PROPOSAL OF BSc THESIS TOPIC IN BIOMEDICAL ENGINEERING

1. Topic:       Eye-tracking based Human-Computer Interface for SLA and SM patients

2. Supervisor:  Krzysztof Ślot

3. Auxiliary supervisor:  —

4. Goals and scope of the work:

   An objective of the thesis is to make a system for enabling human-computer interaction for patients in advanced stages of SLA and SM diseases. The communication is to be based on eye-movement tracking. The interface should estimate a line of sight to determine an object that is currently analyzed by a subject. Specific tasks that need to be realized include: eye detection, pupil location estimation and a computation of a location on a screen that is currently analyzed by a subject.

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

   Object oriented programming: C++ or JAVA

6. Literature:

   To be provided.

Łódź, 2010-07-05

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

Institute of Electronics
PL90-924 Lodz, Wolczanska 211/215, Poland
tel: (+48) 42 636 00 60, (+48) 42 631 26 26, fax (+48) 42 636 22 36, e-mail: ie@p.lodz.pl, www.eletel.p.lodz.pl

VAT No. PL727-002-18-95