

## News

- \* A new type of small shaking table, which uses an acceleration feedback system, was installed at the Chiba Field Station of the Institute of Industrial Science. The shaking table constitutes a part of a general apparatus to test structures under dynamic loads. A mini computer was also installed which links the small shaking table with hydraulic pulsators previously installed. The general system is intended to be used to investigate the nonlinear dynamic behaviors of structures during earthquakes.
- \* Associate Professor T. Okada set off to the University of California, Berkeley, California, to study earthquake engineering & school building safety as an exchange visitor, under a project concerned with development of methodology for evaluating earthquake safety of existing school buildings, in the middle of July, 1973.
- \* Professor K. Kubo and Associate Professor T. Katayama, both of the Institute of Industrial Science, University of Tokyo, attended the Japan-U.S. Seminar on Earthquake Engineering held in Berkeley from Sept. 4 to Sept. 9, 1973. Professor Kubo presented a paper entitled "Review of Recent Research and Practice in Earthquake Resistant Design in Japan", and Assistant Professor Katayama "Some Engineering Characteristics of Earthquake Ground Motions".
- \* Professor H. Shibata attended and presented papers at the 2nd International Conference on Structural Mechanics in Reactor Technology held in Berlin in September, 1973, and at the 2nd International Conference on Pressure Vessel Technology held in Stuttgart also in September, 1973.
- \* Associate Professor H. Sato attended and presented papers at the 2nd International Conference on Structural Mechanics in Reactor Technology held in Berlin and at the 14th International MTDR Conference held in Manchester, both in September, 1973.
- \* Associate Professor K. Takanashi participated in IABSE Symposium on "Resistance and Ultimate Deformability of Structures Acted on by Well Defined Repeated Loads", held in Lisbon in September 1973, with a paper titled "Failure of steel Beams due to Lateral Buckling under Repeated Loads".
- \* Professor J. Penzien (the University of California, Berkeley) came to the Building Research Institute, Ministry of Construction, as an exchange visitor in early January, 1973.

He is expected to be an invited member of ERS.

- \* The followings are the papers presented to the 5th World Conference on Earthquake Engineering by the members of the Earthquake Resistant Structure Research Center:

On the response analysis of the structure system subjected to multi-seismic motions, by H. Sato and K. Suzuki.

Behaviors of submerged tunnels during earthquakes, by S. Okamoto, C. Tamura, K. Kato, and M. Hamada.

Behavior of Underground Waterpipes during an earthquakes, by K. Kubo.

Inelastic lateral buckling of steel beams subjected to repeated and reversed loadings, by K. Takanashi.

Hybrid failure test on a structural member, by M. Hakuno.

A plan for strong earthquake alarm system 10 seconds before it attacks the city of Tokyo, by Earthquake Alarm Group (K. Kanai, S. Okamoto, H. Kobayashi, M. Katsumata, M. Hakuno, and Y. Ohta).

Dynamic earth pressures on basement wall, by H. Tajimi.

Earthquake response of multi-story building considered surface layer-basement interaction, T. Masao, and H. Tajimi.

Response analyses of earthquake motions observed in and around a reinforced concrete building including building-subsoil system, Y. Osawa, Y. Kitagawa, and K. Ishida.

Evaluation of dynamical properties of pile foundation based on wave dissipation theory, by M. Hakuno.

Probabilistic assessment of maximum response acceleration, by T. Katayama.

On fluctuation of responses of a structure, by H. Shibata, N. Shimizu, M. Yamamuro, and T. Shigeta.

MEETINGS OF EARTHQUAKE RESISTANT STRUCTURE RESEARCH CENTER

Seven meetings were held from March, 1973, to April, 1974.

The names of speakers and the topics discussed at the meeting are as follows.

March 12, 1973

Speaker: Y. Tsuboi (Professor Emeritus, University of Tokyo)

Topic: On Dynamic Relaxation Method.

July 25, 1973

Topic: On the 5th World Conference on Earthquake Engineering.

October 23, 1973

Speaker: C. Tamura (Institute of Industrial Science)

Topic: Earthquake Ground Displacements Observed Along a Straight Line on the Ground Surface.

November 13, 1973

Speaker: T. Katayama (Institute of Industrial Science)

Topic: Report of "Japan-U.S. Seminar on Earthquake Engineering".

Speaker: H. Shibata (Institute of Industrial Science)

Topic: On the Managua Earthquake.

December 18, 1973

Speaker: K. Suzuki (Institute of Industrial Science)

Topic: On Application of Multi-Dimensional Spectral Analysis to Earthquake Response Problem.

January 22, 1974

New Year's Meeting.

April 16, 1974

Speakers: H. Shibata and T. Fujita (both of Institute of  
Industrial Science)

Topic: Simulation of Spreading Fires caused by a Great  
Earthquake and of Behavior of Refugees from them.

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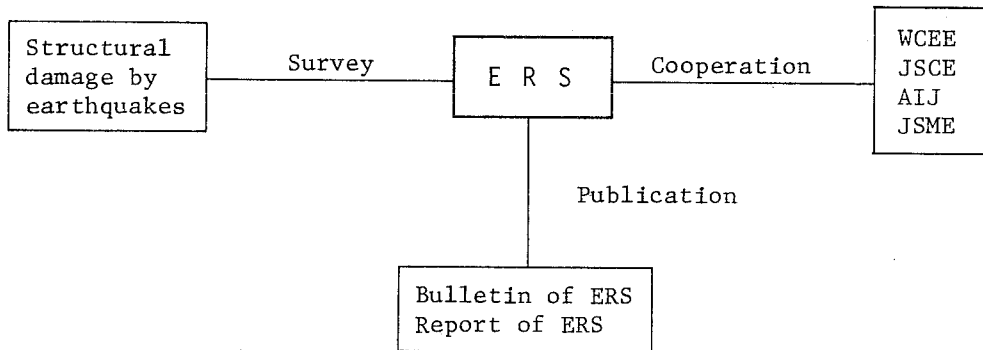
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Earthquake Resistant Structure Research Center (ERS) is an organization for cooperation of researchers in the various branches of structural engineering in the Institute of Industrial Science, University of Tokyo. Its activities concern with fundamentals of the earthquake resistant structure and specific items in the fields of civil, structural and mechanical engineering.

#### Activities of ERS



WCEE : The World Conference of Earthquake Engineering

JSCE : The Japan Society of Civil Engineers

AIJ : The Architectural Institute of Japan

JSME : The Japan Society of Mechanical Engineers