

## **Computer-based learning in Occupational Safety and Health and health problems with computer use**

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### **Abstract**

Some health problems with respect to unsuitably chosen chairs, electromagnetic ionisation from VDT, video camera and mobile phones used by students have led to a newly furnished ergonomics laboratory that was opened in autumn 1999. A special questionnaire was compiled to get information on what students think about possibilities of improving the indoor work environment. The questions concerned air quality, room temperature, and eye fatigue caused by improper illumination and poor ergonomic workstations. Power engineering students (male and female) and post-graduate students of the Faculty of Chemistry were questioned. The results of the investigation revealed problems with ventilation, the chairs should be replaced by new ones with elbow-rests or an elbow-rest should be fastened to the table, and that the illumination from the ceiling has to be improved. Some of the students have experienced headaches or tiredness of the eyes as well as musculo-skeletal discomfort.

### **Introduction**

Information technology has come into everyday life in Estonia. Investigations carried out in 1998 showed that 275,000 persons (or 20% of the population) actively used computers. Besides the advantages provided by computers, also some health problems connected with computers have risen.

By the investigations made by Tallinn Technical University and National Board of Health Protection working people complain about long-lasting work in a compulsory posture (55% of them were women), overexertion of eyes (85% of them were women) etc.

### **Material and method**

The measurements around computers and the influence of work with computers on health were carried out in two student laboratories of Tallinn Technical University (Estonian and Russian-speaking power engineering students and post-graduate students of the Chemical faculty were questioned). One of the laboratories investigated had rather old computers and other old installations: general info-technology laboratory with computer of type JVP from 1996, no ergonomic chairs and tables. The other laboratory (ergonomics laboratory of the Department of Work