

Alexander Horsch

Alexander Horsch, born 1955 in Augsburg, Germany, is head of the Computer Science Department at UiT – The Arctic University of Norway. He received his degree of Dr. rer. nat (PhD) in computer science in 1989 and the Dr. med. habil. in medical informatics in 1999, both from the Technical University Munich (TUM).

From 1987-1995, Prof. Horsch was head of the medical computing center of the university hospital Klinikum rechts der Isar. Since 1992 he is lecturer in medical informatics, and he was manager of several projects in telemedicine and computer-aided diagnosis with grants from the German Ministry of Research and Technology, the Bavarian State Government, the European Union and the German Telekom. From 1998 to 2003 he was adjunct professor in telemedicine of the University of Heidelberg. In summer 2005 he became professor in the Telemedicine and eHealth master program at UiT and had appointments at the Department for Clinical Medicine (IKM) and at the Computer Science Department (IFI) of UiT, the latter one in the framework of the Tromsø Telemedicine Laboratory (TTL). He is member of the research group for physical activity at UiT Medical Faculty, focusing on sensor data analysis within the Tromsø Study, a large epidemiological trial.

Prof. Horsch has worked with the European Space Agency (ESA) since 2004 when he was a member of the ESA Telemed Working Group, and with the World Health Organization (WHO) since 2005 as eHealth and Telemedicine expert, e.g. for the TMA-Bridge concerted action of WHO, ESA and ITU, and for the WHO Global eHealth Observatory. From 2006, he has worked in different periods as consultant for EC (Telemedicine Task Force) and ESA in the Satellite-Enhanced eHealth for Sub-Saharan Africa (eHSA) program. Since 2011 he is also supporting the United Nations Office for Outer Space Affairs (UNOOSA) in its Human Space Technology Initiative (HSTI).

Prof. Horsch has published numerous scientific papers, abstracts and chapters in journals, conference proceedings and books. He has supervised a dozen doctoral students. His main research interests are computer-aided diagnosis, biosensor applications, eLearning, and eHealth applications for resource-poor settings. He has led or was partner in projects for teleservices in gastroenterology and other specialties, web-based multi-modal interactive teaching of tumor diagnostics, as well as case-based ophthalmologic eLearning, early recognition of malignant melanoma, quantitative measurement of tumors using tomography data, and accelerometry for physical activity measurement in chronically ill. Currently, he is member of the physical activity research groups of the Tromsø Study and the German National Cohort.

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Selected Publications

Theses

- Horsch A: Ein modifiziertes Differenzenverfahren beim Randwertproblem der Helmholtz-Gleichung und dem Eigenwertproblem der schwingenden Membran auf dem L-Gebiet, Diploma Thesis, TUM, Faculty of Informatics and Informatics, 1979
- Horsch A: Functional Programming with Partially Applicable Operators, Doctoral Thesis, TUM, Faculty of Mathematics and Informatics, 1989
- Horsch A: Computergestützte Diagnostik für Hautkrebsfrüherkennung, Ösophagustumorstaging und Gastroskopie. Habilitationsschrift zur Erlangung des Grades eines habilitierten Doktors der Medizin an der Medizinischen Fakultät der Technischen Universität München, 1998

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Books as editor or co-editor

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