



16 Februari, 2015

Gedung IPTEKS, Universitas Hasanuddin

International Lectures from Japan

Sponsored by: Human Science International Course, Graduate School of Design, Kyushu University, Japan
Organized by: Industrial Engineering Department, Hasanuddin University

Antro-Fisiologi, Psikologi Perseptual, serta Matematika Terapan dan Ilmu Komputer

Physiological Anthropology, Perceptual Psychology, and Applied Mathematics and Computer Science

09:20 - 09:30 Opening,
Seminar objectives and introductions
(Prof. Hideyuki Takagi)

09:30 - 09:45 My Study & Research Experience in Japan *
(Dr. Ilham Bakri)

09:45 - 10:45 **Ergonomi Lingkungan**
(Environmental Ergonomics)*
(Dr. Ilham Bakri)

10:45 - 10:55 (break)

10:55 - 12:20 **Interactive Evolutionary Computation**
(Komputasi Interaktif Evolusioner)
(Prof. Hideyuki Takagi)

12:20 - 13:30 (lunch and pray)

13:30 - 13:45 My Study & Research Experience in Japan *
(Irma Nur Afiah)

13:45 - 14:45 **Pengantar Biomekanika dan Ergonomi untuk Segala Usia dan Kemampuan**
(An Introduction to Biomechanics and Ergonomics for All Ages and Abilities)*
(Irma Nur Afiah)

14:45 - 15:00 (break and pray)

15:00 - 16:30 **An Introduction to Brain Research**
(Sebuah Pengantar tentang Penelitian terkait Otak)
(Prof. Gerard B. Remijn)

16:30 - 16:45 Q&A for whole lectures and studying in Japan for those who have questions

(*)These talks will be given in Bahasa Indonesia.

Lecture 1: Ergonomi Lingkungan

Ergonomi sebagai sebuah ilmu mungkin telah banyak diketahui dan berkembang di Indonesia. Namun demikian khusus bidang Ergonomi Lingkungan, studi mendasar maupun aplikasinya di Industri masih sangat terbatas. Sesi kuliah ini akan memaparkan dasar-dasar dari ergonomi lingkungan serta aplikasinya dalam meningkatkan kenyamanan dan keamanan manusia di lingkungan tempatnya beraktivitas

Lecture 2: Interactive Evolutionary Computation

Following basic introduction of fuzzy systems, neural networks, and evolutionary computation (EC), we learn one of EC applications, interactive EC (IEC) which optimizes a target system based on human subjective evaluations. Through many IEC applications in wide variety of application areas, we learn its wide applicability and consider how to apply it to our research. Slides and a tutorial paper are downloadable from the "downloadable files" menu at <http://www.design.kyushu-u.ac.jp/~takagi/>

Lecture 3: Pengantar Biomekanika dan Ergonomi untuk Segala Usia dan Kemampuan

Biomekanika merupakan salah satu ilmu dasar dalam penelitian terkait gerakan manusia, dengan beberapa pendekatan yang dapat dipertimbangkan, seperti: jenis kelamin, usia, kemampuan tubuh, dan lain-lain. Hal ini juga berkaitan dengan ilmu Ergonomi untuk segala usia dan kemampuan. Pada sesi kuliah ini, akan dijabarkan pemahaman terkait implementasi dasar ilmu Biomekanika dan Ergonomi untuk segala usia dan kemampuan, serta pentingnya pengembangan dalam suatu desain untuk meningkatkan kualitas hidup manusia.

Lecture 4: An Introduction to Brain Research

In this lecture we will look at the structural and functional organization of the human brain, and discuss the workings of the brain in relation to human perception. The examples of neuroscientific research will mostly relate to human hearing and vision.



Ilham Bakei received his master degree on Product Design in HvU, the Netherlands, and doctoral degree on Environmental Engineering in Kyushu University, Japan. His research road map of *Ergonomics and Work Analysis* in Industrial Engineering Department, Hasanuddin University are including: comfort and safety in living and working place.



interested in gait motion, biomechanics engineering and ergonomics.

Irma Nur Afiah received Bachelor and master degrees from Hasanuddin University and Sepuluh Nopember Institute of Technology, respectively, and is a doctoral student of Kyushu University since October, 2012. She is an awardee of Excellence Scholarship-Directorate of Higher Education of Republic Indonesia. She is interested in gait motion, biomechanics engineering and ergonomics.



Gerard B. Remijn (the Netherlands) is an Associate professor of the Faculty of Design, Kyushu University. He is mainly interested in perceptual processes in the human brain, with research on a wide variety of topics related to auditory perception, visual perception, and time perception.



interactive evolutionary computation research in the world.

Hideyuki Takagi is a professor of Faculty of Design, Kyushu University and has worked on computational intelligence for a quarter century. He is especially interested in combining human factors and computational intelligence, so called Humanized Computational Intelligence. His lab is the center of