P o l i t e c h n i k a   Ł ó d z k a
Instytut Elektroniki

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

1. Topic: Video processing algorithms implementation in FPGA devices

2. Supervisor: Piotr Wasilewski

3. Auxiliary supervisor:

4. Goals and scope of the work:

An objective of the dissertation is to test the ability for real time implementation in FPGA (Field Programmable Gate Array) devices various video processing algorithms such as two and three dimensional wavelet transform, color space converters, region classification and object recognition.

The limitations of hardware implementations, the speed and hardware utilization should be studied in the dissertation. Sample implementations also should be presented.

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

Knowledge of digital logic, programmable logic devices, ability for reading technical papers, application notes and data sheets of integrated circuits, C++ basic experience

6. Literature:

Materials will be provided by the supervisor

Łódź, 2004-04-06   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