



Research activities

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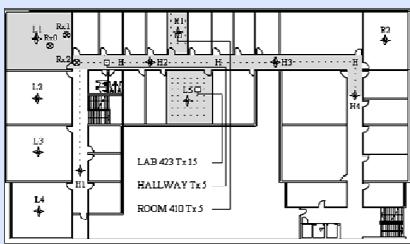
Main research activities:

- ❖ Time-of-Arrival Characteristics of an Indoor Radio Channel
- ❖ Near field wireless power transfer
- ❖ Ground penetrating radar

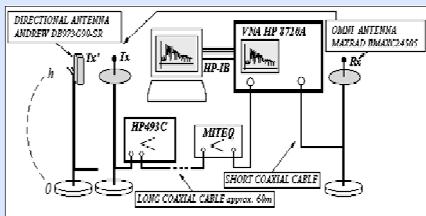
Time-of-Arrival Characteristics of an Indoor Radio Channel

- ❖ Coherence bandwidth B_c
- ❖ Time delay spread σ_τ

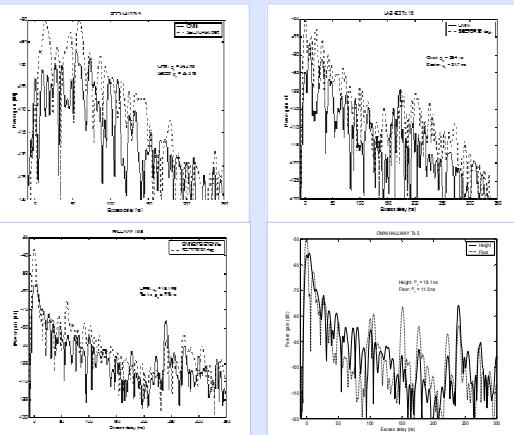
The blueprint of the fourth floor of the faculty building and the measurement plan



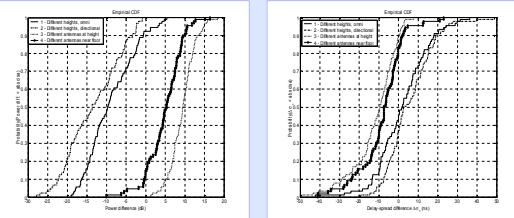
The measurement system



Selected PDPs

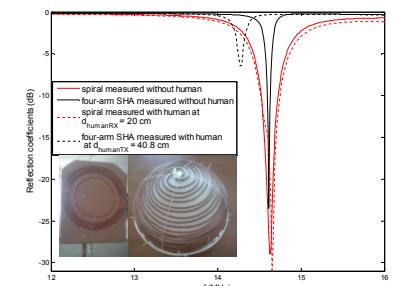
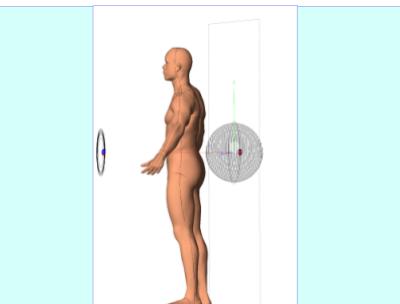
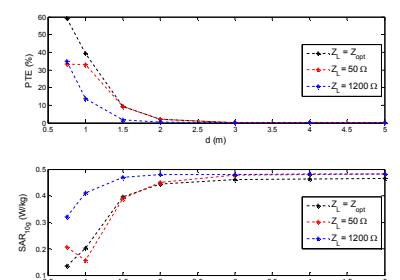
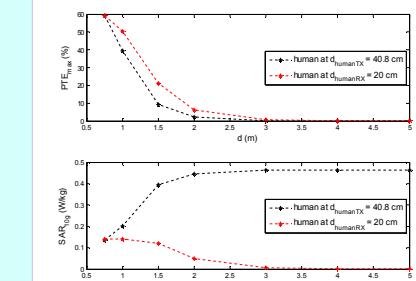
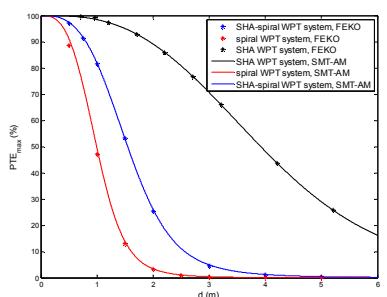


Empirical CDFs of all examined propagation aspects



Near field wireless power transfer

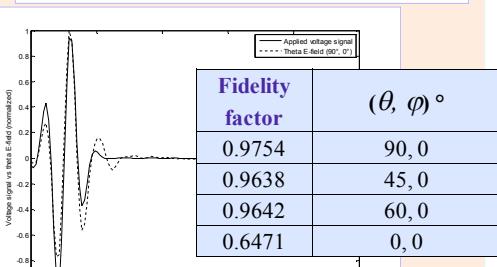
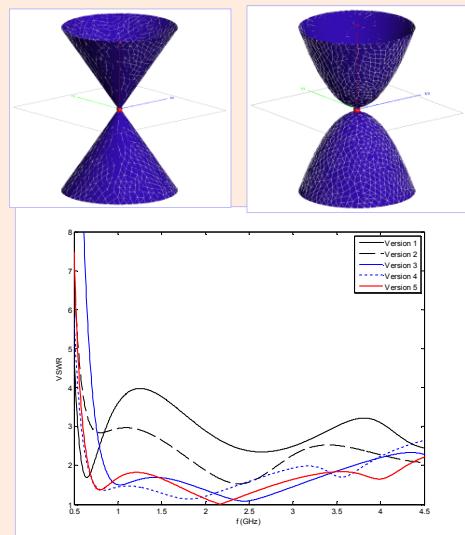
- ❖ Power transfer efficiency
- ❖ Electrically small antennas
- ❖ Human exposure to WPT systems



Ground penetrating radar

- ❖ Design of GPR antennas
- ❖ S parameter measurements

Biconical antenna parameters	Version 1	Version 2
Base radius R_B (cm)	0.2	0.2
Top radius R_T (cm)	4.0	6.0
Total height H_B (cm)	11.8	8.0



Applied voltage signal ... Theta E-field (90°, 0°)

