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

1. Topic: Synthesis of spatial audio on a DSP platform

2. Supervisor: Paweł Pełczyński, Ph.D.

3. Auxiliary supervisor: Michał Bujacz, MSc

4. Goals and scope of the work:

The goal of the project is presentation of virtual sound sources using a DSP platform. To obtain a spatial audio effect, monophonic sources will be filtered with HRIRs (head related impulse responses) which simulate the interaction of a sound wave with the human body.

A desirable addition would be implementation of a gyroscopic sensor that would register and compensate head rotations and use that information to enhance the spatial audio effects.

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


6. Literature:

Basic references will be provided by the supervisor.

Łódź, 2010-05-26

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