

The Foundation for Research on Information Technologies in Society (IT'IS), an independent, nonprofit research organization closely associated with the Swiss Federal Institute of Technology (ETH) Zurich, is currently seeking applicants for the post as

PostDoc / Senior Scientist In- and On-Body Antennas and Implant MR Compatibility

IT'IS, together with its partner organizations Schmid & Partner Engineering AG (SPEAG) and ZMT Zurich MedTech AG (ZMT), forms the Zurich43 alliance. Z43's dedicated mission is to expand the knowledge and technology for the (i) characterization, optimization, and application of the electromagnetic (EM) near-field and (ii) predictive modelling of interactions between physical agents and physiology in complex anatomies.

Your challenges:

- Planning and execution of R&D projects
- Development of simulation tools and novel numerical algorithms
- Research on novel antennas and implant structures
- Managing the collaborations with various research partners
- Preparation of high impact journal publications and conference talks
- Acquisition of new project funding from academic funding sources and industry
- Performance of customized R&D services with industry partners
- Participation in the development of measurement standards (Magnetic Resonance Imaging (MRI) implant safety, Wireless power transfer (WPT))
- Supervision of PhD students

Your strengths:

- PhD degree in Electrical Engineering or Physics and experience in most of the following areas:
 - EM simulation algorithms (FDTD, FEM, MoM) and antenna theory
 - Radiofrequency measurement techniques and dosimetry
 - Physics of antennas, MRI and/or WPT
 - Safety evaluation of EM devices and exposure systems
 - Knowledge of uncertainty analysis and conventions are a plus
 - Development of simulation and numerical tools in Python and/or C++
- Strong sense of responsibility and highest quality standard of work
- Self-motivation, good organizational and communication skills, impeccable attention to detail, friendly personality and team-spirit, sensitivity to customer needs, and ability to manage several tasks simultaneously, work independently in a fast-paced environment, and to meet tight deadlines
- Readiness for occasional business trips
- Good to excellent command of the English language (both written and spoken), ability to communicate in German a plus

Our offer:

- Stimulating environment for innovation at the forefront of our research areas and key technologies
- State-of-the-art laboratories, high-performance computing clusters, and production facilities
- Vibrant and open company culture thanks to a diverse and creative mix of people from across the globe with various backgrounds in physics, electronics, mathematics, biology, etc.
- Colleagues who are smart, competent, and passionate about valuable, cutting-edge work and who strive to meet high ethical standards

Applications will be accepted until the position is filled. Direct applications are preferred; applications submitted via recruitment agencies are discouraged. Please note that incomplete applications will be disregarded.

Please send your application documents (in English) consisting of motivational letter, detailed CV (max 2 pages), diplomas, transcripts (with grades), work certificates and/or reference letters (if available) to:

Zurich43, Yvonne Maeder, Zeughausstrasse 43, 8004 Zurich, Switzerland, Phone: +41 44 245 96 96, jobs@z43.swiss

Informal enquiries are welcome and should be directed to [Dr. Arya Fallahi](mailto:afallahi@itis.swiss) (afallahi@itis.swiss).