



C.U.G.R.I.
 Consorzio Inter-Universitario
 per la Previsione e Prevenzione dei Grandi Rischi
 Università di Salerno - Università di Napoli "Federico II"



IMPRINTS



Lectures by prof. Shinji Egashira

Salerno University – Faculty of Engineering

lecture hall 112

30th and 31th January 2012

PROGRAM:

Monday 30 th January	
9h00–10h30	unit-1: Mechanics of Sediment Transportation
11h00–12h30	unit-2: River Management to Develop Suitable Environments
14h30-16h30	tutorial of PhD thesis

Tuesday 31 th January	
9h00–10h30	unit-3: Mechanics of Debris Flow
11h00–12h30	unit-4: Risk Management of Sediment Induced Disasters
14h30-16h30	tutorial of PhD thesis

Themes:

- unit-1, Mechanics of Sediment Transportation:* bed-load formulas and formulas of erosion and deposition rate for suspended sediment will be reviewed and current study issues will be provided.
- unit-2, River Management to Develop Suitable Environments:* present issues of river environment, objectives of river management and mathematical tools for evaluating river environment will be introduced.
- unit-4, Mechanics of Debris Flow: some studies on debris flow mechanics:* necessary conditions of constitutive relations, some keys for development of debris flow studies will be discussed.
- unit-5, Risk Management of Sediment Induced Disasters:* elements for risk management, tools and practice will be introduced.



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Important information

PhD students are invited to present their studies (15 minutes presentation) during the tutorials. The title of the presentation should be sent by e-mail to Maria Nicolina Papa (mnppapa@unisa.it) before January the 27th.

The participation is free but registration is needed, to be performed through the web site: <http://imprints-fp7.eu/workshop-salerno/>. Deadline for registration is January the 27th.

Presentation of Prof. Shinji Egashira

Born: February 15, 1947 in Japan

DEGREES

1973: M. S., Graduate School of Kyoto University: Basic study on turbidity currents

1980: Dr. Eng., Kyoto University: Basic study on flow and mixing structure of density stratified fields

WORK EXPERIENCE

1973-1982: Research Associate of Disaster Prevention Research Institute, Kyoto University

1982-1994: Associate Professor of Disaster Prevention Research Institute, Kyoto University

1990(Mar.-Oct.): Guest Professor, St Anthony Fall Hydraulic Laboratory, University of Minnesota

1994-2007(Mar): Professor of Ritsumeikan University, Dept. Civil and Environmental Systems Engineering

2007(Apr.)-Present: Head Manager of Engineers, NEWJEC Inc.

RESEARCH TOPICS

1. Density stratified flows and related problems.
2. Sediment yield and runoff process.
3. Mechanics of sediment transportation (bed-load to debris flow).
4. Mechanics of river morphology and change.
5. Prediction and mitigation for water- and sediment- induced disasters.

ACTIVITIES IN PROFESSIONAL SOCIETIES

1988-2007: Hydraulic Committee of JSCE (Japanese Society of Civil Engineers)

1992-1994: Chairman of Environmental Hydraulics Division

1991-Present: Associate Editor for Journal of Hydro-science and Hydraulic Engineering (JSCE)

1999-2001: Secretary General of Hydraulic Committee

2002-2004: Editor for Journal of Hydraulic, Coastal and Environmental Engineering (JSCE)



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1997-Present: International Advisory Committee for Debris Flow Hazard Mitigation

Often: Temporal Organizing and Science Committee such as IAHR Symposium on River, Coastal and Estuarine Morphodynamics

AWARDS

1999: Paper Prize (Japanese Society of Sediment and Erosion Control).

LAST PUBLICATIONS WRITTEN IN ENGLISH (More than 55 in the last 10 years):

Shinji Egashira, Takahiro Itoh, Katsuya Horie and Naoshi Nishimoto: A method to predict sediment transport process in drainage basins with dams, River, Coastal and Estuarine Morphodynamics: RCEM 2007, Taylor & Francis Group, London, pp. 1193- 1201, Sept. 2007.

Takahiro Itoh and Shinji Egashira: Critical condition of sediment entrainment by sediment-water mixture flow, River, Coastal and Estuarine Morphodynamics: RCEM 2007, Taylor & Francis Group, London, pp. 519- 526, Sept. 2007.

Shinji Egashira: Review of research related to sediment disaster mitigation, Journal of disaster research, Vol. 2, No. 1, pp. 11-18, 2007.

Itoh, T., S. Egashira and Osti, R.: Sediment control function of close type check dam focusing on sediment runoff volume, Proceedings of the International Symposium on Hydraulic Structures, IAHR Symposium, 12-13 October, Ciudad Guayana, Venezuela, CD-ROM: 54-ATO-I3136.pdf, 2006.

Egashira, S., K. Horie, T. Itoh and N. Nishimoto: Influence of dam reservoir on sediment runoff and river bed variation corresponding to a plan size rainfall, Proceedings of the 6th Japan-Taiwan Joint Seminar on Natural Hazard Mitigation, 9-11 October, Kyodai Kaikan, Kyoto, Japan, CD-ROM: SESSION D, paper_egashira.pdf, 2006.

Xuan Loc Luu, Shinji Egashira and Hiroshi Takebayashi: Study on river change and sediment transportation of Tan Chau reach in lower Mekong River, Proceedings of International Conference on Fluvial Hydraulics, River Flow, Sep. 2006, Lisbon, Portugal, pp. 1319-1327, 2006.

Xuan Loc Luu, Shinji Egashira and Hiroshi Takebayashi: A new treatment of exchange layer thickness to evaluate sediment sorting and armoring, Journal of Applied Mechanics, Vol. 9. pp.1025-1030, 2006.