**2 Postdoc Research Fellowship positions in mm-wave communication systems for 5G and beyond**

**The Smart Wireless Applications and Technologies (SWAT) Group** (<https://swat.ugr.es/>) of the Technical School of Informatics and Telecommunications of the **University of Granada (UGR)** offers **2 fulltime Postdoc positions**. Each Postdoc position is for **1 year** **with a possibility of extension of an additional year**.

The specific topics for each of the two positions are described below:

**Postdoc position 1**: **mm-Wave radiofrequency devices and Antenna Systems for 5G and beyond.**

**Brief description:** the vacancy will have as main tasks the design, prototyping and measurement of radio frequency devices and antenna systems in mm-wave frequencies for 5G communication systems and beyond, with special interest in device reconfigurability, integration and new manufacturing techniques.

**Particular Prerequisites of Postdoc position 1:** PhD in Telecommunications or Electrical Engineering with specialization in antennas and radiofrequency devices at mm-waves. The candidate must have research experience in using EM solvers (preferably CST-MWS) for device design, and implementing and testing the devices for their proper characterization.

**Postdoc position 2: mm-Wave propagation channel characterization and modelling for 5G and beyond**

**Brief description:** the main tasks of the vacancy will be the study, characterization and modelling of the propagation channel for different propagation scenarios both indoor and outdoor, in mm-wave frequencies for application in communication systems for 5G and beyond.

**Particular Prerequisites of Postdoc position 2:** PhD in Telecommunications or Electrical Engineering with specialization in propagation channel characterization and modelling at microwave or mm-waves. The candidate must have research experience in the use of measuring set-ups for channel measurement and in signal processing for the proper study and modelling of the propagation channel under test.

**General prerequisites for both positions:** The candidate must have a **solid research experience** evidenced by his/her research contribution in reputed JCR journals (i.e. IEEE TAP, IEEE AWPL, IEEE MMT, IEEE MWCL, IEEE TVT, among others) and top international conferences (i.e. EuCAP, APS or ISAP, among others), during the last 5 years. **Knowledge of Spanish at an intermediate level (B2 or higher) will be valued. For Spanish candidates**, an international experience more than 2 years will be valued (i.e. PhD/postdoc outside Spain), although it is not mandatory.

**General qualifications for both positions:** We seek a highly-motivated researcher holding a PhD degree directly related to any of the Postdoc positions. Motivation for fundamental scientific research of practical relevance is essential. The candidate should have good communication skills and be willing to collaborate with other researchers in the group of people of the SWAT group. It will be valued:

* Theoretical and practical knowledge of antenna analysis and design, RF Circuit Design and Simulation, Understanding of wave propagation and Communication Theory.
* Practical experience in engineering matter from design, development, and measurements. Hands-on RF electronics and prototype design.
* Knowledge of specialist IT software: Matlab, LabView.
* Experience of using EM simulation tools: CST-MWS, CST EM studio, HFSS, ADS
* Experience of using Software Defined Radio (SDR).
* Programming skills.
* Willing to work on RF/mm-wave integration devices
* Research creativity and strong cross-discipline collaborative ability as appropriate.
* Excellent communication skills (oral and written), including public presentations and ability to communicate complex data/concepts clearly and concisely.
* Excellent interpersonal skills including team working and a collegiate approach.
Self-motivation, initiative, and independent thought/working
Comfortable developing expertise in multiple fields

Applicants who do not master Spanish language must provide evidence of good written and spoken English language skills (C1 or higher).

**Application:**

Applicants are asked to provide:

* Personal CV (max 2 pages)
* a research statement (max 3 pages) in their application, describing research interests, previous education, research and competence, as well as background related to the topics of the position the apply for. Publications and other work that the applicant wishes to be taken into account must be enclosed.

Deadline for applications: until the vacancies are covered and not later than 30.04.2021

Applications must be submitted to Professor Pablo Padilla, email: pablopadilla@ugr.es and Professor Juan F. Valenzuela, email: juanvalenzuela@ugr.es.

**Salary:**

The postdoc positions will be remunerated with the official postdoc salary for in the University of Granada, at a minimum of 22500€ per year before tax.