



## Power Electronic Researcher (M/F)

*Location :* Rennes (35), France

*Web site :* <http://www.fr.mitsubishielectric-rce.eu/>

*Job reference:* PES\_PERM\_082019

*Contract :* permanent, starting July/Sept 2019

### Context and description:

MITSUBISHI ELECTRIC is one of the leading manufacturers of power electronic products spanning from power devices and modules to HVDC. As MITSUBISHI ELECTRIC Group's subsidiary, **MITSUBISHI ELECTRIC R&D CENTRE EUROPE** includes the "Power Electronic Systems" Division (PES) performing fundamental research on integration and reliability aspects of Power Electronics.

This division, located in Rennes (Ille-et-Vilaine [35] department, Brittany region, France) is looking for a **Researcher with expertise in Power Converter Reliability**, with the following duties:

- Conducting research in the domain of reliability and robustness for power electronics, including power cycling, packaging and failure analysis for power electronic components, for reduced product life-cycle costs.
- In conjunction with academic partners, developing methods to better understand the critical reliability and robustness issues for converters in real applications.

### Requirements:

- **PhD degree** in Power Electronics (on any subject linked to **power electronic modules** is highly desirable)
- At least **3/4 years of experience** (including PhD degree) within the power electronics field through a public or private R&D laboratory (industrial experience is a plus).
- Experience with power electronic reliability and robustness **evaluation methods**.
- Expertise in **modelling** power semiconductor **components**, and thermo-mechanical related failure mechanisms.
- Experience with **failure analysis tools**, such as SAM or thermal impedance spectroscopy and sample preparation and calibration.
- Familiarity with **thermal design** of converters and programming for the automation of tests.
- Familiarity with **real-time control systems and LABVIEW**

- Familiarity with **simulation/analysis tools** such as PSIM, MATLAB/Simulink, COMSOL or ANSYS

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 changes in priority;
- Excellent **communication** and interpersonal skills: ability of sharing information with team players (must show evidences of team-working), of presenting the technical achievements in a comprehensive and appealing fashion, of adapting the content to the audience;
- **Fluent English**;
- **Availability** for business trips abroad.

Contact:

Magali BRANCHEREAU (Human Resources),

Please send your CV and motivation letter in English in PDF format by email (in object: your name + the reference PES\_PERM\_082019) to: [jobs@fr.mercede.mee.com](mailto:jobs@fr.mercede.mee.com)