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

1. Topic: Hand motion recognition for Human-Computer Interfacing

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

3. Auxiliary supervisor: mgr inż. Aleksandra Królak

4. Goals and scope of the work:

   The main applications of hand gesture recognition are human-machine interfaces (e.g. Sign Language recognition) and manipulative (e.g. controlling robots without any physical contact between human and computer). The goal of this project is to develop a real-time vision system for its application within visual interaction environments through hand gesture recognition. The system should be built of general-purpose hardware and low cost sensors, like a simple personal computer and an USB web cam, so any user could make use of it in his office or home. The software should be written in C++ with the use of OpenCV library.

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

   - knowledge of image processing and pattern recognition techniques
   - experience in writing programs in C++

6. Literature:

   Will be provided by the supervisors.

Lódź, 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

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