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Dimosthenis Peftitsis was born in Kavala, Greece, in 1985. He received the Diploma degree (Hons.) in electrical and computer engineering from the Democritus University of Thrace, Xanthi, Greece, in 2008 and the Ph.D. degree from the KTH Royal Institute of Technology, Stockholm, Sweden, in 2013. In 2008, he was with the ABB Corporate Research, Västerås, Sweden, for six months, where he was involved in the diploma thesis. From 2013 to 2014, he was a Postdoctoral Researcher involved in the research on SiC converters at the Department of Electrical Energy Conversion, KTH Royal Institute of Technology. From 2014-2016, he was working as a Postdoctoral Fellow at the Lab for High Power Electronics Systems, ETH Zurich, where he was involved in dc-breakers for multiterminal HVDC systems. In May 2016, he joined the Norwegian University of Science and Technology in Trondheim, Norway, as an Associate Professor of power electronics at the Department of Electrical Power Engineering. His current research interests are in the area of WBG (e.g. SiC, GaN) power converters design, gate and base driver designs for WBG devices, as well as dc-breaker concepts for MV and HVDC systems. Prof. Peftitsis is Senior Member of IEEE and a member of the EPE International Scientific Committee.

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Teaching activities

MSc course: TET4190 Power Electronics

Specialization course: ELK20 Design of Power Electronic Converters

PhD course: ET8303 Power Electronics, Power Semiconductor Physics and Reliability

Publications

Book Chapters

B.1 J. Rabkowski, D. Peftitsis and H.-P. Nee, "Chapter 4: Recent advances in power semiconductors technology", Power Electronics for Renewable Energy Systems, Transportation and Industrial Applications, John Wiley and Sons, Ltd., ISBN: 978-1-118-63403-5.

In peer-reviewed journals

[J.13] J. Colmenares, D. Peftitsis, J. Rabkowski, D. Sadik, G. Tolstoy and H.-P. Nee, "High-Efficiency Three-Phase Inverter with SiC MOSFET Power Modules for Motor-Drive Applications", IEEE Trans. Ind. Appl., vol. 51, no. 6, pp. 4664-4676, Nov.-Dec. 2015.

[J.12] D. Peftitsis, J. Rabkowski, and H.-P. Nee, "Self-Powered Gate Driver for Normally-ON SiC JFETs: Design Considerations and System Limitations", IEEE Power Electron. Letters, vol. 29, no. 10, pp. 5129-5135, Oct. 2014.

[J.11] J. Rabkowski, D. Peftitsis and H.-P. Nee, "Parallel-operation of Discrete SiC BJTs in a 6 kW/250 kHz dc/dc Boost Converter", IEEE Trans. Power Electron., vol. 29, no. 5, pp. 2482-2491, May 2014.



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Self-powered gate driver for normally on silicon carbide junction field-effect transistors without external power supply D Pefitsis, J Rabkowski, HP Nee IEEE transactions on power electronics 28 (3), 1488-1501	34	2013
An experimental evaluation of SiC switches in soft-switching converters P Ranstad, HP Nee, J Linner, D Pefitsis IEEE transactions on power electronics 29 (5), 2527-2538	33	2014
Experimental investigations of static and transient current sharing of parallel-connected silicon carbide MOSFETs DP Sadik, J Colmenares, D Pefitsis, JK Lim, J Rabkowski, HP Nee Power Electronics and Applications (EPE), 2013 15th European Conference on, 1-10	33	2013
Experimental comparison of dc-dc boost converters with SiC JFETs and SiC bipolar transistors D Pefitsis, J Rabkowski, G Tolstoy, H Nee Power Electronics and Applications (EPE 2011), Proceedings of the 2011-14th ...	29	2011
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A discretized proportional base driver for silicon carbide bipolar junction transistors G Tolstoy, D Pefitsis, J Rabkowski, PR Palmer, HP Nee IEEE transactions on power electronics 29 (5), 2408-2417	18	2014
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