



25 November 2015
 Room E6, 3rd Floor, Departemen Teknik Elektro dan Teknologi Informasi,
 Universitas Gadjah Mada

International Lectures from Japan

Sponsored by: Human Science International Course, Graduate School of Design, Kyushu University, Japan

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

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

- 08:40 - 08:50 Opening,
 Seminar objectives and introductions
 (Prof. Hideyuki Takagi)
- 08:50 - 10:10 : **An Introduction to Brain Research**
 (Pengantar Penelitian Otak)
 (Prof. Gerard B. Remijn)
- 10:10 - 10:20 (break)
- 10:20 - 10:40 My Study & Research Experience at Kyushu
 University *
 (Dr. Titis Wijayanto)
- 10:40 - 12:00 **Environmental Ergonomics: Human
 Thermal Environment in Indonesia**
 (Ergonomi Lingkungan: Manusia dan
 lingkungan termal di Indonesia)*
 (Dr. Titis Wijayanto)
- 12:00 - 13:30 (lunch and pray)
- 13:30 - 14:50 **Interactive Evolutionary Computation**
 (Intraktif Komputasi Evolusioner)
 (Prof. Hideyuki Takagi)
- 14:50 - 15:20 Q&A for whole lectures and studying in Japan
 for those who have questions

Lecture 1: 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.

Lecture 2: Environmental ergonomics:

Human-thermal environments in Indonesia

Human responses to thermal environment and to internal heat production, physiological and behavioral responses, serve to maintain internal body temperature around 36-38C. In this lecture, human adaptation to thermal environment will be discussed, particularly on how people from tropical area adapted to hot environment considering their heat balance and behavioral responses.

Lecture 3: 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 IEC to our research. Related slides and a tutorial paper are downloadable from the "downloadable files" menu at <http://www.design.kyushu-u.ac.jp/~takagi/>

(*This talk will be given in Bahasa Indonesia.



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.



Titis Wijayanto is an academic staff at the Dept. of Mechanical and Industrial Engineering, UGM. He obtained his PhD from Human Science International course, Graduate School of Design, Kyushu University in March 2013. His research interests are physical ergonomics and environmental ergonomics. He is currently serving as lecturer at Industrial Engineering Program, UGM.



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 interactive evolutionary computation research in the world.