Division of Mechanical Science and	Research	Mechanism Design	Lab. ID
Engineering	field		ME11
Laboratory web site	http://mech	<u>s.ms.t.kanazawa-u.ac.jp [in Japanese]</u>	

Research subjects

Our laboratory is composed of two research groups: texitile kansei engineering group [Kansei], and nano-scale computational simulation group [Nano].

[Kansei] The visual judgement by skilled workers is required to produce excellent engineering products. However, it is quite difficult to quantify their judgment criterions. Therefore, for visual judgement by unskilled workers, our goal is to develop a new method to obtain objective and quantitative criteria by elucidating roles of each visual information in visual judgements.

[Nano] The strength of solid materials is studied through atomic- and nano-scale phanomena. Because it is not easy to elucidate the nano-scale phanomena only by a theoretical/experimantal approach, we adopt the atomicscale computer simulation approach. Our goal is to proporse a new guiding principle for the design of materials with exellent mecnanical properties by discovering "beautiful, reasonable atomic collective behavior" from the motion of a huge number of atoms expressed by atomic simulations.

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

[Kansei] We hold three kinds of meetings every week, a joint seminar with other research group, our group seminar, and an one-on-one meeting.

[Nano] Original reserch subjects are given to each graduate student. Almost every week, students are required to report their studies to the group leader and discuss with him. Reviews of selected papers in English is given by students by turns every two weeks to obtain the latest knowledment required to promote their reseach activities. Almost every student attends domestic conferences hold in various places in Japan and sometimes wins a prize for his excellent presentation.

Daily life in the laboratory, etc.

[Kansei] I was able to solve the questions of the study by my ideas and ingenuity. Own ideas are reflected directly in the results of the study. (Graduates)

[Nano] Our group have a large number of high performance workstations, so every student can freely perform computer simulations according to your original idea.

Message or comments by the laboratory faculty staffs

[Kansei] We think it is very important ability for you to discuss with reasonable considarations and ideas. Let's develop new objective evaluation method together!

[Nano] It is a great pleasure for us to find new ideas and phenomena not yet discovered. We want to shear the pleasure with you. But, unfortunately, we do not know the shortcut to success. Only we can do is to face the research subjects in sincerity and use our brains as much as possible. Let's investigate "beautiful, reasonable atomic collective behavior" while being excited together!

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