

## Silesian University of Technology

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The Chapter was established in August 2005. The chapter members include Ph.D. students of Institute of Physics and students of Electronics and Telecommunication at the Faculty of Mathematics and Physics. Some new candidates to our Chapter are already waiting for the approval to become a SPIE members.

The list of members of Silesian University SPIE Student Chapter	
1	Sebastian Arabasz
2	Mateusz Bednorz
3	Dorota Kobylinska
4	Maciej Krzywiecki
5	Agnieszka Pietrzak
6	Magdalena Syrek
7	Michał Szydłowski
8	Adriana Warzecha
9	Katarzyna Zielinska
10	Kamil Barczak
11	Anna Kazmierczak
12	Łukasz Kurzeja
13	Monika Kwoka
14	Erwin Maciak (Ph.D Title received in June 2005)
15	Kamil Miga
16	Bartłomiej Peteja
17	Cuma Tyszkiewicz



**Silesian University of Technology  
SPIE Student Chapter**

## **Field of interest:**

The Ph.D students Chapter members belong to three different Departments of Institute of Physics at Silesian University of Technology. The topics of research interest that the members are involved in, are listed below:

### • **Department of Applied Physics:**

- Photothermal and photoacoustic measurements of thermal parameters of material, analysis of temperature field in layered structures. (Anna Kaźmierczak-Bałata)
- Electronics of solid state, methods for analysis of optical and electronic properties of semiconductor thin layers. (Michał Szydłowski)
- Complex geometrical optics applications to analysis of photothermal signals.(Dorota Kobylińska)



### • **Department of Electron Technology:**

- Electronic properties of oxide semiconductor gas sensors -  $\text{SnO}_2$  (Monika Kwoka)
- Electronic properties of organic semiconductor gas sensors –MePc (Maciej Krzywiecki)
- Electronic properties of semiconductor surfaces and interfaces –GaAs (Sebastian Arabasz)



The laboratory is equipped with commercial and non-commercial UHV equipments for preparation and characterisation of semiconductor surfaces, interfaces and thin films using the following techniques: LEED, AES, PYS, SPS, XPS.

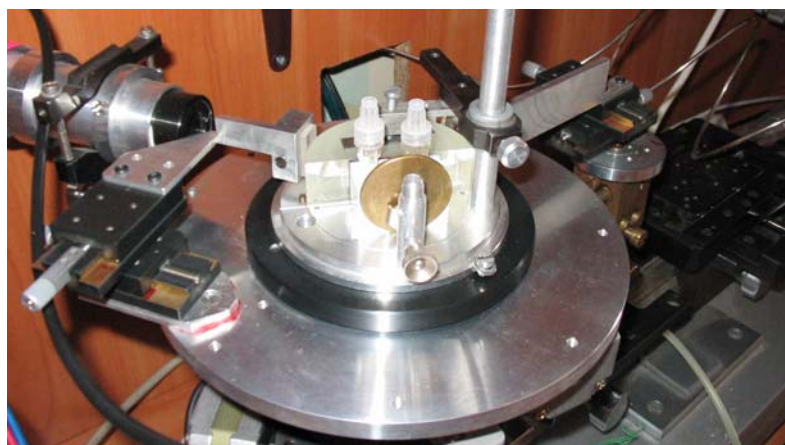
- **Department of Optoelectronics:**

- Fibre and planar waveguides technologies and applications
- Integrated optics, liquid crystals – Cuma Tyszkiewicz
- Magneto-optic and elastooptic phenomena in optical fibres – Kamil Barczak
- Optoelectronic toxic gas sensors, polymer sensing films technologies – Mateusz Bednorz



Magnetron deposition measuring stand

Magneto-optic laboratory



Surface plasmon resonance spectroscopy measuring stand

**Current activities:**

In year 2005 our members worked for extending their study to the following directions:

- Participation in event " The physics enlightens Gliwice " with opportunity of World Year of Physics 2005 organized by Institute of Physics and Polish Physical Society at the Cracovian Square in Gliwice on 19 April 2005 at 21:36.



- Participation in Festival of Science and Graphics Computer "Abstract 2005" (June 2005)

Few meetings of chapter members have taken place and plans for future activities have been determined

### **Future Activities:**

- Founding of the Chapter web-site
- Educational initiatives propagating physics, optics and optoelectronics:
  - Demonstrations at secondary schools, and school students visit of Institute laboratories
  - Demonstrations and laboratory trainings at Institute specialistic laboratories for undergraduate students from the beginning years of studies, aimed to gain new candidates for Optoelectronics Specialisation, and SPIE Student Chapter members
- Visits for Chapter members and interested students at industry facilities and research centres dealing with physics, optics and optoelectronics
- Participation of Chapter members in conferences and in informal meetings of other SPIE Student Chapters
- Invitation and lectures of professors from the local community and other SPIE members