



**Proposal of thesis topic for mgr inż. (MSE) programme
in Telecommunications and Computer Science**

1. Topic: Implementation of Smart Antenna Beamforming Algorithm with Digital Signal Processor

2. Supervisor: Mariusz Czarnecki

3. Auxiliary supervisor:

4. Goals and scope of the work:

1. DSP implementation of LMS algorithm for phase shift beamforming.
2. DSP implementation of LMS algorithm for gain and phase shift beamforming.
3. Design and implementation of GUI application for testing of antenna beamforming algorithms.

5. Prerequisites (e.g. experience in writing programs in a computer language or knowledge of a foreign language):

Knowledge of C/C++ programming language.

6. Literature:

1. Warren L. Stutzman, Gary A. Thiele, "Antenna theory and design". Wiley & Sons 2000.
2. Emmanuel C. Ifeachor, Barrie W. Jarvis, "Digital Signal Processing, A Practical Approach". Addison-Wesley 1993.

Łódź, 2005-04-11

Supervisor's signature

THESIS TOPIC SELECTION ACKNOWLEDGMENT

Student's name: _____ Student's ID _____

Faculty: _____

Main subject/major/module: _____

Date and student's signature

Supervisor's signature