

Presentation WiCa research group, Department of Information Technology, iMinds - Ghent University

Prof. Luc Martens

■ 2 Prof.

- Luc Martens (Head)
- Wout Joseph

■ 4 Post-Doc researchers

■ 17 PhD researchers and assistants

■ Since 80's involved in EMF and humans

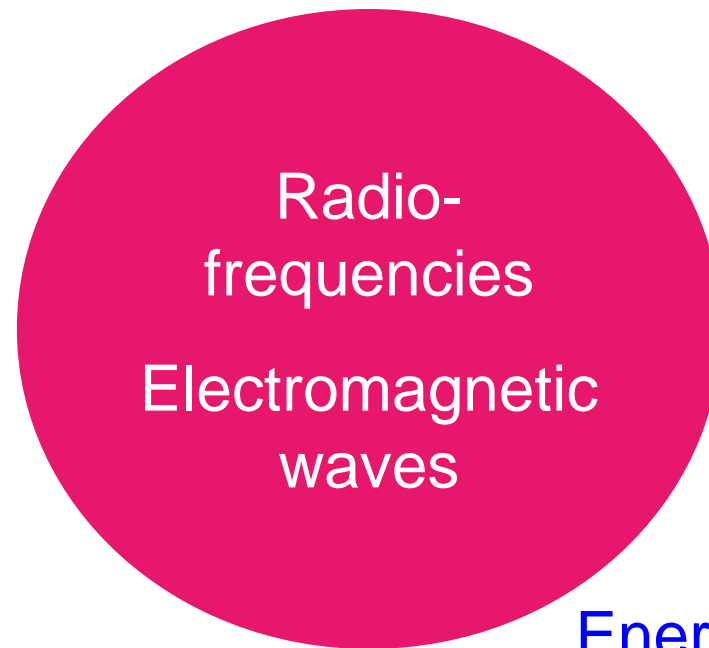
- Several PhDs (also the one of Luc Martens) on hyperthermia and on dosimetry for human exposure

■ WiCa is part of iMinds, an interuniversity institute focusing on telecom and ICT applications

Research
activities

Medical applications of EMF

Human
exposure in
wireless
networks



Propagation in wireless
networks

Design of wireless
networks

Energy consumption
In wireless networks

■ Dosimetry for human exposure and treatment

- Design of RF measurement procedures
- Simulation studies

■ Medical applications

- Deep brain stimulation and deep transcranial magnetic stimulation
 - Design of multi-element electrodes and antennas e.g. as a part of a hyperthermic treatment system
 - Design of in- and on-body wireless sensor networks for medical applications
 - Analysis of interference issues between wireless implants, wireless sensors and medical imaging techniques such as MRI
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