

# Dr. Eirini Eleni Tsiropoulou

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## Personal Data

- Born in Athens, Greece (02/02/1986), US lawful permanent resident
- Languages: Greek, English, German

## Research Interests

Game Theory; Reinforcement Learning; Distributed decision making; Optimization of dynamic systems involving stochasticity, uncertainty, and risks; Resource orchestration in resource-constrained environments; Software defined systems; Artificial intelligent cyber-physical systems; Control of interdependent wireless systems.

## Academic History

- **Assistant Professor** Department of Electrical and Computer Engineering, University of New Mexico, Albuquerque, USA  
**July 2017 - present**
- **Postdoctoral Associate** Institute for Systems Research, Department of Electrical and Computer Engineering, University of Maryland, USA (PostDoctoral Advisor: Dr. John Baras)  
**June 2016 - June 2017**
- **Postdoctoral Associate** Erik Jonsson School of Engineering and Computer Science, University of Texas at Dallas, USA (PostDoctoral Advisor: Dr. Mark Spong)  
**January 2016 - June 2016**
- **Postdoctoral Research Fellow**, NETwork Management and Optimal DEsign Laboratory, School of Electrical and Computer Engineering, National Technical University of Athens, Greece  
**August 2014 - December 2015**
- **Research Assistant**, NETwork Management and Optimal DEsign Laboratory, School of Electrical and Computer Engineering, National Technical University of Athens, Greece  
**Oct 2008 - April 2014**

## Education

- **Ph.D, National Technical University of Athens (NTUA)**  
**School of Electrical and Computer Engineering(ECE), Athens, Greece, July 2014**

Thesis title: "Optimal Resource Allocation in Multi-Service Next Generation Wireless Networks"

- **MBA, Project Management, Business Administration (summa cum laude, 9.07/10, top 1% of the year) School of Electrical and Computer Engineering, National Technical University of Athens, Greece, 2010**

Thesis title: "Design and Analysis of Emissions from the Electricity and Combined Heat and Power Sectors in an International Perspective through the Mathematical Model Balmorel"

- **Diploma in Electrical and Computer Engineering (summa cum laude, 9.06/10, top 1% of the year) School of Electrical and Computer Engineering, National Technical University of Athens, Greece, 2008 (5 year degree)**

Thesis title: "Game Theoretic Distributed Uplink Power Control for CDMA Networks with Real-Time Services"

## Awards & Honors

### Awards & Honors after joining UNM

1. **IEEE Albuquerque Section's 2021 Outstanding Engineering Educator award**
  2. **Early Career Award** from the IEEE Communications Society Internet Technical Committee for outstanding contribution in the area of Internet research and technology development," **2020**.
  3. **Best Paper Award** in the IEEE/ACM Conference on Blockchain Research & Applications for Innovative Networks and Services (BRAINS) 2020 for the paper: Y. Cai, G. Fragkos, E.E. Tsiropoulou, and A. Veneris, "A Truth-Inducing Sybil Resistant Decentralized Blockchain Oracle," IEEE BRAINS 2020, pp. 128-135, **2020**.
  4. **Best Paper Award** in the IEEE INFOCOM 2019 awarded by the IEEE Communications Systems Integration and Modeling Technical Committee for the paper: P. Vamvakas, E.E. Tsiropoulou, and S. Papavassiliou, "Dynamic Spectrum Management in 5G Wireless Networks: A Real-Life Modeling Approach," IEEE INFOCOM 2019, pp. 2134-2142, 2019. **2020**.
  5. **Outstanding Reviewer Award** for Sensors Journal, 2019.
  6. **NSF CRII Award: NeTS: Real-life modeling for Efficient Resource management in Heterogeneous multi-user systems - REFRESH**, July 2019 (PI) .
  7. **Program Committee Chair for ACM 14th Workshop on Challenged Networks (CHANTS) 2019 - Workshop of ACM MobiCom 2019.**
  8. **Best Paper Award** in the 12th IFIP Wireless and Mobile Networking Conference (WMNC), IEEE, for the paper: P. Promponas, P. A. Apostolopoulos, **E. E. Tsiropoulou**, and S. Papavassiliou, "Redesigning Resource Management in Wireless Networks based on Games in Satisfaction Form," in 12th IFIP Wireless and Mobile Networking Conference (WMNC), **Sept. 2019**.
- Pavlos Athanasios Apostolopoulos, one of the co-authors of this paper, is a second-year Ph.D. student under my supervision at the Department of Electrical and Computer Engineering, UNM.
9. **Keynote for the 1st International Workshop on Data Distribution in Industrial and Pervasive Internet 2019 - Workshop of IEEE WoWMoM 2019.**
  10. **2018-2019 Junior Faculty Teaching Excellence Award, School of Engineering, University of New Mexico.**
  11. **Exemplary Editor Award for IEEE Communications Letters** received by IEEE Communications Society, 2018.

12. **NSF Travel Grant** to attend 2018 NSF Smart and Connected Communities (S&CC) Aspiring PI Workshop, Kansas City, MO.
13. **N<sup>2</sup> Women Chair organizing the N<sup>2</sup> Women workshop at the 20th IEEE International Symposium on a World of Wireless, Mobile and Multimedia Networks (WoWMoM) 2019**, Washington DC, USA.

### Awards & Honors before joining UNM

1. **N<sup>2</sup> Women: Rising Stars in Networking and Communications Award, 2017.**
2. **Susan Frazier Postdoctoral Researcher Travel Award** by Institute for Systems Research, Department of Electrical & Computer Engineering, University of Maryland, College Park, **May 2017.**
3. **Best Paper Award** in the 7th International Conference on Ad Hoc Networks (LNCS) Sprigner (**ADHOCNETS 2015**) for the paper: E.E. Tsiropoulou, I. Ziras and S. Papavassiliou, "Service Differentiation and Resource Allocation in SC-FDMA Wireless Networks through User-Centric Distributed Non-Cooperative Multilateral Bargainings," **September 2015.**
4. **Best Paper Award** in the IEEE Wireless Communications and Networking Conference (**WCNC 2012**) for the paper: E.E. Tsiropoulou, P. Vamvakas, and S. Papavassiliou, "Energy Efficient Uplink Joint Resource Allocation Non-cooperative Game with Pricing," **April 2012.**
5. **Student Conference Travel Grant**, (IWCMC 2009), Organization: National Technical University of Athens, **June 2009.**
6. **Annual Award from the Greek State Scholarships Foundation**, Awarded to the top student of the dept. of Electrical and Computer Engineering (ECE), National Technical University of Athens, Greece, **2007-2008.**
7. **Awards of Excellence in High School**, 12 in total, from the Ministry of Education, **1998-2003.**

## Project Funding

### Project Funding at UNM

1. **Sandia National Laboratories:** Cyber-resilience microgrid technologies enabling public transportation systems during natural and man-made disasters, October 2021 - September 2022, **PI: Eirini Eleni Tsiropoulou, \$85,000.**
2. **IC-Safety:** Development of secure e-cash protocols, October 2021 - September 2024, **PI: Eirini Eleni Tsiropoulou, \$29,900.**
3. **Sandia National Laboratories:** Research on the Development of the Heliostat Focusing and Canting Enhancement, June 2021 - December 2021, **PI: Eirini Eleni Tsiropoulou, \$37,090.**
4. **National Science Foundation, QLCI-CI: NSF Quantum Leap Challenge Institute for Enhanced Sensing and Distribution Using Correlated Quantum States**, Sub-award: January 2021 - August 2022, **PI: Eirini Eleni Tsiropoulou**, co-PI: Jim Plusquellic, **\$174,000**, Personal share: **\$126,000.**
5. **National Science Foundation, Computer and Information Science and Engineering (CISE), Research Initiation Initiative (CRII): NeTS:** Real-life modeling for Efficient Resource management in Heterogeneous multi-user systems - REFRESH, July 2019 - June 2021, **PI: Eirini Eleni Tsiropoulou, \$174,987.**
6. **National Science Foundation - VPRED EPSCOR:** NM EPSCoR Infrastructure Seed Award, May 2020- August 2023, **PI: Eirini Eleni Tsiropoulou, \$50,000.**
7. **Sandia National Laboratories:** Cybeseurity for Smart Grid Networks, August 2020- May 2021, **PI: Eirini Eleni Tsiropoulou, \$143,512.**
8. **Sandia National Laboratories:** Development of the heliostat focusing and canting enhancement technique, March 2019- May 2021, **PI: Eirini Eleni Tsiropoulou, \$142,532.**

9. **Sandia National Laboratories:** Autonomous Sensor Tasking and Scheduling Across Multiple Platforms, January 2020- November 2020, **co-PI: Eirini Eleni Tsiropoulou** (PI: Meeko Oishi), Total Amount: \$40,000, Personal share: \$20,000.
10. Gerondelis Foundation: Graduate student expenses support, August 2020 - August 2021, **PI: Eirini Eleni Tsiropoulou, \$5,000.**
11. Title: "Redefining resource Allocation in Advanced wireLess systEms (RATIONALE)" Funding organization: University of New Mexico Women in STEM Faculty Development Fund. June 2018 - June 2019, **PI: Eirini Eleni Tsiropoulou, \$10,000.**
12. Title: "HEterogeneous wireLEss Network Utility Maximixation (HELENiUM)" Funding organization: RAC Grant Awards. March 2018- May 2019, **PI: Eirini Eleni Tsiropoulou, \$10,000.**
13. Gerondelis Foundation: Graduate student expenses support, August 19, 2019 - January 20, 2020, **PI: Eirini Eleni Tsiropoulou, \$5,000.**
14. **NSF Travel Grant** to attend 2018 NSF Smart and Connected Communities (S&CC) Aspiring PI Workshop, Kansas City, MO, \$1,000.

**Research Funding as PI: \$840,021**

**Total Research Funding: \$908,021**

### **Project Funding before joining UNM**

1. Title: "Personalized Documentary Creation based on Automatically Annotated Content" Funding organization: EU. 2015-2017 (**Co-Investigator**).
2. Title: "Multimedia Content Annotations for Rapid Exploitation in Multi-Screen Environments". Funding organization: EU. 2015-2016 (**Co-Investigator**).
3. Title: "Foundations of Advanced Networking by means of Network Utility Maximization (FAN-of-NUM) ". This research is co-financed by the European Union (European Social Fund) and Hellenic national funds through the Operational Program 'Education and Lifelong Learning' (2012-2015) (**Co-Investigator**).
4. Title: "3DTV Content Search (3DTVS)". Funding organization: EU, Seventh Framework Programme (FP7) 2011-2015 (**Workpackage Leader**).
5. Title: "Design and evaluation of autonomic mechanisms for supporting user Quality of Experience (QoE)" Funding organization: VELTI S.A. Duration: 11/2009-05/2011 (**Workpackage Leader**).
6. Title: "Exposing the features in IP version six protocols that can be exploited for the purposes of designing/building autonomic networks and services (EFIPSANS)". Funding organization: Information Society Technologies, EU, Seventh Framework Programme (FP7). Duration: 01/2008-03/2011 (**Workpackage Leader**).

### **Teaching Experience**

1. **ECE 341 Communication Systems** (Undergraduate Course - University of New Mexico - **Fall 2018 (42 students), Fall 2019 (37 students), Fall 2020(31 students)**).

ECE 341 Communication Systems became a standard requirement for the Computer Engineering undergraduate program in the Department of Electrical and Computer Engineering, UNM after the first year that I taught this class and based on my proposal to the Undergraduate Committee.

2. **ECE 440 / CS 485 Introduction to Computer Networks** (Undergraduate Course - University of New Mexico - **Spring 2018 (49 students), Spring 2019 (16 students), Spring 2020 (40 students), Spring 2021 (64 students)**)
3. **ECE 524 Network Economics** (ECE 524 - Graduate Course - University of New Mexico - **Fall 2017 (5 students), Spring 2019 (20 students), Spring 2020 (26 students), Spring 2021 (13 students)**)
4. Stochastic Control (ENEE 762 - Graduate Course, co-instructor - University of Maryland - Fall 2016)
5. Mobile Personal Communications (Graduate course, co-instructor - National Technical University of Athens - Fall 2014, 2015)
6. Self - organizing Ad hoc Networks (Graduate course, co-instructor - National Technical University of Athens - Spring 2014, 2015)
7. Stochastic Systems and Communications (Undergraduate course, Teaching Assistant - National Technical University of Athens - Fall 2014, 2015)
8. Queuing Theory and Applications (Undergraduate course, Teaching Assistant - National Technical University of Athens - Spring 2014, 2015)

## Peer-reviewed Publications

### *Refereed Journal Papers (46 papers)*

1. Panagiotis Promponas, **Eirini-Eleni Tsiropoulou**, and Symeon Papavassiliou. Rethinking power control in wireless networks: The perspective of satisfaction equilibrium. *IEEE Transactions on Control of Network Systems*, pages 1–1, 2021
2. Y. Cai, N. Irtija, **E. E. Tsiropoulou**, and A. Veneris, "Truthful Decentralized Blockchain Oracles," *International Journal of Network Management*, Wiley, 2021 (to appear).
3. Pavlos Athanasios Apostolopoulos, Georgios Fragkos, **Eirini Eleni Tsiropoulou**, and Symeon Papavassiliou. Data offloading in uav-assisted multi-access edge computing systems under resource uncertainty. *IEEE Transactions on Mobile Computing*, pages 1–1, 2021
4. D. Heeger, M. Garigan, **E.E. Tsiropoulou**, J. Plusquellic, "Secure LoRa Firmware Update with Adaptive Data Rate Techniques," *Sensors*. 2021; 21(7):2384.
5. Konstantinos Papadakis-Vlachopapadopoulos, Ioannis Dimolitsas, Dimitrios Dechouniotis, **Eirini Eleni Tsiropoulou**, Ioanna Roussaki, and Symeon Papavassiliou. On blockchain-based cross-service communication and resource orchestration on edge clouds. *Informatics*, 8(1), 2021
6. G. Fragkos, C. Minwalla, J. Plusquellic, and **E.E. Tsiropoulou**. "Enhancing Privacy in PUF-Cash through Multiple Trusted Third Parties and Reinforcement Learning," in *ACM Journal on Emerging Technologies in Computing Systems*, 2020. (to appear)
7. S. Papavassiliou, **E. E. Tsiropoulou**, P. Promponas, and P. Vamvakas. A paradigm shift toward satisfaction, realism and efficiency in wireless networks resource sharing. *IEEE Network*, pages 1–8, 2020
8. P. A. Apostolopoulos, **E. E. Tsiropoulou**, and S. Papavassiliou. Risk-aware data offloading in multi-server multi-access edge computing environment. *IEEE/ACM Transactions on Networking*, 28(3):1405–1418, 2020
9. G. Fragkos, C. Minwalla, J. Plusquellic, and **E. E. Tsiropoulou**. Artificially intelligent electronic money. *IEEE Consumer Electronics Magazine*, pages 1–1, 2020
10. M. Diamanti, G. Fragkos, **E. E. Tsiropoulou**, and S. Papavassiliou. Unified user association and contract-theoretic resource orchestration in noma heterogeneous wireless networks. *IEEE Open Journal of the Communications Society*, 1:1485–1502, 2020

11. N. Irtija, F. Sangoleye, and **E. E. Tsiropoulou**. Contract-theoretic demand response management in smart grid systems. *IEEE Access*, 8:184976–184987, 2020
12. P. A. Apostolopoulos and **E. E. Tsiropoulou** and S. Papavassiliou. Cognitive data offloading in mobile edge computing for internet of things. *IEEE Access*, 8:55736–55749, 2020
13. A. Thanou, **E. E. Tsiropoulou**, and S. Papavassiliou. A sociotechnical approach to the museum congestion management problem. *IEEE Transactions on Computational Social Systems*, 7(2):563–568, 2020
14. G. Fragkos, S. Lebien, and **E. E. Tsiropoulou**. Artificial intelligent multi-access edge computing servers management. *IEEE Access*, 8:171292–171304, 2020
15. G. Mitsis, **E. E. Tsiropoulou**, S. Papavassiliou, "Data Offloading in UAV-assisted Multi-access Edge Computing Systems: A Resource-based Pricing and User Risk-awareness Approach," in *Sensors*, 2020. (to appear)
16. Athina Thanou, **Eirini Eleni Tsiropoulou**, and Symeon Papavassiliou. Quality of experience under a prospect theoretic perspective: A cultural heritage space use case. *IEEE Transactions on Computational Social Systems*, 6(1):135–148, 2019
17. Panagiotis Vamvakas, **Eirini Eleni Tsiropoulou**, and Symeon Papavassiliou. On controlling spectrum fragility via resource pricing in 5g wireless networks. *IEEE Networking Letters*, 1(3):111–115, 2019
18. Panagiotis Vamvakas, **Tsiropoulou, Eirini Eleni**, and Symeon Papavassiliou. Exploiting prospect theory and risk-awareness to protect uav-assisted network operation. *EURASIP Journal on Wireless Communications and Networking*, 2019(1):286, 2019
19. Panagiotis Vamvakas, **Eirini Eleni Tsiropoulou**, and Symeon Papavassiliou. Risk-aware resource management in public safety networks. *Sensors*, 19(18):3853, 2019
20. Michail Fasoulakis, **Eirini Eleni Tsiropoulou**, and Symeon Papavassiliou. Satisfy instead of maximize: Improving operation efficiency in wireless communication networks. *Computer Networks*, 159:135–146, 2019
21. Dimitrios Sikeridis, **Eirini Eleni Tsiropoulou**, Michael Devetsikiotis, and Symeon Papavassiliou. Context-aware wireless-protocol selection in heterogeneous public safety networks. *IEEE Transactions on Vehicular Technology*, 68(2):2009–2013, 2019
22. Georgios Fragkos, Pavlos Athanasios Apostolopoulos, and **Eirini Eleni Tsiropoulou**. Escape: Evacuation strategy through clustering and autonomous operation in public safety systems. *Future Internet*, 11(1):20, 2019
23. Giorgos Mitsis, Pavlos Athanasios Apostolopoulos, **Eirini Eleni Tsiropoulou**, and Symeon Papavassiliou. Intelligent dynamic data offloading in a competitive mobile edge computing market. *Future Internet*, 11(5):118, 2019
24. Dimitrios Sikeridis, **Eirini Eleni Tsiropoulou**, Michael Devetsikiotis, and Symeon Papavassiliou. Energy-efficient orchestration in wireless powered internet of things infrastructures. *IEEE Transactions on Green Communications and Networking*, 3(2):317–328, 2019
25. Pavlos Athanasios Apostolopoulos, **Eirini Eleni Tsiropoulou**, and Symeon Papavassiliou. Demand response management in smart grid networks: A two-stage game-theoretic learning-based approach. *Mobile Networks and Applications*, pages 1–14, 2018
26. Dimitrios Sikeridis, **Eirini Eleni Tsiropoulou**, Michael Devetsikiotis, and Symeon Papavassiliou. Wireless powered public safety iot: A uav-assisted adaptive-learning approach towards energy efficiency. *Journal of Network and Computer Applications*, 123:69–79, 2018
27. Panagiotis Vamvakas, **Eirini Eleni Tsiropoulou**, and Symeon Papavassiliou. A user-centric economic-driven paradigm for rate allocation in non-orthogonal multiple access wireless systems. *EURASIP Journal on Wireless Communications and Networking*, 2018(1):129, 2018

28. **E. E. Tsiropoulou**, K. Koukas, S. Papavassiliou, "A Socio-physical and Mobility-Aware Coalition Formation Mechanism in Public Safety Networks," in EAI Endorsed Transactions on Future Internet, vol. 18, no. 13, 2018. DOI: 10.4108/eai.12-1-2018.154176
29. **Eirini Eleni Tsiropoulou**, George Kousis, Athina Thanou, Ioanna Lykourantzou, and Symeon Papavassiliou. Quality of experience in cyber-physical social systems based on reinforcement learning and game theory. *Future Internet*, 10(11):108, 2018
30. **E. E. Tsiropoulou**, G. Mitsis, S. Papavassiliou, "Interest-aware Energy Collection & Resource Management in Machine to Machine Communications," in Elsevier, Ad Hoc Networks, vol. 68, pp. 48-57, 2018.
31. Panagiotis Vamvakas, **Eirini Eleni Tsiropoulou**, and Symeon Papavassiliou. Dynamic provider selection & power resource management in competitive wireless communication markets. *Mobile Networks and Applications*, 23(1):86–99, 2018
32. Eleni Stai, Stella Kafetzoglou, **Eirini Eleni Tsiropoulou**, and Symeon Papavassiliou. A holistic approach for personalization, relevance feedback & recommendation in enriched multimedia content. *Multimedia Tools Appl.*, 77(1):283–326, January 2018
33. G. Katsinis, **E. E. Tsiropoulou**, S. Papavassiliou, "Multicell Interference Management in Device to Device Underlay Cellular Networks," *Future Internet*, MDPI, vol. 9, no. 3, pp. 1- 20, 2017.
34. **Eirini Eleni Tsiropoulou**, Athina Thanou, and Symeon Papavassiliou. Quality of experience-based museum touring: A human in the loop approach. *Social Network Analysis and Mining*, 7(1):33, 2017
35. **E.E. Tsiropoulou**, J. Baras, S. Papavassiliou, S. Sinha, "RFID-based Smart Parking Management System," *Cyber-Physical Systems*, Taylor & Francis, pp. 1-20, 2017.
36. **E. E. Tsiropoulou**, P. Vamvakas, S. Papavassiliou, "Joint Customized Price and Power Control for Energy-Efficient Multi-Service Wireless Networks via S-Modular Theory," in *IEEE Transactions on Green Communications and Networking*, vol. 1, no. 1, pp. 17-28, 2017
37. **E. E. Tsiropoulou**, P. Vamvakas, S. Papavassiliou, "Supermodular Game-based Distributed Joint Uplink Power & Rate Allocation in Two-Tier SC-FDMA Femtocell Networks," in *IEEE Transactions on Mobile Computing*, vol. 16, no. 9, pp. 2656-2667, 2017
38. G. Katsinis, **E. E. Tsiropoulou**, S. Papavassiliou, " Joint Resource Block and Power Allocation for Interference Management in Device to Device Underlay Cellular Networks: A Game Theoretic Approach," in *Mobile Networks and Applications*, Springer, pp. 1-13, 2016
39. **E. E. Tsiropoulou**, A. Kapoukakis, S. Papavassiliou, "Uplink Resource Allocation in SC-FDMA Wireless Networks: A Survey and Taxonomy," *Computer Networks*, Elsevier, vol. 96, pp. 1-28, 2016
40. **E. E. Tsiropoulou**, I. Ziras, S. Papavassiliou, "A Non-Cooperative Approach to the Joint Subcarrier and Power Allocation Problem in Multi-Service SCFDMA Networks," *EAI Endorsed Transactions on Mobile Communications and Applications*, 2015 DOI: 10.4108/eai.20-6-2016.151515 (*invited paper*).
41. **E. E. Tsiropoulou**, P. Vamvakas, G. Katsinis, S. Papavassiliou, "Combined Power and Rate Allocation in Self-Optimized Multi-Service Two-Tier Femtocell Networks," *Computer Communications*, Elsevier, vol. 72, pp. 38-48, 2015
42. **E.E. Tsiropoulou**, E. Stai, S. Kafetzoglou, K. Rapantzikos, S. Papavassiliou, M. Zwicklbauer, P. van Leeuwen, V. Karampali, "Multimedia Content Annotations for Rapid Exploitation in Multi-Screen Environments: The MECANEX project vision," *IEEE STCSN E-LETTERS*, 2015
43. **E. E. Tsiropoulou**, G. Katsinis and S. Papavassiliou, "Distributed Uplink Power Control in Multi-Service Wireless Networks via a Game Theoretic Approach with Convex Pricing ," in *IEEE Transactions on Parallel and Distributed Systems*, Vol. 23, Issue 1, pp. 61-68, 2012

44. **E.E. Tsiropoulou**, P. Vamvakas, and S. Papavassiliou, "Joint Utility-based Uplink Power and Rate Allocation in Wireless Networks: A Non-cooperative Game Theoretic Framework," *Elsevier Physical Communications Journal*, vol. 9, pp. 299-307, 2012
45. **E. E. Tsiropoulou** and S. Papavassiliou, "Utility-based Uplink Joint Power & Subcarrier Allocation in SC-FDMA Wireless Networks," in *International Journal of Electronics*, Taylor & Francis, Vol. 98, Issue 11, pp. 1581-1587, 2011
46. **E. E. Tsiropoulou**, T. Kastrinogiannis, and S. Papavassiliou, "QoS-Driven Uplink Power Control in Multi-Service CDMA Wireless Networks - A Game Theoretic Framework," *Journal of Communications*, Academy Publisher, vol. 4, No 9, pp. 654-668, Oct. 2009

### ***Refereed Conference Papers (52 papers)***

1. N. Patrizi, E.E. Tsiropoulou, and S. Papavassiliou, "Health Data Acquisition from Wearable Devices during a Pandemic: A Techno-Economics Approach," in *IEEE ICC*, 2021. (to appear)
2. F. Sangoleye, N. Irtija, and E.E. Tsiropoulou, "Data Acquisition in Social Internet of Things based on Contract Theory," in *IEEE ICC*, 2021. (to appear)
3. M. Diamanti, E.E. Tsiropoulou, and S. Papavassiliou, "Resource Orchestration in UAV-assisted NOMA Wireless Networks: A Labor Economics Perspective," in *IEEE ICC*, 2021. (to appear)
4. K. Papadakis-Vlachopapadopoulos, I. Dimolitsas, D. Dechouniotis, E. E. Tsiropoulou, I. Roussaki, and S. Papavassiliou, "Blockchain-Based Slice Orchestration for Enabling Cross-Slice Communication at the Network Edge," *2020 IEEE 20th International Conference on Software Quality, Reliability and Security Companion (QRS-C)*, Macau, China, pp. 140-147, 2020
5. N. Patrizi, G. Fragkos, **E.E. Tsiropoulou**, and S. Papavassiliou, "Contract-Theoretic Resource Control in Wireless Powered Communication Public Safety Systems," in *IEEE GLOBECOM*, 2020. (to appear)
6. N. Patrizi, G. Fragkos, K. Ortiz, M. Oishi, and **E.E. Tsiropoulou**, "A UAV-enabled Dynamic Multi-Target Tracking and Sensing Framework," in *IEEE GLOBECOM*, 2020. (to appear)
7. K. Rael, G. Fragkos, J. Plusquellic, and **E. E. Tsiropoulou**. Uav-enabled human internet of things. In *2020 16th International Conference on Distributed Computing in Sensor Systems (DCOSS)*, pages 312–319, 2020
8. G. Fragkos, **E. E. Tsiropoulou**, and S. Papavassiliou. Artificial intelligence enabled distributed edge computing for internet of things applications. In *2020 16th International Conference on Distributed Computing in Sensor Systems (DCOSS)*, pages 450–457, 2020
9. Y. Cai, G. Fragkos, **E. E. Tsiropoulou**, and A. Veneris. A truth-inducing sybil resistant decentralized blockchain oracle. In *2020 2nd Conference on Blockchain Research Applications for Innovative Networks and Services (BRAINS)*, pages 128–135, 2020 (**Best Paper Award**)
10. M. Diamanti, G. Fragkos, **E.E. Tsiropoulou**, and S. Papavassiliou, "Resource Orchestration in Interference-Limited Small Cell Networks: A Contract-Theoretic Approach," in *International Conference on NETWORK Games, Control and Optimisation (Netgcoop)*, 2020. (to appear)
11. G. Fragkos, N. Kemp, **E. E. Tsiropoulou**, and S. Papavassiliou. Artificial intelligence empowered uavs data offloading in mobile edge computing. In *ICC 2020 - 2020 IEEE International Conference on Communications (ICC)*, pages 1–7, 2020
12. G. Fragkos, N. Patrizi, **E. E. Tsiropoulou**, and S. Papavassiliou. Socio-aware public safety framework design: A contract theory based approach. In *ICC 2020 - 2020 IEEE International Conference on Communications (ICC)*, pages 1–7, 2020
13. G. Fragkos, C. Minwalla, J. Plusquellic, and **E. E. Tsiropoulou**. Reinforcement learning toward decision-making for multiple trusted-third-parties in puf-cash. In *2020 IEEE 6th World Forum on Internet of Things (WF-IoT)*, pages 1–6, 2020



14. P. Promponas, P. A. Apostolopoulos, and **E. Eleni Tsiropoulou** and S. Papavassiliou. Redesigning resource management in wireless networks based on games in satisfaction form. In *2019 12th IFIP Wireless and Mobile Networking Conference (WMNC)*, pages 24–31, 2019 (**Best Paper Award**)
15. P. Vamvakas, **E. E. Tsiropoulou**, and S. Papavassiliou, "Dynamic Spectrum Management in 5G Wireless Networks: A Real-Life Modeling Approach." In *IEEE INFOCOM 2019-IEEE Conference on Computer Communications*, pp. 2134-2142. IEEE, 2019. (*acceptance rate: 19.26%*) (**Best Paper Award**)
16. P. A. Apostolopoulos, **E. E. Tsiropoulou**, and S. Papavassiliou. Risk-aware social cloud computing based on serverless computing model. In *2019 IEEE Global Communications Conference (GLOBECOM)*, pages 1–6, 2019
17. G. Fragkos, **E. E. Tsiropoulou**, and S. Papavassiliou. Disaster management and information transmission decision-making in public safety systems. In *2019 IEEE Global Communications Conference (GLOBECOM)*, pages 1–6, 2019
18. P. Vamvakas, **E. E. Tsiropoulou**, and S. Papavassiliou. A market-based modular service composition approach for flexibility and adaptability in future wireless networks. In *IEEE INFOCOM 2019 - IEEE Conference on Computer Communications Workshops (INFOCOM WKSHPS)*, pages 252–257, 2019
19. P. Vamvakas, **E. E. Tsiropoulou**, and S. Papavassiliou. On the prospect of uav-assisted communications paradigm in public safety networks. In *IEEE INFOCOM 2019 - IEEE Conference on Computer Communications Workshops (INFOCOM WKSHPS)*, pages 762–767, 2019
20. Panagiotis Vamvakas, **Eirini Eleni Tsiropoulou**, and Symeon Papavassiliou. Risk-aware resource control with flexible 5g access technology interfaces. In *2019 IEEE 20th International Symposium on "A World of Wireless, Mobile and Multimedia Networks"(WoWMoM)*, pages 1–9. IEEE, 2019
21. Nathan Patrizi, Pavlos Athanasios Apostolopoulos, Kelly Rael, and **Eirini Eleni Tsiropoulou**. Socio-physical human orchestration in smart cities. In *2019 IEEE International Conference on Smart Computing (SMART-COMP)*, pages 115–120. IEEE, 2019
22. Pavlos Athanasios Apostolopoulos, Marcos Torres, and **Tsiropoulou, Eirini Eleni**. Satisfaction-aware data offloading in surveillance systems. In *Proceedings of the 14th Workshop on Challenged Networks*, pages 21–26, 2019
23. A. Thanou, **E. E. Tsiropoulou**, and Symeon Papavassiliou, "A Roadmap to Congestion Management in Museums from a Socio-Technical Perspective," *Cultural Informatics*, pp. 1-11, 2019
24. Panagiotis Vamvakas, **Eirini Eleni Tsiropoulou**, and Symeon Papavassiliou. Personalized pricing for efficient user-centric multi-resource control in 5g wireless networks. In *2018 IEEE 19th International Symposium on "A World of Wireless, Mobile and Multimedia Networks"(WoWMoM)*, pages 1–6. IEEE, 2018
25. Dimitrios Sikeridis, **Eirini Eleni Tsiropoulou**, Michael Devetsikiotis, and Symeon Papavassiliou. Socio-spatial resource management in wireless powered public safety networks. In *MILCOM 2018-2018 IEEE Military Communications Conference (MILCOM)*, pages 810–815. IEEE, 2018
26. Pavlos Athanasios Apostolopoulos, **Eirini Eleni Tsiropoulou**, and Symeon Papavassiliou. Game-theoretic learning-based qos satisfaction in autonomous mobile edge computing. In *2018 Global Information Infrastructure Structure and Networking Symposium (GIIS)*, pages 1–5. IEEE, 2018
27. Symeon Papavassiliou, Athina Thanou, and **Eirini Eleni Tsiropoulou**. Cultural location touring framework: A roadmap based on qoe modeling and visitor real-life behavioral choices. *Proc. CIRA EuroMed*, pages 76–83, 2018
28. D. Sikeridis, **E.E. Tsiropoulou**, M. Devetsikiotis, and S. Papavassiliou, "Self-Adaptive Energy Efficient Operation in UAV-assisted Public Safety Networks," in *IEEE 19th International Workshop on Signal Processing Advances in Wireless Communications (SPAWC)*, pp.1-5, June, 2018

29. M. Fasoulakis, **E.E. Tsiropoulou**, S. Papavassiliou, "A New Theoretical Evaluation Framework for Satisfaction Equilibria in Wireless Networks," in Second International Balkan Conference on Communications and Networking 2018, pp.1-6, June, 2018
30. D. Sikeridis, **E.E. Tsiropoulou**, M. Devetsikiotis, and S. Papavassiliou, "Socio-physical Energy-Efficient Operation in the Internet of Multipurpose Things," in IEEE International Conference on Communications (ICC), pp.1-7 May, 2018
31. G. Katsinis, **E.E. Tsiropoulou**, and S. Papavassiliou, "On the Performance Evaluation of Distributed Resource Block and Power Allocation in D2D-enabled Multi-Cell Networks," in Proceedings of ACM International Symposium on Performance Evaluation of Wireless Ad Hoc, Sensor, and Ubiquitous Networks, pp. 77-84, November, 2017
32. P. Vamvakas, **E.E. Tsiropoulou**, M. Vomvas, S. Papavassiliou, "Adaptive Power Management in Wireless Powered Communication Networks: A User-Centric Approach," IEEE 38th Sarnoff Symposium, pp.1-6, Sept. 2017
33. **E.E. Tsiropoulou**, A. Thanou, S.T. Paruchuri, S. Papavassiliou, "Self-organizing Museum Visitor Communities: A Participatory Action Research based Approach," 12th International Workshop on Semantic and Social Media Adaptation and Personalization (SMAP), pp. 101-105, July, 2017
34. P. Vamvakas, **E.E. Tsiropoulou**, S. Papavassiliou, J. Baras, "Optimization and Resource Management in NOMA Wireless Networks Supporting Real and Non-real Time Service Bundling," 22nd IEEE Symposium on Computers and Communications (ISCC), pp. 697-703, July, 2017
35. **E.E. Tsiropoulou**, S.T. Paruchuri, J. Baras, "Interest, Energy and Physical-Aware Coalition Formation and Resource Allocation in Smart IoT Applications," 51st Annual Conference on Information Sciences and Systems (CISS), pp. 1-6, March, 2017
36. **E.E. Tsiropoulou**, J. Baras, S. Papavassiliou, G. Qu, "On the Mitigation of Interference Imposed by Intruders in Passive RFID Networks," Conference on Decision and Game Theory for Security (GameSec), pp. 62-80, November, 2016
37. **E.E. Tsiropoulou**, A. Thanou, S. Papavassiliou, "Modelling Museum Visitors Quality of Experience," 11th International Workshop on Semantic and Social Media Adaptation and Personalization (SMAP), pp. 77-82, October, 2016
38. **E.E. Tsiropoulou**, I. Gialagkolidis, P. Vamvakas, and S. Papavassiliou, "Resource Allocation in Visible Light Communication Networks: NOMA vs OFDMA Transmission Techniques," in International Conference on Ad Hoc Networks (LNCS) Springer, pp. 32-46, July, 2016
39. **E.E. Tsiropoulou**, V. Karampali, P. van Leeuwen, K. Rapantzikos, S. Kafetzoglou, E. Stai, "Multimedia Content Annotations for Rapid Exploitation in Multi-screen Environments - MECANEX," IBC Conference, September, 2015
40. **E.E. Tsiropoulou**, I. Ziras and S. Papavassiliou, "Service Differentiation and Resource Allocation in SC-FDMA Wireless Networks through User-Centric Distributed Non-Cooperative Multilateral Bargaining," in 7th International Conference on Ad Hoc Networks (LNCS) Springer, pp. 42-54, September, 2015 (**Best Paper Award**)
41. V. Pouli, S. Kafetzoglou, **E.E. Tsiropoulou**, A. Dimitriou, S. Papavassiliou, "Personalized Multimedia Content Retrieval through Relevance Feedback techniques for Enhanced User Experience," in IEEE 13th International Conference on Telecommunications (CONTEL), pp. 1-8, July, 2015
42. G. Katsinis, **E.E. Tsiropoulou**, and S. Papavassiliou, "On the Problem of Resource Allocation and System Capacity Evaluation via a Blocking Queuing Model in D2D enabled Overlay Cellular Networks," in Ad-hoc, Mobile and Wireless Networks (LNCS) Springer, pp. 76-89, June, 2015

43. G. Katsinis, **E.E. Tsiropoulou** and S. Papavassiliou, "A Game Theoretic Approach to the Power Control in D2D Communications Underlay Cellular Networks," IEEE International Workshop on Computer-Aided Modeling Analysis and Design of Communication Links and Networks (CAMAD), pp. 208-212, Athens, Greece, 2014
44. **E.E. Tsiropoulou**, G. Katsinis, A. Filios, and S. Papavassiliou, "On the Problem of Optimal Cell Selection & Uplink Power Control in Open Access Multi-Service Two-Tier Femtocell Networks," in Ad-hoc, Mobile and Wireless Networks (LNCS) Springer, pp. 1-14, June, 2014
45. **E.E. Tsiropoulou**, G. Katsinis, P. Vamvakas, and S. Papavassiliou, "Efficient Uplink Power Control in Multi-Service Two-Tier Femtocell Networks via a Game Theoretic Approach," IEEE International Workshop on Computer-Aided Modeling Analysis and Design of Communication Links and Networks (CAMAD), pp. 104-108, Berlin, 2013
46. **E. E. Tsiropoulou**, A. Kapoukakis and S. Papavassiliou, "Energy-efficient Subcarrier Allocation in SC-FDMA Wireless Networks based on Multilateral Model of Bargaining," IFIP Networking 2013, pp. 1-9, Brooklyn, 2013
47. **E.E. Tsiropoulou**, P. Vamvakas, and S. Papavassiliou, "Energy Efficient Uplink Joint Resource Allocation Non-cooperative Game with Pricing," in Proc. of IEEE Wireless Communications and Networking Conference (WCNC 2012), pp. 2352-2356, April, 2012 (**Best Paper Award**)
48. **E.E. Tsiropoulou**, G. Katsinis, and S. Papavassiliou, "Utility-based Power Control via Convex Pricing for the Uplink in CDMA Wireless Networks," European Wireless 2010, pp. 200-206, April, 2010
49. **E. E. Tsiropoulou**, T. Kastrinogiannis, and S. Papavassiliou, "Realization of QoS Provisioning in Autonomic CDMA Networks under Common Utility-Based Framework," in Proc. of IEEE WoWMoM workshop on Autonomic and Opportunistic Communications (AOC), pp. 1-7, June, 2009
50. **E.E. Tsiropoulou**, T. Kastrinogiannis, and S. Papavassiliou, "A Utility-based Power Allocation Non-cooperative Game for the Uplink in Multi-Service CDMA Wireless Networks," Proc. of IEEE International Wireless Communications and Mobile Computing Conference, pp. 365-370, Leipzig, Germany, June, 2009
51. T. Kastrinogiannis, **E. E. Tsiropoulou**, and S. Papavassiliou, "Utility-Based Uplink Power Control in CDMA Wireless Networks with Real-Time Services," in Ad-hoc, Mobile and Wireless Networks (LNCS) Springer, vol. 5198, p.p. 307-320, September, 2008
52. G. I. Tsiropoulos, D. G. Stratogiannis, **E. E. Tsiropoulou** and P. G. Cottis, "Energy Distribution Networks Evolution towards Smart Grid Networks Incorporating Power Line Communications Technology & Services," in Proc. WSPLC 2008

### ***Book Chapters***

1. **E. E. Tsiropoulou**, P. Vamvakas, S. Papavassiliou, "Resource Allocation in Multi-tier Femtocell and Visible-Light Heterogeneous Wireless Networks," Book Chapter in "Resource Allocation in Next-Generation Broadband Wireless Access Networks" Book, Editors: Chetna Singhal and Swades De, 2016
2. E. Stai, V. Karyotis, G. Katsinis, **E.E. Tsiropoulou** and S. Papavassiliou, "A Hyperbolic Big Data Analytics Framework within Complex and Social Networks," Book Chapter in " Big Data in Complex and Social Networks " Handbook, Editors: M. T. Thai, W. Wu, and H. Xiong, CRC Press - Taylor & Francis Group, Boca Raton, FL, USA, 2015
3. **E.E. Tsiropoulou**, T. Kastrinogiannis and S. Papavassiliou, "Non-cooperative Power Control in CDMA Wireless Networks," in "Game Theory for Wireless Communications and Networking" book, Auerbach Publications, CRC Press, Taylor & Francis Group, 2010
4. G. I. Tsiropoulos, D. G. Stratogiannis and **E.E. Tsiropoulou**, Mobile and Wireless Communications Network layer and circuit level design, Chapter 1: Call Admission Control in Mobile and Wireless Networks, pp. 1-26, INTECH, January 2010

***The total number of peer-reviewed publications listed above is 102.***

## **Student Supervision At University of New Mexico**

### ***Ph.D. Students***

1. Georgios Fragkos (Chair, post-proposal)  
Topic: Artificial Intelligent Resource Management in Resource-Constrained Interdependent Systems
2. Nathan Patrizi (Chair, post-proposal)  
Topic: Intelligent Public Safety Systems and Networks  
Awarded the Science Mathematics and Research for Transformation (SMART) Fellowship from the Department of Defense.
3. Nafis Irtija (Chair, post-qualifier)  
Topic: Artificial Intelligent Distributed Computing Systems
4. Fisayo Sangoleye (Chair, post-qualifier)  
Topic: Artificial Intelligent Economic-driven Demand Response Management
5. Md. Sahabul Hossain  
Topic: Resource Orchestration in Next Generation Networks

### ***MS Students***

1. Aura Jensen-Curtis

### ***Alumni***

#### ***PhD Students***

1. Pavlos Athanasios Apostolopoulos (Chair, Summer 2021, graduated with distinction) – First Placement: Research Scientist, Facebook AI, CA, USA  
Topic: Artificial Intelligent Risk-aware Autonomous Decision-Making in Resource-Constrained Computing Systems

#### ***MS Students***

1. Sean Lebien (Chair, Spring 2020, graduated with distinction) – First Placement: Dynamic Systems and Research, NM, USA  
Topic: Incentivization in Mobile Edge Computing using a Full Bayesian Approach
2. Georgios Fragkos (Chair, Spring 2020, graduated with distinction) – First Placement: Ph.D. Student at ECE, UNM  
Topic: Artificial Intelligence Enabled Distributed Edge Computing for Internet of Things Applications
3. Nathan Patrizi (Chair, Spring 2020, graduated with distinction) – First Placement: Ph.D. Student at ECE, UNM  
Topic: Socio-physical Human Orchestration in Smart Cities
4. Marcos Torres (Chair, Fall 2019, graduated with distinction) – First Placement: Sandia National Laboratories, USA  
Topic: Satisfaction-aware Data Offloading in Surveillance Systems  
Awarded the honorable mention for the Graduate Research Fellowship Program (GRFP) from the National Science Foundation.  
IEEE/Sigma Xi Annual Outstanding Graduate Student Award.

5. Nicholas Kemp (Chair, Fall 2019, graduated with distinction) – First Placement: Sandia National Laboratories, USA  
Topic: Artificial Intelligent UAVs Data Offloading in Mobile Edge Computing
6. Pavlos Athanasios Apostolopoulos (Chair, Fall 2019, graduated with distinction) – First Placement: Ph.D. Student at ECE, UNM  
Topic: Demand Response Management in Smart Grid Networks: a Two-Stage Game-Theoretic Learning-Based Approach

### ***Undergraduate Students***

1. Sara Kathryn LaTouf (Honors Project - Fall 2020, Spring 2021)
2. Isabella Maria Obermeier (CRITICAL TECHNOLOGY STUDIES PROGRAM (CTSP) Summer 2020)
3. Alexis Marie Rubin (Senior Design Project 2019-2020)
4. Daenarah Abriana Dorcas (Senior Design Project 2019-2020)
5. Kelly Rael (Senior Design Project 2018-2019)
6. Nathan Patrizi (Senior Design Project 2018-2019)

### ***High School Students***

1. Maggie Wang (Summer 2019)
2. Anish Kumar (Summer 2018, Spring 2019)
3. Spoorthi Menta (Summer 2018)

## **Professional Standing**

Member of several professional societies, including:

1. Member of Institute of Electrical and Electronics Engineers (IEEE), December 2008 - Present
2. Member of Institute of Electrical and Electronics Engineers Communications Society (IEEE ComSoc), 2018-Present
3. Member of Institute of Electrical and Electronics Engineers Computer Society, 2018-Present
4. Member of Association for Computing Machinery (ACM), 2019-Present
5. Member of Association for Computing Machinery (ACM) SIGMOBILE, 2019-Present
6. Member of the Technical Chamber of Greece, October 2008- Present

## **Service to UNM**

1. Computer Engineering Area Chair, ECE, UNM, 2020-present
2. Research Allocation Committee, UNM, 2020-present
3. Hiring Committee, ECE, UNM, 2017-2020
4. Undergraduate Committee, ECE, UNM, 2018-2019, 2021-present

5. Graduate Committee, ECE, UNM, 2017-present
6. Area Chair of the Computer Systems & Networks and Internet of Things areas in the Department of Electrical and Computer Engineering, UNM, 2018-present.
7. Redesigning the undergraduate curriculum, 2018-2019. My proposed plan of including the ECE 341 Communication Systems was presented to and accepted by the Undergraduate Committee and the course became a standard requirement in the Computer Engineering undergraduate program.
8. Representing School of Engineering and the Department of Electrical and Computer Engineering to the Collaborative Network for Engineering and Computing Diversity (CoNECD) Conference in Washington DC, 2018
9. Representing School of Engineering and the Department of Electrical and Computer Engineering to the Big Ten+ Graduate School Exposition at Purdue University (Recruiting Event), 2018 and 2019.
10. Participating in the Open House event of UNM, 2017-2019.
11. Preparing a new graduate course in the Computer Engineering, ECE, UNM entitled Network Economics. The course had 20 students registered in Spring 2019.
12. Member of the Advisory Communication Board of the ADVANCE at UNM contributing to outreach activities of UNM, 2019-present.
13. Foreign Language Proficiency for the Greek Language, Official contact for UNM, 2017-present.

## **Professional Services**

### ***Executive Committee Positions***

1. Associate Editor: IEEE Networking Letters (2020-present)
2. Program Co-chair 26th IEEE Symposium on Computers and Communications (ISCC 2021)
3. Technical Program Committee Chair 19th ACM Symposium on Mobility Management and Wireless Access (ACM MobiWac) 2021
4. Track Chair: Track 1: Ad Hoc, Mobile, and Sensor Networking (AMSN) in the 30th International Conference on Computer Communications and Networks - ICCCN, 2021
5. PhD Workshop Chair in IEEE International Conference on Sensing, Communication and Networking (IEEE SECON) 2021
6. Doctoral Symposium Chair: 23rd International Conference on Distributed Computing and Networking - ICDCN 2022
7. General Chair: Selected Areas in Communication, Social Networks Track, IEEE Globecom 2020
8. Best Paper Award Committee: IEEE Global Communications Conference 2019 - IEEE GLOBECOM 2019
9. Associate Editor: Evolutionary Intelligence, Springer, 2020-present
10. Associate Editor: Pervasive and Mobile Computing, Elsevier, 2020-present
11. Associate Editor: Computer Networks, Elsevier, 2019-present
12. Associate Editor: Ad Hoc Networks, Elsevier, 2019-present
13. Publicity Chair for Global Internet Symposium – IEEE INFOCOM 2021
14. Publicity Chair for IEEE WoWMoM 2021

15. General Chair: 1st International Workshop on Real-life modeling in 5G networks and beyond, IEEE DCOSS 2020
16. Program Committee member of the IEEE International Conference on Omni-layer Intelligent systems – COINS2020.
17. Program Committee member of the PhD Forum, 21st IEEE International Symposium on a World of Wireless, Mobile and Multimedia Networks (WoWMoM), August 31 - September 3 2020, Cork, Ireland
18. Workshops Chair for 6th IEEE International Conference on Smart Computing 2020 - IEEE SMARTCOMP 2020
19. Publicity Chair: 24th IEEE/ACM International Symposium on Distributed Simulation and Real Time Applications, 2020
20. Publicity Chair: 25th IEEE Symposium on Computers and Communications (ISCC) 2020
21. Publicity Chair: IEEE International Conference on Distributed Computing in Sensor Systems (IEEE DCOSS 2020)
22. Associate Editor: Transactions on Emerging Telecommunications Technologies, Wiley, 2019-present
23. Workshop Program Chair: Mobicom Workshop on Challenged Networks (CHANTS) 2019, co-organized with ACM MobiCom 2019.
24. Editorial Board Member: Future Internet, MDPI, 2019-present
25. Co-editor for the Special Issue in Future Internet, MDPI: Selected Papers from IEEE ICICT 2019
26. Co-editor for the Special Issue in Future Internet, MDPI: Network Economics and Utility Maximization
27. Keynote Talk: IEEE Workshop on Data Distribution in Industrial and Pervasive Internet, 2019
28. N2WOMEN Panelist: IEEE INFOCOM 2019
29. Newsletter Chair: Social Networks Technical Committee, IEEE
30. Special Issue Co-Editor: "5G Enabled Internet of Things Applications and Services", Computer Networks, Elsevier
31. Demonstration Chair: 20th IEEE International Symposium on a World of Wireless, Mobile and Multimedia Networks (WoWMoM), 2019
32. N<sup>2</sup> WOMEN Chair: 20th IEEE International Symposium on a World of Wireless, Mobile and Multimedia Networks (WoWMoM), 2019
33. Publicity Chair and TPC Member: 20th IEEE International Symposium on a World of Wireless, Mobile and Multimedia Networks (WoWMoM), 1st International Workshop on Data Distribution in Industrial and Pervasive Internet, 2019
34. Local Arrangements Co-Chair: Ad-Hoc Now 2015, June 29 - July 02, 2015, Athens, Greece
35. Workshop General Co-Chair: Workshop on Mobile Computing and Networking Technologies 2009 (WMCNT 2009), <http://wmcnt09.ntua.gr>, St. Petersburg, Russia, October 2009.
36. Workshop General Co-Chair: Workshop on Mobile Computing and Networking Technologies 2010 (WMCNT 2010), <http://wmcnt.ntua.gr>
37. Workshop General Chair: Workshop on Mobile Computing and Emerging Communication Networks 2010 (MCECN 2010), <http://mcecn.ntua.gr>, Miami, Florida, USA, December 2010.

38. Workshop General Chair: Workshop on Mobile Computing and Emerging Communication Networks 2011 (MCECN 2011), <http://mcecn.ntua.gr>, Houston, Texas, USA, December 2011.
39. Workshop General Co-Chair: Workshop on Mobile Computing and Networking Technologies 2011 (WMCNT 2011), <http://wmcnt.ntua.gr>, Budapest, Hungary, October 2011.
40. Workshop General Co-Chair: Workshop on Mobile Computing and Networking Technologies 2012 (WMCNT 2012), <http://wmcnt.ntua.gr>, St. Petersburg, Russia, October 2012.

### ***Reviewer for National Funding***

1. Reviewer for NSF CISE Division, 2017-present (10 panels)
2. Reviewer for NSF Engineering Division, 2017-present (1 panel)
3. Reviewer for Natural Sciences and Engineering Research Council of Canada, 2018-present (1 panel)
4. Reviewer for the National Research Fund of Luxemburg, 2017-present (3 panels)
5. Reviewer for NSF CRII proposal at University of Omaha, 2019 (1 proposal)

### ***Technical Program Committee Membership***

1. IEEE INFOCOM 2022
2. 2021 IEEE Global Communications Conference: Selected Areas in Communications: Quantum Communications & Computing
3. 10th International Conference on Sensor Networks, 2021
4. 23rd International Conference on Distributed Computing and Networking, 2021
5. 44th International Conference on Telecommunications and Signal Processing, 2021
6. IEEE Cloud Summit 2021
7. 15th International Conference on Sensor Technologies and Applications, 2021
8. 3rd Conference on Blockchain Research & Applications for Innovative Networks and Services (BRAINS 2021)
9. 3rd International Workshop on Wireless Sensors and Drones in Internet of Things (Wi-DroIT) 2021
10. 3rd IEEE International Workshop on Data Driven Intelligence for Networks and Systems (DDINS) 2021
11. IEEE/ACM IWQoS'21 - IEEE/ACM International Symposium on Quality of Service 2021
12. 24th ACM International Conference on Modeling, Analysis and Simulation of Wireless and Mobile Systems - MSWiM 2021
13. 19th International Symposium on Modeling and Optimization in Mobile, Ad Hoc, and Wireless Networks - WiOpt 2021
14. 3rd Workshop on Emerging Technologies and Trends in Engineering Low-Power Networks - NewNets 2021
15. Joint European Conference on Networks and Communications & 6G Summit (EuCNC/6G Summit): Network Softwarisation (NET) 2021
16. IEEE International Mediterranean Conference on Communications and Networking 2021
17. IEEE International Conference on Sensing, Communication and Networking SECON 2021



18. 4th International Conference on Communication Theory, Reliability, and Quality of Service 2021
19. IEEE 32nd Annual International Symposium on Personal, Indoor and Mobile Radio Communications - PIMRC 2021
20. 20th International Conference on Networks 2021
21. IEEE International Conference on Computer Communications – INFOCOM, 2021
22. IEEE International Conference on Communications (ICC): Next-Generation Networking and Internet Symposium 2021
23. IEEE International Conference on Communications (ICC): Communication Software and Multimedia Symposium 2021
24. 36th ACM Symposium on Applied Computing, 2021
25. IEEE International Conference on Blockchain and Cryptocurrency – ICBC, 2021
26. 10th International Conference on Sensor Networks - SENSORNETS, 2021
27. The Web Conference, Web of Things, Ubiquitous and Mobile Computing, 2021
28. IEEE International Conference on Smart Computing – SMARTCOMP 2021
29. IEEE IoT-Health 2021 – IEEE ICC 2021
30. IEEE World Forum on Internet of Things – WF-IoT 2021
31. IEEE ICC 2021 Workshop on Communication, Computing, and Networking in Cyber-Physical Systems 2021
32. 17th International Conference on Distributed Computing in Sensor Systems – IEEE DCOSS 2021
33. International Conference on Data Analytics for Business and Industry 2020
34. 20th Annual IFIP Networking Conference 2021
35. IEEE/ACM Workshop on Serverless To sErVE moRe at Scale STEERS 2021 – IEEE/ACM CCGRID 2021
36. 14th IEEE International Workshop on Wireless Sensor, Robot and UAV Networks 2021 - IEEE INFOCOM 2021
37. 2nd International Sustainability and Resilience Conference 2020
38. Sixth International Conference on e-Learning – ECONF 2020
39. 9th IEEE International Conference on Communication, Networks and Satellite (IEEE COMNETSAT 2020)
40. IEEE International Conference on Decision Aid Sciences and Application (DASA), 2020
41. IEEE Globecom, Selected Areas in Communications: Internet of Things and Smart Connected Communities, 2020
42. IEEE 31st Annual International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC), 2020
43. European Conference on Networks and Communications (EuCNC) 2020
44. IEEE International Conference on Blockchain and Cryptocurrency, 2020
45. IEEE International Conference on Network Protocols (ICNP 2020), 2020
46. 17th IEEE International Conference on Sensing, Communication and Networking - IEEE SECON 2020

47. International Conference on Innovation and Intelligence for Informatics, Computing, and Technologies, 2020
48. 2nd Workshop on Emerging Technologies and Trends in Engineering Low-Power Networks (NewNets) to be held as part of the International Symposium on a World of Wireless, Mobile and Multimedia Networks (WoWMoM) in June 2020
49. IEEE International Conference on Communications (ICC): Communication Software, Services and Multimedia Applications Symposium 2020
50. 3rd International IoT-Health workshop is scheduled to take place as part of the IEEE ICC 2020
51. 8th International Conference of Security, Privacy and Trust Management (SPTM 2020)
52. 13th IEEE International Workshop on Wireless Sensor, Robot and UAV Networks, IEEE INFOCOM 2020
53. IEEE SMARTCOMP 2020
54. 35th ACM/SIGAPP Symposium On Applied Computing, 2020
55. IEEE International Conference on Distributed Computing in Sensor Systems (DCOSS 2020) 2020
56. IEEE World Forum on Internet of Things - IEEE WFIoT 2020
57. IEEE INFOCOM 2020-IEEE Conference on Computer Communications Workshops (INFOCOM WKSHPS) - 4th IEEE International Workshop on Wireless Communications and Networking in Extreme Environments (WCNEE'20)
58. IEEE International Symposium on Local and Metropolitan Area Networks (IEEE LANMAN 2020)
59. 4th International Balkan Conference on Communications and Networking 2020 (BalkanCom 2020)
60. 19th International Conference on Ad Hoc Networks and Wireless (AdHoc-Now 2020)
61. 16th International Conference on Wireless and Mobile Communications - ICWMC 2020
62. 17th International Conference on Information Technology- New Generations 2020
63. 1st ACM Workshop on Experimentally-driven 5G Research, Business Applications, & Developments – 5G-ReBuild 2020
64. IEEE International Conference on Network Protocols (ICNP 2019)
65. 35th ACM Symposium on Applied Computing, 2019
66. ACM SenSys 2019
67. Information Quality and Quality of Service for Pervasive Computing (IQ2S 2020), 2020
68. 1st ACM CoNEXT Workshop on Emerging in-Network Computing Paradigms (ENCP'19) (CoNEXT ENCP'19)
69. IEEE Global Communications Conference: Selected Areas in Communications: Social Networks, 2019
70. IEEE International Symposium on Personal, Indoor and Mobile Radio Communications, PIMRC, 2019
71. 8th International Conference on Advances in Computing, Communications and Informatics (ICACCI'19), 2019
72. 5th International Conference on Smart Computing (SMARTCOMP), 2019
73. European Conference on Networks and Communications (EuCNC), 2019
74. 28th International Conference on Computer Communications and Networks, Hot Topics in Networking (HOT), 2019

75. IEEE 5th World Forum on Internet of Things, 2019
76. IEEE Global Communications Conference (GLOBECOM), SELECTED AREAS IN COMMUNICATIONS (SAC) SYMPOSIUM, Internet of Things, 2019
77. 20th IEEE International Symposium on a World of Wireless, Mobile and Multimedia Networks (WoWMoM), 5th IEEE International workshop on Communication, Computing, and Networking in Cyber Physical Systems, 2019
78. 1st ACM CoNEXT Workshop on Emerging in-Network Computing Paradigms (ENCP'19) (CoNEXT ENCP'19)
79. Workshop on Information Quality and Quality of Service for Pervasive Computing (IQ2S 2020) in conjunction with IEEE Percom 2020
80. International Balkan Conference on Communications and Networking, 2019
81. 2nd IEEE Middle East and North Africa Communications Conference, 2019
82. 18th International Conference on Ad Hoc Networks and Wireless (AdHoc-Now 2019)
83. IEEE Middle East & North Africa COMMUNICATIONS Conference 2019 (IEEE MENACOMM'19)
84. IEEE International Conference on Network Protocols, September 24-27, 2018, Cambridge, UK
85. IEEE Global Communications Conference (GLOBECOM), workshop on Communication, Computing, and Networking in Cyber Physical Systems (CCNCPS 2018), 9-13 December 2018, Abu Dhabi, UAE
86. IEEE Workshop on Cognitive Networks (CogniNets'18), October 1-4, 2018, Chicago, USA
87. IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC 2018), 9-12 September 2018 - Bologna, Italy
88. The 16th International Conference on Ad Hoc Networks and Wireless, AdHoc-Now 2017, Springer, 20-22 Sep. 2017, Messina, Italy
89. The Sixth International Conference on Advances in Vehicular Systems, Technologies and Applications, IARIA, July 23 - 27, 2017, Nice, France
90. IEEE WoWMoM 2017, International Workshop on Small Cell Networking for 5G, June 12-15, 2017, Macau, China
91. IEEE 85th Vehicular Technology Conference, VTC2017-Spring, Track: Wireless Access Technology and Heterogeneous Networks, June 4-7, 2017, Sydney, Australia
92. IEEE 84th Vehicular Technology Conference, VTC2016-Fall, Track: Radio Access Technology, LTE, 5G, and Wireless Heterogeneous Networks, September 18-21, 2016, Montreal, Canada
93. IEEE 83rd Vehicular Technology Conference, VTC2016-Spring, Track: LTE/LTE-A, 5G, and Wireless Heterogeneous Networks, May 15-18, 2016, Nanjing, China
94. IEEE 82nd Vehicular Technology Conference, VTC2015-Fall, Track: Cellular Networks, September 6-9, 2015, Boston, USA
95. Ad-Hoc Now 2014, June 22-27, 2014, Benidorm, Spain (Technical Program Committee Member)
96. Ad-Hoc Now 2013, July 08-10, 2013, Wroclaw, Poland (Technical Program Committee Member)
97. Ad-Hoc Now 2012, July 09-11, 2012, Belgrade, Serbia (Technical Program Committee Member)
98. MCECN 2010, 2011 Workshop on Mobile Computing and Emerging Communication Networks (General Co-Chair)
99. WMCNT 2009, 2010, 2011, 2012 Workshop on Mobile Computing and Networking Technologies (General Co-Chair)

***Reviewer for journals including:***

1. IEEE Access
2. IEEE Transactions on Information Theory
3. IEEE Transactions on Mobile Computing
4. IEEE Transactions on Networking
5. IEEE Communications Surveys and Tutorials
6. IEEE Transactions on Cybernetics
7. IEEE Wireless Communications Letters
8. IEEE Transactions on Wireless Communications
9. IEEE Wireless Communications Magazine
10. IEEE Transactions on Communications
11. IEEE Communications Letters
12. IEEE Communications Magazine
13. IEEE Internet of Things Journal
14. IEEE Robotics and Automation Letters
15. IEEE Transactions on Automation Science and Engineering
16. IEEE Transactions on Computers
17. IEEE Transactions on Control and Network Systems
18. IEEE Sensors Journal
19. IEEE Transactions on Network Science and Engineering
20. IEEE Transactions on Network and Service Management
21. IEEE Transactions on Neural Networks and Learning Systems
22. IEEE Transactions on Parallel and Distributed Systems
23. IEEE Journal on Selected Areas in Communications
24. IEEE Journal of Selected Topics in Signal Processing
25. IEEE Transactions on Systems, Man, and Cybernetics: Systems
26. Elsevier Ad Hoc Networks
27. Elsevier Computer Communications
28. Elsevier Computer Networks

***Outreach Services***

1. AFRL Inspire Day, Albuquerque, Oct. 2017
2. Invited Talk to the Leaders and Innovators Seminar Series in the Electrical and Computer Engineering Department, Texas A&M University, Oct. 2017.