

Division of Mechanical Science and Engineering	Research field	Thermal Systems	Lab. ID ME04
Laboratory web site	http://www.ms.t.kanazawa-u.ac.jp/~fluid/		
Research subjects			
(1) To improve the performance of wind turbine generator systems (WTGSs) and reduce the noise they create, we have been developing wind turbines and wind concentrators. We have also been studying the characteristics of natural wind and the optimal siting methods of WTGSs. (2) We have been developing micro hydropower generation systems and a generator system that utilizes flow-induced vibration of a bluff body in water flow. (3) We have been studying the flow characteristics of round and rectangular jets by implementing various flow control techniques, such as modifying their nozzle shapes, attaching prasma actuators, etc. (4) We have been developing a shroud for the propeller to enhance the drone's carrying capacity affordably and reduce noise.			
Master/Doctor course: Education policy, curriculum, typical activity in the laboratory			
(1) At the time of enrollment in the master's program, we provide guidance regarding the classes to take in two years. In addition to classes, we hold a seminar every week in which students present their research progress. Students are also divided into two to three groups, according to their research themes, and scrutinize the latest research papers that relate to their area of study. Students are permitted to work on their research any time they like. (2) The doctoral program's education policy and laboratory activities are almost the same as those of the master's program.			
Daily life in the laboratory, etc.			
We are able to experience a fulfilling and enjoyable research life. Since professors guide us strictly and hospitably, we can develop the abilities to become an excellent engineer. Among the students, there is a culture in which we may readily and sincerely exchange opinions to improve research presentations and job-hunting activities, etc. We are able to have meaningful experiences by communicating with many kinds of people who have different ideas because there are about 10 new students every year. We also have many events, such as a welcome party, a bowling competition, a cherry blossom viewing party, a barbeque party and a rice cake making party, etc. (from master's course students)			
Message or comments by the laboratory faculty staffs			
Our laboratory conducts research and development on various phenomena and equipment related to the field of fluid engineering. Students can acquire skills to perform experimental measurements through wind tunnel experiments, water tank experiments and field experiments. In addition, students can develop the skills to perform numerical analyses by using supercomputers and powerful workstations. With regard to employment, there is no problem; Most of the graduates from our laboratory have accepted jobs at large, well-known companies. If students prefer to go on to the doctoral course, we welcome such a pursuit. We guide the students considerably until they obtain their Ph.D. degrees and support their employment activities.			
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