Division of Frontier Engineering	Research field	Optical and Electronic Sensing	Lab. ID FE18
Laboratory web site	http://oes-lab.w3.kanazawa-u.ac.jp		

Research subjects

Optical technology is widely used for optical disc systems and long-haul optical communication systems, and is also expected to be applied in high-sensitivity and highly-acurate optical sensing system. The features of optical sensing systems are capability of remote sensing, non-contant sensing, immune to electromagnetic field, and high-sensitivity by utilizing interference of lightwave. The keyword of our laboratory is "Measurement by Lightwave". We are developing optical FMCW ranging system for characterization of long optical fibers and for object profiling in micrometer and nanometer scale. Our optical FMCW ranging system can be also applied to three-dimensional scanners and laser laders for vehicles.

Master/Doctor course: Education policy, curriculum, typical activity in the laboratory

Master/Doctor students should be good models to all students in laboratory, and are expected to be leaders in academics and companies after graduation. Active research is requested for M.E and Ph.D degrees. Through active and continuing discussion with a upervier, Master/Doctor students plan their research readmap and approach, do experiments according to the research plan, check and consider the results, and plan following research approach for improvement. Students should present their research every week to all the laboratory members (Professor and students) using slides.

Daily life in the laboratory, etc.

Optical sensing technology is studied in this laboratory, and I am studying lasers, lightwave technologies, electronic circuits and signal processing to develop optical sensing technology. (M2)
A professor is very familiar and kindly supervise and stimulate us. We are studying actively and enjoying our research. (M1)

Message or comments by the laboratory faculty staffs

It is very important to understand basics and principles in your study because current technologies will be replaced with new technologies in near future. Please friendly compete with your colleague in our laboratory, and enjoy your research.
Please develop your communication skill and technical writing skill in English and your mother language.

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