

„Energy and environment - My idea for tomorrow“

Call for applications for doctoral students of all disciplines

How do we want to live tomorrow? How can energy consumption and environmental protection be reconciled? Do you know the answers to these questions?

The challenges of energy system transformation still exist. At the societal, technical and regulatory level, there are still many open questions in the transport, heating and electricity sectors. We are looking for young researchers who, with their vision, contribute to a more sustainable future in the context of their doctorate.

Are you developing resource-conserving storage systems that create flexibility in the future energy system? Or are you working on environmentally friendly materials for energy generation and transport? Perhaps you also have an idea that motivates people to reduce their personal CO₂ footprint, e.g. by researching human behaviour and creating incentive systems? Do you know how to make tomorrow's agriculture more sustainable and climate-friendly? Are you concerned with sector coupling and the view towards a holistic energy system for Germany, embedded in Europe? Do you know the solution of how a practicable charging management of electric vehicles or the mobility of the future should look like? Have you developed the app of the future that conveniently displays energy requirements for consumers and energy suppliers alike? Or you know how an entire neighbourhood can become smart and energy self-sufficient...

Send us an excerpt from your doctorate - regardless of the stage it has reached. If you are unsure whether the topic of your thesis is appropriate in terms of content, simply call or write a short e-mail. The call for proposals is deliberately broad in scope in order to address doctoral students from all disciplines. We are looking forward to your ideas on the new energy world!

Target group

The call for ideas is aimed at **doctoral students of all faculties**, institutes and universities.

Awards

You research - we award! We will invite the 40 best applicants exclusively to the "**Energy Campus**" **symposium**. During the event, you will have the opportunity to learn first-hand about the latest research and development trends, make valuable contacts and present your submission in the form of a poster.

The three most innovative ideas will be awarded EUR 2,000 (1st place), EUR 1,000 (2nd place) and EUR 500 (3rd place) and, after consultation with the authors, will be published in the print edition of the specialized magazine *Energiewirtschaftliche Tagesfragen "et"*. You can also present your contributions to a selected audience of high-ranking decision-makers from business, industry, research and politics and representatives of associations and NGOs.

We invite all participants to our foundation events (on- and offline) and to the closed LinkedIn alumni group. In this way you become part of a community and can exchange ideas with other doctoral students and potential employer companies from your field of interest.

Contact person

Anke Wilhelm

Stiftung Energie & Klimaschutz (Energy and Climate Protection Foundation)

Durlacher Allee 93

76131 Karlsruhe

Telefon: 0721 63-14801

E-Mail: kontakt@energie-klimaschutz.de

Web: <https://www.energie-klimaschutz.de/junge-stiftung/>

**Symposium "Energy Campus" of the Energy & Climate Protection Foundation
Call for ideas „Energy and environment - My idea for tomorrow“**

Friday, 20 November 2020

DAS BÜRO, Theodor-Heuss Str. 16 (1. OG), 70174 Stuttgart

Agenda (held in German)

8:30 – 9:00	Registration
9:00	Welcome Prof. Dr.-Ing. Kai Hufendiek Scientific Advisory Board and Deputy Board of Directors Institute for Energy Economics and Rational Use of Energy (IER) University of Stuttgart
9:15	„Rethink planning and building digitally“ Prof. Dr. Prof. AA Dipl. (Hons) Achim Menges Head of the Institute for Computer Based Design and Construction Speaker of the Cluster of Excellence Integrative Computer-Based Planning and Building for Architecture at the University of Stuttgart „Urbane Infrastruktur@EnBW: How will we live in the future?“ Dr. Stefanie von Andrian-Werburg Head of Urban Infrastructure EnBW Energie Baden-Württemberg AG Impulses with subsequent question and discussion round
10:45	Coffee break
11:00	Presentation of the submissions Pitches of selected contributions (can be held in English)
12:00	Coffee break
12:15	Presentation of the submissions Pitches of selected contributions (can be held in English)
13:15	Award ceremony Prizes for the most innovative contributions
13:30	Closure and networking with vegetarian snacks

Information for applicants

Your submission consists of three pdf files:

- Cover page: Title of the submission, contact details (your name, institute, field of study, address, e-mail and daytime phone number where we can reach you)
- Summary of your doctorate (this part will be passed on to the jury): with title, but anonymous, i.e. without your name and the name of your institute. Language: English or German, length: maximum five DIN A 4 pages. The work may contain graphics or pictures. Literature/sources do not have to be indicated, but should be traceable in case of queries.
- Poster with an overview of your submitted work. We will have the poster printed on DIN A 1. You can submit this file as soon as you are admitted to the symposium.

The deadline for submissions is Sunday, 18 October 2020 at 24:00 hrs.

Please send your submissions by e-mail to the Energy & Climate Protection Foundation:
kontakt@energie-klimaschutz.de.

You will find out whether your submission has been admitted to the competition by 23 October 2020. Participation is free of charge.

The "**Energy Campus**" **symposium** and the announcement of the winners will take place on **Friday, 20 November 2020 in Stuttgart**. Admitted participants at the Energy Campus will be reimbursed for travel expenses from their place of study. Please contact us separately if you need overnight accommodation due to long travel times or if your place of study is outside Germany. After the symposium we invite you to a small snack.

The works are evaluated by a high-ranking jury from industry and research. Criteria for the award are originality of your approach, relevance for energy system transformation and climate protection, scientific quality and presentation.

The submissions and the work results contained therein remain your intellectual property. Of course, we will take your publication blocks into account. Papers accepted for the symposium will only be published on the Energy & Climate Protection Foundation's website after prior approval by the submitting parties.

By participating in the final symposium, you agree that any photographs or film recordings made in connection with the event may be published without any claim to remuneration.

JURY

Prof. Dr.-Ing. Kai Hufendiek – President of the Jury



As head of the Institute of Energy Economics and Rational Energy Use (IER), Kai Hufendiek has been teaching and researching at the University of Stuttgart since 2014. In addition to the holistic analysis and evaluation of energy systems and individual energy technologies with regard to their economic, technological, social and ecological effects, his research focuses on methods for the design and operational optimization of operation and market integration of centralized and decentralized energy systems and energy efficiency in industry and commerce. In addition, he is the coordinating director of the STRise research network, which brings together the interdisciplinary systems analysis expertise of the University of Stuttgart (IER and ZIRIUS), the German

Aerospace Center (DLR) and the Center for Solar Energy and Hydrogen Research Baden-Württemberg (ZSW) at the Stuttgart site.

studying mechanical and process engineering in Stuttgart and Manchester, he received his doctorate from the Faculty of Energy Technology at the University of Stuttgart.

Afterwards he gained industrial experience in various management positions at a large energy supply company, especially in development tasks in energy trading and sales. He was also responsible for the implementation of various research projects in the field of intelligent energy systems and electromobility.

Prof. Dr. Axel Groß



Prof. Dr. Axel Groß (born 1961) studied physics in Göttingen and Santa Barbara/ USA. After completing his doctorate at the Technical University (TU) of Munich, he worked from 1993 to 1998 as a research associate at the Fritz Haber Institute of the Max Planck Society in Berlin on the dynamics of molecule-surface interaction. In 1996 he spent six weeks researching at the Naval Research Lab in Washington D.C. / USA.

In 1998 Groß took up a C3 professorship for theoretical physics/surface physics at the Physics Department of the TU Munich (until 2004). In 1999 he habilitated at the TU Berlin with the topic "Ab initio Dynamics Calculations of Reactions on Surfaces" and received the teaching

qualification for the subject Theoretical Physics. In 2004, Groß took over a C4 professorship and the management of the Institute for Theoretical Chemistry at the University of Ulm. After a further research stay at the Chemistry Department in Santa Barbara, he became Vice Dean of the Faculty of Natural Sciences at the University of Ulm from 2006 to 2008, then Dean of Studies in Chemistry until 2009 and Dean of the Faculty of Natural Sciences from 2009 to 2012.

From 2012 to 2014, Groß was spokesman for the Surface Physics Association of the German Physical Society. From 2012 to 2015 he was Vice President for Research at the University of Ulm.

In 2011 he was one of the founding directors of the Helmholtz Institute Ulm for Electrochemical Energy Storage (HIU) and a member of its board of directors until 2015. Since 2016 he has been a member of the German Research Foundation's Expert Forum on Chemistry. Since 2019 he has been one of the three spokespersons of the Cluster of Excellence "Energy Storage beyond Lithium", which was jointly established by the University of Ulm and the Karlsruhe Institute of Technology.

Prof. h.c. Dr.-Ing. Joachim Knebel



Professor h.c. Dr.-Ing. Joachim Knebel (born in 1962, mechanical engineer) is head of Division 3 'Mechanical and Electrical Engineering' at the Karlsruhe Institute of Technology (KIT) and is thus responsible for the two KIT Faculties of Mechanical Engineering (MACH) and Electrical

Engineering and Information Technology (ETIT), the three Helmholtz programs 'Storage and Networked Infrastructures', 'Nuclear Fusion', and 'Nuclear Waste Management and Safety', and a total of 34 scientific institutes.

Within the Helmholtz Association of German Research Institutes, he is, among other things, the contact person for the initiative "Energy System 2050", which investigates the integration of essential technology elements into the energy system and develops solutions to successfully integrate the renewable energies, some of which fluctuate strongly, into the German and European energy supply. He represents the KIT on the board of directors for the Research Association for Renewable Energies (FVEE) and the national Copernicus project "New Energy Network Structures for the Energy System Transformation (ENSURE)".

Joachim Knebel is founding director of the international initiative "Affordable Energy for Humanity (AE4H)", which is committed to affordable access to energy for all people.

Prof. Dr. Wolfram Münch



Wolfram Münch (born 1962) studied physics, astronomy and mathematics in Heidelberg and Cambridge (GB) and received his doctorate from the University of Cambridge in 1990. From 1990 to 2001 he held various positions in the "Research and Technology" department of Daimler AG.

From 1991 to 2001, Münch worked part-time at the Max Planck Institute for Solid State Research in Stuttgart in the field of ion conduction mechanisms in solids. In 2000 he habilitated and was appointed associate professor at the University of Ulm in 2009. Since 2001, Prof. Dr. Wolfram Münch has been head of the Research and Development unit of EnBW Energie Baden-Württemberg AG and is a member of the board of the Stiftung Energieforschung Baden-

Württemberg.

REFERENTEN

Dr. Prof. AA Dipl. (Hons) Achim Menges
Architect BDA



Achim Menges, born 1975, is an architect in Frankfurt and professor at the University of Stuttgart. There he has headed the Institute for Computer-based Design and Construction (ICD), which he founded in 2008, and since 2019 the Cluster of Excellence "Integrative Computational Design and Construction for Architecture" (IntCDC). He was also a visiting professor at Harvard University for six years, as well as at various

other universities in the USA and Europe.

Achim Menges graduated from the Architectural Association in London. He taught and researched there from 2002 to 2009 as a Studio Master in the AA Graduate School and from 2003 to 2006 also as a Unit Master in the AA Diploma School. From 2005 to 2008 he was Professor of Form Generation and Materialization in the Department of Product Design at the HfG Offenbach.

In practice and research, Achim Menges is investigating an integrative approach to computer-based design, production and construction, as well as genuinely digital construction methods and architecture made possible by this. Achim Menges is author of more than 160 scientific publications and books. His research work and construction projects have been awarded various international prizes and have been exhibited and published worldwide. They also form part of the permanent collection of several renowned museums, including the Centre Pompidou in Paris and the Victoria & Albert Museum in London.

Dr. Stefanie von Andrian-Werburg



Dr. Stefanie von Andrian has been in charge of the Urban Infrastructure project of EnBW AG since October 2018. A central element of the project is neighbourhood development. In the neighbourhood environment, EnBW AG bundles its

diverse competencies into a strong service programme for municipalities, project developers and investors and provides the infrastructure for the neighbourhood of the future. Social issues and trends are also placed at the centre of the development of infrastructure-related business models and solutions for urban residents. The intelligent networking of data rounds off the project.

Prior to this management function, Stefanie von Andrian gained around 20 years of professional experience in the energy industry after studying mechanical engineering and completing her doctorate on fuel cell vehicle drives. After working as a consultant for energy supply companies, she was responsible for a wide variety of areas in the business units Generation, Networks and Sales.

Please note our information on data protection:

In the past, you have been interested in our events and newsletters and have asked to be added to our mailing list. Originally, the address data either originates from public sources or you have provided us with it at an earlier time. We process the data you provide solely for the purpose of sending out invitations to events or information about the work of our foundation (such as newsletters, reports, references to online activities, etc.) in accordance with Art. 6 Para. 1 of the Basic Data Protection Regulation.

Your data will not be passed on to third parties. If you no longer wish to receive notifications or invitations from us, please let us know by post to the address below or by e-mail to kontakt@energie-klimaschutz.de. We will then delete your data immediately.

Furthermore, you have a right to information about the data we have stored about you, a right to correction, a right to data portability and the right to have your data deleted at any time and without giving reasons. If you are of the opinion that we are not processing your data in accordance with data protection regulations, you have a right of appeal to the supervisory authority. The body responsible for processing your data is Stiftung Energie & Klimaschutz, Durlacher Allee 93, 76131 Karlsruhe.
