PROPOSAL OF THESIS TOPIC FOR MGR INŻ. (MSE) PROGRAMME IN TELECOMMUNICATIONS AND COMPUTER SCIENCE

1. Topic: Influence of acoustically evoked potentials on brain activity

2. Supervisor: dr hab. inż. Paweł Strumiłło prof. PL

3. Auxiliary supervisor: mgr inż. Michał Bujacz

4. Goals and scope of the work:
Through stimulation with low frequency sounds or a frequency difference between stereo sounds leading to binaural beats, it is possible to evoke potentials in the brain with frequencies of approximate brain waves. Depending on those frequencies an effect of relaxation or stimulation can be achieved. The task is to synthesize appropriate sounds (music, noise, relaxation and stimulation signals) and verify their effect through EEG measurements and surveys.

5. Prerequisites (e.g. experience in writing programs in a computer language or knowledge of a foreign language):
Digital signal processing. Fundamental programming sills in Java or C++.

6. Literature:
Basic references will be provided by the supervisor.

Łódź, 2009-05-29

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