

	2016-2017	
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## Internship

**Subject:** « Design of Optimal Antennas »

**Keywords:** Optimal antennas, current optimization, internet-of-things (IoT)

**Advisors:** Leonardo Lizzi, Robert Staraj

**Place:** LEAT, Sophia-Antipolis, France

**Subject:**

The design of optimal antennas aims at identifying antennas whose characteristics, such as radiation efficiency, bandwidth, gain, etc., are as good as allowed by the laws of physics. The design of optimal antennas can be split into two sequential tasks: first, the determination of the optimal current distribution inside a given volume providing the desired optimal performance, and secondly, the identification of a realistic support for the optimal current distribution.

The internship focuses on the second task. The objective is in fact the development of an automatic procedure for the optimization of antenna geometries with respect to a given target current. The methodology will be first tested in dealing with current distribution of well-known antenna structures (e.g., dipoles, patch, etc.) and successively on optimal current distributions. In this last case, the optimized antennas will be realized and measured.

The candidate is expected to hold or to be a student in a MSc degree in Telecommunication or Electronic Engineering. A specialization in electromagnetics and or antennas is an asset. Good command of both written and spoken English is required. French is optional.

**Salary:** Approximately 500€ / month.

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