

Inventors of the Year 2016

Ingenious minds

Award for exceptional innovation work

Ever since 1995, Siemens has been presenting an award each year to honor exceptional researchers whose inventions made significant contributions to the company's success. This year, the award is also being presented to Siemens-external researchers for the first time. This gesture demonstrates that Siemens needs and encourages innovation on many levels – continuous long-term activities as well as young researchers and developers outside the company.

The ten rewarded researchers were the driving forces behind 558 registered inventions and 597 individual patents.

Award winners in the category Lifetime Achievement

Three researchers are being honored in this category. **Dr. Werner Hartmann** (Siemens Corporate Technology) has been an inventor his whole life. But it is not just the number of his individual patents – 383 – that impresses people. It is also the tremendous range of his innovations, from energy distribution to automotive technology and mining. The latest example is a vacuum interrupter for high voltage.

Dr. Hans-Gerd Brummel (Siemens Power Generation Services) in Berlin is one of the fathers of remote maintenance for large gas turbines, an important aspect of Siemens' service business. A self-learning system is brand new and is undergoing trials. It autonomously regulates combustion in a gas turbine in a way that prevents damage.

Electronic control of drives is the special field of **Dr. Benno Weis** (Siemens Digital Factory) in Erlangen. His unique invention is a solution for driving a high-frequency milling machine that produces aircraft parts or rotor blades in an innovative manner.



Lifetime Achievement
Dr. Werner Hartmann



Open Innovation
Radovan Seifried, Christian Karner
and Prof. Dr. Christian Moser



Lifetime Achievement
Dr. Hans-Gerd Brummel

Award winners in the category Open Innovation

The award in this category is being presented to inventors who have created something new across organizational boundaries. A team of inventors from Graz, Austria, consisting of **Professor Dr. Christian Moser** of Graz University of Technology and **Christian Karner** and **Radovan Seifried** (both Siemens Mobility), has halved the weight of a chassis frame for passenger trains from 1.5 tons to 845 kilograms in an R&D project. Collaboration with Graz University of Technology was a crucial factor in launching the new design concept and, above all, in proving that the new chassis frame could withstand heavy loads over decades of use.

A further award winner in the Open Innovation category is **Dr. Roland Gersch**, the Technical Head of the start-up Caterva. The start-up was the first company to introduce a networked storage system for solar energy to the marketplace. Siemens has tested the batteries for their long-term behavior and can use the acquired data to drive research into chemical storage systems.

Award winners in the category New Talents

Calling things into question and solving problems with a totally new approach are characteristics attributed to young people in particular. This is particularly the case for these two award winners:

Dr. Adriana Urda (Siemens Wind Power) of Brande, Denmark, has developed a new method of producing permanent magnets that allows using the materials much more efficiently. The magnets needed in direct-drive wind turbines consist in part of rare earths, raw materials that are in increasing demand.

Dr. Heiko Claussen in Princeton, United States, has rapidly advanced in his career and is already a senior key expert at the age of 35 at Siemens Corporate Technology. Among other things, the researcher develops self-learning systems that work without the need for complex mathematical models and thus can also be used to monitor smaller apparatus such as water pumps or ventilators.



Open Innovation
Dr. Roland Gersch



New Talent
Dr. Adriana Christina Urda



Lifetime Achievement
Dr. Benno Weis

The award winner in the category Single Outstanding Invention

Sometimes, an invention is a game-changer. **Dr. Klaus Engel** (Siemens Healthineers) in Erlangen has managed to take medical imaging into a new era with cinematic rendering. His software converts the raw data from X-ray images as well as CT and MRI scans into photorealistic representations of the inside of the body.

Further information

[siemens.com/press/inventors](https://www.siemens.com/press/inventors)

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New Talent
Dr. Heiko Claussen



Single Outstanding Invention
Dr. Klaus Engel