

## OPTICS, VISION AND CAMERAS, 7.5 ECTS credits

C level  
**OVC850**

The board of the School of Information Science, Computer and Electrical Engineering approved the syllabus on June 11, 2003. Special admission requirements was approved on December 15, 2004.



### **PLACEMENT IN THE ACADEMIC SYSTEM**

The course is optional for students on the Master's programme in Information Technology.

### **SPECIAL ADMISSION REQUIREMENTS**

The student shall be accepted to the Master's programme in Information Technology.

### **PURPOSE AND OBJECTIVES**

The course provides knowledge and experience of optical and image forming systems. It should also give knowledge of light and other types of electromagnetic radiation, and of optical components and their usage.

### **PRIMARY CONTENTS**

Classical optics. Optical instruments and image forming systems such as the eye, camera, telescope and microscope. The wave properties of light. Interference and diffraction. CCD-cameras and other forms for electronic image capturing.

### **LEARNING AND TEACHING METHODS AND EXAMINATION**

Instruction consists of lectures, exercises, home assignments and laboratory works. Participation in laboratory work is compulsory. Examination is by written exam and approved laboratory works. The course is graded using the ECTS scale.

### **COURSE EVALUATION**

After completion of a course, the Director of Studies is responsible for giving the students the opportunity to participate in course evaluation. The results from the course evaluation will be used for further development and planning of the course. Participation in course evaluation is anonymous. The results are communicated to the director of studies, lab leader, teachers and students. A list of results and proposed measures are reported to the school board.

### **COURSE LITERATURE**

Pedrotti LS and Pedrotti FL: *Optics and visions*. Prentice Hall 1998.