



Power Electronics Reliability Researcher (M/F)

Company: MITSUBISHI ELECTRIC R&D CENTRE EUROPE

1, allée de Beaulieu, CS 10806, 35708 Rennes Cedex 7, France

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

Duration: undetermined term period (CDI), starting July/Sept 2020

Reference: PES_PERM_022020

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 (MERCE) includes the "Power Electronic Systems" Division (PES) performing fundamental research on integration and reliability aspects of Power Electronics.

MERCE research team, located in Rennes (France – Bretagne [35]), is looking for a research engineer 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 on any subject linked to power electronic modules
- 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:

- Ability to work across multiple tasks methodically and efficiently and meet committed schedules
- Motivated to work in dynamic 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)
- Fluent English
- Availability for international business trips

Contact:

Madam 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_022020) to : jobs@fr.mercede.mee.com