



2016-IPR-E-000-7425

**Coexistence Studies for Wireless  
Communications**

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| <p><b>Position for:</b></p> <p>Trainee</p> | <p><b><u>Short description of activity:</u></b></p> <p>The CORSA sector within the Security Technology Assessment (STA) carries out experimental research on wireless communications in the context of the European Radio Spectrum Policy Programme.</p> <p>The emergence of smart ICT applications based on new wireless technologies and services has dramatically increased the demand for radio spectrum, with the subsequent risk of harmful interference between new and existing radio services. As a limited natural resource, the radio spectrum should be managed and used efficiently to ensure steady growth of a digital society. This requires development and test of new wireless communications technologies and standards for secure and efficient use of the spectrum. Coexistence studies are an essential step leading to new regulatory proposals on the efficient use of the spectrum.</p> <p>The successful candidate will participate in a project on the coexistence of wireless communications technologies, with focus on mobile broadband and radio local area networks (RLAN). In this regard, the trainee will participate in the preparation and execution of measurement campaigns in an anechoic chamber as well as in-field experiments to measure the emitted power of different wireless devices and their impact on other wireless services. Such measurements are essential for the validation of coexistence conditions derived from simulations.</p> <p><b><u>Qualifications:</u></b></p> <p><b><u>Essential:</u></b></p> <p>The candidate should have or should be close to obtain a university degree in one of the following disciplines: telecommunication engineering, electronic/electrical engineering or physics.</p> <p>Should have good knowledge of one or more of the following: Antenna theory, channel propagation modelling, wireless communications, electromagnetic compatibility, RF spectrum measurements.</p> <p>Good command of oral and written English (level B2).</p> |
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|                                   | <p><b>Advantage:</b><br/>Good programming skills in MATLAB/C/C++/Java.</p> <p><b><u>For general eligibility requirements, please read the rules governing the traineeship scheme of the JRC:</u></b></p> <p><a href="https://ec.europa.eu/jrc/en/working-with-us/jobs/temporary-positions/jrc-trainees">https://ec.europa.eu/jrc/en/working-with-us/jobs/temporary-positions/jrc-trainees</a></p> |
| <b>Institute/Directorate Unit</b> | DIRECTORATE E<br>E.2<br>Further information: <a href="http://ipsc.jrc.ec.europa.eu">http://ipsc.jrc.ec.europa.eu</a>  |
| <b>Indicative duration</b>        | 4 months  |
| <b>Preferred starting date</b>    | As soon as possible   |
| <b>JRC Site</b>                   | Ispra   |
| <b>Country</b>                    | Italy   |
| <b><u>JRC contact details</u></b> | <p><b>For any technical problems with your application, please contact:</b><br/><a href="mailto:JRC-ESRA@ec.europa.eu">JRC-ESRA@ec.europa.eu</a></p>  |