



Research in Germany

- Land of Ideas



PhD and Postdoc Research in the field of “Energy”

To guarantee energy supplies in future it is necessary both to continue developing traditional technologies and promote new processes. Germany is leading the way with clearly-defined goals. In 2020, there ought to be 40 per cent less greenhouse gases than in 1990. The proportion of renewable energy is supposed to grow continually in a sensible energy mixture. Today, there are already many cutting-edge products for producing energy which come from Germany. Its power station technology is famous for its reliability and performance. Today, German coal and gas power stations have reached a degree of efficiency which is a fifth higher than it was 15 years ago.

Science and research in Germany are characterised by an excellent infrastructure, a wide variety of disciplines, well-equipped research facilities and competent research staff. Germany offers various forms of research locations: universities, non-university institutes, companies and institutions run by federal or state (Länder) authorities.

PhD research in Germany

There are two ways to complete a PhD in Germany:

Either you **contact a professor working in your field of interest** and agree to work on a certain research topic under his/her supervision (“traditional German model”). In this case, he/she will – after the research topic has been coordinated – send you an invitation letter, which together with the award letter of your funding institution has to be produced when applying for a visa. Advantage: You need not consider application deadlines of graduate schools and wait for their selection results. In theory, apart from the timelines of



funding organisations, you may start your research any time which is feasible for you and your supervisor. Formal admission as a PhD candidate will mostly come after you have joined the university.

The other choice is to **apply to a graduate school / research school**. In this case, you have to apply formally for admission keeping in mind the one or two application deadlines per year. Advantage: At some graduate schools you are supervised and guided by more than one professor. Your research will mostly be accompanied by a course programme for PhD students and you will work in close contact with your fellow PhD students – which, however, may also be the case when doing PhD research according to the “traditional” model. Some graduate schools run their own funding schemes!

Institutes and graduate schools in Germany offering a PhD in the field of “Energy” (selection)

Offering research opportunities in various fields

(Websites can be switched to English language.)

Helmholtz Centers	Research Field Energy	http://www.helmholtz.de/en/research/energy/
TU Munich	Research Initiative “TUM.Energy”	http://www.tum-energy.mse.tum.de/en/mse-research-tumenergy/
DLR (National Aeronautics and Space Research Center)	Institute of Solar Research	http://www.dlr.de/sf/en/desktopdefault.aspx/tabid-7080/
Fraunhofer-Gesellschaft	Fraunhofer Institute for Solar Energy Systems	http://www.ise.fraunhofer.de/
Goettingen University	International Max Planck Research School for Solar System Science	http://www.mps.mpg.de/73264/imprs
Helmholtz Zentrum Berlin	Renewable Energies	http://www.helmholtz-berlin.de/forschung/oe/ee/index_en.html
Stuttgart University	Res-Dept.of Hydraulic Engineering and Water Resources Management	http://www.iws.uni-stuttgart.de/
Fraunhofer-Gesellschaft	Research Topic Energy	http://www.fraunhofer.de/en/research-topics/energy-living.html
Hamburg University	Graduate School: Key Technologies for Sustainable Energy Systems in Smart Grids	http://www.chemie.uni-hamburg.de/gs-smartgrids/index_e.html
Kaiserslautern University	Chair for Energy Systems and Energy Management	http://www.eit.uni-kl.de/en/esem/home/
BTU Cottbus	Institute of Power Engineering	http://www.tu-cottbus.de/fakultaet3/en/faculty/institutes/power-engineering.html
TU Berlin	Innovation Center Energy	http://www.energie.tu-berlin.de/
Karlsruhe Institute of Technology (KIT)	Energy Center	http://www.energy.kit.edu/



Center for Solar Energy		http://www.zsw-bw.de/
Forschungszentrum Juelich	Energy and Environment	www.fz-juelich.de
Bonn University	Center for Development Research	www.zef.de
RWTH Aachen	Institute of Power Systems and Power Economics	http://www.iaew.rwth-aachen.de/

Find more institutes and research organisations:

www.fvee.de/en/member-institutes/

www.research-in-germany.de

www.research-explorer.de

Funding opportunities for PhD students

DAAD Research Grant (see: www.funding-guide.de)

HEC scholarships

Scholarships offered by Pakistani universities

Scholarships offered by German research organisations

Funding opportunities for postdocs and experienced researchers

Alexander von Humboldt Foundation (see: www.avh.de)

DAAD-Leibniz-Fellowships (see: www.daad.de/leibniz)

Some suggestions for a successful application to a professor or a graduate school in Germany

PhD candidates are expected to act as young research fellows and not as students. Thus, make sure you are well read in your field and you are well informed about the research background of the institute and the people you contact.

Keep in mind that professors are looking for a fellow who fits into their research team and who can contribute to ongoing or future projects. Thus speak about your research background and your research interests and how exactly they match the research foci of the institute/professor you are contacting.

Email correspondence should resemble formal letters and come with a formal address ("Dear Professor Hausmann"). Always address your correspondence partner by his/her name. Keep in mind that in Germany



people never use first names when addressing an unknown person. In professional and academic life many people keep addressing each other by their surnames even after many years of cooperation. So use first names only if the senior person asks you to do so. (Fellow PhD students, however, will always address each other by their first names!)

Correspondence should always be focused on the research field and on one specific correspondence partner. It is strictly advised against using general phrases (“respected professor” / “your esteemed university”) in order send the same letter to a number of persons.

Note: The DAAD cannot arrange for admission to any German research institute!

On research proposal writing

A research proposal is an academic text and has to be in line with the formal requirements on academic writing. It is thus essential that the proposal is in line with the rules of academic integrity, which in the first line means: Plagiarism will never be pardoned.

There is a lot of guidance on the internet about plagiarism and how to avoid it. See for example:

www.plagiarism.org

www.admin.cam.ac.uk/univ/plagiarism/students/referencing/conventions.html

<https://integrity.mit.edu>

Further guidance

If you have further questions after reading all the provided information, please do not hesitate to contact the DAAD Information Center in Islamabad.

Contact: info@daad.org.pk

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German Academic Exchange Service