

ELECTRICAL, ELECTRONICS AND COMMUNICATIONS ENGINEERING

VISHAY - Innovative semiconductor devices for power electronic application

Funded By	VISHAY SEMICONDUCTOR ITALIANA SPA [Piva/CF:00475790010]
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Context of the research activity	Research and development of innovative power semiconductor devices based on advanced designs, processes, and materials with the goal to reach higher efficiency in application and reduce power losses
Objectives	<p>Electronic Power Conversion is a key element for the development of sustainable modern lifestyle, and represents an interesting field of research with significant impact in different fields of application such as transport electrification, energy, advanced manufacturing.</p> <p>In this framework, the objective of the research activity is the study and development of power semiconductor devices with innovative design, process and materials capable to meet needs of a demanding market, where high efficiency, together with reliability in harsh working conditions are becoming a requirement in order to be compliant with new standards and governments regulations.</p> <p>The research activity will be in collaboration with Vishay Semiconductor Italiana SpA</p>
Skills and competencies for the development of the activity	<ul style="list-style-type: none"> • Background in semiconductor materials, devices and characterization methods. • Background in power and/or analog electronics • Background in processes and technologies used for manufacturing power semiconductor devices • Background in simulation tools dedicated to semiconductor device and process • Teamwork mindset and ability to work in multi-disciplinary environment • Good logical and analysis capability, including good self-organizational mindset