Tomás Lagos Jenschke

Ph.D. in Computer Science

tlagos@tlagosjen.com linkedin.com/in/tlagos1 github.com/tlagos1 tlagosjen.com

WORK EXPERIENCE

Postdoctoral researcher
Sorbonne University - Lip6

Apr 2021 — France, Paris

Computer Science research
Institut Mines Telecom Atlantique

Oct 2017 – Dec 2020 — France, Rennes

Publications:
- Multi-path selection in RPL based on replication and elimination.
- Alternative Parent Selection for Multi-Path RPL Networks.

RPL | TSCH | IETF | C | PYTHON | LLN | Multi-path

Teaching assistant in Digital Communications System
Diego Portales university

Mar 2017 – Jun 2017 — Chile, Santiago

Signal codification | Hamming method | Decoding methods

Teaching assistant in Signals and Systems
Diego Portales university

Mar 2017 – Jun 2017 — Chile, Santiago

Fourier transforms | Z transforms | Convolution

Teaching assistant in Basic Programming
Diego Portales university

Mar 2017 – Jun 2017 — Chile, Santiago

C/C++

Research work (Internship)
Diego Portales University

Mar 2016 – Nov 2016 — Chile, Santiago

- Perform communication between an OpenWRT router and an OpenWSN LoRa border router.

TUN/TAP | OpenWRT | OpenWSN

PROGRAMMING LANGUAGE

C/C++ | JAVA | PYTHON | JavaScript | PHP7 | SQL | BASH

ACHIEVEMENTS

Summa Cum Laude
Engineering in Informatics and Telecommunications Summa Cum Laude - 2017. Final project, Incorporation of ICMPv6 in LoRa networks.

LoRa Gateway | LPWAN

SKILLS

Internet Of Things
- Routing Protocol for Low-Power and Lossy Networks (RPL).
- Time Slot Channel Hopping (TSCH).

Software
- AWS server/CPanel setup (web hosting, Cloud hosting, Restful API, SQL).
- IoT OS (Contiki-OS, OpenWSN).
- Router firmware (DD-WRT, OpenWrt).

Telecommunication
- Mesh Network Design.
- Multi-path.
- Device to Device (D2D)

EDUCATION

Ph.D. in Computer Science
France-Institut Mines Telecom Atlantique

Oct 2017 – Dec 2020

Engineer in Informatics and Telecommunications
Chile-Diego Portales University

Mar 2009 – Aug 2017

LANGUAGES

English	C1
French	B1
Spanish	Native

OTHER INTERESTS

Cycling | Astronomy | Traveling | Ski | Trekking

PUBLICATIONS

Thesis

[Lag20] • T. Lagos Jenschke. “Toward reliable and bounded latency for internet of things”. École nationale supérieure Mines-Télécom Atlantique, Dec. 2020.

Journal Articles

[Lag+21] • **T. Lagos Jenschke, R.-A. Koutsiamanis, G. Z. Papadopoulos, and N. Montavont. “ODeSe: On-Demand Selection for Multi-path RPL Networks”. In: *Ad Hoc Networks* (2021). Inpact Factor: 3.643.**

Conference Proceedings

[Cza+20] • A. Czarnitzki Estrin, T. Lagos Jenschke, G. Z. Papadopoulos, I Alvarez-Hamelin, and N. Montavont. “Thorough Investigation of multipath Techniques in RPL based Wireless Networks”. In: *in Proceedings of the IEEE Symposium on Computers and Communications 2020 (ISCC)*. Rennes, France, July 2020.

[Kou+20] • R.-A. Koutsiamanis, G. Z. Papadopoulos, T. Lagos Jenschke, P. Thubert, and N. Montavont. “Meet the PAREO Functions: Towards Reliable and Available Wireless Networks”. In: *in Proceedings of the IEEE International Conference on Communications 2020 (ICC 2020)*. Dublin, Ireland, June 2020.

[Lag+20] • T. Lagos Jenschke, G. Papadopoulos, R.-A. Koutsiamanis, and N. Montavont. “Stratégies d’ancêtre commun pour les réseaux RPL multi-chemins”. In: *in Proceedings of CORES 2020*. Lyon, France, Sept. 2020.

[Lag+19] • T. Lagos Jenschke, G. Z. Papadopoulos, R.-A. Koutsiamanis, and N. Montavont. “Alternative Parent Selection for Multi-Path RPL Networks”. In: *in Proceedings of the 2019 IEEE 5th World Forum on Internet of Things (WF-IoT)*. Limerick, Ireland, Apr. 2019, pp. 533–538.

[Lag+18] • T. Lagos Jenschke, R.-A. Koutsiamanis, G. Z. Papadopoulos, and N. Montavont. “Multi-path Selection in RPL Based on Replication and Elimination”. In: *Ad-hoc, Mobile, and Wireless Networks*. Springer International Publishing, 2018, pp. 15–26.