MITSUBISHI ELECTRIC R&D CENTRE EUROPE

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Researcher in the field of Condition Monitoring for Inverter-Driven Electrical Motors (M/F)

Location :	*Rennes (35), France*
Web site :	*http://www.fr.mitsubishielectric-rce.eu/*
Job reference:	*PES_PERM_092021*
Contract :	*permanent*

Context and description:

MITSUBISHI ELECTRIC is one of the leading manufacturers of power electronics related products from components such as power devices to systems such as HVDC. As MITSUBISHI ELECTRIC Group's subsidiary, MITSUBISHI ELECTRIC R&D CENTRE EUROPE includes a research division specialised in power electronics which performs fundamental research in the fields of integration and reliability of power electronic systems.

The research division, located in Rennes (France – Bretagne [35]), is looking for a researcher specialized in the fields of electrical motors, and in particular in modelling for simulation, control and data analysis, with the following duties:

• Conducting **research** in the domain of **condition monitoring of inverter-driven electrical motors**.

• In **collaboration** with academic partners, **developing precise and robust diagnostic and prognostic methods** applicable to **closed-loop controlled inverter-driven motors** in real applications.

Education and experience required:

- **At least 3 or 4 years of experience (including PhD degree) within the field of modelling for simulation, control or data analysis of inverter-driven motors**, through a public or private R&D laboratory (industrial experience is a plus).
- **Expertise in asynchronous/synchronous electrical machines, their modelling and control.**

- Practical experience on monitoring and measurement systems, sensors and Laboratory equipment.
- Experience with control and simulation tools such as Labview, Matlab/Simulink, PSIM, finite element analysis.
- Experience in data analysis (time-frequency analysis, Lock-IN);
- Basic knowledge of the failure modes and corresponding failure current signatures of electrical motors and associated experimental procedures.
- Basic knowledge in model identification with statistical and machine learning (Bayesian approaches, Kalman filters etc.) technics applied to inverter-driven motors.

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 frequent international business trips.

Contact:

Magali BRANCHEREAU (Senior HR Manager),

Thanks to send your CV and motivation letter in PDF format by email (in object: your name + the reference PES_PERM_092021) to: jobs@fr.merce.mee.com