

Georgios Z. Papadopoulos

Associate Professor

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Greek, Born September 9, 1988



At a glance

My research interests span primarily in the area of Industrial Internet of Things, Deterministic Wireless Networks, Moving Target Defense and Wireless Battery Management System. I am especially interested in energy efficient, highly-reliable and ultra-low delay and jitter algorithms for Medium Access Control and Routing layers. Some keywords: IIoT, IEEE 802.15.4-2015, TSCH, 6TiSCH, 6P, 6LoWPAN, RPL, LoRa, LPWAN, WSNs, Wireless BMS, MTD, PLC, Smart Grid.

Professional experience

- 06/16 - present **Associate Professor**, IMT Atlantique, Rennes, France,
Subject: "Internet of Things".
- 01/16 - 05/16 **Postdoctoral Research Associate**, Faculty of Engineering, University of Bristol, UK,
Subject: "Security and Networking in Internet of Things".
- 10/15 - 12/15 **Postdoctoral Research Engineer**, ICube Laboratory, University of Strasbourg, France,
Subject: "Characterization of an IoT / WSN testbed (*i.e.*, link quality, stability, symmetry)".
- 09/12 - 09/15 **Ph.D. Candidate**, ICube Laboratory, University of Strasbourg, France,
Subject: "Improving the medium access in WSNs under dynamic traffic and mobile assumptions".
- 09/13 - 09/15 **Teaching Assistant**, Faculty of Mathematics & Computer Science, University of Strasbourg, France,
Subject: "Computer Networks, Advanced Networks, Internet of Things".
- 10/12 - 07/13 **Research Intern**, Department of Telematics Engineering, University Carlos III of Madrid, Spain,
Subject: "Evaluation of network Traffic Generators (e.g., Iperf, Mgen) for WLAN & LAN environments".
- 10/11 - 05/12 **Research Intern**, Mobile & Wireless Network R&D, NEC Laboratories Europe, Heidelberg, Germany,
Subject: "Innovative approaches in Overlapping BSS for contention based systems in IEEE 802.11".

Scientific visits

- Mar 2018 **Visiting scholar**, 1 week - *Erasmus+*, University of Buenos Aires, Buenos Aires, Argentina.
- Nov 2013 **Visiting scholar**, 3 weeks, Computer Network Lab, Inje University, Busan, Korea.
- Mar 2013 **Visiting scholar**, 1 week, University College of Ghent, Ghent, Belgium.

Education

- 2015 (3 years) **Ph.D. in Computer Science**, ICube Laboratory, University of Strasbourg, France,
Thesis title: "Improving Medium Access for Dynamic Wireless Sensor Networks.",
Best Ph.D. Thesis Award for 2015 granted by the **University of Strasbourg**, France.
Thesis supervisor: Prof. Thomas Noël & Dr. Antoine Gallais
- 2012 (1 year) **M.Sc. in Telematics Engineering**, Department of Telematics, University Carlos III of Madrid, Spain,
Thesis title: "Experimental Assessment of Traffic Generators".
Thesis supervisor: Dr. Pablo Serrano Yáñez-Mingot
- 2011 (4 years) **B.Sc. in Computer Science**, Department of Informatics, Alexander T.E.I. of Thessaloniki, Greece,
Thesis title: "On the Enhancement of IEEE 802.11 Overlapping APs Capacity Sharing".
Thesis supervisor: Dr. Xavier Costa-Pérez & Dr. Periklis Chatzimisios
- 2010 (1 semester) **Erasmus (exchange student)**, Department of Informatics & Applied Business, University College Gent, Belgium.

Highlights

Awards, Grands & Scholarships

- Mar 2018 **Recipient of the AIS**, Allocation d'Installation Scientifique (Équipement Jeune Chercheur), granted by the **Rennes Métropole, France**.
- July 2017 **Recipient of the ANR JCJC**, National Grant for Young Researchers, granted by the **French National Research Agency**.
- Dec. 2016 **Recipient of the Stratégie D'attractivité Durable (SAD)**, Regional Grant for Young Researchers, granted by the **Brittany Region, France**.
- June 2016 **Best Ph.D. Thesis Award** for 2015, granted by the **University of Strasbourg, France**.
- Nov 2014 **Best Student Paper Award** @ Sensor Networks Track, IEEE **SENSORS'14** - Valencia, Spain.
- Jun 2014 **Best Paper Award**, IEEE **IFIP Med-Hoc-Net'14** - Piran, Slovenia.
- Sept 2012 **Scholarship**: French State under the Excellence Initiative (**Initiatives d'excellence, IdEx**) program.
- Oct 2011 **Scholarship**: Greek State Scholarship Foundation (**I.K.Y.**) for the performance of the academic year 2009-2010 during the B.Sc. studies at Alexander T.E.I. of Thessaloniki, Greece.

Project Reviewer/Advisory Board Member

- 2018 **Evaluator Expert**, Evaluator of Research Proposals for the Cyprus Research Promotion Foundation (RPF).

PhD Committees

- 12 Oct 2018 **Examiner**, Doctoral work on "Ubiquitous Networks for Smart Grids",
By **Jad Nassar**, Inria Lille - Nord Europe & HEI - Yncréa Hauts-de-France, France.
Thesis supervisor: Dr. Nathalie Mitton & Dr. Nicolas Gouvry

Keynotes

- Jan 2019 **[90 min. - XX attendees]**, Georgios Z. Papadopoulos & Nicolas Montavont,
Title: "*Enabling Quality of Service in Low-power and Lossy Networks*",
Venue: 2nd Mini-workshop on Wireless Sensor Networks and IoT, Université de Mons, Mons, Belgium.

Panelist

- May 2017 **Panel**, "*Exploring Excited Career Paths for Young Engineers & Scientists*",
Venue: IEEE International Conference on Communications (**ICC**) 2017, Paris, France.

Tutorials

- Apr 2019 **[4 hours - XX attendees]**, Georgios Z. Papadopoulos & Nicolas Montavont,
Title: "*Industrial Internet of Things: from Best Effort to Quality of Service*",
Venue: IEEE 5th World Forum on Internet of Things (**WF-IoT**) 2019, Limerick, Ireland.
- Oct 2018 **[2 hours - 26 attendees]**, Georgios Z. Papadopoulos & Nicolas Montavont,
Title: "*Toward Deterministic Traffic in 6TiSCH Networks*",
Venue: Global Information Infrastructure and Networking Symposium (**GIIS**) 2018, Thessaloniki, Greece.
- July 2017 **[3 hours - 20 attendees]**, Fabrice Theoleyre & Georgios Z. Papadopoulos,
Title: "*Industrial IoT: From best-effort to strict guarantees*",
Venue: Summer School on Emerging Technologies for 5G and Internet of Things, organized by Hellenic Open University, Thessaloniki, Greece.

Invited Talks

- Sep 2018 *"Introduction to the Internet of Things"* @ Summer School on "Industrial Internet of Things", organized by IMT Atlantique and TUM, Saint-Malo, France.
- July 2018 *"Enabling Deterministic Traffic in 6TiSCH Networks"* @ Journée thématique "L'Internet des Objets Industriels (IIoT)", organized by GDR RSD ResCom / MACS, Strasbourg, France.
- Jan 2018 *"Enabling Determinism in 6TiSCH Industrial Networks"* @ Inria Lille-Nord Europe, France
- Dec 2016 *"Toward Quality of Service in IoT"* @ NIST Laboratories, Gaithersburg, Maryland, U.S.A.
- Oct 2015 *"Can experiments lead to scientific results?"* @ FIT IoT-LAB Workshop, Inria Lille-Nord Europe, France.
- May 2015 *"On Enhancement of MAC for Bursty Traffic in Mobile WSNs"* @ Inria Lille-Nord Europe, France.
- May 2014 *"WSNs for Wildlife Monitoring"* @ Department of Informatics, A.T.E.I. of Thessaloniki, Greece.
- Nov 2013 *"WSNs & IoTs"* @ Reunion of IdEx Ph.D. candidates at European Doctoral College, Strasbourg, France.
- Sep 2013 *"Runtime Traffic Auto-adaptations for MAC protocols"* @ SenZations 2013, Palić, Serbia.
- Mar 2013 *"Social Media"* @ International week, University College of Ghent - Ghent, Belgium.

Teaching

Responsibilities

- 2018 - * **Adjoint d'Enseignement (suppléant)**, *Département Systèmes Réseaux, Cybersécurité et Droit du numérique (SRCD)*, IMT Atlantique.
- 2018 - 2019 **Coordinator of "Internet of Things" (ELU 608)**, *IMT Atlantique*, (1st & 2nd year), 42 h.
Coordinator of "Ad Hoc Networks" (F2R 203), *IMT Atlantique*, (3rd year), 9 h.
Coordinator: Final Projects (S5), *IMT Atlantique*, (3rd year).
- 2017 - 2018 **Coordinator of "Internet of Things" (ELU 608)**, *IMT Atlantique*, (1st & 2nd year), 42 h.
Coordinator: Final Projects (S5), *IMT Atlantique*, (3rd year).
- 2016 - 2017 **Coordinator of "Mobile Networks" (F2R 421)**, *IMT Atlantique*, (3rd year), 15 h.
Coordinator: Inter-semester, *IMT Atlantique*, (1st & 2nd year), 22 h.
Coordinator: Final Projects (S5), *IMT Atlantique*, (3rd year).

Courses - Lectures

- 2018 - 2019 **Fall: Ad Hoc Networks (Lectures)**, *IMT Atlantique*, (3rd year), 9 h.
Fall: Internet of Things (Lectures & Lab Sessions), *IMT Atlantique*, (2nd year), 12 h.
Fall: Addressing and Routing (Lectures & Lab Sessions), *IMT Atlantique*, (3rd year), 18 h.
Fall: Computer Networks (Lectures), *IMT Atlantique*, (1st year), 6 h.
Spring: Internet of Things (Lectures), *IMT Atlantique*, (2nd year), 24 h.
Spring: Advanced IP Technologies (Lab Sessions), *IMT Atlantique*, (2nd year), 24 h.
- 2017 - 2018 **Fall: Ad Hoc Networks (Lectures)**, *IMT Atlantique*, (3rd year), 9 h.
Fall: Internet of Things (Lectures & Lab Sessions), *IMT Atlantique*, (1st & 2nd year), 15 h.
Fall: Networking Project (Lab Sessions), *IMT Atlantique*, (1st year), 21 h.
Fall: Performance Evaluation (Lectures), *IMT Atlantique*, (1st year), 6 h.
Fall: Computer Networks (Lectures), *IMT Atlantique*, (1st year), 6 h.
Spring: Internet of Things (Lectures & Lab Sessions), *IMT Atlantique*, (1st & 2nd year), 18 h.
Spring: Networking Project (Lab Sessions), *IMT Atlantique*, (1st year), 24 h.
- 2016 - 2017 **Fall: Ad Hoc Networks (Lectures)**, *IMT Atlantique*, (3rd year), 4.5 h.
Fall: Performance Evaluation (Lectures), *IMT Atlantique*, (1st year), 6 h.
Fall: Mobile Networks (Lectures & Lab Sessions), *IMT Atlantique*, (3rd year), 15 h.
Spring: Local Networks (Lectures), *IMT Atlantique*, (1st & 2nd year), 21 h.
- 2014 - 2015 **Computer Networks (Lab session)**, *University of Strasbourg*, M.Sc. (1st year), 12 h.
Advanced networks (Lab session), *Télécom Physique Strasbourg*, (3rd year), 8 h.
TCP/IP (Lab session), *Télécom Physique Strasbourg*, (2nd year), 4 h.
English for Computer Science (Lectures), *University of Strasbourg*, B.Sc. (3rd year), 5 h.
Internet of Things (Lectures & Lab session), *University of Strasbourg*, M.Sc. (2nd year), 18 h.
Networks and systems security (Lab session), *University of Strasbourg*, M.Sc. (1st year), 17 h.
- 2013 - 2014 **Computer Networks (Lab session)**, *University of Strasbourg*, M.Sc. (1st year), 24 h.
TCP/IP (Lab session), *Télécom Physique Strasbourg*, (2nd year), 16 h.
Networks and systems security (Lab session), *University of Strasbourg*, M.Sc. (1st year), 18 h.
English for Computer Science (Lectures), *University of Strasbourg*, B.Sc. (3rd year), 10 h.
- 2012 - 2013 **Social Media (Lectures)**, *University College of Ghent*, B.Sc. (3rd year), 6 h.

Students

I have been privileged to serve as advisor for (and to collaborate with) the following great people (listed in chronological order):

Visiting Scholars

01/2019 - **Sergio Aguilar Romero**, *Visiting Ph.D. Candidate*, Universitat Politècnica de Catalunya, Barcelona, Spain, present
Subject: "Performance Evaluation of the SCHC protocol in LPWAN".

March 2018 **Diego Dujovne**, *Visiting Associate Professor*, Universidad Diego Portales, Santiago, Chile,
Subject: "IoT Convergence and Divergence".

Postdoctoral Fellows

06/17 - **Remous-Aris Koutsiamanis**, present
Subject: "Toward Realization of Industry 4.0: Deterministic Wireless Networks".
Co-advisor: Prof. Nicolas Montavont (IMT Atlantique).

Ph.D. Candidates

11/18 - **Eduardo Inglés Sánchez**, present
Subject: "Security Associations in Constrained IoT Environments".
Co-advisors: Prof. Antonio F. Skarmeta (University of Murcia) & Nicolas Montavont (IMT Atlantique).

12/17 - **Guillaume Le Gall**, present
Subject: "Toward Wireless Battery Management System in Electrical Vehicles".
Co-advisors: Nicolas Montavont (IMT Atlantique).

12/17 - **Renzo Efraín Navas**, present
Subject: "Improving Resilience of the Industrial Internet of Things".
Co-advisors: Frédéric Cuppens (IMT Atlantique), Nora Cuppens (IMT Atlantique), Laurent Toutain (IMT Atlantique), Georg Sigl (TUM).

10/17 - **Tomas Lagos Jenschke**, present
Subject: "Toward Deterministic and Predictable Industrial 4.0".
Co-advisor: Nicolas Montavont (IMT Atlantique).

02/16 - **Vasileios Kotsiou**, present
Subject: "Deterministic Performance for LPLN with 6TiSCH: Characterization and Prediction".
Co-advisors: Fabrice Theoleyre (University of Strasbourg) & Periklis Chatzimisios (ATEI of Thessaloniki).

Bachelor (B.Sc.) and Master (M.Sc.) Interns

04/18 - 09/18 **Eduardo Ingles Sanchez (Research Intern)**, *M.Sc.*,
(6 months) **Subject:** "RPL Bootstrapping phase: DODAG Network Selection".

02/18 - 07/18 **Agustin Picard (Research Intern)**, *M.Sc.*,
(6 months) **Subject:** "High Precession Localization in Wireless Networks".
Co-advisor: Nicolas Montavont, IMT Atlantique.

02/18 - 07/18 **Cristian Alderete (Research Intern)**, *M.Sc.*,
(6 months) **Subject:** "Toward Wireless Battery Management System in Electrical Vehicles".
Co-advisor: Nicolas Montavont, IMT Atlantique.

10/17 - 03/18 **Chenyang Ji (Research Intern)**, *B.Sc.*,
(6 months) **Subject:** "Load Balancing in RPL-based Networks: Traffic-aware Objective Function".
Co-advisor: Nicolas Montavont, IMT Atlantique.

02/17 - 07/17 **Julian Martin Del Fiore (Research Intern)**, *M.Sc.*,
(6 months) **Subject:** "Toward Reliable and Deterministic Networks in Industrial-IoT applications".
Co-advisor: Nicolas Montavont, IMT Atlantique.

05/16 - 08/16 **Tadanori Matsui (Research Intern)**, *M.Sc.*,
(4 months) **Subject:** "Toward Deterministic and Predictable Networks in Industrial-IoT applications".
Co-advisors: Nicolas Montavont & Géraldine Texier, IMT Atlantique.

- 04/16 - 09/16 **Alexandros Mavromatis (Research Intern), B.Sc.**,
(6 months) **Subject:** "Synchronization optimization in multi-hop TSCH networks".
Co-advisors: Xenofon Fafoutis & George Oikonomou, University of Bristol.
- 11/13 - 06/14 **Vasileios Kotsiou (M.Sc. thesis), M.Sc.**,
(6 months) **Subject:** "Optimizing ContikiMAC Protocol for Bursty Traffic in Mobile Wireless Sensor Networks".
- 10/13 - 03/14 **Kosmas Kritsis (B.Sc. thesis), B.Sc.**,
(6 months) **Subject:** "Performance Evaluation Methods in Ad-Hoc and Wireless Sensor Networks: A Literature Study".
Co-advisor: Antoine Gallais, University of Strasbourg.

List of Refereed Publications

Book Chapters

- 2018 [1] “*Communication architectures and technologies for advanced Smart Grid Services*”, F. Lemercier, G. Habault, G. Z. Papadopoulos, P. Maille, P. Chatzimisios & N. Montavont, In **Transportation and Power Grid in Smart Cities: Communication Networks and Services**, Wiley, November 2018.

Editorials

- 2018 [1] “*Ad-hoc, Mobile, and Wireless Networks*”, N. Montavont & G. Z. Papadopoulos, **Proceedings Editors for the 17th International Conference on Ad Hoc Networks and Wireless (ADHOC-NOW)**, LNCS, Springer, 2018.

Journals, Magazines & Surveys

- 2019 [8] “*Blacklisting-based Channel Hopping Approaches in Low-power and Lossy Networks*”, V. Kotsiou, G. Z. Papadopoulos, D. Zorbas, P. Chatzimisios and F. Theoleyre, In **IEEE Communications Magazine**, February 2019.
- 2018 [7] “*From Best-Effort to Deterministic Packet Delivery for Wireless Industrial IoT Networks*”, R. A. Koutsiamanis, G. Z. Papadopoulos, X. Fafoutis, J. M. Del Fiore, P. Thubert and N. Montavont, In **IEEE Transactions on Industrial Informatics**, vol. 14, pp. 4468-4480, July 2018.
- [6] “*A Tutorial on Performance Evaluation and Validation Methodology for Low-Power and Lossy Networks*”, K. Kritsis, G. Z. Papadopoulos, A. Gallais, P. Chatzimisios and F. Theoleyre, In **IEEE Communications Surveys and Tutorials**, vol. 20, pp. 1799-1825, March 2018.
- 2017 [5] “*Monitoring Traffic Optimization in Smart Grid*”, G. Habault, M. LeFrancois, F. Lemercier, N. Montavont, P. Chatzimisios and G. Z. Papadopoulos, In **IEEE Transactions on Industrial Informatics**, vol. 13, pp. 3246-3255, August 2017.
- [4] “*Thorough IoT testbed Characterization: from Proof-of-concept to Repeatable Experimentations*”, G. Z. Papadopoulos, A. Gallais, G. Schreiner, E. Jou & T. Noël, In **Elsevier Computer Networks**, vol. 119, pp. 86-101, June 2017.
- 2016 [3] “*Low-Power Neighbor Discovery for Mobility-Aware Wireless Sensor Networks*”, G. Z. Papadopoulos, V. Kotsiou, A. Gallais, P. Chatzimisios & T. Noël, In **Elsevier Ad Hoc Networks**, vol. 48, pp. 66-79, September 2016.
- [2] “*Performance Evaluation Methods in Ad-Hoc and Wireless Sensor Networks: A Literature Study*”, G. Z. Papadopoulos, K. Kritsis, A. Gallais, P. Chatzimisios & T. Noël, In **IEEE Communications Magazine**, vol. 54, pp. 122-128, January 2016.
- 2015 [1] “*Wireless Medium Access Control under Mobility and Bursty Traffic Assumptions in WSNs*”, G. Z. Papadopoulos, V. Kotsiou, A. Gallais, P. Chatzimisios & T. Noël, In **Springer Mobile Networks & Applications**, vol. 20, pp. 649-660, October 2015.

Letters

- 2017 [2] “*Interconnection of Smart Grid and Electric Vehicles with a Charging System*”, G. Habault, G. Le Gall, G. Z. Papadopoulos, N. Montavont and P. Chatzimisios, In **IEEE COMSOC MMTC Communications - Frontiers (E-letter)**, 2017.
- [1] “*Privacy Leakage of Physical Activity Levels in Wireless Embedded Wearable Systems*”, X. Fafoutis, L. Marchegiani, G. Z. Papadopoulos, R. Piechocki, T. Tryfonas & G. Oikonomou, In **IEEE Signal Processing Letters**, vol. 24, pp. 136-140, February 2017.

Standardization Efforts

- * *"RPL DAG Metric Container (MC) Node State and Attribute (NSA) object type extension"*,
R. A. Koutsiamanis, G. Z. Papadopoulos, N. Montavont and P. Thubert,
IETF ROLL Working Group,
draft-ietf-roll-nsa-extension-00, 18 December 2018
draft-koutsiamanis-roll-nsa-extension-04, 15 November 2018
draft-koutsiamanis-roll-nsa-extension-03, 22 October 2018
draft-koutsiamanis-roll-nsa-extension-02, 03 July 2018
draft-koutsiamanis-roll-nsa-extension-01, 17 January 2018
draft-pkm-roll-nsa-extension-00, 26 October 2017.
- * *"Traffic-aware Objective Function"*,
C Ji, R. A. Koutsiamanis, G. Z. Papadopoulos, D. Dujovne and N. Montavont,
IETF ROLL Working Group,
draft-ji-roll-traffic-aware-objective-function-03, 19 October 2018
draft-ji-roll-traffic-aware-objective-function-02, 13 September 2018
draft-ji-roll-traffic-aware-objective-function-01, 21 March 2018
draft-ji-roll-traffic-aware-objective-function-00, 06 December 2017.
- * *"Exploiting Packet Replication and Elimination in Complex Tracks in 6TiSCH LLNs"*,
G. Z. Papadopoulos, N. Montavont and P. Thubert,
IETF 6TiSCH Working Group,
draft-papadopoulos-6tisch-pre-reqs-02, 26 July 2018
draft-papadopoulos-6tisch-pre-reqs-01, 27 December 2017
draft-papadopoulos-6tisch-pre-reqs-00, 03 July 2017.

Conferences & Workshops

- 2018 [26] *"Reinforcement Learning Techniques for Optimized Channel Hopping in IEEE 802.15.4-TSCH Networks"*, H. Dakdouk, E. Tarazona, R. Alami, R. Féraud, G. Z. Papadopoulos and P. Maillé, In Proc. **ACM MSWiM** - Montreal, Canada, October 2018.
- [25] *"RFC 4944: Per-hop Fragmentation and Reassembly Issues"*, G. Z. Papadopoulos, P. Thubert, S. Tsakalidis and N. Montavont, In Proc. **IEEE CSCN** - Paris, France, October 2018.
- [24] *"TAOF: Traffic Aware Objective Function for RPL-based Networks"*, C. Ji, R.-A. Koutsiamanis, N. Montavont, P. Chatzimisios, D. Dujovne and G. Z. Papadopoulos, In Proc. **GIIS** - Thessaloniki, Greece, October 2018.
- [23] *"Adaptive Multi-Channel Offset Assignment for Reliable IEEE 802.15.4 TSCH Networks"*, V. Kotsiou, G. Z. Papadopoulos, P. Chatzimisios and F. Theoleyre, In Proc. **GIIS** - Thessaloniki, Greece, October 2018.
- [22] *"Multi-path Selection in RPL based on Replication and Elimination"*, T. Lagos, R. A. Koutsiamanis, G. Z. Papadopoulos and N. Montavont, In Proc. **AdHoc-Now** - Saint-Malo, France, September 2018.
- [21] *"Improving LoRa Network Capacity Using Multiple Spreading Factor Configurations"*, D. Zorbas, G. Z. Papadopoulos, Patrick Maille, Nicolas Montavont and C. Douligeris, In Proc. **ICT** - Saint-Malo, France, June 2018.
- [20] *"LOST: Localized Blacklisting Aware Scheduling Algorithm for IEEE 802.15.4-TSCH Networks"*, D. Zorbas, V. Kotsiou, F. Theoleyre, G. Z. Papadopoulos and C. Douligeris, In Proc. **WD** - Dubai, UAE, April 2018.
- [19] *"Local or Global Radio Channel Blacklisting for IEEE 802.15.4-TSCH Networks?"*, D. Zorbas, G. Z. Papadopoulos, and C. Douligeris, In Proc. **IEEE ICC** - Kansas City, USA, May 2018.
- 2017 [18] *"LABeL: Link-based Adaptive BLacklisting Technique for 6TiSCH Wireless Industrial Networks"*, V. Kotsiou, G. Z. Papadopoulos, P. Chatzimisios and F. Theoleyre, In Proc. **ACM MSWiM** - Miami Beach, USA, November 2017.
- [17] *"An Efficient Electric Vehicle Charging Architecture based on LoRa Communication"*, A. Ouya, B. Martinez De Aragon, C. Bouette, G. Habault, N. Montavont and G. Z. Papadopoulos, In Proc. **IEEE SmartGridCom** - Dresden, Germany, October 2017.
- [16] *"Link Quality and Path Based Clustering in IEEE802.15.4-2015 TSCH Networks"*, A. Mavromatis, G. Z. Papadopoulos, X. Fafoutis, A. Goulianos, G. Oikonomou, P. Chatzimisios and T. Tryfonas, In Proc. **IEEE ISCC** - Heraklion, Crete, Greece, July 2017.
- [15] *"Leapfrog Collaboration: Toward Determinism and Predictability in Industrial-IoT applications"*, G. Z. Papadopoulos, T. Matsui, P. Thubert, G. Texier, T. Watteyne & N. Montavont, In Proc. **IEEE ICC** - Paris, France, May 2017.
- [14] *"Is Local Blacklisting Relevant in Slow Channel Hopping Low-Power Wireless Networks?"*, V. Kotsiou, G. Z. Papadopoulos, P. Chatzimisios & F. Theoleyre, In Proc. **IEEE ICC** - Paris, France, May 2017.
- 2016 [13] *"Guard Time Optimisation and Adaptation for Energy Efficient Multi-hop TSCH Networks"*, G. Z. Papadopoulos, A. Mavromatis, X. Fafoutis, N. Montavont, R. Piechocki, T. Tryfonas & G. Oikonomou, In Proc. **IEEE WF-IoT** - Reston, VA, USA, December 2016.
- [12] *"A Mobility-Supporting MAC Scheme for Bursty Traffic in IoT and WSNs"*, G. Z. Papadopoulos, V. Kotsiou, A. Gallais, G. Oikonomou, P. Chatzimisios, T. Tryfonas & T. Noël, In Proc. **IEEE GLOBECOM** - Washington, D.C. USA, December 2016.

- [11] “*Experimental Validation of a Distributed Self-Configured 6TiSCH with Traffic Isolation in Low Power Lossy Networks*”,
Fabrice Theoleyre & G. Z. Papadopoulos,
In Proc. **ACM MSWiM** - Malta, November 2016.
- [10] [*invited*] “*Importance of Repeatable Setups for Reproducible Experimental Results in IoT*”,
G. Z. Papadopoulos, A. Gallais, G. Schreiner & T. Noël,
In Proc. **ACM PE-WASUN** - Malta, November 2016.
- [9] “*Guard Time Optimisation for Energy Efficiency in IEEE 802.15.4-2015 TSCH Links*”,
G. Z. Papadopoulos, A. Mavromatis, X. Fafoutis, R. Piechocki, T. Tryfonas & G. Oikonomou,
In Proc. **EAI InterIoT** - Paris, France, October 2016.
- [8] “*BMFA: Bi-Directional Multicast Forwarding Algorithm for RPL-based 6LoWPANs*”,
G. Z. Papadopoulos, A. Georgallides, T. Tryfonas & G. Oikonomou,
In Proc. **EAI InterIoT** - Paris, France, October 2016.
- 2015 [7] “*Optimizing the Handover Delay in Mobile WSNs*”,
G. Z. Papadopoulos, V. Kotsiou, A. Gallais, P. Chatzimisios & T. Noël,
In Proc. **IEEE WF-IoT** - Milan, Italy, December 2015.
- [6] “*Distributed Adaptive Scheme for Reliable Data Collection in Fault Tolerant WSNs*”,
G. Z. Papadopoulos, N. Pappas, A. Gallais, T. Noël & V. Angelakis,
In Proc. **IEEE WF-IoT** - Milan, Italy, December 2015.
- [5] “*Live Adaptations of Low-power MAC Protocols*”,
G. Z. Papadopoulos, A. Gallais, G. Schreiner & T. Noël,
In Proc. **ACM S3** - Paris, France, September 2015.
- 2014 [4] “*Toward a Packet Duplication Control for Opportunistic Routing in WSNs*”,
G. Z. Papadopoulos, J. Beaudaux, A. Gallais, P. Chatzimisios & T. Noël,
In Proc. **IEEE GLOBECOM** - Austin, TX USA, December 2014.
- [3] “*Enhancing ContikiMAC for Bursty Traffic in Mobile Sensor Networks*”,
Best Student Paper Award @ Sensor Networks Track,
G. Z. Papadopoulos, A. Gallais, T. Noël, V. Kotsiou & P. Chatzimisios,
In Proc. **IEEE SENSORS** - Valencia, Spain, November 2014.
- [2] “*T-AAD: Lightweight Traffic Auto-Adaptations for Low-power MAC Protocols*”,
Best Paper Award,
G. Z. Papadopoulos, J. Beaudaux, A. Gallais & T. Noël,
In Proc. **IEEE IFIP Med-Hoc-Net** - Piran, Slovenia, June 2014.
- 2013 [1] “*Adding value to WSN simulation using the IoT-LAB experimental platform*”,
G. Z. Papadopoulos, J. Beaudaux, A. Gallais, T. Noël & G. Schreiner,
In Proc. **IEEE WiMob** - Lyon, France, October 2013.

Demonstrations, Posters & Competitions in International Conferences

- 2018 [7] “*Poster: The Trade-offs of Cell Over-Provisioning in IEEE 802.15.4 TSCH Networks*”,
X. Fafoutis and G. Z. Papadopoulos,
In Proc. **AdHoc-Now** - Saint-Malo, France, September 2018.
- [6] “*Demo: Wireless Network for In-Car Communication*”,
C. Alderete, G. Le Gall, A. Marquet, G. Z. Papadopoulos and N. Montavont,
In Proc. **AdHoc-Now** - Saint-Malo, France, September 2018.
- [5] “*Demo: Do not trust your neighbors! A small IoT platform illustrating a man-in-the-middle attack*”,
R. E. Navas, H. Le Boudier, N. Cuppens, F. Cuppens, G. Z. Papadopoulos and G. Sigl,
In Proc. **AdHoc-Now** - Saint-Malo, France, September 2018.
- 2017 [4] “*Poster: 4th Industrial Revolution: Toward Deterministic Wireless Industrial Networks*”,
T. Matsui, G. Z. Papadopoulos, P. Thubert, T. Watteyne & N. Montavont,
In Proc. **EWSN** - Uppsala, Sweden, February 2017.

- [3] *“Dependability Competition: Controlled Replication for Higher Reliability and Predictability in Industrial IoT Networks”*,
H. Jiang, Z. Brodard, T. Chang, A. Bouabdallah, N. Montavont, G. Texier, P. Thubert, T. Watteyne & G. Z. Papadopoulos,
In Proc. **EWSN** - Uppsala, Sweden, February 2017.
- 2016 [2] *“Poster Abstract: Impact of Guard Time Length on IEEE 802.15.4e TSCH Energy Consumption”*,
A. Mavromatis, G. Z. Papadopoulos, X. Fafoutis, A. Elsts, G. Oikonomou & T. Tryfonas,
In Proc. **IEEE SECON** - London, UK, June 2016.
- 2015 [1] *“Demo Abstract: Live Adaptations of Low-power MAC Protocols”*,
G. Z. Papadopoulos, A. Gallais, G. Schreiner & T. Noël,
In Proc. **ACM MobiCom** - Paris, France, September 2015.

National Conferences

- 2017 [2] *“Vers les Réseaux Industriels Déterministes”*,
M. Kersalé, G. Z. Papadopoulos, J. M. Del Fiore, P. Thubert and N. Montavont,
Conférence Francophone sur les Réseaux de Communication (**CoRes**) - Quiberon, France.
- 2013 [1] *“Auto-configuration Proactive de la Couche MAC pour les Réseaux de Capteurs Sans Fil à Trafic Variable”*,
J. Beaudaux, G. Z. Papadopoulos, A. Gallais & T. Noël,
Journées Francophones Mobilité et Ubiquité (**UbiMob**) - Nancy, France.

Project Implication

Ongoing Projects

- 10/18 - 10/19 **GAS: Gestion des bAtteries Sans fil dans le véhicule électrique**,
Partners: IMT Atlantique and IMT Mines Alès,
InterCarnot M.I.N.E.S - TSN Edition 2018, Institut Carnot M.I.N.E.S et de l'institut Carnot Télécom & Société numérique - **33.000 €**.
- 03/18 - 06/20 **Smart grid: Intelligent Management of Power Consumption and Production**, *Principal Investigator*,
Allocation d'Installation Scientifique (AIS) 2018 [Équipement Jeune Chercheur], Rennes Métropole,
Rennes Métropole Grant for Young Researchers - **40.00 €**.
- 12/17 - 11/20 **Enabling Wireless Battery Management System (BMS) in Electrical Vehicles**,
CIFRE: Private Contract with Industrial Partner - **120.000 €**.
- 10/17 - 09/20 **TPI: Toward Deterministic and Predictable Industrial 4.0**, *Principal Investigator*,
Agence Nationale de Recherche (ANR) JCJC 2017, Acceptance Rate 14.1%,
French National Grant for Young Researchers - **241.056 €**.
- 07/17 - 12/19 **ASSET: Towards a Secure Internet of Things**,
Partners: IMT, IMT Atlantique, Mines Saint-Etienne and Technische Universitat Munchen (TUM),
German-French Academy for the Industry of the Future - **60.000 €**.

Past Projects

- 07/17 - 12/18 **Smart Cyber-pHysical Environments for Industry of the Future (SCHEIF)**,
Partners: IMT, IMT Atlantique, EURECOM and Technische Universitat Munchen (TUM),
German-French Academy for the Industry of the Future - **20.000 €**.
- 10/17 - 09/18 **IFIGENI: Industrie du Futur, Ingénierie et GENie Industriel**,
Partners: IMT Atlantique, IMT Mines Alès, IMT Mines Albi, Télécom SudParis and Mines Saint-Étienne,
Programme Industrie du Futur - Appel à projets interne du Fonds d'amorçage de l'IMT - **5.000 €**.
- 06/17 - 11/18 **MoTIF: Mobilité et Temps réel pour l'Industrie du Futur**, *Principal Investigator*,
Stratégie D'attractivité Durable (SAD) 2016 (9 687) [Volet 2: Un-e chercheur-euse nouvellement installé-e en Bretagne],
Brittany Region Grant for Young Researchers - **68.250 €**.

Scientific activities

Editorial Duties

Editor: Wireless Networks, Springer, since April of 2018

Editor: Internet Technology Letters, Wiley Online Library, since March of 2018

Organization Committee membership

General Co-Chair: DIPI 2019

General Co-Chair: AdHoc-Now 2018

Publicity Co-Chair: IEEE CSCN 2018

Workshops Co-Chair: IEEE ISCC 2017

Technical Co-Chair: IEEE GlobalSIP 2017

TPC membership

2019 IEEE WCNEE, IEEE IoT4Health, ICT, CoRes, IEEE WCNC

2018 IEEE CSCN, IEEE GLOBECOM, IEEE SenseApp, AdHoc-Now

2017 IEEE ISCC, ACM PE-WASUN, IEEE GlobalSIP, CoRes, IEEE ICC, WiOpt, ICT

2016 IEEE CCNC, IEEE CSCN, IEEE GLOBECOM, EAI InterIoT, IWCMC, IEEE CSE, ICT

2015 ACM CoNEXT Shadow TPC

Session Chair

AdHoc-Now'18, IEEE GLOBECOM'17, RESCOM'16, EAI InterIoT'15, IEEE SENSORS'14, IFIP Med-Hoc-Net'14

Volunteering

IEEE WiMob 2013

External reviewer

Journals I regularly (or occasionally) review papers from:

IEEE Sensors Journal, MDPI Sensors, IEEE Transactions on Industrial Informatics, IEEE Internet of Things Journal, IEEE Communications Magazine, IEEE Systems Journal, Elsevier Future Generation Computer Systems, IEEE/ACM Transactions on Networking, Elsevier Computer Networks, Internet Technology Letters, IEEE Access, Elsevier Ad Hoc Networks, Elsevier Journal of Network and Computer Applications, IEEE Transactions on Industrial Electronics, IEEE Communications Letters, Elsevier Sensors and Actuators A: Physical, Hindawi International Journal of Distributed Sensor Networks, Elsevier Computer Communications, Hindawi Journal of Sensors.

For detailed overview, please visit my [Publons](#).

Conferences **2019:** IEEE WCNC (1), IEEE IoT4Health (1)
2018: IEEE CSCN (3), IEEE GLOBECOM (1), AdHoc-Now (3), IEEE SenseApp (2)
2017: ACM PE-WASUN (2), IEEE INFOCOM (1), IEEE ICC (4), IEEE ISCC (3), WiOpt (5), ICT (2), CoRes (3)
2016: EAI InterIoT (4), IEEE CCNC (4), IEEE CSCN (2), IEEE CSE (3), IEEE GLOBECOM (4), IEEE VTC-Fall (1), IWCMC (5), ICT (4)
2015: IEEE CCNC (1), IEEE GLOBECOM (1)
2014: IEEE ETFA (1), IWCMC (1)
2013: IFIP SustainableIT (1)

Memberships

2010 - present **IEEE**, *Member*.

2011 - present **IEEE Communications Society**, *Member*.

2013 - present **IEEE Sensors Council**, *Member*.

2015 - present **IEEE Internet of Things Community**, *Member*.

2010 - 2012 **IEEE Student Branch at ATEI of Thessaloniki**, *Co-founder, Chair, Mentor*.

Languages

Greek, Russian, Turkish - Mother Tongue (trilingual), **English** - Excellent, **French** - Intermediate

References (chronological order)

- Theo Tryfonas **Reader, Faculty of Engineering**, University of Bristol, UK.
Theo.Tryfonas@bristol.ac.uk, **Postdoc advisor (2016)**
- George Oikonomou **Lecturer, Faculty of Engineering**, University of Bristol, UK.
george.oikonomou@bristol.ac.uk, **Postdoc advisor (2016)**
- Thomas Noël **Professor, ICube laboratory**, University of Strasbourg, France.
noel@unistra.fr, **Ph.D. thesis advisor (2012 - 2015)**
- Antoine Gallais **Associate Professor, ICube laboratory**, University of Strasbourg, France.
gallais@unistra.fr, **Ph.D. thesis advisor (2012 - 2015)**
- Fabrice Theoleyre **Research Scientist CNRS, ICube laboratory**, University of Strasbourg, France.
theoleyre@unistra.fr, **Collaborator and co-author (2015 - present)**
- Periklis Chatzimisios **Associate Professor, Department of Informatics**, A.T.E.I. of Thessaloniki, Greece.
peris@it.teithe.gr, **B.Sc. thesis advisor (2010 - 2011) and co-author (2014 - present)**
- Pascal Mérindol **Associate Professor, ICube laboratory**, University of Strasbourg, France.
merindol@unistra.fr, **Teaching corespondent (2013-2015)**
- Pablo Serrano Yáñez-Mingot **Associate Professor, Department of Telematics**, University Carlos III of Madrid, Spain.
pablo@it.uc3m.es, **M.Sc. thesis advisor (2011-2012)**
- Xavier Pérez Costa **Chief Researcher, Mobile & Wireless Network R&D**, NEC Laboratories Europe, Heidelberg, Germany.
xavier.perez-costa@neclab.eu, **Internship & B.Sc. thesis advisor (2010 - 2011)**

Interests & hobbies

Reading, chess, coin selection, Formula 1, basketball, movies, traveling, photography.

Last update: January, 2019
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