

Research associate position (M/F)

Vertical 5G radio access network solutions for automotive industry

Location: Rennes (35), France
Web site: <http://www.fr.mitsubishielectric-rce.eu/>
Job reference: WCS_CDD_092019
Contract: 1 year contract, as soon as possible

Contact point

Mitsubishi Electric R&D Centre Europe: Nicolas Gresset (n.gresset@fr.mercede.mee.com)

Research Context

With the development of 5G, telecommunication networks are shifting their focus from providing consumer-oriented mobile broadband connectivity to enabling an environment for technical and business innovation targeting vertical markets. The automotive industry, currently going through key transformations as more and more vehicles become connected, is one of the main vertical markets targeted by 5G development.

Cooperative Intelligent Transportation Systems (C-ITS) focus on technologies providing intelligence placed at the roadside or in the vehicle, allowing vehicles communicating to each other (V2V), to the infrastructure (V2I), to the network (V2N) or to pedestrians (V2P). These types of communications, collectively denoted as V2X, need to meet demanding requirements to support low latency mission critical services and to enable use cases such as autonomous driving.

Key players in the automotive and telecommunications industries within the 5G Automotive Association (5GAA) initiative support the idea that 5G will be the ultimate platform to enable C-ITS and the provision of V2X. The Third Generation Partnership Project (3GPP) is currently working towards 5G V2X communications with NR sidelink. The ETSI MEC (multi-access edge computing) industry specification group has also expanded the scope of its activities to cover additional technologies besides cellular, such as connected cars.

Objectives

Mitsubishi Electric is a leading manufacturer and supplier of automotive equipment, providing cutting edge products targeting automobile safety & intelligence and smart mobility solutions.

As Mitsubishi Electric Group's subsidiary, Mitsubishi Electric Research & Development Centre Europe is involved in 5GAA and 3GPP activities related to 5G support to V2X communications. We are currently searching for a research associate in the field of V2X communications

Job description

- Conduct research and developing of innovative concepts for 5G applied to vehicle-to-vehicle communication
- Propose and evaluate technical solutions on various aspects (physical layer, architecture, distributed computing)
- Validate the proposed solutions through computer simulations
- Disseminate the proposed solutions through technical papers in international conferences and/or journals, participate to the enhancement of the intellectual property portfolio, alimnet contributions to standardization forums

Required education and experience:

The **ideal** applicant has

- A PhD degree in wireless communications;
- At least 3 years of experience (including the PhD experience) in research, within public or private R&D laboratories;
- Applied knowledge of Matlab programming language;
- Research experience marked by publications in high rank conferences and journals, and patents
- Experience in radio access networks; experience with device-to-device communications is a plus

Personal profile:

- Open-mindedness, capacity to work in a multicultural and international environment;
- Motivated to work in a dynamic industrial research environment
- Excellent communication and interpersonal skills
- Fluent English

Duration: 12 months

Dates: as soon as possible (from July 2019)

Contact: Magali BRANCHEREAU (jobs@fr.mercede.mee.com)

Please send us your application (resume and cover letter) including the job opening reference (**WCS_CDD_092019**).