

NEWS

- * Professor Shibata developed a high velocity shaking table in Jan., 1979, and by using this facility Mr. Y. Onoe and Mr. T. Shigeta with him made the experimental study on failure modes of reverse pendulum type models whose elements were made of brittle materials such as plaster, porcelain and cast iron. They found that momentum change was a control factor of failure instead of the maximum strain of elements in some materials. They have been continued this study with Mr. Sone and Mr. Shintani. The result is reported as the ERS Report No. III-3 in March 1980.
- * Professor Shibata was invited to PV-P Conf., ASME to present a paper in the Session of "Lifeline Earthquake Engineering" held in San Francisco in June 1980.
- * Professor Shibata attended 5 SMiRT Conf. which was held in Berlin in Aug., 1980. He presented two papers and participated in the International Science Committee as a Session Coordinator. And also attended two post conferences.
- * Professor Shibata visited USNRC and Lawrence Livermore Laboratory of U.S.A. for the discussion on seismic margin problem of nuclear piping systems and their damping characteristics in Oct., 1980.
- * Professor Shibata was invited to Argentina for advising the anti-earthquake design regulation and the design improvement of heavy-water type nuclear power plants by CNEA. He visited to University of Cordoba, University San Juan and sites of nuclear power plants including proposed area with CNEA staffs.
- * Dr. K. Kubo, Professor, and Dr. T. Katayama, Associate Professor succeeded to do US-Japan Cooperative research project-Seismic Risk Analysis and Its Application to Reliability-Based Design of Lifeline Systems for two years. This project is supported by the Japan Society for the Promotion of Science.
- * Dr. K. Kubo, Professor attended the International Conference on Engineering for Protection from Natural Disasters held at the Asian Institute of Technology, Bangkok January 7 to 10.
- * The cooperative research project on "Seismic Risk Analysis and Its Application to Reliability-Based Design of Lifeline Systems" was commenced in April, 1979, under the Japan-U.S. Cooperative Science Program cosponsored by the Japan Society for the Promotion of Science and the U.S. National Science Foundation. Professor K. Kubo is the Japanese principal investigator and Professor M. Shinozuka of Columbia University is the U.S. counterpart. This project will continue for two years and its main objectives are 1) to examine the current state of the probabilistic approach to seismic risk analy-

sis both in Japn and the U.S. and to establish a rational methodology for the determination of design seismic loading, and 2) to develop a method to evaluate the seismic risk of lifeline systems and to examine possible countermeasures from the viewpoint of reliability-based design. A total of nine research members are involved, of which seven are from Japan. In order to coordinate the research activities related to this project, Professor Kubo visited the U.S. for about four weeks during August and September, 1979. His visit included Columbia University, University of Illinois (Urbana-Champaign), University of Notre Dame and Stanford University.

- * Professor T. Katayama attended the second South Pacific Regional Conference on Earthquake Engineering held in Victoria University, Wellington, New Zealand, from May 8 to 10, 1979, where he presented a paper titled "Damage to Lifeline Systems in the City of Sendai Caused by the 1978 Miyagiken-oki Earthquake".
- * Professor T. Katayama was awarded the 1979 JSCE Medal for the best paper of the year for his paper "Statistical Analysis of Earthquake Acceleration Response Spectra" coauthored by Messrs. T. Iwasaki and M. Saeki, which was published in Japanese in the Proceedings of the Japan Society of Civil Engineers, No. 275, July, 1978.
- * Professor Tatsuoka stayed at the University of Illinois at Chicago Circle from September 1978 through June 1979 as a visiting Professor. He also stayed at the United States Geological Survey (USGS), Denver Federal Center in July and August 1979 as a visiting research fellow. He studied soil dynamics using several devices at Chicago Circle and analyzed the data at USGS.