

# DEVELOPMENT OF SUSTAINABLE INFRASTRUCTURES IN ASIA



Proceedings of

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## International Collaborative Graduate Symposium

between Saitama University, Japan and University of Moratuwa, Sri Lanka

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University of Moratuwa  
28 January-2 February, 2008

**SYMPOSIUM PROGRAMME  
JANUARY 29, 2008**

- 08.30 -08.35 Lighting of traditional oil lamp
- 08.35 -08.40 Welcome address by Head/Dept of Civil Engineering, Prof. Priyan Dias
- 08.40 -08.50 Address by Dean/ Faculty of Engineering, Prof Ananda Jayawardane
- 08.50 -09:00 Address by Prof. Norio Tanaka
- 09:00~09:30 Keynote Address by Prof. Hiroshi Mutsuyoshi
- 09:30~10:00 Tea
- 10.00- 12.00 Session I**
- 10:00~10:15 DIFFERENCES OF TREE-BREAKING PATTERN AND ITS MOMENT AT RIVER FLOODS AND TWO TSUNAMIS UNDER DIFFERENT SUBSTRATE CONDITION  
*Norio Tanaka and Junji Yagisawa*
- 10.15-10.30 EVALUATION OF TSUNAMI DEFENSE EFFECTS BY COASTAL TREE SPECIES ON TSUNAMI RUN-UP HEIGHT AND CURRENT VELOCITY REDUCTION  
*Kosuke Imura and Norio Tanaka*
- 10.30-10.45 FLOW THROUGH COASTAL VEGETATION AND TSUNAMI IMPACT MITIGATION  
*S. Bandara H. Ratnasooriya, S. Samarawickrama and S.S.L. Hettiarachchi*
- 10.45-11.15 – Discussion
- 11.15-11.30 ENHANCEMENT OF HEAVY METAL REMOVAL FROM WASTE WATERS IN SSF CONSTRUCTED WETLANDS COMPRISING CRUSHED CLAY TILE MEDIA  
*M. Jayaweera, K.P.S.Randeniya, W.A.U. Witharana, and J. Manatunge*
- 11.30-11.45 STUDY FOR DIFFERENCE IN GROWTH CHARACTER BETWEEN THE SALIX SPECIES IN THE RIVER  
*Nobuhiko Tsuda and Yasushi Sasaki*
- 11.45-12.00 Discussion
- 12:00~13:00 Lunch

**13.00- 15.00 Session II**

13.00-13.15 DEVELOPMENT OF NEW HYBRID COMPOSITE GIRDERS CONSISTING OF CARBON AND GLASS FIBERS  
*Hiroshi Mustuyoshi, Nguyen Duc Hai, Shingo Asamoto, Thiru Aravinthan*

13.15-13.30 ECONOMICAL FLOOR TRUSS TOP CHORD FOR ACHIEVING LONG SPANS  
*S.V.T.J. Perera*

13.30-13.45 INFLUENCE OF ENVIRONMENTAL FACTORS ON SHRINKAGE BEHAVIOR OF CONCRETE  
*Ayumu Otsuka, Shingo Asamoto and Hiroshi Mustuyoshi*

13.45-14.15 Discussion

14.15-14.30 EXPERIMENTAL STUDY ON SHEAR TRANSFER CHARACTERISTICS OF FIBER REINFORCED CONCRETE  
*Takako Matsunaga, Fumie Wakisaka and Takeshi Maki*

14.30-14.45 COMPARATIVE STUDY OF PERFORMANCE OF DIFFERENT ROOFING TYPES FOR INDOOR THERMAL COMFORT IN RESIDENTIAL BUILDINGS  
*Rangika Halwatura and Thishan Jayasinghe*

14.45-15.00 Discussion

15:00~15:30 Tea

**15.30 -17.00 Session III**

15:30~15.45 A FRAMEWORK FOR EDUCATED TRADE-OFFS  
*Bhadranie Thoradeniya, Malik Ranasinghe, NTS Wijesekera*

15.45-16.00 SOIL-GAS DIFFUSION COEFFICIENT AND AIR CONDUCTIVITY FOR PEAT SOIL: EFFECT OF VOLUME SHRINKAGE WITH SUCCESSIVE DRAINAGE  
*Kenji Iizuka, Ken Kawamoto, Per Moldrup and Toshiko Komatsu*

16.00-16.15 Discussion

16.15-16.30 EVALUATION OF FEASIBILITY OF ULTRA THIN WHITETOPPING PAVEMENTS FOR RESURFACING INTERSECTIONS/PEDESTRIAN CROSSINGS  
*Janaka V. Kosgolla, Wasantha Kumara, and Mang Tia*

16.30-16.45 IMAGE ANALYSIS FOR ESTIMATING THE DISPLACEMENT FIELD OF ROCK  
*Tomoaki Matsushita, and Masahiko Osada*

16.45-17.00 PSEUDODYNAMIC TEST ON STRENGTHENED REINFORCED CONCRETE PIER  
Yuhstake Suzuki and Hiroshi Mustuyoshi

17.00-17.15 Discussion