

NEWS

Professor Yoshikatsu Tsuboi-in memoriam

Active until the last day of his life, Professor Yoshikatsu Tsuboi passed away quietly after a short illness on December 6, 1990. Professor Tsuboi was an active member of our ERS research center since its founding in 1967. The first Bulletin published in 1967 includes Professor Tsuboi's paper: Application of finite element method to nonsymmetrical problems of solids of revolution which was an important contribution to the structural design of large scale pressure vessels under earthquake loads.

Professor Tsuboi was born in Tokyo in 1907, and studied architecture and structural engineering at the University of Tokyo. He received the degree of Doctor of Engineering in 1941, and was appointed a professor at the University of Tokyo in 1942. His professional interests covered a wide range, and included theoretical research in the field of plates and shells as well as the design of a number of large-span structures such as the Tokyo Trade Center, Tokyo Olympic-Stadiums, Tokyo Catholic Church and the Festival Plaza for Expo'70 at Osaka. His prominent contribution to both theory and practice of structural engineering has been recognized by a number of awards. Among them, the Japan Academy prize was awarded to Professor Tsuboi for his achievements in Study of Shell Structures and their Application to Large-Span Structures.

Professor Tsuboi was a President of Architectural Institute of Japan from 1967 to 1969 and has been a President of International Association for Shell and Spatial Structures since 1986.

As a complete and elegant professor, and as one of the great structural engineering figures of our time, he will remain forever in our memories.

Y. Hangai

Professor T. Okada visited the Republic of the Philippines during the period of July 8 to August 7, 1990, for the technical cooperation of the restoration of damaged cities due to 1990 July 16 earthquake.

Professor T. Okada, Dr. Y. Nakano, lecturer, and Mr. F. Kumazawa, research associate visited San Francisco Bay Area to investigate reconstruction of damaged buildings during the period of August 19 and 23 to 25, 1990.

Professor T. Okada, Dr. Y. Nakano, lecturer, and Mr. F. Kumazawa, research associate attended the Sixth Meeting of the Joint Technical Coordinating Committee on Masonry Research, U.S.-Japan Cooperative Research Program held at Port Ludlow, Washington, USA, August 20-22, 1990.

It was respectfully manifested on Nov. 3, 1990, that Emeritus Professor Dr. S. Okamoto is the Person of Cultural Merits.

Prof. C. Tamura and Associate Prof. K. Konagai attended the International Concrete Conference 90 held at Tehran, Iran, May 1990.

Prof. C. Tamura attended the 58th Executive Meeting of ICOLD held at Sydney, Australia on May 21-28, as a member of committee on Seismic Aspects of Dam Design. During his stay, he visited Newcastle city to investigate the damages by the Newcastle Earthquake of 1989.

Prof. M. Hakuno took office as the Director of the Earthquake Research Institute, University of Tokyo, on April 1, 1990.

Associate Professor K. Konagai attended the European Conference on Structural Dynamics held at Bochum, Germany, June 1990.

Prof. C. Tamura, Associate Professors K. Konagai, F. Yamazaki, Research Associate S. Nagata and Mr. G.L. Molas visited the Luzon Island, Philippine, as a leader and members of the JSCE Reconnaissance Team to investigate damages caused by the Luzon Earthquake of July 16, 1990.

Prof. C. Tamura, Associate Prof. K. Konagai, Mr. N. Sato (former research assistant) and Mr. K. Kato (former research assistant) visited the Dalian University of Technology, China from Sept. 16 to 23. During their visit, they carried out measurement and observation of dynamic behavior of Guan Men Shang Dam (rockfill dam with concrete facing) in cooperation with Prof. G. Han, Associate Prof. X. Kong and their team.

Prof. C. Tamura visited the Dalian University of Technology, China, from Oct. 21 to 28, and made a presentation on damages by the Luzon Earthquake of July 16, 1990.

Prof. T. Jin, President of the Dalian University of Technology visited I.I.S., University of Tokyo twice (Jan.11 and Nov.25-Dec.4) on the basis of the Agreement of Academic Exchange between I.I.S., University of Tokyo and Dalian University of Technology. Professors of the Dalian University of technology visited I.I.S.

to exchange informations in this year include Prof. G. Han, director of Civil Engineering department (Jan.11, Nov.29-Dec.15, 1990), Prof. G. Lin (July 28, 1990) and associate Prof. X. Kong (Jan.30-, 1991).

- * Professor SHIBATA attended the technical review committee on the draft of the second version of the Safety Guide D-15, which is the former S-2, "Seismic Design and Qualification for Nuclear Power Plants", held in International Atomic Energy Agency in Vienna in March 1990.

On the way back, he visited the construction site of Euro-Tunnel between Calais, France and Dover, G.B. Two Japanese Heavy Industries, Kawasaki Heavy Industry and Mitsubishi Heavy Industry built trains of shield-type excavator and operated them from French side. Their under-water sections, 36km length will have gone through by the beginning of 1992. He made survey on these machines at the excavation site, and recognized that these machines had been working very smoothly.

- * Professor SHIBATA attended at the PVP Conference, ASME, held in Nashville, Tenn., U.S.A., and presented the paper "Stability of a Piping System with Nonlinear Multi-supporting Devices under a Seismic-condition" in June 1990. He has been cooperating with the Japanese Power Industries to develop the practical designs of plasto-elastic and frictional damping devices, whose idea was developed by Univ. of Cal., Berkeley and Bechtel Corp. U.S.A., and he studied the subject which was discussed in the paper above. Dr. T. Igusa, Associate Professor, Civil Eng'g., Northwestern University, had been cooperated the development of the Computer Program under the Scholarship from NSF and the sponsorship of the Japanese Industrial Group for this project.

- * Professor SHIBATA attended the Board Meeting of the International Assoc. of Structural Mechanics in Reactor Technology, which was held in Norwalk, CA., U.S.A. in July 1991, and finalized the schedule of the Conference, SMIRT 11, which will be held in August 1991 in Tokyo. Also the Planning session for the Program was held in Nagaoka, Niigata-pref. Japan in October, and they completed the program of the Conference based on approximately 1,100 abstracts which were sent from 40 countries by the division coordinators.

- * Professor SHIBATA attended OECD, CSNI Workshop on Probabilistic Safety Assessment. This meeting was held in Santa Fe, NM, U.S.A. and operated by Sandia National Laboratory. He presented with Mr. K. Abe, JAERI the paper "Limitation and Further Development of Seismic PSA in the View Points of Design Human Error and Failure of Safety-related Logical System" which was developed as the cooperative study with the Japan Atomic Energy Institute, and also he discussed on the safety of nuclear power plants under seismic conditions based on rather low availabilities of emergency diesel generators and cooling water supply systems experienced at Chiba-ken Toho-oki earthquake on Dec. 17, 1987.

- * Professor SHIBATA attended the 1st International Symp. on Uncertainty Modeling and Analysis, which was held at the University of Maryland in December 1990. The organizers plants to have such conference biannually, and covers rather wider area on modeling

of uncertainty, which is defined as various ways, but excludes the modeling the simple random process. The IEEE supported this conference. He also attended the 3rd Symp. on Current Issues Related to Nuclear Power Plant Structures, Equipment and Pippings, and delivered an invited lecture "Research and Application of Seismic PSA in Japan" in Orlando, Fl., U.S.A.

He visited Romania as a member of the I.A.E.A. mission on "Nuclear Safety: Licensing of Chernavoda Nuclear Power Plant-- Structural Dynamics, Etc." with Dr. J.D. Stevenson, U.S.A. and Mr. A.R. Godoy, I.A.E.A. in the second week of December 1990. The meeting was held in Bucharest with Ministry of Environment, National Commission for Nuclear Activities Control and other engineering organizations mainly on the Floor Response Curve. And they visited Chernavoda Site, where five units of CANDU type plants are under construction and is situated near to Black sea coast.

* Professor SHIBATA had/has two visiting scholars from Bulgaria, Professor-Dr. V.A. Dzhupanov, Bulgarian Academy of Science and Mr. O. Yanatchkov. Mr. Yanatchkov has been staying in his laboratory since May 1990 and studying on the fluid-structure interaction problem.

Prof. T. Katayama was invited to the International Seminar on Microzonation and Safety of Vital Public Systems held in CISMID (= Centro Peruano Japonese de Investigaciones Sismicas y Mitigacion de Disastres), the National Engineering University, Lima, Peru, in August 1990, during which he gave two lectures, one on lifeline earthquake engineering and the other on seismic risk analysis.

Prof. T. Katayama was invited as a guest of honor to the Ninth European Conference on Earthquake Engineering held in Moscow, USSR, during September 11-16, 1990, where he convened an Informal Executive Committee Meeting of the IAEE (= International Association for Earthquake Engineering) as its Secretary General.

Dr. S. Nagata attended the Fourth U.S. National Conference on Earthquake Engineering held in Palm Springs, California during May 20 to 24. He presented a paper on the strong motion database recorded at the Chiba seismometer array, and he received a great attention.

Prof. F. Yamazaki, Dr. S. Nagata and Mr. G. Molas visited the Republic of Philippines on August 16 till August 23, 1990 to investigate structural damage and social effects caused by the Northern Luzon earthquake on July 16, 1990.

Prof. F. Yamazaki had been in San Francisco Bay Area during December 1 to 8, 1990 to collect updated information on the Loma Prieta earthquake on November 17, 1989. The results will be utilized to construct an approximate relationship between structural damage and recorded ground motion.

Dr. Amr Elnashai, Imperial College, London was invited in March and April by IIS Research Fund for an cooperative research along the Memorandum of Cooperative Research between Institute of Industrial Science and Imperial College, London.

He joined the experimental works conducted by Takanashi Laboratory at the Chiba Experimental Station. The joint research produced the satisfactory outcomes, one of Journal of the Institution of Civil Engineers.

Professor K. Takanashi and Professor K. Ohi received in June the delegation of professors sent by the National Research Center of Earthquake Engineering in Taiwan.

Enthusiastic discussions were between IIS people and Taiwan group on most effective facilities for earthquake engineering research works. Up-to-date research themes in this field were also discussed and valuable research informations were exchanged.

Professor K. Takanashi attend the Annual Meeting of European Convention for Constructional Steelwork held at Interlaken Switzerland on July 18 to 22 as a representative of Society of Steel Construction of Japan. He presented the summary report of recent steel constructions in Japan and new trends in research works in steel.

Professor K. Takanashi attended the Workshop on Use of Steel in Refurbishment organized by Advisory Committee 4 ECCS at Naples, Italy on Dec. 10 to 12. He presented the paper describing Japanese experiences in upgrading seismic strength of reinforced concrete structures as well as steel structures. These topics will be extremely important in preservation problems of historical monuments in the world. On this occasion, he visited Imperial College, London and discussed with Dr. Amr Elnashai on future program along the Memorandum of Cooperative Research between IIS and IC.

Dr. Diego Lo Presti from Politecnico di Torino, Italy stayed at Tatsuoka Laboratory from 15 of June to 15 of October, 1990, financially supported by IIS. He performed a series of cyclic triaxial test on both Japanese and Italian sands to investigate the effects of cyclic prestraining on the stiffness at small strains. He has found that the effect could be negligible, thus the plastic deformation properties may not be uniquely linked to the small strain stiffness.

Dr. Alexander V. Konviz from Kuibishev Civil Engineering Institute Moscow, USSR, joined at 24 of October 1990, planning to stay for ten months. He is financially supported by Japan Culture Association. His speciality is the FE analysis for the deformation and strength properties of heterogeneous geotechnical engineering materials.

Mr. Shi Damin from Northwest University in China has been with us as a visiting scholar since 15 of February 1990. He speciality is the experimental work in rock mechanics.