

Press release

SEMIKRON Foundation and ECPE honour Fraunhofer ISE, KACO new energy and Jordi Everts with Awards



- **The SEMIKRON Innovation Award honours the architecture and specifically the development of power electronics components for the next generation solar energy systems in particular. The innovative concept allows a maximum amount of renewable energies being integrated into isolated power grids.**
- **The SEMIKRON Young Engineer Award honors the deployment of an efficient DC/DC converter with a wide voltage and power range. The power supply, which is used in electric and hybrid drive vehicles, for example, causes lower heat losses, which makes it more compact and energy-efficient.**

Nuremberg, Germany, May 14, 2013. The SEMIKRON Foundation and the ECPE European Centre for Power Electronics e.V. jointly honoured the team of Michael Eberlin, Florian Reiners, Dr. Olivier Stalter, Sebastian Franz (all of Fraunhofer ISE, Freiburg) and Frank Seybold (KACO new energy) with the SEMIKRON Innovation Award 2013 at the PCIM 2013 for their “Innovative Power Electronics for the next generation village energy supply“ concept.

The SEMIKRON Young Engineer Award goes to Jordi Everts, PhD student and research assistant at the Catholic University of Leuven (KU Leuven) in Belgium, Department of Electrical Engineering (ESAT), for his concept of a “Bidirectional Isolated ZVS DAB DC-DC Converter with Ultra Wide Input and/or Output Voltage Range, being Applied in a Single-Stage PFC AC-DC Electric Vehicle Battery Charger”.

With these awards, the SEMIKRON Foundation and the European ECPE Research Network honour outstanding innovations in projects, products, prototypes, services and innovative concepts in the field of power electronics.

Innovation award for a holistic approach to off-grid PV supply

“The researchers from the power electronics department at the Fraunhofer ISE in Freiburg and at KACO new energy have developed power electronics components for a complete off-grid solar energy supply system“, said Bettina Heidenreich-Martin, member of the Semikron Foundation Board, during the award ceremony. “The innovation is considered a holistic approach to off-grid PV supply for larger consumers, such as villages and businesses, particularly in emerging countries” explains Heidenreich-Martin.

In total, there were 19 applications and submissions for the two SEMİKRON awards, 5 of which have been nominated for the Young Engineer Award as well. The winner among the young researchers is Jordi Everts who received the award for the new approach to operating a bidirectional isolated dual-active-bridge (DAB) DC/DC converter under voltage-free switching across the entire working range. “The innovation allows for improving the DAB DC/DC converter’s efficiency, particularly when a wide operational voltage range is needed along with higher output density“, says Prof. Dr. Leo Lorenz, President of ECPE, who presented the SEMİKRON Young Engineer Award on behalf of the SEMİKRON foundation.

“One of the key objectives for the ECPE European Centre for Power Electronics is to foster and support research and education in the field of power electronics“, says Lorenz. “The industry-led ECPE network, with its 70 members, currently includes 70 European universities and research institutes as so-called Competence Centres. I welcome the support for young researchers in the field of power electronics, and want to express my thanks to SEMİKRON Foundation for issuing the awards”.

Photo: (left to right) Frank Seybold , Sebastian Franz, Prof. Dr. Leo Lorenz, Prof. Dr. Bruno Burger , Michael Eberlin , Bettina Heidenreich-Martin, Jordi Everts

About the „SEMİKRON Innovation Award“ and the „SEMİKRON Young Engineer Award“

The SEMİKRON Innovation Award honours outstanding innovations in projects, prototypes, services and innovative concepts in the field of power electronics in Europe. The foundation honours innovations that



generate a high potential social benefit and improve energy efficiency, preservation of resources, sustainability and environmental protection.

The award ceremony is held annually during the “PCIM Europe“ power electronics show in Nuremberg, Germany. The laureates are elected in cooperation with the ECPE European Centre for Power Electronics. The main award is endowed with 10,000 Euro. There is also a young engineer award, endowed with 3,000 Euro, that goes to young researchers under 30 years of age in the field of power electronics.

The laureates are elected by an independent jury of renowned research and industry representatives. Applications are available for individuals and development teams. Applicants are required to outline the innovation they created and its expected social benefit.

About the SEMIKRON Foundation:

The SEMIKRON Foundation was founded on December 4, 2010, by owners of the SEMIKRON Group. Equal founders are the daughters of Peter Martin, the SEMIKRON owner and managing director of many years, who passed away in 2008. With the founding act, the founders intended to live up to their responsibility being the owners of a family-owned medium industry business and to contribute to their company’s “Corporate Social Responsibility”.

The purpose of the SEMIKRON Foundation is to bundle and extend the charitable activities operated by the owners of the SEMIKRON Group. In particular, the humanitarian projects initiated by Mr. Peter Martin, and supported by the Mali Martin Care e.V. charity are to be continued. These projects support children and people in need all over the world. Over the past 10 years, Mali Martin Care e.V. has donated more than one million Euro to humanitarian projects for children and young adults, mostly in Brazil (projects “Centro Social” and “Lar do Menor”). In addition, the foundation supports research projects and innovations in the field of power electronics.

For more information, please visit: www.semikron-stiftung.com.

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