



Funded Ph.D. thesis – Call for Applications

Security Policies for IoT Networks

Research Director : Pr Alban Gabillon

Tel : (+689) 40 803 880

email : alban.gabillon@upf.pf

Co-Research Director: Dr. Emmanuel Bruno

Tel : (+33) 4 94 14 20 33

email : emmanuel.bruno@univ-tln.fr

Place : Laboratoire GePaSud, Bâtiment OGT, Université de la Polynésie Française, Tahiti.

The recruited student will devise IoT network architectures that can support the implementation of various security policies. Dynamic and contextual security policies including permissions, prohibitions and obligations should be supported. Knowing that IoT networks can be very large, proposed solutions should be scalable. This would require to distribute the security policy evaluation among the different nodes of the network. Edge or fog computing approaches could be used for that purpose. This would also require to synchronize the security policy at every node of the network by using blockchain algorithms or other replication algorithms.

Supported IoT networks could include LPWAN (Low-Power Wide-Area Network) networks like LoRa, Sigfox or Wi-Fi 802.11ah.

The thesis will mainly be hosted at the GePaSud Laboratory of the University of French Polynesia in Tahiti and partly at the university of Toulon in France.

Student Profile : The applicant should hold a MSc in Computer Science and have skills in computer security, network and distributed computing.

Keywords : Computer security, network, security policy, event synchronization, replication protocol.

Funding : Doctoral contract. 181 977 XPF (1525 euros) net per month

Interested students should send a letter of application and a complete resume via email

Pre-selected students will have to follow Interviews via skype