

INNOVATIONS AND BRIGHT MINDS FROM KIT

Did you know, ...

1. ... that **automobile pioneer Carl Benz** fought to be admitted to Karlsruhe Polytechnic School? The Polytechnic School was highly renowned for the excellent teaching by Ferdinand Redtenbacher, avant-gardist of scientific mechanical engineering. In 1860, 15-year-old Benz passed the admission examination and went on to complete his mechanical engineering studies in four years. About 20 years later, he started his motor vehicle for the first time.
2. ... that **Friedrich Eisenlohr**, Professor for Construction Theory in Karlsruhe, produced the design for a **cuckoo clock** that is known worldwide? It is not without reason that it resembles a train station: As an architect, he planned all of the stations of the Baden Railway between Mannheim and Freiburg.
3. ... that **Lothar Meyer** developed the **periodic table of elements** parallel to Mendeleev? In 1869, the Professor for Pure Chemistry in Karlsruhe published "Die Natur der chemischen Elemente als Function ihrer Atomgewichte" (the nature of chemical elements as a function of their atomic weights). Meyer presented his conceptions of the elements sorted into periods of six main groups according to their atomic weight and valence.
4. ... that physicist **Heinrich Hertz** was the first to prove the existence of **electromagnetic waves** in a lecture hall of KIT in 1886? Examples are light, radio waves, microwaves, and X-rays. Among those who applied this insight to radiotechnology was Nobel Prize Winner **Ferdinand Braun**, who worked as a Professor for Physics in Karlsruhe from 1883 to 1885.
5. ... that there would not be any smartphones today without **Otto Lehmann**? The Professor for Physics at the Technical College studied liquid crystals. Lehmann, the College's Rector from 1900 to 1901, was laughed at for his work – yet he laid the foundation for **liquid crystal technology** that is used in modern displays today.
6. ... that **Magdalena Neff, born Meub**, not only was the first officially enrolled female student at the Technical College in Karlsruhe, but also the first female pharmacist with a university degree in Germany? Germany's first female civil engineer, **Martha Schneider-Bürger**, also completed her graduate studies in Karlsruhe from 1923 to 1925.



Photo: Lydia Albrecht, KIT



Photo: Markus Praeg, KIT

7. ... that the Technical College in Karlsruhe established Germany's **first research office for fire safety technology** in 1950? The Combustion Technology Division of the Engler-Bunte Institute still pursues research and development in this area. Associated teaching is provided by the Baden-Württemberg Fire Fighting School, among others.
8. ... that the **nuclide chart**, now used worldwide, was created in Karlsruhe? It lists the half-lives, types of decay, and radiation energies of all known atoms and was produced by Walter Seelmann-Eggebert, Professor for Radiochemistry, and his staff member Gerda Pfennig in 1956 due to a lack of teaching materials.
9. ... that not less than five scientists from Karlsruhe were granted the **Nobel Prize for Chemistry**? These are Fritz Haber (1919), Leopold Ruzicka (1939), Georg von Hevesy (1943), Hermann Staudinger (1953), and Jean-Marie Lehn (1987).
10. ... that Germany's first mail server stood at KIT in 1984? There, Michael Rotert and Werner Zorn received **the first email** sent to a civil server **in Germany**. A US colleague wrote: "Michael, this is your official welcome to CSNET. We are glad to have you aboard".
11. ... that **Dietmar Hopp and Hasso Plattner** studied Communications Engineering at the Technical University of Karlsruhe? The alumni co-founded SAP AG, the largest listed software company in Europe.
12. ... that KIT is the only research institution in Germany that offers infrastructure for **research extending from reactor safety to the management of radioactive waste**? In 1961, the Research Reactor FR2 started operation on Campus North. Today, a new generation is trained there to handle high-level substances and to develop and test technologies for decommissioning.
13. ... that **Germany's oldest environmental research institution** has been part of KIT since 2002? Campus Alpine was established in Garmisch-Partenkirchen, Bavaria, in 1962. There, researchers study changes in the atmosphere, water budget, and living conditions of vegetation and society in the course of climate change.
14. ... that **astronaut Alexander Gerst** earned his diploma at the Geophysical Institute of Karlsruhe University in 2003? During his first flight in space, he took along a flag of KIT. Today, he heads the Astronaut Operations team at the European Astronaut Centre in Cologne.
15. ... and that Professor Heinrich Meidinger constructed the **first ice machine** for domestic use in Karlsruhe; that the DNA of 200 wild vines are archived **in the world's only vine genome database** GrapeKIT at KIT; that Professor Ute Schepers and her team develop **3D printing of the cornea**; or that the probably **most precise weighing scale in the world** can be found on KIT's Campus North...

Further fascinating stories will be provided at <https://www.200jahre.kit.edu/english/index.php>, in the commemorative publication marking the anniversary, and in the catalog of our anniversary exhibition "200 Years KIT – 100 Objects. Parts of the Whole. Selected Objects from the History of KIT"!

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