



The 21st Century COE Program

"Design of artificial environments on the basis of human sensibility"

Kyushu University, Fukuoka, Japan
September 20 - 30, 2005

International Summer Workshop on Human Sensibility



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Background

Our everyday life is increasingly dependent on artificial environments, but often human sensibility comes second to convenience or economic considerations. For example, artificial lighting can affect human biological rhythms, and excessive use of artificial images and sounds can either be annoying or potentially hazardous. Kyushu University has been building an ideal research environment in order to tackle such problems in an interdisciplinary manner. The ultimate goal of our Design Faculty is to "Humanize modern technology". Our team is divided into three research units in order to work efficiently, i.e. the units of "environmental physiology", "perceptual psychology" and "design". The members of the first two units study human vision, audition, olfaction, temperature sensation and somatic sensation. The members belonging to the last unit design lighting, images, sounds, air conditioning and implement architectural innovations. We evaluate various artificial environments from a global viewpoint, and draw up guidelines to design suitable environments especially for young children, senior citizens and the disabled. Educating doctoral students and postdoctoral researchers is also an important aspect of our work. We receive students and young researchers from all over the world, and train them in such a way that they gain experience in at least two of the three above-mentioned research units.

http://www.design.kyushu-u.ac.jp/COE/coe_english/index.html

Purpose

This workshop was planned as one part of the work of the 21st Century COE program on the "Design of Artificial Environments on the basis of Human Sensibility", supported by the Japanese Government. The purposes of the present summer program in 2005 are to run trial programs and to promote our research program. Accordingly, the participants will not only attend lectures and join experiments but will also be given demonstrations of our research activities and facilities.

Eligible students

Graduate students who are fluent in English and interested in our research activities. Participants with any relevant academic and from any cultural background will be welcomed. The number of participants is limited to fifteen.

Program structure

The program includes lectures, laboratory activities and demonstrations. Invited lectures are also planned. The fields we will cover are physiology, perception, measurement methods of physiological indices and subjective experiences, design methods for artificial environments, and evaluation methods. Participants will join some physiological and psychophysical experiments to learn about the use of instruments and try actual measurements with human subjects. We will also demonstrate some of our special facilities, for example, a room with changeable reverberation times, a body scanning system for 3-D computer graphics, and our research center for human environmental adaptation (see details in the web page noted below).

http://www.design.kyushu-u.ac.jp/COE/common_images/rs_booklet/rs_booklet_e_2.png

Planned topics

1.Environmental Physiology

- Introduction to auditory evoked potentials
- Ergonomics in thermal environments
- Adaptability to lighting environments
- Physiology of pleasant and unpleasant stimuli
- Measurement of EEGs and autonomic nerve functions
- Sensory processing in the central nervous system

2.Perceptual Psychology

- Binocular space perception
- Visual illusions
- Auditory scene analysis
- Speech perception
- Methods of subjective evaluation
- Psychological evaluation of artificial environments

3.Design Method

- Measurement of color
- Visual image design
- Acoustic environmental design in urban areas
- Acoustic design in enclosed spaces
- Sound design
- Urban space design
- Design methods for urban environmental installations
- Design with interactive evolutionary computation

No credits will be given for finishing the program. English will be used throughout the program.

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INFORMATION

Program fee

The program is totally free. For participants from outside of Japan, we will offer free accommodation, as noted below, and air fare at cost.

Accommodation

We will arrange a single room at a hotel near the campus for participants from abroad. Free breakfast and high-speed internet connection are available there.

Application

The following application requirements must be submitted to the following address using airmail by July 10, 2005.

- 1) Completed Application Form
- 2) One Essay (in English) – Why I want to join this program (800 - 1000 words)
- 3) Diploma Copy of Undergraduate Degree
- 4) One Letter of Recommendation

(written by any academic staff member of your home university, other than a language instructor)

The application form can be downloaded from our website;

http://www.design.kyushu-u.ac.jp/COE/common_images/summer_workshop/ApplicationForm.doc

The number of participants is limited to fifteen. If the number of applicants exceeds the limit, participants will be selected on the basis of the submitted documents.

Please send all correspondence concerning admissions and application documents to the following address:

Professor Yutaka TOCHIHARA (Project Leader)

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Auspices:

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Kyushu University

Founded as one of Japan's seven imperial universities, Kyushu University has a proud tradition dating back to 1911. Since then it has grown into a prestigious institute of higher education, with a leading role at the cutting edge of numerous fields of research today.

There are now 11 undergraduate schools, 16 graduate schools, 3 research institutes and 3 hospitals. The total number of students currently amounts to 18,112 while the faculty members number 2,365. About 1,200 international students from more than 70 countries are studying at Kyushu University.

Kyushu University is located in Fukuoka, a pleasant coastal city of 1.3 million people and the largest metropolis on the island of Kyushu. Thanks to its favorable location, the city of Fukuoka has prospered as Japan's gateway to continental Asia from ancient times. Direct flights from many Asian cities and a ferry boat from Korea are available to reach Fukuoka.



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Applications to:

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