

Christos Laoudias

Curriculum Vitae

I. EDUCATION

- Ph.D.** Computer Engineering, University of Cyprus, Cyprus 2006-2014
Dissertation: Localization and Tracking in Wireless Networks for Fault Tolerance and Device Diversity
Advisor: Associate Professor Christos G. Panayiotou
- M.Sc.** Integrated Software and Hardware Systems, University of Patras, Greece 2003-2005
Thesis: FPGA Implementation of the CCMP Protocol for Secure Wireless Networks 802.11
Advisor: Professor Dimitrios Serpanos
- Dipl.Eng.** Computer Engineering and Informatics, University of Patras, Greece 1998-2003
Thesis: Test Pattern Generators for Testing VLSI Circuits
Advisor: Professor Dimitrios Nikolos

II. RESEARCH INTERESTS

Wireless Networks, Mobile and Pervasive Computing, Distributed Algorithms, Location-Based Services, Positioning and Tracking Technologies, Smart Camera Networks, Fault Tolerant Location Estimation.

III. RESEARCH WORK EXPERIENCE

- Geolocation Algorithm Expert, Huawei Design Center, Dublin, Ireland** 2/2015-present
Research Project in Outdoor GPS-less Localization
 - *Direct key technological trends in location-based services.*
 - *Design high performance location algorithms.*
 - *Guide algorithm implementation.*
- Postdoctoral Fellow, KIOS Research Center, Univ. of Cyprus, Cyprus** 4/2014-2/2015
Project Fault-Adaptive: a pioneering research initiative, funded by the ERC Advanced Grant awarded to Prof. Marios Polycarpou, aimed at designing and analyzing “smart” algorithms capable of improving the performance and fault tolerance of critical infrastructures.
 - *Designed and developed algorithms for multiple target tracking in collaborative camera sensor networks that are able to tolerate faulty camera observations due to hardware and software errors or as the result of a malicious attack.***Project Anyplace:** aims to allow entities (users, companies, organizations, etc.) to realize indoor information management systems on top of existing wireless networks by leveraging rich multi-sensory data available on smartphones.
 - *Guided two students for building the positioning-related modules of Anyplace.*
 - *Designed and evaluated data management solutions for crowdsourced location-dependent data.*

Graduate Researcher, KIOS Research Center, Univ. of Cyprus, Cyprus

1/2010-4/2014

Project ARTEMIS2: aimed to develop and analyze new algorithms for efficient and fault-tolerant detection, localization and tracking of one or multiple event sources in the context of Wireless Sensor Networks (WSN).

- *Contributed in the coordination of this 3-year research project ensuring timely completion of the deliverables and high quality of research results.*
- *Developed cooperative methodologies and collaborative algorithms for target detection, identification, localization, and tracking.*

Project with Cywee Ltd.: a 3-month collaboration funded by a contract with Cywee Ltd., Taipei, Taiwan to facilitate transfer of knowledge and deliver a hybrid solution for Android smartphones that combines different positioning technologies.

- *Coordinated this project and guided two students throughout the development phase.*
- *Designed the hybrid system architecture and the WLAN-based localization algorithms.*

Project Airplace: aimed to deliver an indoor positioning platform for Android smartphones that is intended for testing and evaluation of different WLAN signal strength fingerprint-based algorithms.

- *Designed two novel algorithms, one that employs Radial Basis Function Networks for improving accuracy and another that uses binary or discrete level information for reducing computational complexity and power consumption.*
- *Guided three students for implementing the system architecture and releasing it as open-source software, and delivering a separate Android WLAN positioning library.*

Visiting Researcher, VTT Research Center, Helsinki, Finland

6/2008-9/2008

Project HYPEL: aimed to explore hybrid positioning utilizing environment perception enriched local dynamic map. I was involved with HYPEL during my 3-month visit at VTT, which was funded by a European Science Foundation (ESF) grant.

- *Evaluated different WLAN signal strength positioning algorithms using simulations and real-life measurement data.*
- *Analyzed the pseudolites technology for indoor positioning.*

Research Associate, Dept. of ECE, Univ. of Cyprus, Cyprus

2005-2010

Project IRA: funded by the Research Promotion Foundation of Cyprus for 4 years (2006-2010) that aimed to improve existing and develop new localization solutions for outdoor and indoor environments, as well as to design novel solutions for environments where multiple radio access technologies coexist.

- *Developed techniques for adapting the signal attenuation model to site-specific propagation conditions for outdoor positioning.*
- *Modeled outdoor signal propagation in cellular base stations with directional antennas.*
- *Developed adaptive statistical processing approaches based on Kalman filter.*
- *Designed positioning algorithms that are resilient to AP infrastructure faults.*
- *Implemented a positioning application based on WLAN signal strength fingerprints.*

Project MOTIVE: a 2 year EU-funded FP6 project with the objective to define a multi-layered system architecture and functionality addressing issues such as terminal/network side processing, user control, data transfer load, and real time vs. off-line information collection modes.

- *Guided system specifications and technical system design.*
- *Modeled signal propagation for GSM and 3G cellular networks and developed algorithms for outdoor positioning.*

IV. AWARDS & HONORS

- **1st Place Award:** “Indoor Geolocation for Android Smartphones with Airplace,” Evaluation of RF-based Indoor Localization Algorithms Competition, EVARILOS Project, 2014.
- **Alpha Bank Cyprus Award:** “Creative Research and Innovation,” 2014.
- **Outstanding Postgraduate Student:** awarded annually to a postgraduate student, selected by a faculty committee through an interview process, for his/her commitment to excellence in courses and research at the University of Cyprus, 2014.
- **2nd Place Award:** “Accurate Multi-Sensor Localization on Android Devices,” Microsoft Research Indoor Localization Competition (Infrastructure-free Approaches), 13th ACM/IEEE International Conference on Information Processing in Sensor Networks (IPSN), 2014.
- **Best Demo Award:** “The Airplace Indoor Positioning Platform for Android Smartphones,” 13th IEEE International Conference on Mobile Data Management (MDM), 2012.
- **1st Place Award:** “Design of a digital eBook reader and content management platform” Competition (together with D. Eliades and D. Stavrou), University of Patras and Greek Free/Open Source Software Society (GFOSS), under the auspices of the Special Secretariat for Digital Planning in Greece, 2010.
- **Grant:** European Science Foundation (ESF), Middleware for Network Eccentric and Mobile Applications (MiNEMA), Exchange Grant 1958, 2008.
- **Ph.D. Scholarship:** “Junior Researcher” programme (*IIENEK/ENIEX/0506/59*), Research Promotion Foundation of Cyprus, 2006-2010.
- **M.Sc. Scholarship:** Commitment to excellence in postgraduate courses (*EITEAEK II*), University of Patras, 2005.

V. PUBLICATIONS

REFEREED JOURNAL ARTICLES

1. G. Oliva, **C. Laoudias**, F. Pascucci, R. Setola, and C. G. Panayiotou, “Hybrid Node Localization in Noisy Wireless Sensor Networks,” *ACM Transactions on Sensor Networks*, under review, 2015.
2. C. Kyrkou, T. G. Theocharides, M. Polycarpou, **C. Laoudias** and C. G. Panayiotou, “Adaptive Energy-Oriented Multi-Task Allocation in Smart Camera Networks,” *IEEE Embedded Systems Letters*, under review, 2015.
3. **C. Laoudias**, M. P. Michaelides, and C. G. Panayiotou, “ftTRACK: fault tolerant target tracking in binary sensor networks,” *ACM Transactions on Sensor Networks*, vol. 10, no. 4, pp. 64:1–64:28, Jun. 2014.
4. M. Michaelides, **C. Laoudias**, and C. Panayiotou, “Fault tolerant localization and tracking of multiple sources in WSNs using binary data,” *IEEE Transactions on Mobile Computing*, vol. 13, no. 6, pp. 1213–1227, Jun. 2014.
5. D. Zeinalipour-Yazti, **C. Laoudias**, C. Costa, M. Vlachos, M. I. Andreou, and D. Gunopulos, “Crowd-sourced trace similarity with smartphones,” *IEEE Transactions on Knowledge and Data Engineering*, vol. 25, no. 6, pp. 1240–1253, Jun. 2013.
6. **C. Laoudias**, R. Piché, C. G. Panayiotou, “Device self-calibration in location systems using signal strength histograms,” *Journal of Location Based Services*, vol. 7, no. 3, pp. 165–181, Aug. 2013.
7. **C. Laoudias**, M. P. Michaelides, C. G. Panayiotou, “Fault detection and mitigation in WLAN RSS fingerprint-based positioning,” *Journal of Location Based Services*, vol. 6, no. 2, pp. 101–116, Jun. 2012.
8. **C. Laoudias**, C. Panayiotou, C. Desiniotis, J. G. Markoulidakis, J. Pajunen, S. Nousiainen, “Part One: The Statistical Terminal Assisted Mobile Positioning Methodology and Architecture,” *Computer Communications*, vol. 31, no. 6, pp. 1126–1137, Apr. 2008.

REFEREED MAGAZINE ARTICLES

9. **C. Laoudias**, G. Nikolaidis, D. Zeinalipour-Yazti, “Internet-based Indoor Navigation Services,” *IEEE Internet Computing*, under review, 2015.
10. **C. Laoudias**, G. Larkou, D. Zeinalipour-Yazti, and C. G. Panayiotou, “Airplace: Indoor geolocation on smartphones through WiFi fingerprinting,” *ERCIM News*, vol. 2013, no. 93, Apr. 2013.
11. G. Chatzimilioudis, A. Konstantinidis, **C. Laoudias**, and D. Zeinalipour-Yazti, “Crowdsourcing with smartphones,” *IEEE Internet Computing*, vol. 16, no. 5, pp. 36–44, Sept. 2012.

REFEREED CONFERENCE/WORKSHOP/DEMO PAPERS

12. **C. Laoudias**, P. Tsangaridis, M. Polycarpou, C. Panayiotou, C. Kyrkou, and T. G. Theocharides, “Fault-Tolerant Tracking of Multiple Targets in Collaborative Camera Networks,” *European Control Conference (ECC)*, accepted, 2015.
13. K. Georgiou, G. Nikolaidis, L. Petrou, **C. Laoudias**, and D. Zeinalipour-Yazti, “Indoor Localization and Navigation with Anyplace,” *16th IEEE International Conference on Mobile Data Management (MDM)*, accepted, 2015.
14. F. Lemic, V. Handziski, A. Wolisz, T. Constambeys, **C. Laoudias**, S. Adler, S. Schmitt, and Y. Yang, “Experimental Evaluation of RF-based Indoor Localization Algorithms Under RF Interference,” *International Conference on Localization and GNSS (ICL-GNSS)*, accepted, 2015.
15. D. Lymberopoulos, J. Liu, X. Yang, R. R. Choudhury, V. Handziski, S. Sen, F. Lemic, J. Büsch, . . . , **C. Laoudias**, D. Zeinalipour-Yazti et al., “A Realistic Evaluation and Comparison of Indoor Location Technologies: Experiences and Lessons Learned,” *14th ACM/IEEE International Conference on Information Processing in Sensor Networks (IPSN)*, accepted, 2015.
16. **C. Laoudias**, P. Tsangaridis, M. Polycarpou, C. Panayiotou, C. Kyrkou, and T. G. Theocharides, “Cooperative Fault-Tolerant Target Tracking in Camera Sensor Networks,” *IEEE International Conference on Communications (ICC)*, accepted, 2015.
17. **C. Laoudias**, P. Kolios, C. G. Panayiotou, “Differential Signal Strength Fingerprinting Revisited,” *International Conference on Indoor Positioning and Indoor Navigation (IPIN)*, accepted, 2014.
18. G. Oliva, **C. Laoudias**, F. Pascucci, R. Setola, C. G. Panayiotou, “Hybrid Sensor Networks Localization,” *International Conference on Indoor Positioning and Indoor Navigation (IPIN)*, accepted, 2014.
19. P. Kolios, **C. Laoudias**, C. G. Panayiotou, “Improving the Reliability of Emergency Response Networks using RevolverNet,” *11th Workshop on Positioning, Navigation and Communication (WPNC)*, 2014, pp. 1–6.
20. L. Petrou, G. Larkou, **C. Laoudias**, D. Zeinalipour-Yazti, C. G. Panayiotou, “Demonstration Abstract: Crowdsourced Indoor Localization and Navigation with Anyplace,” *13th ACM/IEEE International Conference on Information Processing in Sensor Networks (IPSN)*, 2014, pp. 331–332.
21. **C. Laoudias**, D. Zeinalipour-Yazti, C. G. Panayiotou, “Crowdsourced Indoor Localization for Diverse Devices through Radiomap Fusion,” *International Conference on Indoor Positioning and Indoor Navigation (IPIN)*, 2013, pp. 1–7.
22. R. U. Haider, **C. Laoudias**, C. G. Panayiotou, “Health Monitoring of WLAN Localization Infrastructure using Smartphone Inertial Sensors,” *International Conference on Indoor Positioning and Indoor Navigation (IPIN)*, 2013.
23. **C. Laoudias**, M. P. Michaelides, C. G. Panayiotou, “Sensor Health State Estimation for Target Tracking with Binary Sensor Networks,” *IEEE International Conference on Communications (ICC)*, 2013, pp. 1878–1882.
24. **C. Laoudias**, M. P. Michaelides, C. G. Panayiotou, “Fault Tolerant Target Localization and Tracking in Binary WSNs using Sensor Health State Estimation,” *IEEE International Conference on Communications (ICC)*, 2013, pp. 1469–1473.
25. C.-L. Li, **C. Laoudias**, G. Larkou, Y.-K. Tsai, D. Zeinalipour-Yazti, C. G. Panayiotou, “Demo: Indoor Geolocation on Multi-Sensor Smartphones,” *11th ACM International Conference on Mobile Systems, Applications and Services (MobiSys)*, 2013, pp. 503–504.

26. **C. Laoudias**, R. Piché, C. Panayiotou, "Device Signal Strength Self-Calibration using Histograms," *International Conference on Indoor Positioning and Indoor Navigation (IPIN)*, 2012, pp. 1–8.
27. M. Raspopoulos, **C. Laoudias**, L. Kanaris, A. Kokkinis, C. G. Panayiotou, S. Stavrou, "Cross Device Fingerprint-based Positioning using 3D Ray Tracing," *8th International Wireless Communications and Mobile Computing Conference (IWCMC)*, 2012, pp. 147–152.
28. A. Konstantinidis, G. Chatzimilioudis, **C. Laoudias**, S. Nicolaou and D. Zeinalipour-Yazti, "Towards Planet-Scale Localization on Smartphones with a Partial Radiomap," *4th ACM International Workshop on Hot Topics in Planet-Scale Measurement (HotPlanet)*, 2012, pp. 9–14.
29. M. Raspopoulos, **C. Laoudias**, L. Kanaris, A. Kokkinis, C. G. Panayiotou, S. Stavrou, "3D Ray Tracing for Device-Independent Fingerprint-based Positioning in WLANs," *9th Workshop on Positioning, Navigation and Communication (WPNC)*, 2012, pp. 109–113.
30. **C. Laoudias**, G. Constantinou, M. Constantinides, S. Nicolaou, D. Zeinalipour-Yazti, C. G. Panayiotou, "Demo: The Airplace Indoor Positioning Platform," *10th ACM International Conference on Mobile Systems, Applications and Services (MobiSys)*, 2012, pp. 467–468.
31. **C. Laoudias**, G. Constantinou, M. Constantinides, S. Nicolaou, D. Zeinalipour-Yazti, C. G. Panayiotou, "The Airplace Indoor Positioning Platform for Android Smartphones," *13th IEEE International Conference on Mobile Data Management (MDM)*, 2012, pp. 312–315. **Best Demo Award**
32. **C. Laoudias**, M. P. Michaelides, C. G. Panayiotou, "Fault Detection and Mitigation in WLAN RSS Fingerprint-based Positioning," *International Conference on Indoor Positioning and Indoor Navigation (IPIN)*, 2011, pp. 1–7.
33. M. P. Michaelides, **C. Laoudias**, C. G. Panayiotou, "Fault Tolerant Target Localization and Tracking in Wireless Sensor Networks Using Binary Data," *IEEE Global Telecommunications Conference (GLOBECOM)*, 2011, pp. 1–6.
34. F. Della Rosa, L. Xu, J. Nurmi, M. Pelosi, **C. Laoudias**, A. Terrezza, "Hand-Grip and Body-Loss Impact on RSS Measurements for Localization of Mass Market Devices," *International Conference on Localization and GNSS (ICL-GNSS)*, 2011, pp. 58–63.
35. D. Zeinalipour-Yazti, **C. Laoudias**, M. I. Andreou, D. Gunopulos, "Disclosure-free GPS Trace Search in Smartphone Networks," *12th International Conference on Mobile Data Management (MDM)*, 2011, vol.1, pp. 78–87.
36. **C. Laoudias**, M. P. Michaelides, C. G. Panayiotou, "Fault Tolerant Fingerprint-based Positioning," *IEEE International Conference on Communications (ICC)*, 2011, pp. 1–5.
37. C. Costa, **C. Laoudias**, D. Zeinalipour-Yazti, D. Gunopulos, "SmartTrace: Distributed Trajectory Search and Retrieval in Smartphone Networks," *27th IEEE International Conference on Data Engineering (ICDE)*, 2011, pp. 1288–1291.
38. **C. Laoudias**, M. P. Michaelides, C. G. Panayiotou, "Fault Tolerant Positioning using WLAN Signal Strength Fingerprints," *International Conference on Indoor Positioning and Indoor Navigation (IPIN)*, 2010, pp. 1–8.
39. **C. Laoudias**, C. G. Panayiotou, P. Kemppi, "On the RBF-based Positioning using WLAN Signal Strength Fingerprints," *7th Workshop on Positioning, Navigation and Communication (WPNC)*, 2010, pp. 93–98.
40. M. P. Michaelides, **C. Laoudias**, C. G. Panayiotou, "Fault Tolerant Detection and Tracking of Multiple Sources in WSNs using Binary Data," *48th IEEE Conference on Decision and Control (CDC)*, 2009, pp. 3769–3774.
41. **C. Laoudias**, P. Kemppi, C. Panayiotou, "Localization using Radial Basis Function Networks and Signal Strength Fingerprints in WLAN," *IEEE Global Telecommunications Conference (GLOBECOM)*, 2009, pp. 1–6.
42. **C. Laoudias**, D. Eliades, P. Kemppi, C. Panayiotou, M. Polycarpou, "Indoor Localization using Neural Networks with Location Fingerprints," *LNCS Artificial Neural Networks - ICANN*, 2009, pp. 954–963.
43. **C. Laoudias**, C. Desiniotis, J. Pajunen, S. Nousiainen, C. Panayiotou, J. G. Markoulidakis, "Ubiquitous Terminal Assisted Positioning Prototype," *IEEE Wireless Communications and Networking Conference (WCNC)*, 2008, pp. 3261–3266.

44. **C. Laoudias** and D. Nikolos, "A New Test Pattern Generator for High Defect Coverage in a BIST Environment," *14th ACM Great Lakes symposium on VLSI*, 2004, pp. 417-420.

OTHER WORKSHOP/DEMO PAPERS

45. **C. Laoudias**, G. Larkou, C.-L. Li, Y.-K. Tsai, D. Zeinalipour-Yazti, and C. G. Panayiotou, "Accurate Multi-Sensor Localization on Android Devices," *Microsoft Indoor Localization Competition (Infrastructure-free Approaches)*, *13th ACM/IEEE International Conference on Information Processing in Sensor Networks (IPSN)*, 2014.
46. T. Constambeys, **C. Laoudias**, D. Zeinalipour-Yazti, and C. G. Panayiotou, "Indoor Geolocation for Android Smartphones with Airplace," *Evaluation of RF-based Indoor Localization Algorithms, EVARILOS Project*, 2014.
47. **C. Laoudias**, M. P. Michaelides, C. G. Panayiotou, "Fault Tolerant Target Tracking in Binary Wireless Sensor Networks," *6th Cyprus Workshop on Signal Processing and Informatics (CWSPI)*, 2013.
48. L. Petrou, G. Larkou, **C. Laoudias**, D. Zeinalipour-Yazti and C. G. Panayiotou, "Anyplace: Indoor Positioning and Navigation in the Big-Data Era," Demo at *International Conference on Indoor Positioning and Indoor Navigation (IPIN)*, 2013.
49. **C. Laoudias**, G. Constantinou, M. Constantinides, S. Nicolaou, D. Zeinalipour-Yazti, C. G. Panayiotou, "The Airplace Indoor Positioning System," *5th Cyprus Workshop on Signal Processing and Informatics (CWSPI)*, 2012.
50. C.-L. Li, **C. Laoudias**, G. Larkou, G. Chatzimilioudis, D. Zeinalipour-Yazti, C. G. Panayiotou, "Hybrid Indoor Positioning on Multi-Sensor Android Smartphones," Demo at *International Conference on Indoor Positioning and Indoor Navigation (IPIN)*, 2012.
51. **C. Laoudias**, G. Constantinou, M. Constantinides, S. Nicolaou, D. Zeinalipour-Yazti, C. G. Panayiotou, "A Platform for the Evaluation of Fingerprint Positioning Algorithms on Android Smartphones," Demo at *International Conference on Indoor Positioning and Indoor Navigation (IPIN)*, 2011.
52. **C. Laoudias**, C. Costa, D. Zeinalipour-Yazti, C. G. Panayiotou, "An Indoor Trajectory Comparison Framework for Android Smartphones," Demo at *International Conference on Indoor Positioning and Indoor Navigation (IPIN)*, 2011.
53. C. Costa, **C. Laoudias**, D. Zeinalipour-Yazti, D. Gunopulos, "SmartTrace: Finding Similar Trajectories in Smartphone Networks without Disclosing the Traces," Demo at *10th Hellenic Data Management Symposium (HDMS)*, 2011.
54. **C. Laoudias**, C. G. Panayiotou, "Indoor Positioning in WLAN using Radial Basis Function Networks with Received Signal Strength Fingerprints," *3rd Cyprus Workshop on Signal Processing and Informatics (CWSPI)*, 2010.
55. C. Costa, C. Christoforou, G. Nicolaidis, D. Papadiomidous, **C. Laoudias**, D. Zeinalipour-Yazti, "A Distributed Spatio-Temporal Similarity Search Framework using Android-based Smartphones," Demo at *9th Hellenic Data Management Symposium (HDMS)*, 2010.
56. **C. Laoudias**, C. Panayiotou, J. Markoulidakis, C. Desiniotis, "Simulation Analysis on the Efficiency of STAMP Method," *LIAISON-ISHTAR Workshop on LBS Trends and R&D*, 2006.

THESES

57. **C. Laoudias**, "Localization and Tracking in Wireless Networks for Fault Tolerance and Device Diversity," Ph.D. Dissertation, *Dept. of Electrical and Computer Engineering, University of Cyprus*, March 2014.
58. **C. Laoudias**, "FPGA Implementation of the CCMP Protocol for Secure Wireless Networks 802.11i," M.Sc. Thesis, *Dept. of Computer Engineering & Informatics, Postgraduate Program on Integrated Software & Hardware Systems, University of Patras, Greece*, December 2005.
59. **C. Laoudias**, "Test Pattern Generators for Testing VLSI Circuits," Dipl.Eng. Thesis, *Dept. of Computer Engineering & Informatics, University of Patras, Greece*, October 2003.

OTHER

60. D. Eliades and C. Laoudias, "Internet wants to be free! Interview with Prof. Christos H. Papadimitriou," *Synchroni Apopsi Magazine*, September 2010.
61. C. Laoudias, "E-book Readers in Education," *Synchroni Apopsi Magazine*, March 2010.
62. C. Laoudias, "Location Based Services," *Synchroni Apopsi Magazine*, January 2009.

VI. TEACHING WORK EXPERIENCE

Teaching Assistant, Dept. of ECE, Univ. of Cyprus, Cyprus 2006-2007

- **Wireless Telecommunication Networks (ECE453)**,
taught by Lecturer S. Toumpis
Gave weekly TA class presentations, prepared solutions to exercises given in class, graded exercises and final exams.
- **Introduction to Communication Systems (ECE359)**,
taught by Assoc. Prof. G. Ellinas
Gave weekly TA class presentations, prepared solutions to exercises given in class, graded exercises and final exams, prepared class project.

Head Teaching Assistant, Dept. of CE&I, Univ. of Patras, Greece 2004-2005

- **Electronics Laboratory (23165E)**, taught by Prof. D. Nikolos
Coordinated a group of 15 Teaching Assistants, including the preparation of their schedule, was responsible to keep the lab equipment in good working condition.
- **Advanced VLSI System Testing**, taught by Prof. D. Nikolos
Prepared the software lab exercises and solutions on *Design for Testability* for this course, which is part of the curriculum for the M.Sc. degree on *Computer Science and Engineering* at the University of Patras, Greece. These exercises were used in the subsequent years by the department.

Teaching Assistant, Dept. of CE&I, Univ. of Patras, Greece 2003-2004

- **Electronics Laboratory (23165E)**, taught by Prof. D. Nikolos
Gave weekly lab lectures, graded lab assignments and final exams, was responsible to keep the lab equipment in good working condition.

VII. STUDENT ADVISING

- M.Sc. Supervisor:
 - Raja Umair Haider, M.Sc. Thesis project supervisor, Examiner: Eleftherios Karipidis, Dept. of EE, Linköpings Universitet, Sweden, 2012.
- B.Sc. Supervisor:
 - Panagiotis Tsangaridis, KIOS Undergraduate Research Opportunities Program (UROP), Advisor: Marios Polycarpou, Dept. of ECE, Univ. of Cyprus, 2014.
 - Lambros Petrou, KIOS Undergraduate Research Opportunities Program (UROP), Advisor: Demetris Zeinalipour, Dept. of CS, Univ. of Cyprus, 2013.
- Ph.D. Mentor:
 - George Nikolaidis, Advisor: Demetris Zeinalipour Dept. of CS, Univ. of Cyprus, 2014.
 - Constandinos Costa, Advisor: Demetris Zeinalipour Dept. of CS, Univ. of Cyprus, 2011.

- M.Sc. Mentor:
 - Georgios Larkou, Advisor: Demetris Zeinalipour Dept. of CS, Univ. of Cyprus, 2012.
- B.Sc. Mentor:
 - Timotheos Constambeys, Advisor: Demetris Zeinalipour Dept. of CS, Univ. of Cyprus, 2014.
 - Kyriakos Georgiou, Advisor: Demetris Zeinalipour Dept. of CS, Univ. of Cyprus, 2014.
 - George Constantinou, Advisor: Demetris Zeinalipour Dept. of CS, Univ. of Cyprus, 2012.
 - Marios Constantinides, Advisor: Demetris Zeinalipour Dept. of CS, Univ. of Cyprus, 2012.
 - Silouanos Nicolaou, Advisor: Demetris Zeinalipour Dept. of CS, Univ. of Cyprus, 2012.

VIII. TALKS & PRESENTATIONS

TUTORIALS

- **C. Laoudias** and D. Zeinalipour-Yazti, “*Mobile Data Management in Indoor Spaces*,” 16th IEEE International Conference on Mobile Data Management (MDM), Pittsburgh, PA, USA, June 15-18, 2015.

INVITED LECTURES

- Seminar, “*Overview of Outdoor and Indoor Positioning Technologies and Systems*,” European University Cyprus, IEEE Student Section, March 30, 2012.

OTHER LECTURES

- Presentation, “*Low-Effort Indoor Radiomap Data Collection and Geolocation on Smartphones*,” Localization Competition session, 5th International Conference on Indoor Positioning and Indoor Navigation (IPIN), October 30, 2014.
- Presentation, “*Cross-Device Localization With Differential Signal Strength Fingerprints*,” KIOS Seminar Series, February 11, 2014.
- Presentation, “*Moving from Camera Sensor Networks to Smart Camera Networks*,” KIOS Seminar Series, July 8, 2014.
- Presentation, “*Cooperative Fault-Tolerant Target Tracking in Camera Sensor Networks*,” KIOS Seminar Series, November 4, 2014.
- Presentation, “*ftTRACK: A Fault Tolerant Target Tracking Architecture for Binary WSNs*,” KIOS Seminar Series, March 26, 2013.
- Presentation, “*ARTEMIS2: Fault Tolerant Detection, Localization and Tracking of Multiple Events Using Wireless Sensor Networks*,” Workshop “From Monitoring and Control of Large Scale Systems to Affine Arithmetic,” September 9, 2013.
- Presentation, “*ARTEMIS2: Fault Tolerant Detection, Localization and Tracking of Multiple Events Using Wireless Sensor Networks*,” KIOS Seminar Series, November 21, 2013.
- Presentation, “*Fault Tolerant Target Localization and Tracking in Binary WSNs using Spatiotemporal Information*,” KIOS Seminar Series, March 20, 2012.
- Presentation, “*Indoor Positioning Technologies and Systems: From Theory to Practice*,” KIOS Seminar Series, July 24, 2012.
- Presentation, “*Indoor Positioning with WiFi Signals: Device Self-Calibration using Histograms*,” KIOS Seminar Series, October 23, 2012.
- Presentation, “*Positioning in Indoor Environments using WLAN Received Signal Strength Fingerprints*,” Dept. of ECE, Univ. of Cyprus, Graduate Seminar, February 9, 2011.
- Presentation, “*Ubiquitous Terminal Assisted Positioning Prototype*,” Information and Communication Technologies Technical Workshop, February 11, 2009.
- Presentation (together with C. Dessiniotis), “*Kalman Filtering Options for STAMP Terminal Positioning Error Minimization*,” Mobile Terminal Assisted Enhanced Services Provisioning in a B3G Environment Workshop, September 7, 2007.

- Presentation, “*Cell Based Location Techniques Employing Power Measurements*,” Cyprus Communications (CyCo) Group, March 22, 2006.

IX. SOFTWARE SYSTEMS

- **Airplace - Indoor Positioning Platform for Android Smartphones:**
End-to-end mobile positioning platform for Android smartphones that was jointly developed by the KIOS Research Center and the Data Management Systems Lab at the department of Computer Science at the University of Cyprus. Airplace facilitates the construction of WLAN signal radiomaps and offers real-time indoor positioning, while enabling the evaluation of different algorithms with respect to positioning time, accuracy and power consumption. It was released as open-source software in 2012 and is currently used by more than 40 research groups and individual developers around the world. It has been demonstrated in conference venues and received a best demo paper award, as well as indoor localization competition awards.
(<http://www2.ucy.ac.cy/~laoudias/pages/platform.html>)
- **Anyplace - Indoor Information Service:**
Indoor mapping, localization and navigation service that addresses effectively challenges related to scalability and crowdsourcing. It was jointly developed by the Data Management Systems Lab at the department of Computer Science and KIOS Research Center at the University of Cyprus. It has been demonstrated in conference venues and exhibitions and was recently released in the Google Play Store Android application market.
(<https://anyplace.cs.ucy.ac.cy/>)

X. RESEARCH PROJECTS

- **Postdoctoral Researcher**, *Fault-Adaptive: funded by the European Research Council (ERC) as part of the Advanced Grant awarded to Prof. Marios Polycarpou*.
(<http://www.kios.ucy.ac.cy/fault-adaptive/>)
- **Researcher**, *Anyplace: An Indoor Information Service*, Data Management Systems Lab, Department of Computer Science and KIOS Research Center, University of Cyprus.
(<https://anyplace.cs.ucy.ac.cy/>)
- **Research Associate**, *ARTEMIS2: Fault tolerant detection, localization and tracking of multiple events using Wireless Sensor Networks*, funded by the Research Promotion Foundation of Cyprus, DESMI 2009-2010, TIE/OPIZO/0609(BE)/06.
(<http://www.kios.ucy.ac.cy/artemis2/index.html>)
- **Researcher**, *Airplace: A Platform for the Evaluation of Fingerprint Positioning Algorithms on Android Smartphones*, KIOS Research Center and Data Management Systems Lab, Department of Computer Science, University of Cyprus.
(<http://www2.ucy.ac.cy/~laoudias/pages/platform.html>)
- **Researcher**, *HYPEL: Hybrid positioning utilizing environment perception enriched local dynamic map*, VTT Research Center, Helsinki, Finland.
- **Junior Researcher**, *IRA: Localization for Next Generation Wireless Communication Networks*, funded by the Research Promotion Foundation of Cyprus, DESMI 2006, IENEEK/ENISX/0506/59.
(<http://www2.ucy.ac.cy/~laoudias/pages/ira.html>)
- **Researcher**, *MOTIVE: MOBILE Terminal Information Value addEd functionality*, funded by the European Union, IST-FP6-027659.
(<http://www.cn.ntua.gr/ist-motive/>)

XI. UNIVERSITY & PUBLIC SERVICE

- Board member, Spokesman, Association of Ph.D. Candidates of Cyprus, 2010-2012.
- Board member, Postgraduate student representative, Electrical and Computer Engineering Departmental Board, University of Cyprus, 2007-2010.

XII. PROFESSIONAL ACTIVITY & MEMBERSHIPS

- Conference Session Organiser:
 - *Ph.D. Forum*, 6th International Conference on Indoor Positioning and Indoor Navigation (IPIN), Banff, Calgary, Canada, October 13-16, 2015.
 - *Ph.D. Forum*, 5th International Conference on Indoor Positioning and Indoor Navigation (IPIN), Busan, Korea, October 27-30, 2014.
- Conference Session Chair:
 - *Ph.D. Forum session*, 5th International Conference on Indoor Positioning and Indoor Navigation (IPIN), Busan, Korea, October 27-30, 2014.
 - *Signal Strength Based Methods, Fingerprinting session*, 5th International Conference on Indoor Positioning and Indoor Navigation (IPIN), Busan, Korea, October 27-30, 2014.
 - *Camera, Light and Motion session*, 4th International Conference on Indoor Positioning and Indoor Navigation (IPIN), Montbéliard, France, October 28-31, 2013.
- Technical Program Committee Member:
 - Ad-hoc and Sensor Networking (AHSN) Symposium, IEEE International Conference on Communications (ICC), London, United Kingdom, June 8-12, 2015.
 - 6th International Conference on Indoor Positioning and Indoor Navigation (IPIN), Banff, Calgary, Canada, October 13-16, 2015.
 - 5th International Conference on Indoor Positioning and Indoor Navigation (IPIN), Busan, Korea, October 27-30, 2014.
 - 4th International Conference on Indoor Positioning and Indoor Navigation (IPIN), Montbéliard, France, October 28-31, 2013.
 - Workshop on Social Network for Mobility Services (SN4MS), IEEE International Conference on Internet of Things (iThings), Besançon, France, November 20-23, 2012.
 - 4th International Symposium on Applied Sciences in Biomedical and Communication Technologies (ISABEL), Barcelona, Spain, October 26-29, 2011.
- Referee for Journals/Magazines:
 - ACM Transactions on Intelligent Systems and Technology (since 2012) – 1 review
 - EURASIP Journal on Wireless Communications and Networking (since 2012) – 1 review
 - IEEE Communication Letters (since 2012) – 3 reviews
 - IEEE Transactions on Computers (since 2012) – 3 reviews
 - IEEE Transactions on Instrumentation & Measurement (since 2014) – 1 review
 - IEEE Transactions on Knowledge and Data Engineering (since 2012) – 1 review
 - IEEE Transactions on Selected Areas in Communications (since 2014) – 2 reviews
 - IEEE Transactions on Vehicular Technology (since 2014) – 3 reviews
 - IEEE Sensors (since 2014) – 1 review
 - Taylor & Francis Journal of Location Based Services (since 2012) – 1 review
 - Elsevier Pervasive and Mobile Computing (since 2014) – 2 reviews
- Referee for Conferences/Symposiums:
 - ACC (American Control Conference): 2013
 - CDC (IEEE Annual Conference on Decision and Control): 2014
 - ECC (European Control Conference): 2013
 - GLOBECOM (IEEE Global Communications Conference): 2011, 2014
 - ICANN (International Conference on Artificial Neural Networks): 2009
 - ICC (IEEE International Conference on Communications): 2007, 2015
 - ICDE (IEEE International Conference on Data Engineering): 2013
 - IPIN (International Conference on Indoor Positioning and Indoor Navigation): 2010, 2012 – 2015
 - MDM (IEEE International Conference on Mobile Data Management): 2012
 - SIGMOD (ACM Special Interest Group on Management of Data): 2015
 - VLDB (International Conference on Very Large Databases): 2014

- WCNC (IEEE Wireless Communications and Networking Conference): 2013
- Referee for Workshops:
 - MED-HOC-NET (Annual Mediterranean Ad Hoc Networking Workshop): 2012
 - PWSN (International Workshop on Performance Control in Wireless Sensor Networks): 2014
 - WPNC (Workshop on Positioning, Navigation and Communication): 2011, 2014
- Referee for Research Projects:
 - University Research Board Funding Program, American University of Beirut: 2015.
- Memberships
 - Member of the Institute of Electrical and Electronics Engineers (IEEE)
 - Member of the IEEE Communications Society

XIII. LANGUAGES

- Greek (native)
- English (fluent)

XIV. PERSONAL INFORMATION

- Gender: Male.
- Date of Birth: April 16, 1980.
- Place of Birth: Athens, Greece.
- Nationality: Cypriot and Greek.
- Marital Status: Married.