



ERS POSITIONS AND INDIVIDUAL RESEARCH PROJECTS (IRP)

Fellow <i>ESR14</i>	Host institution IT-Lisbon	PhD enrolment Y	Duration 36 months
<p>Project Title: Development and production of Drone-Mobile Smallcell Station's prototypes, WPs: 1, 3, 5-7</p>			
<p>Objectives: This project has as specific objectives: (i) Specification of the main features of drones to be used as mobile smallcell stations, namely the type (quadricopter, hexacopter, octocopter and fixed wing; autonomy and propulsion system; sensors, actuators, control system; antennas, mechanic characteristics; communication system; flying performance; payload (ii) Production and integration of drone; (iii) Prototype the D-MSS integrating the programmable electronic to supply the heterogeneous communication system; (iv) Design and configuration of communication system with diversity; (v) Developing of control platform to control the D-MSSs in manual or automatic modes using intelligent algorithms to improve the capacity and the range of coverage in dynamic scenarios; (vi) Laboratory and field trial tests of D-MSS using real environments; (vii) Methodology for industrial production of D-MSS and preparation of the D-MSS certification and the standards of manufacturing.</p>			
<p>Expected Results: Development and production of D-MSS (Drone Mobile Smallcell Station Prototypes). Writing of technical documentation for D-MSS production after all the improvements have been included. Technology transfer and writing the standards for D-MSS manufacturing and Creation of one or two startups to produce D-MSS products and their services.</p>			
<p>Enrolment in Doctoral degree(s): ISCTE-IUL</p>			
<p>Main (host) supervisor/Contact: Dr. Pedro Sebastiao (IT-Lisbon)</p>			