

# Georgios Z. Papadopoulos

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Greek, born September 9, 1988



## At a glance

My research interests span in the area of: Industrial IoT, Deterministic Networking (DetNet), Smart Grid, Battery Management System (BMS) in Electric Vehicles (EV), CyberSecurity, and Integrated Access and Backhaul (IAB) for 5G networks.

**Keywords:** IIoT, MAC Protocols, TSCH, 6TiSCH, 6P, MSF, Scheduling Functions, 6LoWPAN, 6Lo, RPL, Routing Protocols, LoRa, LPWAN, WSNs, Fragment Forwarding, FEC, Wireless BMS, PLC, IAB for 5G, Moving Target Defence (MTD).

## Professional experience

- 02/21 - \* **Research Scientist**, IRT b<>com, Rennes, France,  
**Subject:** "Innovations in 5G Backhaul Technologies".
- 06/16 - \* **Associate Professor**, IMT Atlantique, Rennes, France,  
**Subject:** "Industrial IoT, 6TiSCH, LoRa, LPWAN, Wireless BMS, Smart Grid, CyberSecurity, MTD".
- 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".
- 10/11 - 07/12 **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".
- 10/10 - 05/11 **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 **Associate Professor**, 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

- 2021 (1 year) **HDR (Habilitation) in Computer Science**, University of Rennes 1, France,  
**Thesis title:** "Reliable and Available Low-Power Wireless Mesh Networks".
- 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 Ghent, Belgium.

## Highlights

### Awards, Grands & Scholarships

- Feb 2020 **Recipient of the Boost'Europe (Boost'ERC)**, Soutien aux Porteurs de Projets Européens, granted by the **Brittany Region, France**.
- Mar 2018 **Recipient of the Allocation d'Installation Scientifique (AIS)**, Équipement Jeune Chercheur, granted by the **Rennes Métropole, France**.
- July 2017 **Recipient of the ANR Jeunes Chercheurs ou des Jeunes Chercheuses (JCJC)**, granted by the **French National Research Agency**.
- Dec 2016 **Recipient of the Stratégie D'attractivité Durable (SAD)**, Un-e Chercheur-euse Nouvellement Installé-e en Bretagne, granted by the **Brittany Region, France**.
- Nov 2016 **Most Downloaded Articles of Elsevier Ad Hoc Networks (period October-November 2016)**, for the publication: G. Z. Papadopoulos, V. Kotsiou, A. Gallais, P. Chatzimisios and T. Noel, "Low-Power Neighbor Discovery for Mobility-Aware Wireless Sensor Networks", Elsevier Ad Hoc Networks, vol. 48, pp. 66-79, September 2016.
- 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 to pursue the Ph.D. program at the University of Strasbourg, France.
- 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

- 9 Dec 2021 **Examiner**, Doctoral work on "Agile Multi-PHY Wireless Networking",  
By **Mina Rady**, Orange Labs, Inria Paris, Sorbonne Université, France.  
**Thesis supervisor**: Mr. Dominique Barthel, Dr. Thomas Watteyne & Dr. Quentin Lampin
- 16 June 2020 **Opponent**, Doctoral work on "Towards Radio-Environment Aware IoT Networks Wireless Coexistence Methods for Low-complexity Devices",  
By **Simone Grimaldi**, Mid Sweden University, Sweden.  
**Thesis supervisor**: Prof. Mikael Gidlund
- Sep 2019 **External Reviewer**, Doctoral work on "Energy Aware Optimization for Low Power Radio Technologies",  
By **Ioana Suci**, Open University of Catalonia (UOC) & WorldSensing, Spain.  
**Thesis supervisor**: Prof. Xavier Vilajosana
- 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 Gouvy

### Keynotes

- Jan 2019 **[30 min. - 40 attendees]**, Georgios Z. Papadopoulos,  
**Title**: "Reliable and Available Low-Power Wireless Mesh Networks",  
**Venue**: The 4th International Conference on Advanced Communication Technologies and Networking (CommNet), Virtual Conference.
- Jan 2019 **[90 min. - 35 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

- April 2022 **Panel**, "Discussion on IoT deployments",  
**Venue**: Connections 2022 - IoT Track, organized by India Internet Engineering Society (IIESoc), India.
- September 2021 **Panel**, "Exploring Excited Career Paths for Young Professionals",  
**Venue**: IEEE International Mediterranean Conference on Communications and Networking (**MeditCom**) 2021, Athens, Greece.
- May 2017 **Panel**, "Exploring Excited Career Paths for Young Engineers & Scientists",  
**Venue**: IEEE International Conference on Communications (**ICC**) 2017, Paris, France.

## Tutorials

- Oct 2022 **[4 hours - online]**, L. Toutain, H. Al Haj Hassan, G. Z. Papadopoulos, D. Barthel,  
**Title:** “SCHC: Header Compression and Fragmentation for Efficient Interoperable IoT Networks”,  
**Venue:** IEEE 8th World Forum on Internet of Things (**WF-IoT**) 2022, Yokohama, Japan.
- Sep 2021 **[3 hours - online]**, Georgios Z. Papadopoulos,  
**Title:** “Reliable and Available Wireless Mesh Networking”,  
**Venue:** 26th IEEE Symposium on Computers and Communications (**ISCC**) 2021, Athens, Greece.
- Apr 2019 **[4 hours - 30 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 - 30 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

- April 2022 “IoT Webinar Series Kickoff” @ Connections 2022 - IoT Track, organized by India Internet Engineering Society (IIESoc).
- Sep 2021 “FI.UBA & IMT Atlantique: Webinar on Internet of Things” @ online talk, organized by French Embassy in Argentina.
- Sep 2021 “Toward Reliable & Available Wireless Low-power Mesh Networking” @ “École d’Été Temps Réel 2021 (ETR2021)”, organized by Laboratoire LIAS, ISAE-ENSMA, Poitiers, France.
- Dec 2020 “IETF RAW WG” @ online talk, organized by H2020 TeamUp5G.
- Jan 2020 “MAC and Routing layer Protocols for Industrial IoT” @ online talk, organized by H2020 TeamUp5G.
- Sep 2018 “Introduction to the Internet of Things” @ Summer School on “Industrial Internet of Things”, organized by IMT Atlantique and Technical University of Munich, 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 Activities

### Responsibilities

- 2022 - \* **Thématiques Phare: Réseaux & IoT, Représentant IMT Atlantique,**  
"IMT / Les Domaines de Recherches Phares / Transformations Numériques / Réseaux et IoT".
- 2022 - \* **Course (Unité d'Enseignement) Correspondent (Correspondant) for the Rennes Campus,**  
"Traitement des signaux déterministes (MTS 110)", IMT Atlantique, (FIP 1A), > 50h.
- 2021 - \* **Course (Unité d'Enseignement) Coordinator,**  
"Technologies et Interopérabilité de l'Internet des Objets", Université de Rennes 1, (M2), 32h.
- 2020 - \* **Course (Unité d'Enseignement) Co-Coordinator,**  
"Smart Grid", IMT Atlantique, (Ingénieur 2A & 3A), 42h.
- 2017 - \* **Course (Unité d'Enseignement) Coordinator,**  
"Réseaux sans fils pour les objets / Réseaux industriels", IMT Atlantique, (Ingénieur 2A & 3A), 42h.
- 2016 - \* **Final Year Student Projects Co-Coordinator,**  
"Projet 3A/S5", IMT Atlantique, (Ingénieur 3A).
  
- 2018 - 2021 **Adjoint d'Enseignement (suppléant), SRCD Department,** IMT Atlantique.
- 2018 - 2019 **Course (Unité d'Enseignement) Coordinator,**  
"Ad Hoc Networks" (F2R 203), IMT Atlantique, (Ingénieur 3A), 9h.
- 2016 - 2017 **Course (Unité d'Enseignement) Coordinator,**  
"Mobile Networks" (F2R 421), IMT Atlantique, (Ingénieur 3A), 15h.
- 2016 - 2017 **Course (Unité d'Enseignement) Coordinator,**  
"Inter-semestre", IMT Atlantique, (Ingénieur 1A & 2A), 22h.

## Teachings

- 2021 - \* **Spring**, “*Base des Réseaux (Couche 2 et Ethernet)*” (CM), IMT Atlantique & CentraleSupélec, (Ingénieur 2A & 3A, et M2), 2 × 1h30min.
- 2020 - \* **Fall**, “*Technologies et Interopérabilité de l’Internet des Objets*” (CM, TD, & TP), Université de Rennes 1, (M2), 26h.
- 2020 - \* **Spring**, “*Systèmes En Réseaux (SER) : Jeu sérieux Télécom*” (TP), IMT Atlantique, (Ingénieur 1A), 4 × 1h15min.
- 2020 - \* **Spring**, “*Smart Grid*” (CM & TP), IMT Atlantique, (Ingénieur 2A & 3A, et M2), 7 × 1h15min.
- 2019 - \* **Fall**, “*Réseaux sans Fils pour les Objets / Réseaux Industriels*” (CM & TP), IMT Atlantique, (Ingénieur 2A & 3A, et M2), 27 × 1h15min.
- 2019 - \* **Fall**, “*Protocoles de Transport de l’Information*” (CM), IMT Atlantique, (Ingénieur 2A & 3A, et M2), 6 × 1h15min.
- 2018 - 2020 **Spring**, “*Technologies IP Avancées (Advanced IP Technologies)*” (TP), IMT Atlantique, (Ingénieur 2A), 24h.
- 2018 - 2019 **Fall**, “*Réseaux Ad Hoc (Ad Hoc Networks)*” (CM), IMT Atlantique, (Ingénieur 3A), 9h.  
**Fall**, “*L’internet des objets (Internet of Things)*” (CM & TP), IMT Atlantique, (Ingénieur 2A), 12h.  
**Fall**, “*Adressage et routage (Addressing and Routing)*” (CM & TP), IMT Atlantique, (Ingénieur 3A), 18h.  
**Fall**, “*Bases des réseaux, Réseaux IP*” (CM), IMT Atlantique, (Ingénieur 1A), 6h.  
**Spring**, “*L’internet des objets (Internet of Things)*” (CM), IMT Atlantique, (Ingénieur 2A), 24h.
- 2017 - 2018 **Fall**, “*Réseaux Ad Hoc (Ad Hoc Networks)*” (CM), IMT Atlantique, (Ingénieur 3A), 9h.  
**Fall**, “*L’internet des objets (Internet of Things)*” (CM & TP), IMT Atlantique, (Ingénieur 1A & 2A), 15h.  
**Fall**, “*Réseaux*” (TP), IMT Atlantique, (Ingénieur 1A), 21h.  
**Fall**, “*Principes fondamentaux des réseaux*” (CM), IMT Atlantique, (Ingénieur 1A), 6h.  
**Fall**, “*Bases des réseaux, Réseaux IP*” (CM), IMT Atlantique, (Ingénieur 1A), 6h.  
**Spring**, “*L’internet des objets (Internet of Things)*” (CM & TP), IMT Atlantique, (Ingénieur 1A & 2A), 18h.  
**Spring**, “*Réseaux*” (TP), IMT Atlantique, (Ingénieur 1A), 24h.
- 2016 - 2017 **Fall**, “*Réseaux Ad Hoc (Ad Hoc Networks)*” (CM), IMT Atlantique, (Ingénieur 3A), 4.5h.  
**Fall**, “*Principes fondamentaux des réseaux*” (CM), IMT Atlantique, (Ingénieur 1A), 6h.  
**Fall**, “*Réseaux Mobiles (Mobile Networks)*” (CM & TP), IMT Atlantique, (Ingénieur 3A), 15h.  
**Spring**, “*Réseaux Locaux (Local Networks)*” (CM), IMT Atlantique, (Ingénieur 1A & 2A), 21h.

## Teaching Activities at University of Strasbourg

- 2014 - 2015 **Computer Networks**, TP, University of Strasbourg, (M1), 12h.  
**Advanced networks**, TP, Télécom Physique Strasbourg, (Ingénieur 3A), 8h.  
**TCP/IP**, TP, Télécom Physique Strasbourg, (Ingénieur 2A), 4h.  
**English for Computer Science**, CM, University of Strasbourg, (L3), 5h.  
**Internet of Things**, CM & TP, University of Strasbourg, (M2), 18h.  
**Networks and systems security**, TP, University of Strasbourg, (M1), 17h.
- 2013 - 2014 **Computer Networks**, TP, University of Strasbourg, (M1), 24h.  
**TCP/IP**, TP, Télécom Physique Strasbourg, (Ingénieur 2A), 16h.  
**Networks and systems security**, TP, University of Strasbourg, (M1), 18h.  
**English for Computer Science**, CM, University of Strasbourg, (L3), 10h.

## Advising

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

### Visiting Scholars

- May 2022 **Aamir Mahmood**, *Visiting Associate Senior Lecturer*, Mid Sweden University,  
**Subject:** "Time Synchronisation Algorithms in Mesh Networks".
- June 2019 **José Ignacio Alvarez-Hamelin**, *Visiting Researcher*, CONICET / University of Buenos Aires,  
**Subject:** "Investigating Potential Routing Algorithms in IoT".
- March 2018 **Diego Dujovne**, *Visiting Associate Professor*, Universidad Diego Portales, Santiago, Chile,  
**Subject:** "IoT Convergence and Divergence".

### Postdoctoral Fellows

2. **Philippe Fabian**, *IRT b<>com*, Rennes, France,  
02/21 - \* **Subject:** "Innovations in 5G Backhaul Technologies".  
**Co-advisor:** Prof. Bernard Cousin (University of Rennes 1) & Mr. Patrick Savelli (IRT b<>com).
1. **Remous-Aris Koutsiamanis**, *IMT Atlantique*, Rennes, France,  
06/17 - 08/20 **Subject:** "Toward Realization of Industry 4.0: Deterministic Wireless Networks".  
**Co-advisor:** Prof. Nicolas Montavont (IMT Atlantique).

### Ph.D. Candidates

10. **Cristian Bautista Contreras**, *IMT Atlantique & Mid Sweden Univ.*, Rennes, France, & Sundsvall, Sweden,  
03/22 - \* **Subject:** "Self-Organizing Large Scale IoT Mesh Networks through Distributed Time Synchronization & Cognitive Coexistence".  
**Co-advisors:** Prof. Nicolas Montavont (IMT-A), Prof. Mikael Gidlund & Aamir Mahmood (Mid Sweden University).
9. **Juan Sebastian Molina**, *IMT Atlantique*, Rennes, France,  
11/21 - \* **Subject:** "Connectivity for Massive IoT".  
**Co-advisors:** Prof. Laurent Toutain (IMT-A) & Prof. Nicolas Montavont (IMT-A).
8. **Julius Bünger**, *IMT Atlantique*, Rennes, France,  
07/21 - **Subject:** "Secure Classification and Life-Cycle Management of IoT devices".  
paused **Co-advisors:** Prof. Nicolas Montavont (IMT-A), Dr. Marc-Oliver Pahl (IMT-A) & Prof. Guillaume Doyen (IMT-A).
7. **Amaury Bruniaux**, *IMT Atlantique*, Rennes, France,  
10/20 - \* **Subject:** "Nouveau procédé de communication d'un système calculateurs de batteries de Véhicules Électrique".  
**Co-advisors:** Prof. Nicolas Montavont (IMT-A), Prof. Thomas Noël & Dr. Julien Montavont (University of Strasbourg).
6. **Fabián Antonio Rincon Vija**, *CIFRE program, Renault*, Guyancourt, France,  
02/20 - \* **Subject:** "Nouveau procédé de communication d'un système calculateurs de batteries de Véhicules Électrique".  
**Co-advisors:** Prof. Nicolas Montavont (IMT Atlantique) & Mr. Samuel Cregut (Renault).
5. **Eduardo Inglés Sánchez**, *Cotutelle program, IMT Atlantique & Uni of Murcia*, Rennes & Murcia,  
11/18 - **Subject:** "Security Associations in Constrained IoT Environments".  
paused **Co-advisors:** Prof. Nicolas Montavont (IMT Atlantique) & Prof. Antonio F. Skarmeta (University of Murcia).
4. **Guillaume Le Gall**, *IMT Atlantique*, Rennes, France,  
12/17 - 09/21 **Subject:** "Toward Wireless Battery Management System in Electrical Vehicles".  
**Co-advisors:** Prof. Nicolas Montavont (IMT Atlantique).
3. **Renzo Efraín Navas**, *IMT Atlantique*, Rennes, France,  
12/17 - 12/20 **Subject:** "Improving the Resilience of the Constrained Internet of Things: a Moving Target Defense Approach".  
**Co-advisors:** Prof. Laurent Toutain (IMT Atlantique) & Prof. Frédéric Cuppens (Polytechnique Montréal).
2. **Tomas Lagos Jenschke**, *IMT Atlantique*, Rennes, France,  
10/17 - 12/20 **Subject:** "Toward Reliable and Bounded Latency for Internet of Things".  
**Co-advisor:** Prof. Nicolas Montavont (IMT Atlantique).
1. **Vasileios Kotsiou**, *University of Strasbourg*, Strasbourg, France,  
02/16 - 09/20 **Subject:** "Reliable Communications for the Industrial Internet of Things".  
**Co-advisors:** Dr. Fabrice Theoleyre (CNRS) & Prof. Periklis Chatzimisios (International Hellenic University).

## Ph.D. (invited), M.Sc., and B.Sc. Student Research/Engineer Interns

21. **Matthieu SILARD (Research Intern), M.Sc.,**  
03/22 - 08/22 **Subject:** "Routing Optimization in a 5G Wireless Topology".  
(6 months) **Co-advisor:** Mr. Patrick Savelli (IRT b<>com).
20. **Ega Fosso J.M. (Research Intern), M.Sc.,**  
07/21 - 12/21 **Subject:** "6LoWPAN Fragment Forwarding in Multi-path RPL-based Networks".  
(6 months) **Co-advisor:** Amaury Bruniaux (IMT Atlantique).
19. **Amaury Bruniaux (Research Intern), M.Sc.,**  
04/20 - 10/20 **Subject:** "Defragmenting the 6LoWPAN Fragmentation Landscape".  
(6 months) **Co-advisor:** Dr. Remous-Aris Koutsiamanis (IMT Atlantique).
18. **Dimitris Sourailidis (Research Intern), B.Sc.,**  
02/20 - 08/20 **Subject:** "On Enhancement of RPL routing protocol for Industrial Internet of Things".  
(6 months) **Co-advisor:** Dr. Remous-Aris Koutsiamanis (IMT Atlantique) & Dominique Barthel (Orange Labs).
17. **Matias Sambrizzi (Research Intern), M.Sc.,**  
09/19 - 02/20 **Subject:** "On Developing Standard-compliant Charging System for Electrical Vehicles".  
(6 months) **Co-advisor:** Mr. Guillaume Le Gall (IMT Atlantique) & Prof. Nicolas Montavont (IMT Atlantique).
16. **Ana Czarnitzki Estrin (Research Intern), M.Sc.,**  
09/19 - 02/20 **Subject:** "Investigating the Trade-offs between Disjoint vs Braided paths".  
(6 months) **Co-advisor:** Mr. Tomas Lagos (IMT Atlantique), José Ignacio Alvarez-Hamelin (CONICET / University of Buenos Aires) & Prof. Nicolas Montavont (IMT Atlantique).
15. **Fernando Iglesias (Research Intern), M.Sc.,**  
09/19 - 02/20 **Subject:** "Investigating IEEE 802.15.4 technology to enable Wireless BMS in Electrical Vehicles".  
(6 months) **Co-advisor:** Mr. Guillaume Le Gall (IMT Atlantique) & Prof. Nicolas Montavont (IMT Atlantique).
14. **Charalampos Orfanidis, Visiting Ph.D. Candidate, KTH Royal Institute of Technology, Sweden,**  
09/19 - 10/19 **Subject:** "Investigating the Fragmentation Scheme in LPWAN Networks".  
(2 months)
13. **David Hauweele, Visiting Ph.D. Candidate, University of Mons, Mons, Belgium,**  
09/19 - 09/19 **Subject:** "Performance Analysis and Evaluation of the 6TiSCH Minimal Scheduling Function (MSF)".  
(1 month) **Co-advisor:** Dr. Bruno Quoitin (UMons).
12. **Mohammed Ismail (Research Intern), M.Sc.,**  
07/19 - 09/19 **Subject:** "Performance Evaluation of the 6TiSCH Minimal Scheduling Function (MSF)".  
(3 months) **Co-advisor:** Dr. Remous-Aris Koutsiamanis (IMT Atlantique).
11. **Juan Antonio Navarro Gutierrez (Research Intern), M.Sc.,**  
03/19 - 07/19 **Subject:** "Integrating IEEE 802.15.4 technology to enable Wireless Battery Management System in EV".  
(5 months) **Co-advisor:** Mr. Guillaume Le Gall (IMT Atlantique) & Prof. Nicolas Montavont (IMT Atlantique).
10. **Sergio Aguilar Romero, Visiting Ph.D. Candidate, Universitat Politècnica de Catalunya, Barcelona, Spain,**  
01/19 - 06/19 **Subject:** "Performance Evaluation of the SCHC protocol in LPWAN".  
(6 months) **Co-advisor:** Prof. Patrick Maille (IMT Atlantique), Prof. Laurent Toutain (IMT Atlantique), Prof. Nicolas Montavont (IMT Atlantique), Prof. Carles Gomez (UPC) & Prof. Rafael Vidal (UPC).
9. **Eduardo Ingles Sanchez (Research Intern), M.Sc.,**  
04/18 - 09/18 **Subject:** "RPL Bootstrapping phase: DODAG Network Selection".  
(6 months)
8. **Agustin Picard (Research Intern), M.Sc.,**  
02/18 - 07/18 **Subject:** "High Precision Localization in Wireless Networks".  
(6 months) **Co-advisor:** Prof. Nicolas Montavont (IMT Atlantique).
7. **Cristian Alderete (Research Intern), M.Sc.,**  
02/18 - 07/18 **Subject:** "Toward Wireless Battery Management System in Electrical Vehicles".  
(6 months) **Co-advisor:** Mr. Guillaume Le Gall (IMT Atlantique) & Prof. Nicolas Montavont (IMT Atlantique).
6. **Chenyang Ji (Research Intern), B.Sc.,**  
10/17 - 03/18 **Subject:** "Load Balancing in RPL-based Networks: Traffic-aware Objective Function".  
(6 months) **Co-advisor:** Dr. Remous-Aris Koutsiamanis (IMT Atlantique).
5. **Julian Martin Del Fiore (Research Intern), M.Sc.,**  
02/17 - 07/17 **Subject:** "Toward Reliable and Deterministic Networks in Industrial-IoT applications".  
(6 months) **Co-advisor:** Prof. Nicolas Montavont (IMT Atlantique).
4. **Tadanori Matsui (Research Intern), M.Sc.,**  
05/16 - 08/16 **Subject:** "Toward Deterministic and Predictable Networks in Industrial-IoT applications".  
(4 months) **Co-advisors:** Prof. Nicolas Montavont & Dr. Géraldine Texier (IMT Atlantique).

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



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## List of Publications

### Ratings

- Feb 2022 **Google Scholar**, *h-index*: "20".  
**Google Scholar**, *i10-index*: "35".  
**Google Scholar**, *Citations*: "1079".

### Thesis

- 2021 "*Reliable and Available Low-Power Wireless Mesh Networks*",  
G. Z. Papadopoulos,  
**HDR Thesis - University of Rennes 1**, November 2021.
- 2015 "*Improving Medium Access for Dynamic Wireless Sensor Networks*",  
G. Z. Papadopoulos,  
**Ph.D. Thesis - University of Strasbourg**, September 2015.
- 2012 "*Experimental Assessment of Traffic Generators*",  
G. Z. Papadopoulos,  
**M.Sc. Thesis - University Carlos III of Madrid**, July 2012.
- 2011 "*On the Enhancement of IEEE 802.11 Overlapping APs Capacity Sharing*",  
G. Z. Papadopoulos,  
**B.Sc. Thesis - Alexander TEI of Thessaloniki**, September 2011.

### 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.

## Journals, Magazines & Surveys

- 2021 [20] "Thorough Performance Evaluation & Analysis of the 6TiSCH Minimal Scheduling Function (MSF)", D. Hauweele, R.-A. Koutsiamanis, B. Quoitin and G. Z. Papadopoulos, In **Springer Journal of Signal Processing Systems**, 2021.
- [19] "IoT Network Management within the Electric Vehicle Battery Management System", Guillaume Le Gall, N. Montavont and G. Z. Papadopoulos In **Springer Journal of Signal Processing Systems**, 2021.
- [18] "MTD, Where Art Thou? A Systematic Review of Moving Target Defense Techniques for IoT", R. E. Navas, F. Cuppens, N. B. Cuppens, L. Toutain and G. Z. Papadopoulos In **IEEE Internet of Things Journal**, May 2021.
- [17] "ODeSe: On-Demand Selection for Multi-path RPL Networks", T. Lagos Jenschke, R.-A. Koutsiamanis, G. Z. Papadopoulos and N. Montavont In **Elsevier Ad Hoc Networks**, vol. 114, pp. 102431, April 2021.
- [16] "Defragmenting the 6LoWPAN Fragmentation Landscape: A Performance Evaluation", A. Bruniaux, R.-A. Koutsiamanis, G. Z. Papadopoulos and N. Montavont In **MDPI Sensors**, vol. 21(5), pp. 1711, March 2021.
- [15] "Physical resilience to insider attacks in IoT networks: Independent cryptographically secure sequences for DSSS anti-jamming", R. E. Navas, F. Cuppens, N. B. Cuppens, L. Toutain and G. Z. Papadopoulos In **Elsevier Computer Networks**, vol. 187, pp. 107751, March 2021.
- [14] "CoopStor: A Cooperative Reliable and Efficient Data Collection Protocol in Fault and Delay Tolerant Wireless Networks", G. Z. Papadopoulos, A. Mavromatis, A. Gallais and F. Theoleyre In **Springer Wireless Networks**, vol. 27, pp. 367-381, January 2021.
- 2020 [13] "Performance Analysis and Optimal Tuning of IETF LPWAN SCHC ACK-on-Error Mode", S. Aguilar, P. Maille, L. Toutain, C. Gomez, R. Vidal, N. Montavont and G. Z. Papadopoulos In **IEEE Sensors Journal**, vol. 20, pp. 14534-14547, July 2020.
- [12] "LDSF: Low-latency Distributed Scheduling Function for Industrial Internet of Things", V. Kotsiou, G. Z. Papadopoulos, P. Chatzimisios and F. Theoleyre In **IEEE Internet of Things Journal**, vol. 7, pp. 8688-8699, May 2020.
- [11] "Towards an SDR implementation of LoRa: reverse-engineering, demodulation strategies and assessment over Rayleigh channel", A. Marquet, N. Montavont and G. Z. Papadopoulos In **Elsevier Computer Communications**, vol. 153, pp. 595-605, March 2020.
- 2019 [10] "Updates on RFC 4944: Fragment Forwarding and Recovery", G. Z. Papadopoulos, R. Jadhav, P. Thubert and N. Montavont, In **IEEE Communications Standards Magazine**, vol. 3, pp. 54-59, June 2019.
- [9] "Whitelisting without Collisions for Centralized Scheduling in Wireless Industrial Networks", V. Kotsiou, G. Z. Papadopoulos, P. Chatzimisios and F. Theoleyre, In **IEEE Internet of Things Journal**, vol. 6, pp. 5713-5721, March 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**, vol. 57, pp. 48-53, 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. Lemerrier, 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. Noel, 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, May 2015.

## Letters

- 2020 [4] *“Operations, Administration and Maintenance (OAM) features for Reliable and Available Wireless (RAW) Networks”*,  
G. Z. Papadopoulos, F. Theoleyre and P. Thubert,  
In **Wiley Internet Technology Letters**, vol. 3, e163, July/August 2020.
- [3] *“Multi-source Time Synchronisation in IEEE std 802.15.4-2015 TSCH Networks”*,  
G. Z. Papadopoulos, X. Fafoutis and P. Thubert,  
In **Wiley Internet Technology Letters**, vol. 3, e148, March/April 2020.
- 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.

## Conferences & Workshops

- 2021 [43] *"Performance Evaluation of Integrated Access and Backhaul in 5G Networks"*, P. Fabian, G. Z. Papadopoulos, P. Savelli, and B. A. Cousin  
In Proc. **IEEE CSCN** - Virtual Conference, December 2021.
- [42] *"Autonomous Balancing Sleep Mode for Wireless BMS in Electric Vehicles"*, F. A. Rincon Vija, S. Cregut, G. Z. Papadopoulos and N. Montavont  
In Proc. **IEEE CSCN** - Virtual Conference, December 2021.
- [41] *"From Wired to Wireless BMS in Electric Vehicles"*, F. A. Rincon Vija, S. Cregut, G. Z. Papadopoulos and N. Montavont  
In Proc. **MSN** - Exeter, UK, December 2021.
- [40] *"Enabling Robust Wireless Communication for BMS on Electric Vehicles"*, F. A. Rincon Vija, S. Cregut, G. Z. Papadopoulos and N. Montavont  
In Proc. **IEEE LCN** - Edmonton, Canada, October 2021.
- 2020 [39] *"A Centralized Controller for Reliable and Available Wireless Schedules in Industrial Networks"*, R.-A. Koutsiamanis, G. Z. Papadopoulos, B. Quoitin and N. Montavont  
In Proc. **MSN** - Tokyo, Japan, December 2020.
- [38] *"IETF Reliable and Available Wireless (RAW): Use Cases and Problem Statement"*, G. Z. Papadopoulos, F. Theoleyre, P. Thubert and N. Montavont  
In Proc. **AdHoc-Now** - Bari, Italy, October 2020.
- [37] *"RFC 6550: On Minimizing the Control Plane Traffic of RPL-based Industrial Networks"*, D. Sourailidis, R.-A. Koutsiamanis, G. Z. Papadopoulos, D. Barthel and N. Montavont  
In Proc. **IEEE DIPI Workshop** - Cork, Ireland, September 2020.
- [36] *"Adaptation of EAP-NOOB Method for LoRaWAN with LO-CoAP-EAP and CBOR"*, E. Ingles-Sanchez, D. Garcia-Carrillo, G. Z. Papadopoulos, N. Montavont and A. F. Skarmeta  
In Proc. **WISP Workshop** - Dublin, Ireland, June 2020.
- [35] *"Pushing 6TiSCH Minimal Scheduling Function (MSF) to the Limits"*, D. Hauweele, R.-A. Koutsiamanis, B. Quoitin and G. Z. Papadopoulos,  
In Proc. **IEEE ISCC** - Rennes, France, July 2020.
- [34] *"Enabling IEEE 802.15.4-2015 TSCH based Wireless Network for Electric Vehicle Battery Management"*, G. Le Gall, N. Montavont and G. Z. Papadopoulos,  
In Proc. **IEEE ISCC** - Rennes, France, July 2020.
- [33] *"IANVS: A Moving Target Defense Framework for Internet of Things"*, R. Navas, H. Sandaker, F. Cuppens, N. Cuppens-Boulahia, L. Toutain and G. Z. Papadopoulos,  
In Proc. **IEEE ISCC** - Rennes, France, July 2020.
- [32] *"Thorough Investigation of Multi-path Techniques in RPL based Wireless Networks"*, A. Czarnitzki Estrin, T. Lagos Jenschke, G. Z. Papadopoulos, J. I. Alvarez-Hamelin and N. Montavont,  
In Proc. **IEEE ISCC** - Rennes, France, July 2020.
- [31] *"Meet the PAREO Functions: Towards Reliable and Available Wireless Networks"*, R.-A. Koutsiamanis, G. Z. Papadopoulos, T. Lagos Jenschke, P. Thubert and N. Montavont,  
In Proc. **IEEE ICC** - Dublin, Ireland, June 2020.
- 2019 [30] *"LoRaWAN SCHC Fragmentation Demystified"*, S. Aguilar, A. Marquet, L. Toutain, C. Gomez, R. Vidal, N. Montavont and G. Z. Papadopoulos,  
In Proc. **AdHoc-Now** - Luxembourg, Luxembourg, October 2019.
- [29] *"Adaptive Guard Time for Energy-Efficient IEEE 802.15.4 TSCH Networks"*, A. Mavromatis, G. Z. Papadopoulos, A. Elsts, N. Montavont, R. Piechocki, T. Tryfonas, G. Oikonomou and X. Fafoutis,  
In Proc. **IEEE WWIC** - Bologna, Italy, June 2019.
- [28] *"Investigating Theoretical Performance and Demodulation Techniques for LoRa"*, A. Marquet, N. Montavont and G. Z. Papadopoulos,  
In Proc. **IEEE DIPI** - Washington D.C., USA, June 2019.
- [27] *"Alternative Parent Selection for Multi-Path RPL Networks"*, T. Lagos Jenschke, G. Z. Papadopoulos, R.-A. Koutsiamanis and N. Montavont,  
In Proc. **IEEE WF-IoT** - Limerick, Ireland, April 2019.
- 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. Douligieris, 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. Douligieris, 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. Douligieris, 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"*,  
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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,  
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- 2013 [1] *"Adding value to WSN simulation using the IoT-LAB experimental platform"*,  
G. Z. Papadopoulos, J. Beaudaux, A. Gallais, T. Noël & G. Schreiner,  
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## 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 Bouder, 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.

## Technical Reports

- 2018 [1] *"The Standardization Efforts at the IETF for the Internet of Things"*,  
G. Z. Papadopoulos,  
Rapport prospectif for (**Chaire Pracom**) - June 2018.

## National Conferences

- 2020 [3] *"Stratégies d'ancêtre commun pour les réseaux RPL multi-chemins"*,  
T. Lagos Jenschke, G. Z. Papadopoulos, R.-A. Koutsiamanis and N. Montavont,  
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- 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.

## Standardization Efforts at the IETF (Editor, Author)

- 6 “*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,  
*Submitted to IESG for Publication*  
draft-ietf-roll-nsa-extension-10, 29 October 2020  
draft-ietf-roll-nsa-extension-09, 26 September 2020  
draft-ietf-roll-nsa-extension-08, 27 March 2020  
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draft-ietf-roll-nsa-extension-05, 4 November 2019  
draft-ietf-roll-nsa-extension-04, 8 July 2019  
draft-ietf-roll-nsa-extension-03, 28 June 2019  
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draft-koutsiamanis-roll-nsa-extension-02, 03 July 2018  
draft-koutsiamanis-roll-nsa-extension-01, 17 January 2018  
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- 5 “*RAW use cases*”,  
CJ. Bernardos, G. Z. Papadopoulos, P. Thubert and F. Theoleyre,  
**IETF RAW** Working Group,  
*Submitted to IESG for Publication*  
draft-ietf-raw-use-cases-05, 23 February 2022  
draft-ietf-raw-use-cases-04, 4 February 2022  
draft-ietf-raw-use-cases-03, 20 October 2021  
draft-ietf-raw-use-cases-02, 12 July 2021  
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draft-bernardos-raw-use-cases-04, 11 July 2020  
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- 4 “*Reliable and Available Wireless Architecture*”,  
P. Thubert and G. Z. Papadopoulos,  
**IETF RAW** Working Group,  
draft-ietf-raw-architecture-04, 4 March 2022  
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draft-ietf-raw-architecture-02, 29 November 2021  
draft-ietf-raw-architecture-01, 28 July 2021  
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draft-pthubert-raw-architecture-04, 6 July 2020  
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- 3 *"Operations, Administration and Maintenance (OAM) features for RAW"*,  
F. Theoleyre, G. Z. Papadopoulos, G. Mirsky and C.J. Bernardos,  
**IETF RAW** Working Group,  
draft-ietf-raw-oam-support-04, 5 March 2022  
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draft-ietf-raw-oam-support-01, 24 May 2021  
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- 2 *"Operations, Administration and Maintenance (OAM) features for DetNet"*,  
G. Mirsky, F. Theoleyre, G. Z. Papadopoulos, C.J. Bernardos, B. Varga, and J. Farkas,  
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draft-tpmb-detnet-oam-framework-01, 30 March 2021  
draft-tpmb-detnet-oam-framework-00, 15 January 2021  
draft-theoleyre-detnet-oam-support-00, 25 October 2020
- 1 *"Use cases for DIS Modifications"*,  
G. Z. Papadopoulos,  
**IETF ROLL** Working Group,  
draft-papadopoulos-roll-dis-mods-use-cases-00, 9 March 2020

## List of Project Implications

### Ongoing Projects

- 06/21 - 05/24 **Connectivité pour l'loT Massif**,  
CIFRE: Private Contract with Industrial Partner (Atos).
- 06/21 - 05/24 **Secure Classification and Life-Cycle Management of IoT devices**,  
CIFRE: Private Contract with Industrial Partner (Atos).
- 02/20 - 01/23 **Nouveau procédé de communication d'un système calculateurs de batteries de Véhicules Électrique**,  
CIFRE: Private Contract with Industrial Partner (Renault).
- 01/22 - 12/22 **BCB5G: Bon SCHC, Bon 5G**,  
**Partners:** IMT Atlantique, ISI/SAS, and Mines St Etienne,  
InterCarnot M.I.N.E.S - TSN Edition 2021, Institut Carnot M.I.N.E.S et de l'institut Carnot Télécom & Société numérique - **118.000 €**.

### Past Projects

- 02/20 - 01/22 **REVE: Réseau Embarqué pour le Véhicule Électrique**, *Principal Investigator*,  
Boost'Europe (Boost'ERC) - Soutien aux porteurs de projets européens.
- 01/20 - 09/21 **WIBEV: Wireless BMS for Electric Vehicle**,  
**Partners:** IMT Atlantique IMT Mines Alès,  
InterCarnot M.I.N.E.S - TSN Edition 2020, Institut Carnot M.I.N.E.S et de l'Institut Carnot TSN - **90.000 €**.
- 03/18 - 06/21 **Smart Nanogrid Platform (FUN): 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 €**.
- 03/18 - 06/21 **FHYRennes : Formations Hybrides à Rennes**,  
**Partners:** IMT Atlantique and Rennes Métropole,  
Investissement Territorial Intégré **Fonds Européen de Développement Régional (FEDER)** de Rennes  
Métropole, 2018.
- 10/17 - 04/21 **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 €**.
- 01/20 - 12/20 **MoRITO: Mobilité Réseau ImT / Oniris**,  
**Partners:** IMT Atlantique and Oniris,  
AAP allocation de stage conjointe IMT Atlantique - Oniris : Edition 2019.
- 12/17 - 11/20 **Enabling Wireless Battery Management System (BMS) in Electrial Vehicles**,  
CIFRE: Private Contract with Industrial Partner (Texas Instrument) - **120.000 €**.
- 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 2019, Institut Carnot M.I.N.E.S et de l'Institut Carnot TSN - **33.000 €**.
- 03/19 - 12/19 **LensIoT: A cross-layer Internet of Things design for a smart contact lens platform**,  
**Partners:** Département Micro-ondes, IMT Atlantique, Campus de Brest,  
Institut Carnot Télécom & Société Numérique (TSN) - AAP Interne IMT Atlantique : Numérique 2019.
- 01/19 - 06/19 **BIMARIoT: Building Information Modeling, Augmented Reality and Internet Of Things**,  
Agence Nationale de Recherche (ANR) LabCom 2019,  
French National Grant for Young Researchers - **60.000 €**.
- 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 €**.
- 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 [Volet 2: Un-e chercheur-euse nouvellement installé-e en Bretagne],  
Brittany Region Grant for Young Researchers - **68.250 €**.

## Scientific activities

### Editorial Duties

**Editor:** Transactions on Emerging Telecommunications Technologies (**ETT**), Wiley, since June of 2020

**Editor:** Wireless Networks (**WINE**), Springer, since April of 2018

**Editor:** Internet Technology Letters (**ITL**), Wiley Online Library, since March of 2018

**Guest Editor:** "SI on Internet of Things, selected papers from IEEE ISCC 2020",  
Journal of Signal Processing Systems (**JSPS**), Springer, June 2021

**Guest Editor:** "SI on Data Distribution in Industrial and Pervasive Internet",  
Computer Communications (**COMCOM**), Elsevier, 1 July 2020

**Guest Editor:** "SI on Industrial Internet of Things",  
Internet Technology Letters (**ITL**), Wiley, 3 May 2020

### Organization Committee

2020 25th IEEE Symposium on Computers and Communications (ISCC)

2018 17th International Conference on Ad Hoc Networks and Wireless (AdHoc-Now)

### Program Committee - Chairing

**Track on IoT, URLLC and Automotive Co-Chair:** IEEE CSCN 2021

**Symposium Co-Chair:** IoT and Sensor Networks Symposium, IEEE Globecom 2021

**TPC Co-Chair:** IEEE ISCC 2020

**General Co-Chair:** DIPI 2019

**General Co-Chair:** AdHoc-Now 2018

**Publicity Co-Chair:** IEEE CSCN 2018

**Tutorial Co-Chair:** GIIS 2018

**Technical Co-Chair:** IEEE GlobalSIP 2017

**Workshops Co-Chair:** IEEE ISCC 2017

### Comité Scientifique / d'Organisation

2021 Comité d'Organisation : Ecole autonome de recherche (GDR RSD ResCom) "La reproductibilité et la recherche expérimentale en réseaux et en systèmes", Strasbourg, France.

2021 Comité Scientifique : Journées thématiques (GDR RSD ResCom) "LPWAN", Clermont-Ferrand, France

2019 Comité Scientifique : Journées thématiques (GDR RSD ResCom) "LPWAN", Lyon, France.

### TPC membership

2021 IEEE ICC, Manage-IoT, CoRes

2020 IEEE ISCC, GloTS, AdHoc-Now, CoRes

2019 LPWAN Days, AdHoc-Now, CoRes, DCOSS Workshop SecRIoT, IEEE SECON, IEEE VTC-Spring, IEEE WCNC, ICT, IEEE INFOCOM Poster & Demo, IEEE INFOCOM Workshop IoT4Health, IEEE INFOCOM Workshop WCNEE

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 VTC-Fall, IEEE CSE, ICT

2015 ACM CoNEXT Shadow TPC, IEEE CCNC, IEEE GLOBECOM

2014 IEEE ETFA, IWCMC

2013 IFIP SustainIT

### 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:

ACM Transactions on Internet Technology, 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, Elsevier Computer Communications.

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

Conferences **2021:** IEEE ICC, IEEE/IFIP International Workshop Manage-IoT, CoRes  
**2020:** IEEE INFOCOM Workshop WCNEE, CoRes, GloTS, IEEE ISCC, AdHoc-Now  
**2019:** LPWAN Days, AdHoc-Now (4), CoRes (3), DCOSS Workshop SecRIoT (1), IEEE SECON (1), IEEE VTC Spring (1), IEEE WCNC (1), IEEE INFOCOM Poster & Demo (3), IEEE INFOCOM Workshop IoT4Health (1), IEEE INFOCOM Workshop WCNEE (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*.

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## Languages

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

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## References (chronological order)

- Yann Busnel **Professor**, *Department of SRCD*, IMT Atlantique, France.  
yann.busnel@imt-atlantique.fr, **Responsible of the SRCD Department (2017 - present)**
- Nicolas Montavont **Professor**, *Department of SRCD*, IMT Atlantique, France.  
nicolas.montavont@imt-atlantique.fr, **Research Team Leader, Collaborator and co-author (2016 - present)**
- Christos Douligeris **Professor**, *Department of Informatics*, University of Piraeus, Greece.  
cdoulig@unipi.gr, **Collaborator and co-author (2017 - present)**
- 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)**
- Fabrice Theoleyre **Research Scientist CNRS**, *ICube laboratory*, University of Strasbourg, France.  
theoleyre@unistra.fr, **Collaborator and co-author (2015 - present)**
- 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)**
- 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)**

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## Interests & hobbies

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

Last update: May, 2022  
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