

Researcher in Formal Methods (M/F)

Location: Rennes (35), France
Web site: <http://www.fr.mitsubishielectric-rce.eu/>
Job reference: INS_PERM_072019
Contract: permanent, from 1st of October, 2019

Context and description:

As MITSUBISHI ELECTRIC Group's subsidiary, one of the world's leading names in the manufacture and sales of electric and electronic products and systems, **MITSUBISHI ELECTRIC R&D CENTRE EUROPE** includes a division "Communication & Information Systems" (CIS) specialized in communications and control solutions for professional- and consumer-oriented applications.

This division, located in Rennes (Ille-et-Vilaine department, Brittany region, France) is looking for a **Researcher with expertise in Formal Methods** with the following duties:

- **Research** innovative solutions for safety or business critical systems (automotive, railway, factory automation, robotics, aerospace, nuclear, ...) using Formal Methods;
- Study and prototype **software tools** and **engineering methodologies** to promote Formal Methods use in an industrial context, from first proof of concept to pre-production tool;
- Clearly **demonstrate** effectiveness of proposed solutions to technical and business stakeholders;
- Participate in **open innovation** in the field of Formal Methods with academic partners through collaborative research projects, PhD co-supervising, direct contracts...

Education and experience required:

- **PhD degree in the field of Formal Methods;**
- At least **3 years of experience** (including PhD degree) in software, hardware or mathematics fields, within public or private R&D laboratories;
- **Experience in Formal Methods**, and optionally in one or more of the following domains: Automotive; Railway; Factory Automation; Model Based Engineering; Control Theory; Software Engineering; FPGA or other hardware development; Testing; Industrial or optical networks; Artificial Intelligence (Deep & Machine Learning, Genetic Algorithms, ...);

- Applied knowledge and knowhow of one or more Formal Methods tools (like Atelier B, Frama-C, SPARK, SCADE, Why3, Boogie, Coq, Isabelle, TrustInSoft Analyzer, PolySpace, Astrée, Z3, CVC4, Alt-Ergo, SPIN, NuSMV, Simulink Design Verifier, Uppaal, ...) is a plus;
- Research experience marked by **publications** and **patents** is a plus;
- Good knowledge of **functional or object-oriented languages** as well as Software Engineering practices is a plus.

Personal profile:

- **Open-mindedness**, capacity to work in a multicultural and international environment;
- Ability to work across **multiple tasks** methodically and efficiently and meet committed schedules;
- Motivated to work in **dynamic industrial research environment** and adaptable to reordering of priorities;
- Excellent **communication** and interpersonal skills: ability of sharing information with team players (must show evidences of team-working);
- **Fluent English**;
- **Availability** for business trips abroad.

Contact:

Magali BRANCHEREAU (Human Resource Manager)

Thanks to send your CV and motivation letter in PDF format by email (in object: your name + the reference INS_PERM_072019) to: jobs@fr.mercede.mee.com