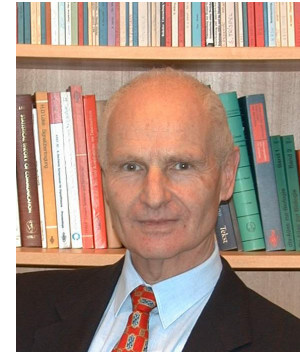


CURRICULUM VITAE

Univ.-Prof. Dr. rer. nat. GÜNTER RAU
- Diplomingenieur -



BIRTH DATE: November 23, 1938

EDUCATION:

University of Technology Karlsruhe Germany	Dipl.-Ing. (M.S.)	1964	Electrical Engineering
University of Freiburg Germany	Dr. rer. nat.	1969	Biology

PROFESSIONAL EXPERIENCE:

2004 – Present	Professor Emeritus, Faculty of Electrical Engineering and Information Technology & Faculty of Medicine, RWTH Aachen University of Technology, Germany
1976 – Present	Chair, Biomedical Engineering, Faculty of Electrical Engineering and Information Technology RWTH Aachen University, Germany
2001 – 2004	Chair, Applied Medical Engineering, Faculty of Medicine, RWTH Aachen University, Germany
1976 – 2004	Head and Director, Helmholtz-Institute for Biomedical Engineering, Aachen, Germany
1976 – 2004	Full Professor, Faculty of Electrical Engineering and Information Technology & Faculty of Medicine, RWTH Aachen University of Technology, Germany
1971 – 1976	Research Associate, Research Institute for Human Engineering (FAT), FGAN Werthhoven, Germany
1969 – 1971	Research Associate, Institute for Perception Research (IPO), Philips Central Research Laboratories, Eindhoven, The Netherlands
1966 – 1969	Research Associate, Institute for Biology,

- University of Freiburg, Germany
- 1964 – 1966 Research Associate, Institute for Electrobiology and Biophysical Measuring Techniques,
University of Technology Karlsruhe, Germany
- 1958 – 1964 Student (Diplom-Ingenieur, M.S.), Electrical Engineering,
University of Technology Karlsruhe, Germany

RECOGNITIONS:

- 1966 Scholarship in Medicine/Biology by Volkswagen-Foundation
- 1987 Best Presentation Award, IEEE-EMBS Ann. Conference (out of 700)
- 1988 Visiting Professor, Institute for BME, University of Toronto, Canada
- 1993 Research Visiting Professor, Institute of Applied Physiology,
University of Ulm, Germany
- 1995 Elected IEEE Fellow (for Leadership and Innovation in Teaching and
Research in Biomedical Engineering)
- 1996 Appointed founding member, International Academy of Medical and
Biological Engineering
- 1999 Elected and appointed founding member, IOC Olympic Academy of
Sport Sciences
- 2001 BMES BME International Award, Biomedical Engineering Society
(USA)
- 2002 Invited speaker for the John Basmajian Lecture,
Int. Soc. Electrophysiology and Kinesiology, Vienna
- 2003 Chair, International Academy for Medical and Biological Engineering
- 2009 Life Fellow, IEEE

MEMBERSHIPS (Selected):

- International Society of Biomechanics (ISB)
Vice President (1977-1981); President (1997-1999)
- World Council of Biomechanics
Vice Chair (1991-1998)
- European Society for Engineering and Medicine (ESEM)
Board of Directors (1992-1999)
- German Society for Medical and Biological Engineering (DGBMT)
President (1982-1984); Vice President (1984-1987)
- International Federation of Medical and Biological Engineering (IFMBE)
Council Member (1982-1988)
- IEEE-Engineering in Medicine and Biology (IEEE-EMBS)
Administrative Committee Member (1987-1988)
- Gesellschaft für Physikalische Biologie (Appointed Membership)

Society of Cryobiology

Deutsche Gesellschaft für Herz- und Kreislaufforschung (Soc. has terminated in 2004)

Verein Deutscher Ingenieure/Verein Deutscher Elektrotechniker

EDITORIAL ACTIVITIES:

Associate Editor	—	IEEE Transactions on Biomedical Engineering
Editorial Board	—	Frontiers of Medical and Biological Engineering (Japan)
Editorial Board	—	Journal of Electromyography and Kinesiology
Advisory Board	—	Journal of Electromyography and Kinesiology
Editorial Board	—	Journal of Clinical Monitoring
Consultant	—	Journal of Biomechanics

OFFICIAL FUNCTIONS BY APPOINTMENT (Selected):

Advisory Board of the Science City ULM (1988-1998, app. by Prime Minister of the State of Baden-Württemberg)

Computer Board of the German Research Society (DFG) (1982-1988)

Advisory Board of Economic Action in Biomedical Engineering of the Federal Government of Switzerland (1995-1998)

Advisory Board of the European Commission on Biomedical Technology (2nd and 3rd Framework Programme)

Scientific and Advisory Board (Head of Kuratorium from 1995-1998) of Institute for Occupational Physiology at University Dortmund, Germany

MEDICA-Trade and Fair Congress (Scientific Board) (1991-2004)

PUBLICATIONS:

ca. 250 publications,

ca. 170 oral presentations (several invited key notes)

SUPERVISION:

ca. 140 PhD theses

ca. 500 MS theses

RESEARCH ACTIVITIES/SCIENTIFIC FIELDS OF INTEREST:

- Biomechanics of the Cardiovascular System (Heart Valves, Blood Pumps, Fluid Dynamics)
- Cryobiology (Cryopreservation of Cells and Matter, Freezing Drying, Cryosurgery, Heat and Mass Transfer, Cryomicroscopy)
- Biophysical Measuring Techniques (Sensors, Signal acquisition, Processing, Visualisation)

- Ergonomics in Medicine (Anaesthesia and Intensive Care Information Systems, Workflow Analysis and Design, Decision Support)
- Surgical Therapy Technology (Minimally Access Diagnosis and Therapy, Endoscopy, Manipulators and Robotics)
- Biomechanics of Human Movement (Analysis, EMG)

OTHER:

Co-Founder or Mentor of about 20 Spin-Off/Spin-Out Companies (start-ups)

