Division of Mechanical Science and Engineering	Research field	Thermal Energy Systems	Lab. ID ME16
Laboratory web site	http://www.me.se.kanazawa-u.ac.jp/netsu/		

Research subjects

In recent years, a great deal of research effort has been directed toward developing new technology for realizing a low-carbon emission society. In our laboratory, new technologies and thermal systems have been studied to utilize thermal energy and natural energy efficiently. The research fields are divided into three categories :
(1)development of new energy conversion system such as thermoacoustic engine using low temperature waste heat, (2)development of heat transfer enhancement technique for efficient utilization of thermal energy such as improvement of a heat exchanger, (3) thermal science and its application of heat transfer phenomena with phase change such as evaporation, condensation, solidification and melting, (4)development of chemical heat storage system, (5)enhancement of thermal conductivity of engineering plastics.

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

The students decide their practical subject for the Master or Doctor thesis and belong to one of the research groups, after consultation with staffs. The students are encouraged to go for outer activities, participating research workshops/meetings, international or domestic conferences. The laboratory is managed by a weekly labo-meeting which staffs and DC students must attend, where all policies and practical financial supports for research are discussed and determined. Education policy of our laboratory is that observation of phenomena and thinking of its mechanism is first step of research.

Daily life in the laboratory, etc.

Personal working desk with a personal computer is available for every student. Also the PC machine can be used for large-scale numerical calculations. All relevant students of undergraduate, Master, Doctor and post Doc researchers share the laboratory rooms, and everyday free discussion on thermal engineering or related topics are strongly encouraged. Many laboratory activities are organized like, welcome party for new comers, excursion, summer seminar with camp, etc.

Message or comments by the laboratory faculty staffs

Sen no Rikyū as the historical figure with the most profound influence on chanoyu, the Japanese "Way of Tea", said, "It is important to think about Way of Tea every time, however free and natural spirit is needed for master of chanoyu". How do you think that what do engineers think always ? The technologies realize fulfillment of human life using knowledge of science. Therefore harmonization with natural environment and technologies is important. The harmonization is encouraged through feelings of comfort that is induced by enjoying life . Thus, the motto of our laboratory is " It is important to think about heat transfer every time, however siprit of enjyoyment is also needed every time".

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