Main research interest (DSC/e related)

We design, develop and evaluate technologies to support data collection in everyday life through wearable systems, ecological momentary assessment, games in order to support people to learn about themselves, to change behaviors for the purposes of healthy living, prevention or rehabilitation.

We are interested in:

• Tailoring and personalization in technologies supporting behavior change
• Serious Games / Games with a Purpose
• Supporting longitudinal studies involving self-report and activity logging
• Understanding the effects of self-monitoring on individuals and groups

Scientific staff (DSC/e related)

Approximately half of the group is focusing on data driven research. Key involved staff:

Prof. Panos Markopoulos (Head of the Group)
End-user development, shape changing interfaces, rehabilitation technology, interaction design and children

Prof. Jean-Bernard Martens
Signal and image processing, statistical modeling, psychophysics, augmented reality, visual interaction with complex data

Prof. Ben Schouten
Playful Interactions, Games with a Purpose

Dr. Sebastian Overeem
Sleep Medicine

Dr. Tilde Bekker
Playful interactions, design based learning, interaction design and children

Dr. Javed Khan
Mobile and ambient intelligence applications & crowd sourcing

Dr. Daniel Tetteroo
End-user development, rehabilitation, tangible user interfaces

Furthermore 3 PhDs are working on various Data Science related projects.

Project examples

• GHOST - FP7 IST-FET Open
  Generic Highly Organic Shape-Changing Interfaces.
• i-PE - NWO
  Intelligent Play Environments project.
• Zishi: a smart garment for posture monitoring and correction. (CSC, Wang Qi).
• STEC Project - NWO
  Culturally-situated dynamics of human behavior.
• Advanced Sleep Monitoring - IMPULS II: Philips, Kempenhaeghe & TU/e.
• ILLMO – Interactive Log Likelihood Modeling software. see http://illumoproject.wordpress.com

www.tue.nl/en/university/departments/industrial-design/research/research-groups/user-centered-engineering/
Data science is an **interdisciplinary field** that uses a variety of techniques to **create value** based on extracting knowledge and insights from **available data**. Data science is applied everywhere: in business, health, industry, finance, government, education, and also in scientific research.

The Data Science Center Eindhoven (**DSC/e**) is TU/e’s response to these challenges and possibilities. By bringing top scientists and students from **over thirty research groups** from different TU/e departments together on specific topics, we can tackle the most challenging scientific and societal challenges. All involved groups made a **one-page description** of their main research interests and the involved staff with their key expertise, like the one you’re holding now.

### Mathematics and Computer Science
- Algorithms
- Applied Geometric Algorithms
- Architecture of Information Systems
- Data Mining
- Mathematical Image Analysis
- Probability
- Security of Embedded Systems
- Software Engineering & Technology
- Statistics
- Stochastic Operations Research
- System Architecture & Networking
- Visualization
- Web Engineering

### Electrical Engineering
- Cognitive Internet of Things
- Control Systems
- Electrical Energy Systems
- Signal Processing Systems

### Built Environment
- Building Lighting
- Information Systems in the Built Environment
- Real Estate Management & Urban Planning
- Urbanism and Urban Architecture

### Industrial Engineering & Innovation Sciences
- Human Technology Interaction
- Information Systems
- Innovation, Technology Entrepreneurship & Marketing
- OPAC: Freight Transport & Logistics
- OPAC: Maintenance & Manufacturing
- OPAC: Supply chain management
- Philosophy & Ethics

### Biomedical Engineering
- Cardiovascular Biomechanics
- Computational Biology
- Medical Image Analysis