

Abstract:

Education, Innovation, Science, Research and Technology Transfer in the Area of Power Electronics

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ECPE European Center for Power Electronics is a Research Network with about 190 member organizations in Europe comprising the industrial members as well as the ECPE Competence Centres from the university and research institute side.

As the industry-driven Power Electronics Research Network covering the value chain from the materials and components to the systems and applications ECPE strengthens the cooperation between Power Electronics industry and universities & research centres on a European level. The ECPE concept focuses on R&D, innovation, training and education, public relations and technology transfer in the field of power electronics in Europe.

In a network-internal, industry-financed research programme ECPE is driving precompetitive joint research with the Competence Centres, and sets up research & technology roadmaps for a strategic research agenda with future research directions according to the demands of European power electronics industry. The ECPE education and training programme covers a wide range of current topics with expert workshops on the one hand, and tutorials for young engineers in industry and beginners on the other hand.

The aim of ECPE public relations activities is to increase awareness of the role and importance of power electronics for Europe driven by some megatrends e.g. energy efficiency, renewable energies and e-mobility. The lobbying has two main directions, publicly funded research programmes addressing power electronics topics and future young engineers. The ECPE programme “Young Engineers Needed”, for example, offers a wide variety of activities including a student robotic competition with schools, the ECPE Students Day at PCIM Europe exhibition and a European PhD School.