

## Curriculum Vitae

# Prof. Dr. Hans-Martin Henning



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### University Education and Academic Career

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#### University Education

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| 1979 – 1981 | Political sciences and science of history (magister study) at the University of Freiburg, Germany and social sciences (diploma study) at the University of Bremen, Germany |
| 1981 – 1987 | Physics (diploma study) at the University of Oldenburg, Germany  |
| 1987 – 1993 | PhD study at physics department of the University of Oldenburg, Germany  |

#### Degrees

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| 11/1988 | Diploma in physics (University of Oldenburg, Germany)   |
| 10/1993 | PhD in physics (Dr. rer. nat.) (University of Oldenburg, Germany; Supervisor Prof. Joachim Luther): Dissertation: “Regenerierung von Adsorbentien mit solar erzeugter Prozesswärme“ (Regeneration of Adsorption Materials Using Solar Process Heat) |

## Professorship Offers

- 12/2010 Offer of Professorship “Climate Engineering“ at the University of Applied Sciences, Stuttgart, Germany (rejected)
- 09/2013 Offer of Professorship “Technical Energy Systems“, Institute of Fluid Machinery (FSM) at Karlsruhe Institute of Technology KIT in conjunction with position at the Fraunhofer Institute for Solar Energy Systems ISE (accepted)
- 12/2016 Offer of Directorship of the Fraunhofer Institute for Solar Energy Systems ISE in conjunction with Professorship “Solar Energy Systems“ at the Department of Sustainable Systems Engineering, Faculty of Engineering, University of Freiburg (accepted)

## Associate Editor

- 10/2011 – 06/2016 Associate Editor of „Solar Energy“, the official journal of the International Solar Energy Society

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## Professional Career

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### Institute for Solar Energy Research ISFH in Hannover/Hameln, Germany and the University of Oldenburg, Germany

- 1989 – 1992 Researcher at the Institute for Solar Energy Research GmbH (ISFH) Hannover/Hameln, Germany
- 1992 – 1994 Junior researcher in the physics department at the University of Oldenburg, Germany (lectures on solar thermal energy use in the Renewable Energy masters program)

### Fraunhofer Institute for Solar Energy Systems ISE, Freiburg, Germany

- 1994 Researcher at the Fraunhofer Institute for Solar Energy Systems ISE, Department of Thermal and Optical Systems
- 1996 – 2005 Head of Group “Thermal Systems and Components”
- 2005 – 2011 Head of Department “Thermal Systems and Buildings”
- 2009 – 2016 Deputy Director of the Fraunhofer Institute for Solar Energy Systems ISE
- 2011 – 2016 Division Director of “Thermal Systems and Buildings”
- Since 2017 Institute Director, Fraunhofer Institute for Solar Energy Systems ISE, Freiburg (together with Prof. Dr. Andreas Bett)

### Karlsruhe Institute for Technology KIT, Karlsruhe, Germany

- 01/2014 – 06/2017 Professor of Technical Energy Systems, Dept. of Mechanical Engineering in conjunction with position at the Fraunhofer Institute for Solar Energy Systems ISE; Head of the Institute of Fluid Machinery (FSM) together with Prof. Dr. Martin Gabi and of the group “Energy and Building Technology” within FSM

## University of Freiburg, Germany

Since 07/2017 Professor of Solar Energy Systems at the Institute for Sustainable Systems Engineering, Faculty of Engineering, University of Freiburg in conjunction with the Directorship of the Fraunhofer Institute for Solar Energy Systems ISE

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## Further Activities and Functions

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### Further Activities

- 1999 – 2004 Operating Agent of Task 25 “Solar-Assisted Air-Conditioning of Buildings” within the Solar Heating & Cooling Program (SHC) of the International Energy Agency (IEA)
- 05/2002 Co-founder and co-owner of Sortech AG (since 2017 FAHRENHEIT) in Halle, Germany (adsorption cooling company)
- 05/2002 – 07/2012 Member of the Technical Advisory Committee of Sortech AG in Halle, Germany; technical advice in product development of adsorption heat pumps and R&D strategy
- 2005 – 2012 Member of the Scientific Advisory Council for the Institute for Renewable Energies of the European Academy (EURAC), Bolzano, Italy
- 2006 – 2010 Operating Agent of Task 38 “Solar Air-Conditioning and Refrigeration” within the Solar Heating & Cooling Program (SHC) of the International Energy Agency (IEA)
- 08/2007 – 07/2012 Member of the Board of Directors of Sortech AG in Halle, Germany
- 11/2009 – 12/2010 Member of the Board of Directors of the VDE-ISE Ptd. Ltd. (Singapore); a joint venture company of the VDE (Offenbach, Germany) and Fraunhofer ISE, offering PV module testing according to IEC standards for the South-East Asian market.
- 05/2010 – 12/2010 Member of the Board of Directors of CFV Solar Laboratories, Albuquerque, New-Mexico, USA; a joint venture company of Fraunhofer Germany, Fraunhofer USA, VDE and CSA (Canadian Standards Association) which performs PV module testing according to IEC standards and UL standards for the U.S. market.
- Since 04/2014 Cooperative work in the project „Energiesysteme der Zukunft“ (Energy Systems of the Future) of acatech – National Academy of Science and Engineering, Leopoldina –the German National Academy of Sciences and the Union of the German Academies of Science and Humanities:
- Head of working group “AG Flexibilitätskonzepte – Fachgruppe Demand-Side-Management Wärme“ (AG Flexibility Concepts – Expert Group on Demand Side Management – Heat) together with Prof. Dr. Dirk-Uwe Sauer, RWTH Aachen (04/2014 – 11/2015)
  - Joint head of working group “Sektorkopplung“ (Sector Coupling) together with Prof. Dr. Eberhard Umbach (03/2015 – 11/2017)
  - Member of the Board of Directors of the academy project "Energy Systems of the Future (ESYS)" (since 03/2019)
- Since 12/2016 Speaker of the Fraunhofer Alliance Energy of the Fraunhofer-Gesellschaft

Since 01/2017	Member of the Board of Directors of PSE AG, Freiburg, Germany, a company that performs services for solar industry and institutions in the fields of equipment testing, software development and conference management
Since 07/2017	Member of the Board of Trustees of the Center for Solar Energy and Hydrogen Research Baden-Württemberg (ZSW)
Since 10/2018	Member of acatech (German National Academy of Science and Engineering)
Since 01/ 2019	Speaker of the Fraunhofer Cluster of Excellence „Integrated Energy Systems CINES“
2020	Deputy Spokesman of the Renewable Energies Research Association (FVEE)
Since 04/2020	Member of the scientific advisory board of the „Roadmap Effizienzstrategie 2050“ (Federal Ministry for Economic Affairs and Energy, BMWi)
Since 09/2020	Member of the Expert Council on Climate Issues of the German Government (Chairman since 10/2020)
2021	Spokesman of the Renewable Energies Research Association (FVEE)
Since 2021	Chairman of the Fraunhofer Group for Energy Technologies and Climate Protection and Member of the Presidential Council of the Fraunhofer-Gesellschaft

#### **Member of Scientific Committees of Conferences**

2005 – 2015	Permanent member of the scientific committee of the bi-annual international conference “Solar Air-Conditioning“, until 2017 organized and owned by OTTI Technologie-Kolleg (Regensburg, Germany)
2008, 2010	Member of the Scientific Committee of the International Conference on Solar Heating and Cooling and Buildings EuroSun
2009 – 2015	Permanent Scientific Committee Member of the Energy Forum, an annual international conference on solar energy use in buildings in Bressanone, Italy
2009 – 2019	Permanent Scientific Committee Member of the annual symposium “Thermische Solarenergie“ (Solar Thermal Energy), until 2017 organized and owned by the OTTI Technologie-Kolleg (Regensburg, Germany)
2011	Scientific Committee Member of the international ISES Solar World Congress, owned and organized by the International Solar Energy Society ISES
2011, 2013	Scientific Committee Member of CISBAT, the International Conference on Cleantech for Sustainable Buildings
2012 – 2014	Permanent Scientific Committee Member of the International Conference on Solar Heating and Cooling for Buildings and Industry SHC (Conference Chair in 2013)
2013	Scientific Committee Member of the ISES Solar World Congress (International Solar Energy Society, Cancun/Mexico); Topic Chair for Solar Heating and Cooling
2018	Member of the Advisory Board of the International Sustainable Energy Conference ISEC
Since 2021	Member and Conference Chair of the Scientific Advisory Board of the International Renewable Energy Storage Conference IRES

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## Publications

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104 in periodicals and journals

18 books

Editor of two handbooks on solar energy

174 conference proceedings

274 talks

Participation in several patent registrations (single patents and patent families)