (SOSP), Brighton, UK, October 2005.

23. Douglas Thain and Christian Poellabauer, **"A Literate Approach to Graduate Computer Science Education"**, Proceedings of IEEE Frontiers in Education (Work-in-Progress), Indianapolis, IN, October 2005.

Technical Reports

1. N. Shillingford[@] and C. Poellabauer, **"Multi-QoS Multipath Routing in Wireless Mesh Networks"**, Technical Report: TR-2010-06, University of Notre Dame, August 2010.

2. Chris Miller[@] and Christian Poellabauer, **"A Decentralized Approach to Minimum-Energy Broadcasting in Static Ad Hoc Networks"**, Technical Report: TR-2009-02, University of Notre Dame, April 2009.

3. Jun Yi[@], Christian Poellabauer, Xiaobo Sharon Hu, Thidapat Chantem[@], and Liqiang Zhang, **"Resource-Efficient Dynamic Channel Reservations for Real-Time Streams in Wireless Multihop Networks"**, Technical Report: TR-2009-01, University of Notre Dame, April 2009.

4. Jeffrey Hemmes[@], Douglas Thain, and Christian Poellabauer, **"A Practical Approach to Cooperative Localization in GPS-Limited Urban Environments"**, Technical Report: TR-2008-14, University of Notre Dame, October 2008.

5. Dinesh Rajan[@], Christian Poellabauer, Xiaobo Sharon Hu, Liqiang Zhang, and Kathleen Otten*, **"Channel Access Reservation Strategies for Wireless Real-time Systems"**, Technical Report: TR-2008-04, University of Notre Dame, March 2008.

6. Nadine Shillingford[@] and Christian Poellabauer, **"Configurable Routing in Ad-Hoc Networks"**, Technical Report: TR-2008-03, University of Notre Dame, March 2008.

7. David Salyers[@], Aaron Striegel, and Christian Poellabauer, **"Wireless Reliability: Rethinking 802.11 Packet Loss"**, Technical Report: TR-2007-06, University of Notre Dame, November 2007.

8. Jeffrey Hemmes[@], Douglas Thain, Christian Poellabauer, Christopher Moretti[@], Phil Snowberger[@], and Brendan McNutt*, **"Lessons Learned Building TeamTrak: An Urban/Outdoor Mobile Ad Hoc Network Testbed"**, Technical Report: TR-2007-02, University of Notre Dame, May 2007.

9. David Salyers[@], Yingxin Jiang[@], Aaron Striegel, and Christian Poellabauer, **"Dynamic Jumbo Frame Generation for Network Performance Scalability"**, Technical Report: TR-2006-10, University of Notre Dame, July 2006.

10. Dinesh Rajan[@], Russell Zuck[@], and Christian Poellabauer, **"A Dual Speed Approach to Workload Aware Voltage Scaling"**, Technical Report: TR-2006-05, University of Notre Dame, May 2006.

11. Richard West[@], Karsten Schwan, and Christian Poellabauer, **"Dynamic Window-Constrained Scheduling for Real-Time Media Streaming"**, Technical Report 2003-014, Boston University, 2003.

12. Jasmina Jancic[@], Christian Poellabauer, Karsten Schwan, Matthew Wolf, and Neil Bright, **"dproc - Extensible Run-Time Resource Monitoring for Cluster Applications"**, Technical Report: GIT-CC-02-02, Georgia Institute of Technology, 2002.

13. Christian Poellabauer and Karsten Schwan, **"Implicit Quality Channels (IQC): Distributed Quality Management for Multi-Party Real-Time Applications"**, Technical Report: GIT-CC-01-13, Georgia Institute of Technology, 2001.

14. Christian Poellabauer, Karsten Schwan, and Richard West[@], **"Coordinated CPU and Event Scheduling for Distributed Multimedia Applications"**, Technical Report: GIT-CC-01-05, Georgia Institute of Technology, 2001.

15. Christian Poellabauer, Karsten Schwan, and Richard West[@], **"Flexible Event Delivery for Kernel Extensions in ELinux"**, Technical Report: GIT-CC-00-36, Georgia Institute of Technology, 2000.

16. Richard West[@] and Christian Poellabauer, **"Analysis of a Window-Constrained Scheduler for Real-Time and Best-Effort Packet Streams"**, Technical Report: GIT-CC-00-20, Georgia Institute of Technology, 2000.

17. Richard West[@] and Christian Poellabauer, **"An Optimal, On-Line Window-Constrained Scheduler for Real-Time, Heterogeneous Activities"**, Technical Report: GIT-CC-99-11, Georgia Institute of Technology, 1999.

18. Richard West[@], Karsten Schwan, and Christian Poellabauer, **"Scalable Scheduling Support for Loss and Delay Constrained Media Streams"**, Technical Report: GIT-CC-98-29, Georgia Institute of Technology, 1998.

Other Publications

1. Christian Poellabauer, **"A TTP-Based Measuring System"**, Master's Thesis, Technical University of Vienna, Austria, April 1998.

2. Christian Poellabauer, **"Monitoring and Integration of Object Oriented FIELDBUS Devices"**, Master's Thesis, Universitat Politècnica de Catalunya, Spain, June 1996.

Invited Presentations and Panels

- University of Miami, "Opportunities and Challenges in Digital Biomarker Development", February 2024.

- Auckland University of Technology, Panelist on "Speech-Based Neurological Health Assessments", January 2024.

- Keynote Speaker, "Workshop on Speech Analysis for Non-Invasive Clinical Decision-Support", Auckland, New Zealand, January 2024.

- Florida International University, "Speech-Based Digital Biomarkers: Opportunities and Challenges", February 2021.

- Texas A&M University - Kingsville, "Opportunities and Challenges of Speech-Based IoT", October 2020.

- Technical University of Graz, "Speech-Based Internet-of-Things", May 2019.

- Complexity Science Hub Vienna, "Speech as Barometer of the Brain", May 2019.

- Technical University of Graz, "Mobile and Wearable Sensing", March 2019.

- ACCelerate: ACC Smithsonian Creativity and Innovation Festival, Presenter, Washington, DC, October 2017.

- Ford Research, "Speech as Barometer of the Brain", April 2017.

- Computing Research Association (CRA) Computing Community Consortium (CCC) Workshop Member, December 2016.

- Computing Community Consortium CCC Panelist on "Discovery and Innovation in Smart and Pervasive Health", December 2016.

- National Neurotrauma Society, "Speech as Biomarker for TBI", June/July 2014.

- Rehabilitation Engineering & Assistive Technology Society of North America, "Translational Technologies to Enhance Manipulation and Mobility", March 2014.

- National Science Foundation Research Experience for Undergraduates "REU Logistics" Panel, March 2010.

- National Science Foundation Research Experience for Undergraduates "REU Logistics" Panel, March 2009.

- University of Carlton, Ottawa, ON, Canada, "Towards Predictable and Efficient Wireless Real-Time Networks", May 2009.

- NSF "Bridges to Engineering Research – 2020 Workshop, North Carolina Agricultural and Technical State University, "QoS Management in Wireless Sensor Networks", March 2008.

- Motorola Labs, "Agile Networking: Configurable and Adaptive Ad-hoc Networks", July 2007.

- University of Notre Dame, School of Architecture, "Survey of Sensor Technologies", February 2006.

- Texas A&M, College Station, TX, "Q-Fabric: System Support for Continuous Online Quality Management", May 2004.

- University of Oregon, Eugene, OR, "Q-Fabric: System Support for Continuous Online Quality Management", May 2004.

- University of Notre Dame, "Q-Fabric: System Support for Continuous Online Quality Management", May 2004.

- University of New Mexico, Albuquerque, NM, "Q-Fabric: System Support for Continuous Online Quality Management", March 2004.

- Brown University, Providence, Rhode Island, "Q-Fabric: System Support for Continuous Online Quality Management", March 2004.

- University of California at Santa Cruz, Santa Cruz, CA, "Q-Fabric: System Support for Continuous Online Quality Management", March 2004.

- IBM T. J. Watson Research Center, Yorktown Heights, NY, "Q-Fabric: System Support for Continuous Online Quality Management", October 2003.

News Coverage

- Japan Broadcasting Corporation, "The temptation of Frankenstein, The history of science", Episode on "History of Generative AI", 2024.

- Austria Presse Agentur (Natur und Technik), "How smart is our health?", 2019.

- Forbes, "Wearables and Smartwatches Offer Great Health Benefits Although Security Hurdles Arise", 2019.

- MSUToday "Diagnosing concussions with voice research", 2017.

- STAT News, "Can We Diagnose Disease from the Sound of a Voice?", 2016.

- Science Daily, "New Technology to Provide Insights into the Health of Students", 2016.

- Scientific American, "The Sound of Your Voice May Diagnose Disease", 2016.

- MIT Technology Review, "A Voice-Analysis App to Diagnose Concussions", 2013.

- Men's Journal, "The iPad Concussion Detector", 2013.

- Youtube, "Getting Ahead of the Problem: Concussion Diagnostic Tools" (over 8,700 views as of 2020), 2013.

- Gizmodo, "Concussions Can Be Diagnosed With a Simple App Now", 2013.

- Discovery Channel Canada (Daily Planet), "Concussion Detection", 2013.

- ABC News, "Researchers Create Voice-Analyzing App to Diagnose Concussions", 2013.

Grants and Contracts

Agency	Dates	Title	Role	Amount
Florida Department of Health	2024-2025	Impact of Cancer Treatment on Autonomic Nervous System Function of Breast Cancer Patients	PI	$568,389
Florida Department of Education	2022-2023	Project HaHa: Low-Cost Hands-on Hardware Security Education	PI	$1,413,129
National Science Foundation	2019-2023	CHS: Small: Emotion-Aware Internet-of-Things Based on Analysis of Speech and Physiological Data	Lead PI	$497,763
Department of Defense	2018-2023	Personalized Mobility Interventions Using Smart Sensor Resources for Lower Limb Prostheses Users	Lead PI (Sub-award)	$403,690
Ford Research	2018-2021	Hybrid Communications based Real-Time Notification for Vulnerable Road Participants	Sole PI	$150,000
National Science Foundation	2017-2019	SCC-Planning: Coordinated Autonomous Operation of UAVs	Lead PI	$100,000
Ford Research	2015-2018	Real-Time and Localized Map Augmentation using Publish/Subscribe V2V Communications Technology	Sole PI	$150,000
ND Office of Research	2018-2019	Undergraduate Research Experiences in Wildlife Conservation Engineering	Sole PI	$50,000
Gordon and Betty Moore Foundation	2017-2018	An Image Recognition Software Solution for the Painted Dog Conservation in Mozambique	Sole PI	$30,000
National Institutes of Health	2014-2019	NetHealth: Modeling the Co-Evolution of Social Networks and Health Behaviors	Co-PI	$2,913,061
Toyota InfoTechnology Center	2011-2019	Robust Vehicular Communications for Safety Applications	Sole PI	$245,000
National Science Foundation	2014-2018	CI-New: An Open Speech Data Repository for Medical Prediction and Assessment of Neurological Disorders	Lead PI	$636,643

Agency	Dates	Title	Role	Amount
National Science Foundation	2014-2017	EAGER: Feasibility of Using Speech as Biomarker for Concussions	Lead PI	$316,000
Advanced Diagnostics and Therapeutics Initiative	2015-2018	Using Speech as Biomarker for Autism Spectrum Disorder	Lead PI	$60,000
National Science Foundation	2015-2016	A Portable Real-Time Concussion Assessment Technology Using Acoustic Features of Human Speech	Lead PI (Sub-award)	$77,500
Gordon and Betty Moore Foundation	2015-2016	A Next Generation "Anti-Predator Device"	Sole PI	$50,000
National Geographic Big Cats Initiative	2015-2016	Deployment of an Anti-Predator Device	Sole PI	$25,000
GE Health and National Football League	2014-2016	Head Health Challenge I	Lead PI	$300,000
Department of Education	2013-2017	Technologies to Evaluate and Advance Mobility and Manipulation (TEAMM) RERC	Lead PI (Sub-award)	$193,859
Serim Research Corp.	2011-2016	Smartphone-Based Colorimetric Analysis of Medical and Food Safety Test Strips	Co-PI	$148,004
Air Force Office of Scientific Research (AFOSR)	2013-2014	A Dynamic Data Driven Application System for Command and Control of UAV Swarms	Lead PI	$170,848
Air Force Office of Scientific Research (AFOSR)	2014-2017	An adaptive distributed approach to DDDAS for surveillance missions with UAV swarms	Co-PI	$290,000
National Science Foundation	2010-2013	A Composable Hardware/Software Architecture for Instruction on Wireless Systems and Networks	Lead PI	$180,000
Motorola Foundation	2010-2011	Mobile Computing for Sustainability, Energy, and Environment	Lead PI	$50,000

Agency	Dates	Title	Role	Amount
National Science Foundation	2010-2015	SoCS: Explorations on the Effects of Pervasive Networking on Social Relationships and Resource Planning	Co-PI	$802,325
National Science Foundation	2011-2015	REU Site: Experimental Research on Wireless Networking	Lead PI	$354,628
IBM Real-Time Innovation Award	2008-2009	Co-Scheduling of CPU, Network, and Energy in Distributed Wireless Real-Time Systems	Sole PI	$20,000
National Science Foundation	2008-2010	Collaborative Research: Integrated Energy-Aware Resource Scheduling for Wireless Real-Time Systems	Lead PI	$221,156
Department of Defense	2008-2010	NDMesh: A Test Bed for Experimental Research and Education on Wireless Mesh Networks	Lead PI	$259,874
Motorola Labs	2008-2009	Mobile WiFi-based Content Sharing	Lead PI	$10,000
National Science Foundation	2008-2010	REU Site: Experimental Research on Wireless Networking	Lead PI	$300,000
National Science Foundation	2006-2011	CAREER: Judicious Resource Management in Wireless Systems	Sole PI	$400,000
National Science Foundation	2009	REU Supplemental Funding	Sole PI	$15,850
National Science Foundation	2008	REU Supplemental Funding	Sole PI	$12,000
National Science Foundation	2007	REU Supplemental Funding	Sole PI	$12,000
Department of Defense	2006-2007	A Testbed for Experimental Research on Sensor-Rich Wireless Systems	Lead PI	$195,213
Intel Corporation	2005-2006	IXP Development of Wireless Stealth Multicast	Lead PI	$25,300

INVENTION DISCLOSURES AND PATENT APPLICATIONS

- Christian Poellabauer et al., Systems and Methods for Using Isolated Vowel Sounds for Assessment of Mild Traumatic Brain Injury, Application number WO2014022659 A3, Filed August 1, 2013.
- Christian Poellabauer et al., Wearables for Emotion Detection, Provisional Patent Application (ND

17-002), August 2017.

- Christian Poellabauer et al., Continuous Wearable User Authentication, Provisional Patent Application (ND 18-013), August 2017.

Student Advisement

Current Students

- Rafael Trujillo, Ph.D. student (expected graduation: 2026)
- Enshi Zheng, Ph.D. student (expected graduation: 2026)
- Sajad Farrokhi, Ph.D. student (expected graduation: 2027)
- Rahmina Rubaiat, Ph.D. student (expected graduation: 2027)

Past Graduate Students

- John Templeton (2022) - Ph.D., "Towards A Comprehensive Mobile-Based Neurocognitive Digital Health Assessment Systems (NDHAS)", University of South Florida.
- Louis Daudet (2022) - Ph.D., "Development of Speech-Based Neurological Assessment Tools and Biomarkers", ProMazo, Inc.
- Afzal Hossain (2022) - Ph.D., "Context-Driven and Resource-Efficient Crowdsensing", Aunalytics.
- Xiao Ning (2021) - Ph.D., "Learning Attentive Deep Representations for Object Re-identification and Beyond", Microsoft.
- Jian Yang (2021) - Ph.D., "Edge Computing Based Real-Time Notification System for Vulnerable Road Participants", Meta.
- Yuan Gong (2020) - Ph.D., "Healthcare Applications and Security Concerns of Speech Processing Systems", MIT.
- Sudip Vhadhuri (2019) - Ph.D., "Machine Learning in Place Discovery, User Authentication, and Health Informatics", Fordham University.
- Sean Bo (2019), Ph.D., "Improving Human Action Recognition Using Regression Analysis and Data Cleaning", Facebook.
- Mehdi Golestanian (2019), Ph.D., "Radio Frequency (RF)-Based Localization", WeWork.
- Hongsheng Lu (2016) - Ph.D., "Safety-Critical Vehicular Communications", Toyota InfoTechnology Center.
- Nikhil Yadav (2015) - Ph.D., "Concussion Assessment Using Speech Analysis", St. John's University.
- Pramita Mitra (2013) - Ph.D., "Efficient and Reliable Group Communication in Mobile Ad-Hoc Networks", Ford Research.
- Christopher Miller (2013) - Ph.D., "Reliable and Efficient Reprogramming in Sensor Networks", Rose-Hulman Institute of Technology.
- Jun Yi (2012) - Ph.D., "Real-Time Wireless Communications", Amazon.com.
- Nadine Shillingford-Wondem (2010) - Ph.D., "A Framework for Configuration and Management of Quality-of-Service (QoS) in Wireless Mesh Networks", Rose-Hulman Institute of Technology.
- Jeffrey Hemmes (2009) - Ph.D., "Improving Data Availability in Mobile Applications Through Enhanced Cooperative Localization", co-advised with Dr. Douglas Thain, Air Force Institute of Technology (AFIT).
- M.S. Theses: Josh Siva (2020); Ryan Knowlton (2020); Haowei Zhang (2018); Dinesh Rajan (2014).

Engineering, Science & Technology Entrepreneurship Excellence Masters (ESTEEM) Advisees

- Alfonso Bosch, 2010-2011, "ECash: An International Money Transfer System that Controls How Money is Spent"
- Tyler Mikev, 2011-2012, "Smartphone-Based Colorimetric Analysis for Medical and Food Safety Test Strips"
- Finn Pegler, 2012-2013, "Tribe: A Device That Enhances The Action Sport Experience"
- Shane McQuillan, 2012-2013, "Contect: Concussion Detection Using Speech Analysis"
- Daniel Collins, 2013-2014, "CNVRS: An iPhone Application That Functions as a Platform for Social Conversation"
- John Vernon, 2014-2015, "NeuroTxT: A Speech Processing Application for Superior Diagnosis of Dysarthria and Other Neurological Disorders"
- Robert Lis, 2014-2015, "MedVisor: Medicine Information at your Fingertip"
- Davis DeFontes, 2016-2016, "Integrative Concussion Analytics and Data Processing"
- Marisa Cameron, 2016-2017, "Addressing Social Impairments in Autistic Children"
- Tsion Sadore, 2019-2020, "Wearable Security Technologies"

Undergraduate Research Advisement

- Spring 2024: Christopher Dexter Buhayan Apuan, Kevin Forero, Anthony Michael Lleo, Eileen Paula, Chloe Posthuma-Coelho
- Fall 2023: Jordan Bravo, Nicolas Fabrizio Bello, Jonathan Jaime Oviedo
- Summer 2021: Reno Domel, Parker Scanlon, Connor Riley, Zakiya George, Kyle Moon
- Fall 2020: Julia Blanchard, Julius Boateng, Bradley Budden, Megan Butler, Parker Chun, Sara Clarin, Patrick Creaven, Jorge Jose Daboub Silhy, Peter Davis, Reno Domel, Zakiya George, Michael Gharib, James Heneghan, Sarah Hwang, Seungwoo Lee, Wonseok Lee, Nicholas Locascio, Nolan McShea, Kevan O'Brien, Thomas O'Connor, Yize Qi, Harrison Snow, Joseph Sweilem, Christina Youn, Hongrui Zhang
- Spring 2020: Joshua Agron, Manuel Almeida Correia Nogueira De Brito, John Bailey, Lauren Bakke, Brian Cariddi, Joel Castro, John Dimpel, Gerry Fernandez, Danielle Galvao, Molly Giglia, John Gordley, Joseph Han, Michael Havighorst, James Heneghan, Shane Johnson, Ana Luisa Lamberto, Nicholas Marcopoli, Nicole Meickle, Ralph Moran, Sung Hyun Shin, Christina Youn
- Fall 2019: Joshua Agron, Manuel Almeida Correia Nogueira De Brito, John Bailey, Sarah Bsales, Paulina Camara, Jorge Jose Daboub Silhy, Matthew DaDamio, Patricia del Campillo, Megha Devaraj, John Dimpel, Michael Erdenberger, Gerry Fernandez, Danielle Galvao, Molly Giglia, Anthony Giuliano, John Gordley, Elijah Hager, Michael Havighorst, James Heneghan, Shane Johnson, Melka Konshie, Ana Luisa Lamberto, Kathleen Liebscher, Fiona McCarter, Nicole Meickle, John Meyer, Ralph Moran, Connor Ruff, Matthew Shan, Sung Hyun Shin, Jonathan Wenger, Christina Youn, Edward Yuan
- Spring 2019: Abrar Ahmed, Samuel Battalio, Paulina Camara, Anthony Giuliano, Elijah Hager, Olivia Hatch, Michael Havighorst, Sarah Hwang, Gavin Inglis, Wonseok Lee, Kathleen Liebscher, Stephen Meisenbacher, Robert Reutiman, Austin Sura, Philip Vlandis, Christina Youn, Yifan Yu, Molly Zachlin
- Fall 2018: Emma Ascolese, Samuel Battalio, Nicholas Fahrney, Chaterine FitzGibbons, Harry Gebremedhin, Anthony Giuliano, Elijah Hager, Jacob Huber, Melka Konshie, Wonseok Lee, Mitchell MacKnight, John Meyer, Austin Sura, Christina Youn, Yifan Yu
- Spring 2018: Royce Branning, Caroline Braun, Eric Fernandez Salas, Patrick Fischer, Seungjun Han, Collin Klenke, Jewon Oh, Noelle Rosa, Samantha Scaglione, Matthew Shan, Kevin Shin, Richard Stefanik, Auna Walton, Doug Smith, Philip Baumann, Lauren Ferrara, Kathleen Schermerhorn

- Fall 2017: Caroline Braun, Seungjun Han, Thomas Lynch, Kyle Miller, Mason Prosser, Samantha Scaglione, Kathleen Schermerhorn, Kevin Shin, Douglas Smith, Brianna Wilenius

- Summer 2017: Christopher Bury, Eric Michael Biscocho, Collin Klenke

- Spring 2017: Royce Branning, Caroline Braun, Shane Brosnan, Ryan Busk, Mimi Chen, Collin Klenke, Alison Lui, Ryan Michalec, Nicholas Pellegrino, Kwan Ho Herman Tong, Nicholas Ward

- Fall 2016: Alejandro Rafael Ayala, Christopher Clarizio, Jorge Diaz-Ortez, Daniel Galvao Guerra, Mikel Kota, Kathryn Kuenster, Anthony Narin, Kevin Trinh, Erin Turley

- Summer 2016: Patrick Schurr, Sam Cho, Will Badart, Matthew King, Luis Prieb, Jamie Maher, Andrew Munch, Henry Long, Erin Turley, Katricia Herring, Matthew Reilly,

- Spring 2016: Ryan Busk, John Considine, Daniel Finnegan, Katrina Gonzales, Benjamin Kennel, Daniel Kerrigan, George Krug, Lauren Kuta, Yucheng Lin, Henry Long, Patrick Myron, Nicholas Pellegrino, Matthew Perez, Maxwell Walsh, Jenna Wilson

- Fall 2015: Fernando Beletti, Yuxuan Chen, John Considine, Brynna Conway, Kimberly Marie Forbes, Jacob Gavin, Luigi Grazioso Rengifo, Zachary Janicki, Victoria Johnston, Ann Keenan, Courtney Kelly, Daniel Kerrigan, Keith Linnard, Lauren Kuta, Paul Lee, Xuanyi Li, Ryan Mackey, Weizhi Mao, Andrew Munch, Patrick Myron, Sarah Olson, Michael Parowski, Matthew Perez, Kevin Shin, Ryan Smick, Claire Sonderman

- Summer 2015: Matthew Perez, Robert Flores, Kim Forbes, Joseph Yoon, Joao Guilherme Daros Fidelis

- Spring 2015: Yuxuan Chen, Whitney Choo, Kimberly Marie Forbes, Katrina Gonzales, Nicholas Haydel, Victoria Johnston, So Yon Kwon, David Lewis, David Mattia, Matthew McKenzie, Anna McMahon, Jillian Montalvo, Vaishnav Murthy, John Ryan, Tyler Sammons, Natalie Sanders, Charles Shinaver, David Wu, Joseph Yoon

- Fall 2014: Yuxuan Chen, Spencer King, Jillian Montalvo, Edwin Onattu, Joseph Yoon, Adriana Rivera, Alejandra Aranguren

- Summer 2014: Andrew Gnott, William Gowans

- Spring 2014: Yuxuan Chen, Heather Fredrickson, William Gowans, Patrick Hansen, John Larson, Gerard Martinez, Jillian Montalvo

- Fall 2013: Emily Claps, Theodore Cogan, Patrick Hansen, John Larson, Gerard Martinez, Marshall Sprigg, Owen Zidar

- Summer 2013: Ryan Liebscher

- Spring 2013: Matthew Fitzgerald, Oliver Lamb

- Fall 2012: Michael Bau, Dominique Hightower, Henry Kim

- Spring 2012: Matthew Fitzgerald, Dominique Higgins, Henry Kim, Eli Kloswick, Casey O'Meilia, Gregory Reilly, David Schalkwijk Lopes

- Fall 2011: Gregory Reilly

- Fall 2010: Gregory Angle

- Spring 2010: John Langley

- Fall 2009: Michael Brickl

- Spring 2009: Michael Lehmann

- Fall 2008: Michael Lehmann, Brendan McNutt

- NSF REU Summer 2013 Participants: Mercedes Streeter (Monmouth College), Jennifer Hu (New Mexico State University), Arda Tugay (Rose Hulman Institute of Technology), Benjamin Mayhew (Macalester College), Mac Wibbels (University of Utah), Roger Tang (University of Massachussetts at Amherst), John McCann (University of Alabama in Huntsville), Alexander Wallar (University of St. Andrews)

- NSF REU Summer 2012 Participants: Jordan Niespodziany (DePauw University), Patrick Herrod (DePauw University), Michael Falcone (Youngstown State University), Benjamin Walker (Carleton College), Jasmine Dahilig (Loyola Marymount University), Natalya Hankewych (University of Florida), Christine Dierk (Elon University), Connor Bruso (University of Maryland), David Lopes (Notre Dame), Casey O'Meilia (Notre Dame), Ernesto Colon (The Cooper Union), Eli Kloswick (Notre Dame)

- NSF REU Summer 2011 Participants: Vincent Aguirre (DePauw University), Emily Bichler (DePauw University), Spencer Carroll (Emory University), Andrew Dammann (Villanova University), Ahmed El-Kishky (University of Tulsa), Joseph Fetsch (Notre Dame), Lyle Franklin (Ball State University), Kathryn Glowinski (St. Lawrence University), Willem Klein (Notre Dame), Anthony Maher (Notre Dame), Rebecca Negley (University of Pittsburgh), Curthis Northcutt (Vanderbilt University), Andrew Ofsonka (Notre Dame), Keishla Ortiz Lopez (University of Puerto Rico), Gregory Reilly (Notre Dame), Miya Schneider (Brown University), Samuel Suddath (Auburn University), Zachary Welch (Clemson University)

- NSF REU Summer 2010 Participants: Seth Ringling (Harding University), Carolyn Farris (University of Portland), Michael Schermerhorn (University of Rochester), Curtis Carmony (Bard College), Joksan Flores (Universidad del Turabo), Paul Monroe (University of Pittsburgh), Brandon Schlinker (San Jose State University), Sarah Chasins (Swarthmore College), Justin Varner (Penn State University), John Ndungu (University of Arkansa), Brandon Shrewsbury (University of West Georgia), Regina Ranstrom (Northeastern University), Alex Cohn (Grinnell College), Sara Aycock (Saint Mary's College)

- NSF REU Summer 2009 Participants: Mark Overholt (Bradley University), Sam Tucker (Carleton College), Chelsea Norman (University of Mississippi), Yashira Colon (University of Puerto Rico), Nicholas Keller (University of Maryland - Baltimore County), Simon Zhang (Cornell University), David Mittelman (University of Connecticut), Xi Zhang (Humboldt State University), Joshua Bradley (Morehead State University), Eric de Araujo (Bethel College), Noehliz Carrion (University of Puerto Rico), Elena Fiocca (College of Wooster)

- NSF REU Summer 2008 Participants: Andrew Thrasher (Anderson University), Matthew Shott (Hope College), Jessica Szweda (Centre College), Michael Souza (Longwood University), Matthew Tran (University of Connecticut), Damian Torres (University of Puerto Rico), James Notwell (Notre Dame), Jordan Brindza (University of Pennsylvania), Sean McRoskey (Notre Dame), Emmanuel Bello-Ogunu (Notre Dame)

Building Bridges Student Advisement

- Christian Martinez, 2019-2020
- Yahterie-Anne Sykes Ortiz, 2016-2017
- Esteban Rojas, 2011-2012

High School Student Advisement

- Matt King, Marian High School, 2011-2012
- Gracie Molnar, Marian High School, 2017-2018

PROFESSIONAL ACTIVITIES

Journal Activities

- Associate Editor, IEEE Transactions on Network Science and Engineering, since 2022
- Editor, IEEE Transactions on Wireless Communication, since 2021
- Editorial Board Member, Journal of Mobile Computing and Wireless Technology (JMCWT), since 2012

- Editorial Board Member, International Journal of Embedded and Real-time Communication Systems (IJERTCS), since 2009

- Guest Editorial Board Member, International Journal on Embedded Computing, 2006-2007

- Guest Editor, ACM Transactions on Autonomous and Adaptive Systems (Special Issue on Self-Adaptive and Self-Organizing Wireless Networking Systems), 2008-2009

- Guest Editor, International Journal of Wireless and Mobile Computing (IJWMC), 2008-2009

Conference Activities

- Program Co-Chair for the Next Generation Networks and Internet Applications (NGNI) Symposium of the International Conference on Computing, Networking and Communications (ICNC 2023), Kauai, Hawaii, February 2023.

- Program Co-Chair for the 18th IEEE International Conference on Mobile Ad-Hoc and Smart Systems (MASS), Denver, CO, October/November 2021.

- Track Co-Chair for the 29th International Conference on Computer Communications and Networks (ICCCN), Track on "Sensor/Embedded Networks and Pervasive Computing (SNPC)", Honolulu, HI, August 2020.

- Co-Chair of "Visions" Track of 6th IEEE/ACM International Conference on Mobile Software Engineering and Systems (MOBILESoft), Montreal, Canada, May 2019.

- Steering Committee member for IEEE Intl. Workshop on Wireless Mesh and Ad Hoc Networks (WiMAN) 2010-2019.

- General Chair for the Intl. Conference on Computer Communications and Networks (ICCCN), Vancouver, Canada, August 2017.

- Track Chair for the 14th International Conference on Mobile Systems and Pervasive Computing (MobiSPC), Leuven, Belgium, July 2017.

- Track Co-Chair for the 12th IEEE International Conference on Embedded Software and Systems (ICESS), "Track on Emerging Embedded Applications and Interdisciplinary Topics", New York, NY, August 2015.

- Track Co-Chair for the 24th International Conference on Computer Communications and Networks (ICCCN), Track on "Sensor/Embedded Networks and Pervasive Computing (SNPC)", Las Vegas, NV, July/August 2015.

- Workshop Co-Chair for the 11th International Conference on Mobile Systems and Pervasive Computing (MobiSPC), Niagara Falls, Ontario, Canada, August 2014.

- Program Track Chair for the Intl. Conference on Computer Communications and Networks (ICCCN), Track on "Sensor/Embedded Networks and Pervasive Computing", Shanghai, China, July-August 2014.

- Technical Program Co-Chair for the Intl. Conference on Computer Communications and Networks (ICCCN) 2013.

- Workshop General Co-Chair for the Intl. Conference on Computer Communications and Networks (ICCCN) 2012.

- Program Track Chair for the Intl. Conference on Computer Communications and Networks (ICCCN), Track on "Sensor Networks, Embedded Systems, and Pervasive Computing" 2011.

- Steering Committee member for the Fourth IEEE Intl. Workshop on Wireless Mesh and Ad Hoc Networks (WiMAN) 2010.

- Program Co-Chair for Third IEEE International Workshop on Wireless Mesh and Ad Hoc Networks 2009.

- Program Co-Chair for Second IEEE International Workshop on Wireless Mesh and Ad Hoc Networks 2008.

- Session Chair for the 13th IEEE Real-Time and Embedded Technology and Applications Symposium 2007, the 4th Annual Intl. Conference on Mobile and Ubiquitous Systems 2007, and the First Intl. Conference on Ad Hoc Networks 2009.

Technical Program Committee (TPC) Member

- 21st Annual International Conference on Distributed Computing in Smart Systems and the Internet of Things (DCOSS-IoT 2025), Tuscany (Lucca), Italy, June 2025.

- 21st Annual IEEE International Conference on Sensing, Communication, and Networking (SECON), Location/date TBD. 15th ACM Conference on Bioinformatics, Computational Biology, and Health Informatics (ACM BCB), Shenzhen, China, November 2024.

- 14th International Conference on the Internet of Things, Oulu, Finland, November 2024.

- 44th IEEE International Conference on Distributed Computing Systems (ICDCS), Track on Operating Sytems, Fault Tolerance and Dependability, Jersey City, NJ, July 2024.

- 20th Annual International Conference on Distributed Computing in Smart Systems and the Internet of Things (DCOSS-IoT 2024), Abu Dhabii, United Arab Emirates, April/May 2024.

- International Conference on Computing, Networking, and Communications (ICNC): Wireless Ad Hoc and Sensor Networks, Big Island, Hawaii, February 2024.

- 20th Annual IEEE International Conference on Sensing, Communication, and Networking (SECON), Madrid, Spain, September 2023.

- 43rd IEEE International Conference on Distributed Computing Systems (ICDCS), Track on Distributed Operating Sytems and Middleware, Hong Kong, China, July 2023.

- 19th Annual International Conference on Distributed Computing in Smart Systems and the Internet-of-Things (DCOSS-IoT), Coral Bay, Pafos, Cyprus, June 2023.

- International Congress on Communications, Networking, and Information Systems (CNIS), Guilin, China, March 2023.

- 15th European Alliance for Innovation (EAI) International Wireless Internet Conference (EAI WiCON), Virtual Conference, November 2022.

- 19th IEEE International Conference on Sensing, Communication and Networking (SECON), Virtual Conference, September 2022.

- 18th International Conference on Distributed Computing in Sensor Systems (DCOSS), Los Angeles, CA, May-June 2022.

- IEEE International Conference on Distributed Computing Systems (ICDCS), Bologna, Italy, July 2022.

- IEEE Wireless Communications and Networking Conference (WCNC), Austin, TX April 2022.

- 18th IEEE International Conference on Sensing, Communication and Networking (SECON), Rome, Italy, July 2021.

- 41st IEEE International Conference on Distributed Computing Systems (ICDCS), Track on Security, Privacy and Trust in Distributed Systems, Washington, DC, July 2021.

- IEEE Wireless Communications and Networking Conference (WCNC), Nanjing, China, March and April 2021.

- Thirty-Fifth AAAI Conference on Artificial Intelligence (AAAI-21), Virtual Conference, February 2021.

- 10th International Joint Conference on Pervasive and Parallel Computing, Communication and Sensors (PECCS), Budapest, Hungary, November 2020.

- IEEE Wireless Communications and Networking Conference (WCNC), Seoul, Korea, April 2020.

- 25th IEEE International Conference on Parallel and Distributed Systems (ICPADS), Tianjin, China, 2019.

- 16th IEEE International Conference on Mobile Ad hoc and Smart Systems (IEEE MASS), Monterey, California, November 2019.

- 9th International Joint Conference on Pervasive and Embedded Computing and Communication Systems (PECCS), Vienna, Austria, September 2019.

- International Conference on Computing, Networking and Communications (ICNC): Wireless Ad hoc and Sensor Networks, Honolulu, HI, February 2019.

- 15th IEEE International Conference on Mobile Ad hoc and Sensor Systems (MASS), Chengdu, China, October 2018.

- 8th International Joint Conference on Pervasive and Embedded Computing and Communication Systems (PECCS), Porto, Portugal, July 2018.

- 20th IEEE International Conference on High Performance Computing and Communications (HPCC-2018), Exeter, England, UK, June 2018.

- Third International Workshop on Social Sensing, Orlando, FL, April 2018.

- 7th IEEE Annual International Workshop on Mission-Oriented Wireless Sensor and Cyber-Physical System Networking (MiSeNet 2018), Honolulu, Hawaii, April 2018.

- International Conference on Computing, Networking and Communications (ICNC): Wireless Ad Hoc and Sensor Network Symposium, Maui, Hawaii, March 2018.

- 14th IEEE International Conference on Mobile Ad hoc and Sensor Systems (MASS), Orlando, Florida, November 2017.

- 14th IEEE International Conference on Embedded Software and Systems (IEEE ICESS-17), Sydney, Australia, August 2017.

- 10th IEEE International Conference on Cyber, Physical, and Social Computing (CPSCom-2017), Exeter, England, UK, June 2017.

- Sixth IEEE Annual International Workshop on Mission-Oriented Wireless Sensor and Cyber-Physical System Networking (MiSeNet), Atlanta, GA, May 2017.

- International Conference on Embedded Wireless Systems and Networks (EWSN), Uppsala, Sweden, February 2017.

- IEEE International Conference on Cyber, Physical, and Social Computing, Chengdu, Sichuan, China, December 2016.

- Wireless Health 2016, National Institutes of Health, Bethesda, MD, October 2016.

- 13th IEEE International Conference on Mobile Ad Hoc and Sensor Systems (MASS), Brasilia, Brazil, October 2016.

- International Conference on Pervasive and Embedded Computing, Lisbon, Portugal, July 2016.

- Global Conference on Wireless and Optical Communications, Malaga, Spain, June 2016.

- International Workshop on the Impact of Human Mobility in Pervasive Systems and Applications (PerMoby), Sydney, Australia, March 2016.

- International Conference on Embedded Wireless Systems and Networks (EWSN), Graz, Austria, February 2016.

- International Conference on Computing and Network Communications, Technopark, Trivandrum, India, December 2015.

- First International Workshop on Social Sensing, Dallas, TX, October 2015.

- International Workshop on the Impact of Human Mobility in Pervasive Systems and Applications (PerMoby), St. Louis, MO, March 2015.

- International Conference on Parallel Processing (ICPP), Paris, France, March 2015.

- 5th International Conference on Pervasive and Embedded Computing and Communication Systems (PECCS), Angers, France, February 2015.

- International Conference on Platform Technology and Service (PlatCon-15), Jeju, Korea, January 2015.

- 11th IEEE International Conference on Mobile Ad Hoc and Sensor Systems (MASS), Philadelphia, PA, October 2014.

- 11th IEEE International Conference on Embedded Software and Systems (ICESS-2014), Paris, France, August 2014.

- 20th IEEE Real-Time and Embedded Technology and Application Symposium (RTAS), Berlin, Germany, May 2014.

- International Workshop on Cyber-Physical Systems Security (CPS-Sec), Marina Del Rey, CA, May 2014.

- Fourth International Conference on Wireless Communications, Vehicular Technology, Information Theory, and Aerospace and Electronic Systems (WirelessVITAE), Aalborg, Denmark, May 2014.

- 4th Intl. Conference on Pervasive and Embedded Computing and Communication Systems (PECCS), Lisbon, Portugal, January 2014.

- IEEE GLOBECOM (Global Communications Conference), Ad-hoc and Sensor Networking Symposium, Atlanta, GA, December 2013.

- International Multi-Topic Conference (IMTIC), Mehran University, Jamshoro, Pakistan, December 2013.

- 15th IEEE International Conference on High Performance Computing and Communications (HPCC), Zhangjiajie, China, November 2013.

- 2nd ACM Annual International Workshop on Mission-Oriented Wireless Sensor Networking (ACM MiSeNet), Miami, FL, September-October 2013.

- 4th Intl. Conference on Emerging Ubiquitous Systems and Pervasive Networks, Niagara Falls, Ontario, Canada, October 2013.

- 10th ACM International Workshop on Vehicular Inter-Networking, Systems, and Applications (VANET), Taipei, Taiwan, June 2013.

- 1st International Symposium on Wireless Sensor Networks for Developing Countries, Jamshoro, Pakistan, April 2013.

- 3rd International Conference on Pervasive and Embedded Computing and Communication Systems (PECCS), Barcelona, Spain, February 2013.

- International Conference on Connected Vehicles and Expo (ICCVE), Beijing, China, December 2012.

- 21st IEEE International Conference on Computer Communications and Networks (ICCCN), Sensor Networks, Embedded Systems, and Pervasive Computing Track, Munich, Germany, August 2012.

- 9th ACM International Workshop on Vehicular Inter-Networking, Systems, and Applicatons (VANET), Low Wood Bay, Lake District, United Kingdom, June 2012.

- 3rd International Conference on Mobile, Ubiquitous, and Intelligent Computing, Vancouver, Canada, June 2012.

- IEEE International Conference on Communications (Ad-hoc and Sensor Networking Symposium), Ottawa, Canada, June 2012.

- 18th IEEE Real-Time and Embedded Technology and Applications Symposium (RTAS), Applications, Systems, RTOS and Tools Track, Beijing, China, April 2012.

- 2nd International Conference on Pervasive and Embedded Computing and Communication Systems (PECCS), Rome, Italy, February 2012.

- 8th IEEE International Conference on Embedded Software and Systems (ICESS), Changsha, China, November 2011.

- 9th IEEE/IFIP Intl. Conference on Embedded and Ubiquitous Computing (Sensor Networks Track), Melbourne, Australia, October 2011.

- 17th IEEE International Conference on Embedded and Real-Time Computing Systems and Applications (RTCSA), Toyama, Japan, August 2011. International Workshop on Emerging Mobile Sensing Technologies, Systems, and Applications (MobiSense), San Francisco, CA, June 2011.

- 17th IEEE Real-Time and Embedded Technology and Applications Symposium (RTAS), Core Area, Chigaco, IL, April 2011.

- 1st International Conference on Pervasive and Embedded Computing and Communication Systems (PECCS), Algarve, Portugal, March 2011.

- 6th International Conference on Mobile Ad-hoc and Sensor Networks (MSN'10), Hanzhou, China, December 2010.

- IEEE GLOBECOM (Global Communications Conference), Miami, FL, December 2010

- International Conference on Computer Communications and Networks (ICCCN), Internet Services, Architectures, and Protocols Track, Zurich, Switzerland, August 2010

- 3rd International Conference on Advances in Mesh Networks (MESH), Venice, Italy, July 2010

- ACM International Conference on Computing Frontiers, Bertinoro, Italy, May 2010

- Work-in-Progress Session of 30th IEEE Real-Time Systems Symposium, Washington, DC, December 2009

- 11th International Symposium on Stabilization, Safety, and Security of Distributed Systems (SSS), Lyon, France, November 2009

- 15th IEEE Intl. Conference on Embedded and Real-Time Computing Systems and Applications (RTCSA), Embedded Systems Track, Beijing, China, August 2009

- International Conference on Computer Communications and Networks (ICCCN), Internet Services, Systems and Applications Track, San Francisco, August 2009

- The Second Intl. Conference on Advances in Mesh Networks (MESH), Athens, Greece, June 2009

- 8th International Workshop on Real-Time Networks (RTN), Dublin, Ireland, June 2009

- 5th International Wireless Communications and Mobile Computing Conference (IWCMC), Leipzig, Germany, June 2009

- IEEE International Conference on High Performance Computing and Communications (HPCC-09), Seoul, Korea, June 2009

- IEEE ICC Ad-Hoc and Sensor Networking Symposium, Dresden, Germany, June 2009

- IEEE ICC Wireless Networking Symposium, Dresden, Germany, June 2009

- 7th Annual Conference on Communication Networks and Services Research, Moncton, New Brunswick, May 2009

- International Conference on Embedded Software and Systems (ICESS), HangZhou Zhejiang, China, May 2009

- IEEE Wireless Communications and Networking Conference (WCNC), Budapest, Hungary, April 2009

- 6th IEEE Intl. Workshop on Mobile Peer-to-Peer Computing (MP2P), Galveston, TX, March 2009

- ACM Symposium on Applied Computing (Embedded Systems Track), Waikiki Beach, Honolulu, Hawaii, March 2009

- IFIP Intl. Conference on Embedded and Ubiquitous Computing (EUC), Shanghai, China, December 2008

- 14th IEEE International Conference on Embedded and Real-Time Computing and Applications (RTCSA), Taiwan, August 2008

- IEEE International Wireless Communications and Mobile Computing Conference (IWCMC), Chinia, Crete Island, Greece, August 2008

- IEEE International Conference on Communications (ICC), Beijing, China, May 2008

- 1st International Workshop on Mobile Device and Urban Sensing (MODUS), St. Louis, MO, April 2008

- Workshop on Radio Resource Management in Wireless Mesh Networks (RRMinMesh), Doha, Qatar, April 2008

- 11th International Conference on Principles of Distributed Systems, Guadeloupe, French West Indies, December 2007

- IFIP International Conference on Embedded and Ubiquitous Computing (EUC), Taipei, Taiwan, December 2007

- First Intl. Workshop on Wireless Mesh and Ad Hoc Networks (WiMAN), Honolulu, Hawaii, August 2007

- 13th IEEE International Conference on Embedded and Real-Time Computing and Applications (RTCSA), Korea, August 2007

- Computer and Network Security Symposium, Honolulu, Hawaii, August 2007

- 13th IEEE Real-Time and Embedded Technology and Applications Symposium (RTAS), Bellevue, WA, April 2007

- 12th IEEE International Conference on Embedded and Real-Time Computing and Applications (RTCSA), Sydney, Australia, August 2006

- ACM Multimedia 2005 (Short Paper Track), Singapore, November 2005

- 2nd Intl. Workshop on Power-Aware Real-Time Computing (PARC), Jersey City, NJ, September 2005

Departmental Committees

- Graduate Program Director   2022 - 2024
- Human Resource Committee (Chair)   2022 - 2024
- KFSCIS Director Search Committee   2022 - 2023
- Faculty Search Committee (Chair)   2019 - 2021
- Undergraduate Curriculum Committee   2005 - 2019
- Infrastructure (WWW) Committee   2007 - 2012
- Honor Committee   2006 - 2007
- Assessment Committee   2006 - 2010
- Graduate Studies Committee   2004 - 2007

University Committees

- Faculty Senate Graduate Council   2023 - date
- Institutional Review Board (IRB)   2017 - date

- Limited Submissions Review Committee   2015 - date

- University Committee on Research and Sponsored Programs   2016 - 2019

- Graduate School Ethics Workshop Panelist   2018

- Global Gateway Faculty Research Grant (GGFRA) Review Committee   2018

- Working Group Member and Reviewer Blockchain Grants   2017 - 2018

- Rodney F. Ganey, Ph.D. Collaborative Community-based Research
  Grant Committee   2009

Teaching

- Fall 2023: **Operating Systems Principles**, Junior Core Course, 49 students

- Spring 2023: **Graduate Operating Systems**, Graduate Core Course, 39 students

- Fall 2022: **Operating Systems Principles**, Junior Core Course, 67 students

- Spring 2022: **Graduate Operating Systems**, Graduate Core Course, 29 students

- Fall 2021: **Graduate Operating Systems**, Graduate Core Course, 24 students

- Spring 2021: **Mobile Computing**, Senior/Graduate Elective, 20 students

- Fall 2020: **Graduate Operating Systems**, Graduate Core Course, 19 students

- Spring 2020: **Smart Health**, Senior/Graduate Elective, 26 students

- Fall 2019: **Graduate Operating Systems**, Graduate Core Course, 24 students

- Spring 2019: **Selected Topics Communications and Mobile Computing: Smart Health (Graz, Austria)**, Graduate Elective Course, 10 students

- Spring 2019: **Embedded Systems**, Senior/Graduate Elective Course (Graz, Austria), 35 students

- Fall 2018: **Graduate Operating Systems**, Graduate Core Course, 33 students

- Summer 2018: **Internet of Things**, Summer Engineering Program Berlin, 26 students

- Spring 2018: **Mobile Computing**, Senior/Graduate Elective, 24 students

- Fall 2017: **Graduate Operating Systems**, Graduate Core Course, 29 students

- Spring 2017: **Mobile Computing**, Senior/Graduate Elective, 22 students

- Fall 2016: **Graduate Operating Systems**, Graduate Core Course, 36 students

- Spring 2016: **Operating Systems Principles**, Junior Core Course, 107 students

- Fall 2015: **Mobile Computing**, Senior/Graduate Elective, 42 students

- Spring 2015: **Operating Systems Principles**, Junior Core Course, 94 students

- Fall 2014: **Mobile Computing**, Senior/Graduate Elective, 12 students

- Spring 2014: **Operating Systems Principles**, Junior Core Course, 71 students

- Fall 2013: **Mobile Computing**, Senior/Graduate Elective, 23 students

- Fall 2012: **Mobile Computing**, Senior/Graduate Elective, 36 students

- Spring 2012: **Operating Systems Principles**, Junior Core Course, 63 students

- Spring 2012: **Mobile Application Development**, Senior/Graduate Elective, 24 students

- Fall 2011: **Pervasive Health**, Senior/Graduate Elective, 18 students

- Spring 2011: **Operating Systems Principles**, Junior Core Course, 54 students

- Spring 2011: **Mobile Application Development**, Senior/Graduate Elective, 30 students

- Fall 2010: **Wireless Sensor Networks**, Senior/Graduate Elective, 8 students

- Spring 2010: **Operating Systems Principles**, Junior Core Course, 28 students

- Spring 2010: **Mobile Application Development**, Senior/Graduate Elective, 9 students

- Fall 2009: **Ubiquitous Computing**, Senior/Graduate Elective, 9 students

- Spring 2009: **Computer Networks**, Junior Elective, 28 students

- Fall 2008: **Mobile and Wireless Computing**, Senior/Graduate Elective, 23 students

- Spring 2008: **Computer Networks**, Junior Elective, 49 students

- Fall 2007: **Real-Time Systems**, Senior/Graduate Elective, 9 students

- Spring 2007: **Computer Networks**, Junior Elective, 48 students

- Fall 2006: **Real-Time Systems**, Senior/Graduate Elective, 17 students

- Spring 2006: **Computer Networks**, Junior Elective, 25 students

- Fall 2005: **Real-Time Systems**, Senior/Graduate Elective, 19 students

- Spring 2005: **Systems Programming**, Junior Elective, 20 students

- Fall 2004: **Survey on Advanced Computer Architectures**, Senior/Graduate Elective, 5 students