

Job title	Post-doctoral Research Position in Security and Robustness Testing
Ref	2018-16 SARCoS 2
Job type (PhD, Post-doc, Engineer)	Post-Doc
Contract duration (months)	24-30 months
Qualifications (Master degree, PhD...)	PhD
Job hours (full time/ part time)	Full time
Employer	UBFC – Université de Franche-Comté
Host Laboratory	FEMTO-ST / DISC
URL Host Laboratory	http://www.femto-st.fr/en/Research-departments/DISC/Research-groups/VESONTIO/
Address Host Laboratory	UFR Sciences et techniques. Bâtiment Métrologie. 16 route de Gray. 25030 Besançon cedex
Job description	<p>The Department of Computer Science and Complex Systems (DISC) of the FEMTO-ST Institute is seeking a postdoctoral researcher to work on the SARCoS project.</p> <p>The SARCoS project aims to develop intelligent tools for automating the model-based testing of complex connected systems, to find security and reliability problems. Using Machine Learning techniques, these tools will (1) infer domain-specific test models, (2) generate attack scenarios and by learning from execution interaction data, (3) refine and prioritize test cases and (4) produce smart analytics of test results. Automated model-based testing will be used to generate security tests targeting system vulnerabilities by false data injection attacks, and robustness tests using behavioral model-based fuzzing.</p> <p>As part of the SARCoS project, the postdoctoral researcher will conduct high-quality research under the supervision of Prof. Bruno Legeard. The postdoctoral researcher will be leading all activities regarding security and robustness testing, in all four case studies: air traffic control, secure timing, sensor networks, and IoT systems.</p> <p>Responsibilities include:</p> <ul style="list-style-type: none"> • Conducting research; • Publishing in top-notch conferences and journals; • Preparation and submission of related grant proposals; • Teaching courses; • Mentoring of undergraduate and/or graduate students.

Supervisor(s)	Legiard, Bruno (bruno.legiard@femto-st.fr)
Candidate profile	<p>The position will require a Ph.D. degree in computer science or related topic. Candidates should have documented experience in conducting original and competitive research published in relevant leading peer reviewed conferences and/or journals.</p> <p>Background in software testing, security testing and model-based testing are strongly recommended. Firsthand experience in any of the four case study domains is a plus. Ability to work both independently and as a team player are expected.</p> <p>In addition to good theoretical knowledge, interest and experience in software development are highly welcomed.</p> <p>Candidates who are finishing their doctoral studies are eligible to apply; however, they must have obtained their PhD degree before taking up their position at FEMTO-ST.</p>
Keywords	Security Testing, Robustness Testing, Model-Based Testing, False Data Injection Attacks
Application deadline	June 30 th , 2018
Starting Job	September 1 st , 2018
Application	<p>Post-doc position</p> <p>Please send the following documents (all in one PDF file) by e-mail to job-application@ubfc.fr:</p> <ol style="list-style-type: none"> 1) For EU candidates: Copy of your national ID card or of your passport page where your photo is printed. For non-EU candidates: Copy of your passport page where your photo is printed. 2) Curriculum Vitae (may include hyperlinks to your ResearchID, Research Gate Google Scholar accounts). 3) Detailed list of publications (may include hyperlinks to DOI of publications). 4) Letter of motivation relatively to the position (Cover Letter) in which applicants describe themselves and their contributions to previous research projects (maximum 2 pages) 5) Copy of your PhD degree if already available. 6) Coordinates of reference persons (maximum 3, at least your master thesis supervisor): Title, Name, organization, e-mail. <p>If you have questions regarding the application, please contact the supervisor.</p>