

**Werner Zielke,
Prof. em. Dr.-Ing. Dr. h. c.**

Emeritus Professor and former Director (1976 – 2008) of the Institute of Fluid Mechanics and Computer Applications in Civil Engineering (now: Fluid Mechanics and Environmental Physics), Leibniz Universität Hannover

Fields of Research

Numerical modelling of flow and flow-induced processes in hydraulic, maritime, geotechnical and structural engineering, in particular:

- Fluid transients in industrial systems
- Coastal hydrodynamics, coastal morphodynamics, estuary dynamics
- Flow, mass and heat transport in porous and fractured rock
- Environmental loads on offshore wind energy converters

Education:

- 1948 – 1957 Märkisches Gymnasium, Iserlohn, Germany
- 1957 – 1959 Technische Hochschule Aachen (RWTH)
- 1960 – 1962 Technische Hochschule München (TUM)
 - 11/1962 Diplom-Ingenieur degree in Civil Engineering
- 1964 – 1967 University of Michigan, Ann Arbor, USA
 - 12/1966 Ph.D. degree, University of Michigan

Professional Activities:

- 1963 – 1964 Research assistant at the Institute of Hydraulic Engineering of the Technical University of Munich.
Fields of activity: Hydraulic modelling of the flood wave propagation in rivers and investigation of the effect of river training.
- 1964 – 1967 Research assistant at the Hydraulics-Hydrology Group of the University of Michigan, Ann Arbor, Michigan, USA.
Fields of activity: Hydraulic transients in pipes and open channels, pressure pulse propagation in arteries.
- 1967 – 1970 Research Engineer at the Boeing Commercial Airplane Division, Seattle, USA.
Fields of activity: Airplane hydraulic systems.
- 1970 – 1976 Research Engineer at the Oberrach Institute of Hydraulic Engineering of the Technical University of Munich.

Fields of activity: Fluvial hydraulics, flood wave propagation, hydraulic transients in water power and in industrial systems.
- 1976 – 2008 Professor of Fluid Mechanics. Director of the Institute of Fluid Mechanics and Computer Applications in Civil Engineering (now: Fluid Mechanics and Environmental Physics), Department of Civil Engineering and Geodesy, Leibniz Universität Hannover.

Research in the area of hydraulic transients, of maritime and coastal processes, offshore wind energy.

Courses taught: Elementary and Intermediate Fluid Mechanics.
Numerical Fluid Mechanics, Mass and Heat Transport.
Simulation of Processes, CAD in Hydraulic Engineering..

Consulting for government agencies and engineering firms.

Principal advisor of 49 doctoral students

Coordinator of several joint multidisciplinary projects sponsored by the German Research Society, the European Union, federal and state ministries.

- 1983 – 2007 Board member of ForschungsZentrum Küste (Coastal Research Center) of the Universities of Hannover and Braunschweig.
- 1987 – 2003 Member of the Senate of German Research Foundation (DFG), committee for Collaborative Research Centres (SFBs).
- 1995 – 2007 Liaison Officer of Leibniz Universität Hannover for Deutsche Forschungsgemeinschaft, DFG, (German Research Foundation).
- 2001 – 2007 Ombudsman for good scientific practice and scientific misconduct of Leibniz Universität Hannover.
- 2000 – 2007 Initiator and first coordinator of GIGAWIND (Research on offshore wind energy) at Leibniz Universität Hannover.
- 2003 – 2007 Board member of Research Center FORWIND of Wind Energy of the Universities of Hannover and Oldenburg.
- 1996 - 1997 Head of the Department of Civil Engineering and Geodesy,
- 2008 - Emeritus professor, research, advising graduate students

Memberships:

American Society of Civil Engineers (ASCE),
International Association of Hydraulic Research (IAHR),
Hafenbautechnische Gesellschaft (HTG),
Deutsche Vereinigung für Wasserwirtschaft, Abwasser und Abfall e.V. (DWA).

Honors:

Honorary Doctor of Technical University of St. Petersburg, Russia.
Ordinary Member of the Scientific Academy “Braunschweigisch Wissenschaftliche Gesellschaft“.
Visiting Professor of XI’AN University of Architecture and Technology, XI’AN, China