

The 6th International Conference on Psychophysiology in Ergonomics: PIE2006

July 13-14, 2006, Maastricht, The Netherlands (in conjunction with IEA2006)

JULY 13 (THU)

10:30-12:00 Psychophysiology in Ergonomics I: Brain functions

Chair: Akihiro Yagi / Min-Cheol Whang

1-1 Report order and task switch on multidimensional stimuli identification

I-Hsuan Shen¹ and Kong-King Shieh²

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1-2 The relation of operators' EEG and the manual control system by ERP

Sakae Yamamoto¹, Noriaki Hirama² and Daiji Kobayashi¹

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1-3 Economical system to analyze temporal changes of brain potential topographies in ergonomics

Akihiro Yagi¹, Koji Kazai¹, Kiyoshi Fujimoto¹ and Masumi Iwai²

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1-4 Study of predictive manual control based on background electroencephalogram

Daiji Kobayashi¹, Noriyuki Hirama², Yohei Shoji² and Sakae Yamamoto²

¹Nihonbashi Gakkan University, Japan

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1-5 Development of the vibro-tactile feedback for enhancing user's attention

Mincheol Whang¹, Geunyoung Chang², Hyejung Hyun¹, Jongyong Kim³ and Jaewoo Yoo⁴

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12:15-13:15 PIE Business Meeting (IEA TC Meeting)

13:30-15:00 Psychophysiology in Ergonomics II: Driving research

Chair: Richard W. Backs / Shinji Miyake

2-1 Measuring mental workload and acceptance of a driver support system in congestion

Tineke Hof¹, Cornelia van Driel², Marika Hoedemaeker³ and Karel Brookhuis¹

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²University of Twente, The Netherlands

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2-2 Electrophysiology as a tool to compare the lateral support of vehicles

Georges Farah^{1,2}, Claire Petit¹, David Hewson² and Jacques Duchene²

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²Université de Technologie de Troyes, France

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2-3 Attentional load associated to different secondary tasks while driving

Claire Petit¹, Mélanie Morel² and Christian Collet²

¹Renault Technocentre, France

²Claude Bernard University, France

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2-4 Cardiac control during simulated driving with a verbal working memory task

John K. Lenneman, Stephanie J. Tuttle, Michele L. Oliver and Richard W. Backs

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2-5 Extraction of driving-scenes with danger and difficulties using changes in autonomic indices

Yukiyo Kuriyagawa¹, Mieko Ohsuga² and Ichiro Kageyama¹

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15:30-18:00 Psychophysiology in Ergonomics III: Workload assessment

Chair: Robert A. Henning / Mieko Ohsuga

3-1 Assessing mental workload by correlation between psychophysiological, worktask and subjective assessment indicators

Mihaela Seracin, Raluca Iordache, Ileana Grigoriu and Cristian Oprea

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3-2 Physiological responses to workload change -A test/retest examination

Shinji Miyake¹, Shimpei Yamada¹, Takuro Shoji¹, Yasuhiko Takae², Nobuyuki Kuge² and Tomohiro Yamamura²

¹University of Occupational and Environmental Health, Japan

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3-3* Can the ambulance dispatch worker interface be adapted on cardiovascular indices?

D. (Dick) de Waard and L.J.M. (Ben) Mulder

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~~**3-4 Cardiovascular electrodermal measures and sensomotoric tests in assessment of computer work effects**~~ **cancelled**

Eugene Lyskov, Albert Crenshaw, Nebojsa Kalezic and Marina Heiden

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3-5 Experienced comfort and physiological activity of flight attendants in long-haul flights

Michael Trimmel

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3-6 Longitudinal study of social psychophysiological compliance in a four-person research team

Robert A. Henning, Jonathan K. Ferris, and Adam G. Armstead

University of Connecticut

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3-7 Operator cognitive work with different time pressure and psychophysiological response

Oleksandr Burov, Vasiliy Varus and Olexiy Volyansky

Research Institute of Military Medicine of Armed Forces of Ukraine, Ukraine.

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3-8* A heuristic method for work assessment using changes in autonomic indices

Mieko Ohsuga^{1,4}, Yukiko Kuriyagawa², Miho Hashimoto³ and Kiyoshi Kogure⁴

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JULY 14 (FRI)

10:30-12:00 Psychophysiology in Ergonomics IV: Aviation and health

Chair: Michael Trimmel / Wolfram Boucsein

4-1 Psychophysiological analyses of flight simulator profiles

Karin M. Tropper, and K. Wolfgang Kallus

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4-2 Adaptive automation using electrodermal activity during a simulated IFR flight mission

Andrea Haarmann, Florian Schaefer, and Wolfram Boucsein

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4-3 Application of a psychophysiological model of monotony in ATC: recommendations for simulation set-ups

Sonja Straussberger^{1,2}, K. Wolfgang Kallus¹ and Dirk Schaefer²

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4-4 Avoiding involuntary sleep during civil air operations: validating a wrist-worn alertness device

Nicola Wright¹, David Powell², Amanda McGown¹, Elizabeth Broadbent³ and Patricia Loft³

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