

Curriculum Vitae

Last name, First name: Leitgeb, Norbert

Gender: male

Nationality: Austrian

Overall Scientific Expertise:

Risk analysis and conformity assessment of medical devices, assessment, evaluation and communication of risks from electricity (e.g. electric shocks and currents e.g. from electric stun devices), from electromagnetic fields (EMF) in the ELF and RF range in health care and daily environment (e.g. magnetic resonance imaging, power lines and mobile phones), investigation of electric and electromagnetic interactions by human laboratory studies as well as by numerical whole-body anatomical models and models of nerve and muscle cells; EMF field measurement and dosimetry, development and assessment of emerging health care methods.

Professional Experience

Years employed from – to	Title of position	Employer – name and location	Areas of professional specialisation
2004-present	Head	Institute of Health care Engineering; European Notified Body of Medical Devices Graz University of Technology	Health care engineering Conformity assessment
1989 -2004	Head	Department of Clinical Engineering; Graz University of Technology	Clinical Engineering (safe health care delivery)
1984-2004	Vice-Head	European Notified Body of Medical Devices Graz University of Technology	Conformity assessment (safety testing, clinical evaluation, risk analysis etc.
1974-1984	Assoc. Prof.	Institute of Biomedical Engineering	Biomedical Engineering (device development, health care engineering)

Educational Background

Year	Degree awarded	Educational Institution – name and location	Areas of educational specialisation
1989	Prof.	Graz University of Technology	Health Care Engineering Clinical Engineering
1982	PhD	Graz University of Technology	Medical Imaging
1978	Dr. techn.	Graz University of Technology	Biomedical Engineering
1974	Dipl.Ing.	Graz University of Technology	Electronics and Communications Engineering

Memberships in Scientific Advisory Bodies/Committees/Panels

- member, WHO, International Advisory Committee on EMF
- consulting member, International Commission on Non-Ionizing Radiation (ICNIRP)
- vice-chairman, member, German Commission on Radiological Protection (SSK)
- chairman, member, Committee on Non-Ionising Radiation (NIR), SSK
- chairman, several working groups, Committee on NIR, SSK

- member, steering committee, COST Action 244 “Biomedical Effects of Electromagnetic Fields”
- chairman, WP “Basic Research” of COST Action 244
- member, steering committee COST Action 244bis “Biomedical Effects of Electromagnetic Fields”
- chairman, COST Action 281 “Possible Health Implications from Mobile Telecommunication Systems”
- member, steering committee, European Coordination Action EMF-NET „Effects of the Exposure to Electromagnetic Fields“
- chairman, WP “Emerging Technologies”, ECA EMF-NET
- chairman, WP “Intermediate Frequencies”, ECA EMF-NET
- member, European EMF Fast Response Team, ECA EMF-NET
- member, European COST Action BM 0704 “Emerging EMF Technologies and Health Risk Management”
- member, EC European Notified Body Group (ENBG)
- chairman, EMC task force, ENBG
- chairman, standards committee “Medical Technology”, Austrian Standards Institute
- chairman, standards committee “Medical Devices”, Austrian Electrotechnical Association
- member, standards committee “Non-Ionising Radiation Protection”, Austrian Standards Institute

Memberships in Learned Societies:

Presently member in:

- International Union of Radio Science
- European BioElectromagnetics Association
- Austrian Society of Biomedical Engineering

Memberships in Editorial Board:

- Bioelectromagnetics
- Radiation and Environmental Biophysics
- Wiener Medizinische Wochenschrift (guest editor)
- Ultrasound in Medicine

List of Publications:

More than 280 publications, 5 patents, 3 textbooks on safety of medical devices, 2 textbooks on electromagnetic fields and health, 10 book chapters on medical ultrasound, safety of implantable active medical devices, electromagnetic radiation and safety, evidence classification, risk assessment, electromagnetic hypersensitivity, medical EMF applications, emerging EMF technologies.

Leitgeb N: The impact of thermal modeling on limiting RF-EMF, JEMAA, publication in April 2013

Leitgeb N, Niedermayr F, Loos G (2013): Electromagnetic compatibility of electronic article surveillance (EAS) systems with active electronic implants. JEMAA,5:67-73

Leitgeb, N. (2012): Medical Devices and Systems Exposure and Dosimetry. In: Lin, J.C.(ed.): Electromagnetic Fields in Biological Systems. CRC Press Inc. 331-368, ISBN: 978-1-4398-5999-5

Leitgeb, N (2012): Improved approach of classifying evidence of health risks. Health Physics, 103(2):195-199

- Leitgeb N, Niedermayr F, Neubauer R, Loos G (2012): Risk of pacemaker patients by TASER X26 contact mode application. JEMAA 4:96-100
- Leitgeb, N. (2011): Comparative health risk assessment of electromagnetic fields, Wien Med Wochenschr 161(9-10):251-262
- Leitgeb, N. (2009): Electromagnetic Hypersensitivity. in: Lin, J.C.(ed.): Advances in Electromagnetic Fields in Living Systems. Health Effects of Cell Phone Radiation, Volume 5, Springer-Verlag New York 167-197, ISBN 978-0-387-92733-6
- Leitgeb, N. (2008): Mobile phones: Are children at higher risk? Wiener Med. Wochenschr.,158:36-41
- Leitgeb, N., Schröttner, J., Cech, R., Kerbel, R. (2008): EMF-protection sleep study near mobile phone base stations. Somnology, 12:234-243
- Cech, R., Leitgeb, N., Pediaditis, M. (2008): Current densities in a pregnant woman model induced by simultaneous ELF electric and magnetic field exposure. Phys. Med. Biol. 53:177-186
- Leitgeb, N. (2008): Procedures for characterizing evidence. in: Wiedemann, P. (ed.): The Role of Evidence in Risk Characterization. Wiley-VCH, 121-129, ISBN: 978-0-7879-8792-3
- Leitgeb, N. (2008): Assessment of multiple frequency ELF electric and magnetic field exposure. Phys. Med. Biol. 53:431-443
- Leitgeb, N., Cech, R., Schröttner, J., Lehofer, P., Schmidpeter, U., Rampetsreiter, M. (2008): Magnetic emission ranking of electric appliances. A comprehensive market survey. Radiat. Prot. Dosim., 129:439-445
- Leitgeb, N., Schröttner, J., Cech, R. (2007): Perception of ELF electromagnetic fields: Excitation thresholds and inter-individual variability, Health Physics, 92(6):591-595
- Leitgeb, N., Cech, R. (2007): Electromagnetic Shielding Mats: Facts and Fiction. Health Protection Dosimetry 123(4), 450-456
- Leitgeb, N., Schröttner, J., Cech, R. (2005): Electric current perception of the general population including children and elderly. J. Med. Eng. Technol. 29, 215-218