

SUSTAINABLE MATERIALS, PROCESSES AND SYSTEMS FOR ENERGY TRANSITION

MUR DM 117/VISHAY - Designing and testing wide bandgap power devices to achieve higher reliability and ruggedness

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| Funded By | VISHAY SEMICONDUCTOR ITALIANA SPA [P.iva/CF:00475790010] MINISTERO DELL'UNIVERSITA' E DELLA RICERCA [P.iva/CF:97429780584] Politecnico di TORINO [P.iva/CF:00518460019] |
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| Contact | |
| Context of the research activity | <p>Design and develop SiC high voltage devices and perform DC, dynamic characterization and investigate failure mechanisms.</p> <ul style="list-style-type: none">• Enhancing the performance and ruggedness capabilities of high voltage SiC devices.• Implementation of SiC devices in different power conversion circuit topologies, and system integration• Optimize SiC devices and fabrication processes for higher reliability <p>Progetto finanziato nell'ambito del PNRR – DM 117/2023 - CUP: E14D23002050004</p> |
| Objectives | <p>Progetto finanziato nell'ambito del PNRR – DM 117/2023 - CUP: E14D23002050004</p> <p>Main seat to carry out research: Politecnico di Torino and Vishay Semiconductor Italiana S.p.A., Borgaro Torinese (TO), Italy</p> |
| Skills and competencies for the development of the activity | <ul style="list-style-type: none">• Preferably, Master's degree in electronic engineering with focus on power electronics devices i.e. Power MOSFETs, IGBTs, and power converter design• Knowledge on electrical measurements• Strong communication and project management skills• Willingness to work in team in a multi-disciplinary industrial environment• English and Italian fluency is mandatory |