

MITSUBISHI ELECTRIC R&D EUROPE (MERCE)



Overview of Mitsubishi Electric R&D Centre Europe

Mitsubishi Electric R&D Centre Europe (MERCE) is a Research & Development laboratory affiliated to the Mitsubishi Electric group with its head office in Japan. Its main role is to support the various group activities through applied research.



The laboratory invents new generations of communication systems and future technologies in the field of energy and the environment. The R&D projects enable the development of a highly-connected and environmentally-conscious global society.

To enhance its research activities, MERCE is fully committed to an open innovation approach through various bilateral and multilateral cooperation activities with European partners.

Power Electronics Systems

The expertise of the laboratory lies in the design of systems requiring new topologies for innovative power electronics. The main goal is to meet the top demand of the third millennium – sustainable energy.

The laboratory designs new power converters based on innovative and strongly integrated architectures, as well as intelligent systems. These converters achieve greater energy efficiency while considerably reducing costs. This is a major advantage when developing complex systems such as solar farms, air-conditioning systems, and new transport and production networks for heterogeneous electrical power.

MERCE is also at the cutting edge of R&D for the design and test of reliable components, both on Power Module and on converter level. Asset management technologies are being investigated to produce dependable systems and increase customer satisfaction. Other technological domains of interest to the laboratory are power distribution (Railway, HVDC) and highly efficient motor drives.

Communication Systems

MERCE is a major player in the field of ICT but also a centre of expertise in formal methods for software development. The laboratory's expertise in network and digital communication enables the development of new technologies and architectures required to build future generations of communication and broadcasting systems that cater for concepts such as Internet of Things.



The People

The laboratory has established itself as part of an international group where scientific excellence, curiosity, team spirit and a multi-cultural mindset are the key qualities of its employees. MERCE also plays an active role in training young postgraduate students by providing an extremely dynamic working environment that includes leading researchers in their respective fields.