

Special presentation of the 25th anniversary of the Precision Mechanics Department, Warsaw University of Technology

Education of optical engineers in the Precision Mechanics Department of the Warsaw University of Technology

In 1987 we are celebrating the 25th anniversary of founding the Department of Precision Mechanics at the Warsaw University of Technology. The department was created from the Division of Precision Mechanics of one of the mechanical departments of the University. The Division was established in 1953. Professor HENRYK TREBERT was the organizer and Head of the Division as well as the first Head of the Department.

Since the beginning of the Division, and later in the Department of Precision Mechanics, among other specialists, precision mechanics engineers and M.Sc. engineers with specialization *Optical Instruments* have been educated and graduated.

One of the creators of the Precision Mechanics Division and the organizer of the specialization *Optical Instruments* was Professor JAN MATYSIAK. He was also the Head of the Chair of Optics established in 1953, later named the Chair of Optical Instruments. In 1970 the Warsaw Technical University was reorganized, the same happened to the Department of Precision Mechanics. The Chair of Optical Instruments was included in the Institute of Design of Precise and Optical Instruments as the Group of Optical Instruments. In the new Institute, Professor JAN MATYSIAK was appointed the Head of the Group and the Deputy Director. Additionally, Prof. JAN MATYSIAK was the Assistant Head (1966–1971) and the Head (1971–1973) of the Department.

The specialization *Optical Instruments*, during 30 years, provided engineers for optical industry and research institutes. Professor JAN MATYSIAK promoted several doctor's degree specialists and some of them, for example Prof. MAKSYMILIAN PLUTA and Prof. ROMUALD JÓZWICKI, became Professors and are supervising new doctor's degree students.

During more than 30 years of the activity of the Division and Department of Precision Mechanics, the programmes of studies were being modified. In the beginning the education of optical engineers concerned mainly the design of conventional optical instruments. In the course of this period specialists in optical technology were educated as well. Currently the students of this specialization study

the problems of diffraction, interference, optics of metals, polarization, and geometrical optics. The problems of optical design are solved by using special computer programmes. Moreover, more than 10 years ago the lectures and laboratories in optoelectronics were introduced. Among others, the topics of optical information processing and holography are studied.

The present programme of unified 5 year master course studies in the Precision Mechanics Department contains 4260 hrs (not including the time for preparing the master thesis being estimated approximately as 600 hrs). A substantial part is devoted to such fundamental fields as mathematics, physics, metrology and electronics. These subjects are studied in a larger extent as compared to other mechanical departments of the University. For specialization studies students have 630 hrs plus 60 hrs for thesis seminars.

During over the 30 year-long period of *Optical Instruments* specialization almost 400 students were graduated. Besides the activity mentioned above, in the Precision Mechanics Department, among several post-diploma courses organized for the engineers working in industry, two courses dealing with optics were conducted. The first one dealing with the design of optical instruments was started in 1977, and the second one concerning the optical methods in science and technology was started in 1981. About one hundred people took these courses, mainly the engineers employed in Polish Optical Works.

All graduates of the specialization *Optical Instruments* keep close contacts with Professor J. MATYSIAK and the Department of Precision Mechanics. Apart from participating in general meetings, the graduates of the Department took part in scientific assemblies of opticians-graduates of the MT Department (in the years 1964 and 1975) and in the meeting commemorating the 80th birthday of Professor J. MATYSIAK in 1984.

The staff of the Group of Optical Instruments under the scientific leadership of Professor ROMUALD JÓŻWICKI organizes many seminars and scientific conferences in the field of optics. They are of international and domestic character. Several scientific projects are being carried out for industry and research institutes. In the last five years (1982–1986) more than 70 scientific papers were published in international and Polish journals*.

To commemorate the 25th anniversary of the Department of Precision Mechanics the members of the Group of Optical Instruments have decided to collect a number of papers to prepare a special volumen of *Optica Applicata*. The kind permission of the Editor of the journal has made the publication possible.

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* JÓŻWICKI R., *Presentations: Institute of Design of Precise and Optical Instruments, Warsaw Technical University, Opt. Appl.* 14 (1984), 403.