TU/e

HCI Research at the Technical University Eindhoven

--

Mission of JF Schouten School

- Communication, Choice and Control (the human)
- User Interface Engineering & Design Methodology (the interface)
- Virtual and Augmented Environments (the experience)
Three Paradigms

Social Science  Industrial Design  Engineering

Psychology  Cognitive Science
Computing Science  Electrical Engineering  Mechanical Engineering

Three Major Barriers

Social Science  Industrial Design  Engineering

Psychology  Cognitive Science
Computing Science  Electrical Engineering  Mechanical Engineering

Explaining the world  Changing the world  Objective  Subjective  Technology Oriented  Human Oriented
Technical University Eindhoven
Department Industrial Design
Designed Intelligence Research Group

Staff:
2 full-time professors
1 associate professor and 5 assistant professors
several PostDocs and PhD students

Core Competencies:
- adaptive systems
- ambient intelligence
- emotion and design, funology
- autonomous systems, robotics

Technical University Eindhoven
Department Industrial Design
User Centered Engineering Research Group

Staff:
2 full-time professor and 1 part-time professor
1 associate professors and several assistant professors
several PostDocs and PhD students

Core Competencies:
- usability engineering and usability testing
- user requirement and task analysis
- advanced interactive technology (gesture, speech, etc.)
- multi-modal interface design (e.g., children, elderly, etc.)
Full Prof Dr Matthias Rauterberg

Biography:
Prof. dr. Matthias Rauterberg has held teaching and research positions at the Technical University of Hamburg-Harburg (Germany), University of Oldenburg (Germany), and Swiss Federal Institute of Technology ETH (Switzerland). He was a senior lecturer for "usability engineering" in computer science and industrial engineering at the Swiss Federal Institute of Technology (ETH) in Zurich. He was the head of the Man-Machine Interaction research group (MMI) of the Institute for Hygiene and Applied Physiology (IHA) at the Department of Industrial Engineering (ETH). He holds a Diploma Degree (M.Sc.) in Computer Science, a Diploma Degree (M.Sc.) in Psychology and a Bachelor Degree (B.A.) in Philosophy. He finished his PhD in Mathematics/Computer Science at the University of Zurich (Switzerland). Since 1998, he is fulltime professor for "Human Communication Technology" at the Department of Industrial Design at the Technical University Eindhoven (The Netherlands).

Publications:

Technical expertise:
He is an expert in the field human-computer interaction, software ergonomics, usability engineering, and cognitive engineering.

Teaching Experience:
Several courses (one day, one week, full-fledged lecture) in "Introduction to Human-Computer Interaction", "Design of Graphical User Interfaces", "Design of Multi-Media Interfaces", "User Centered Design", "Usability Engineering", "Interaction Design".

Current Interests:
Design of the next generation of user interfaces ("beyond the desktop"), ubiquitous computing, interaction design, emotional design, adaptive systems, active forms.

Laboratory Infrastructure

MuseLab

SoundLab

KidLab

UsabilityLab
Future of USI/HCI and JFS

- JF Schouten School for User-System Interaction Research: Request for [re]-recognition as a research school by the Royal Netherlands Academy of Arts and Sciences (KNAW) [December 2001]
- Self-evaluation report for the peer review committee:
  - Tommy Gärling, Göteborg University (Sweden)
  - Daniel Gopher, Technion Institute of Technology (Israel)
  - Neville Moray, University of Surrey (United Kingdom)
  - Ryohe Nakatsu, ATR Laboratories (Japan) [October 2001]
- Re-Recognition of JFS by the Royal Netherlands Academy of Arts and Sciences in 2002 till 2007

USI Research Line

- Design knowledge
- Analysis
- Synthesis
- [empirical] validation
- Interactive systems

Interactive systems

 TU/e