

Please contact us if you need further information or advice about doctoral studies at TU9 Universities:

TU9 German Institutes of Technology e. V.

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TU9 is the alliance of leading Institutes of Technology in Germany. Its nine member universities provide excellent research conditions and offer a broad range of study programmes in engineering and the natural sciences.



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DOCTORATES MADE IN GERMANY DR.-ING. AND DR. RER. NAT. AT TU9 UNIVERSITIES

RWTH Aachen University
Technische Universität Berlin
Technische Universität Braunschweig
Technische Universität Darmstadt
Technische Universität Dresden
Leibniz Universität Hannover
Karlsruhe Institute of Technology
Technische Universität München
University of Stuttgart

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Doctorate in Germany

With its long tradition, the German doctorate in engineering, Dr.-Ing., has made a major contribution to the quality of the brand "Made in Germany". It represents innovation, quality and an outstanding reputation.

The natural sciences play a significant role in fundamental research for technology, and therefore the Dr. rer. nat. (Doctorate in Natural Sciences) has always played a major role in creating successful innovations.

Cooperation between engineering and the natural sciences is a key component of research at the TU9 Universities. If you choose to do your doctorate at TU9, you will become part of this interdisciplinary research environment.

What is Special about Doctoral Studies at TU9?

TU9 Institutes of Technology are prestigious, internationally recognized research universities with a special focus on engineering, computer science, mathematics and the natural sciences. Ever since their foundation in the age of industrialization they have continued to play a key part in the development of engineering in Germany. TU9 Universities are excellent in research and distinguish themselves through close cooperation between university, research institutions and industry.

Prof. Dr. Hans Jürgen Prömel
President of TU Darmstadt and President of
TU9 German Institutes of Technology



"Doctoral candidates in engineering and the natural sciences make a significant contribution towards their university's research programmes. TU9 Universities aim to provide these young researchers with an excellent working environment. We prepare them for independent research and teaching, and for a successful career in both science and industry."

Research Partnerships and Technology Transfer

Practice-oriented research and teaching are reflected in TU9's excellent contacts to large and medium-sized businesses. Many engineering doctorates are conducted with industrial partners who profit from the expertise in the university institutes and in return commission research contracts.

Career Prospects – Doctorates "Made in Germany"

Engineers and scientists with a doctorate "made in Germany" benefit from excellent job opportunities. With a German doctorate you will be a sought-after researcher at universities, research institutions and in industry worldwide.

Paths to a Doctorate at TU9 Universities

In engineering, the most common path to a doctoral degree, the Dr.-Ing., is the traditional doctorate. The doctoral degree is awarded for producing a substantial, independent research thesis under the supervision of a university professor. Finding a suitable supervisor is crucial to the success of the doctorate. Before applying to a professor of their choice, doctoral candidates must investigate the main research topics of the institute to which the potential supervisor is attached.

The Traditional Doctorate

Candidates for a traditional doctorate conduct laboratory-based research as research assistants in engineering departments or at research institutions. At universities they not only work as researchers but also perform teaching, organizational and management tasks and gain leadership skills. The traditional doctorate, as the first phase of a career in engineering, prepares you for independent professional activity in the research sector and provides you with the relevant qualifications for leadership positions in industry.

Structured Doctoral (PhD) Programmes

Although the traditional engineering doctorate continues to be the most common path to a doctoral degree in Germany, TU9 Universities also offer structured programmes. These programmes have a clearly defined curriculum requiring participation in seminars and the production of papers. Moreover, doctoral candidates profit from individual supervision and a variety of scholarship opportunities.

The TU9 Universities offer a wide range of structured programmes. These are often part of:

Research Training Groups

A research training group is a group of scientists working on a specific research topic for a limited period of time. This group builds the framework of a focused research programme that leads a group of 10 to 15 doctoral candidates to their PhD, preparing them for a career in science.

Graduate Schools

Graduate Schools are independent institutions in the university – in most cases with the involvement of more than one faculty. They are more interdisciplinary than the thematically focused research training groups. Thus, doctoral candidates can choose from a broader range of research topics.



- 1 RWTH Aachen
- 2 TU Berlin
- 3 TU Braunschweig
- 4 TU Darmstadt
- 5 TU Dresden
- 6 Leibniz Universität Hannover
- 7 Karlsruhe Institute of Technology (KIT)
- 8 TU München
- 9 University of Stuttgart

Prof. Dr. Ernst Rank
Founding Director of the International Graduate School of Science and Engineering and Professor of Computation in Engineering, TU München



"What is special about a doctorate in engineering or science at a TU9 University is that you are prepared not only for an academic career but also for a managerial role in industry. The best proof of this is that countless leaders of industry in German and international high-tech companies took their doctorate with us. You receive excellent preparation for these tasks, in the university departments, through cooperation with industry, and at the TU9 graduate schools."

Thanos Krontiris
Research Assistant and Doctoral Candidate,
TU Darmstadt



"Studying for a doctorate at a TU9 University gave me an excellent insight into research and university life in Germany. The German doctorate in engineering – the in-depth, independent devotion to a current research topic – has not only been a new teaching paradigm but also a valuable addition to my studies."

Vacancies for doctorates or research assistantships are advertised on the websites of the institutes or university job databases and can also be found at www.tu9.de/doctorate

Hale Yilmaz
Research Assistant and Doctoral Candidate,
RWTH Aachen University



"I wanted to supervise projects where I could make use of the interface function of industrial engineers. My supervisor has always encouraged me to cooperate with other disciplines, so that I am running interdisciplinary projects with students of economics, mechanical engineering, textile engineering and business administration."

For an overview of all structured doctoral programmes, graduate schools and research training groups at TU9 Universities visit at www.tu9.de/doctorate