

Press release

Shaping the technologies of the future

3 scientists honored with Carl Freudenberg Prize

Weinheim, November 24, 2017. Which components lead to improved battery performance and a longer service life? How can improvements in production be achieved when the service life of miniaturized gears is calculated in relation to manufacturing defects? How should technical products be developed and improved to meet customer requirements? Dr. Michael Schönleber, Dr. Benjamin Häfner and Dr. Simon Klingler were recently honored for their scientific research into these three questions and presented with the Carl Freudenberg Prize by Professor Albert Albers, Head of IPEK, the Institute of Product Engineering at the Karlsruhe Institute of Technology. The jury, led by Professor Albers, paid tribute to the work of each of the three scientists. The prize is awarded every two years.

Schönleber, whose work received first place, explained, “The results of my research help to develop new materials for batteries – more quickly – and with a specific goal in mind.” The scientist, who holds a PhD, worked for some five years during his doctorate on “Methods for characterizing the low-frequency behavior of lithium-ion batteries.” Each morning he would first go to the lab to check whether his experiments were still running. The remainder of the day would be taken up with lectures or supporting students and it wasn’t until the evening that he would be able to turn his attention again to his doctoral thesis. “Of course, I sometimes worried that I was going completely in the wrong direction – but then there’s no gain without pain – and it was often the case that I made the greatest gains in knowledge

Press contact

Cornelia Buchta-Noack
Freudenberg & Co. KG
Head of Corporate Communications
Tel. 06201 80-4094
Fax 06201 88-4094
cornelia.buchta-noack@freudenberg.de
www.freudenberg.de

Martina Muschelknautz
Freudenberg & Co. KG
Corporate Communications
Tel. 06201 80-6637
Fax 06201 88-6637
martina.muschelknautz@freudenberg.de
www.freudenberg.de

following a major crisis,” Schönleber continued. As all scientists, Schönleber also has a dream – to understand the processes inside a battery so well that ageing can be specifically prevented. “In this way, I hope I can contribute to e-mobility achieving a breakthrough and making the technology even more environmentally-friendly,” he said. When I first heard the news about having been awarded the prize, I could barely believe my ears. All the more reason to be happy. As I’ve just created a start-up with a friend, the recognition associated with the prize will help us enormously.”

“My approach is valuable for product development,” explained Klingler, whose work on, “A method for efficiently and effectively supporting continuous validation in the context of PGE product generation development,” achieved second place. “It’s about how a product can be checked again and again, so that it’s exactly what the customer needs and wants.” Klingler is delighted when he gets home in the evening and discovers that he’s won the prize. “It was a very unexpected reward for all the work I’d put in over the past five years,” he said.

“My model can be used to make the production process of important components more efficient, in order to reduce costs and achieve a higher quality,” explained Häfner whose work on, “Service life prognosis as a function of production deviations in micro-gearings,” also achieved second place. The gears examined are used in transmissions in, for example, the automotive industry, in medical technology or robotics. “New technological challenges in production have to be faced all the time. For example, e-mobility demands that new production methods are developed and put in place. It’s really exciting for me to be able to intensively work on such a challenge, and to play a part in the on-going close cooperation between business and science.”

The 2017 prize winners

- Dr. Michael Schönleber: A method for characterizing the low-frequency behavior of lithium-ion batteries
- Dr. Simon Klingler: A method for efficiently and effectively supporting continuous validation in the context of PGE product generation development
- Dr. Benjamin Häfner: Service life prognosis as a function of production deviations in micro-gearings

The Carl Freudenberg Prize

The Carl Freudenberg Prize, which includes a cash award of 10,000 euros, is intended to support young scientists at Karlsruhe Institute of Technology. It is awarded every two years for the best scientific and technical work. Prizewinners are selected on the basis of scientific excellence and potential industrial use by an interdisciplinary committee of KIT. The Prize has been awarded since 1951 and was established by the Freudenberg Group in 1949 on the occasion of its 100th anniversary. It is named after Friedrich Carl Freudenberg (1848-1942), who studied at the Polytechnic Institute, later Karlsruhe University and now Karlsruhe Institute of Technology, and is part of the commitment of the Freudenberg Group to the region around its headquarters in Weinheim.

About the Freudenberg Group

Freudenberg is a global technology group that strengthens its customers and society long-term through forward-looking innovations. Together with its partners, customers and research institutions, the Freudenberg Group develops leading-edge technologies and excellent products and services for more than 30 markets and for thousands of applications: seals, vibration control components, nonwovens, filters, specialty chemicals, medical products, IT services and the most modern cleaning products.

Strength of innovation, strong customer orientation, diversity, and team spirit are the cornerstones of the Group. The 168-year-old company holds strong to its core values: a commitment to excellence, reliability and pro-active, responsible action. In 2016, the Freudenberg Group employed more than 48,000 people in almost 60 countries worldwide and generated sales of approximately €8.6 billion. For more information, please visit www.freudenberg.com.