

# List of Papers by The Members of The Center

(Nov. 1972 ~ Oct. 1973)

SEISAN-KENKYU: Monthly Journal of the Institute of Industrial Science, University of Tokyo.

\*: Written in Japanese

S. Okamoto, C. Tamura, K. Kato and M. Hamada: Behaviors of Submerged Tunnels During Earthquakes, Proc. of 5WCEE, 2B-59, June, 1963.

K. Kanai, S. Okamoto, H. Kobayashi, M. Katsumata, M. Hakuno and Y. Ohta: A Plan for Strong Earthquake Alarm System 10 Seconds Before it Attacks the City of Tokyo, Proc. of 5WCEE, 3C-132, June, 1973.

S. Okamoto and C. Tamura: Behaviors of Subaqueous Tunnels During Earthquakes, International Journal of Earthquake Engineering and Structural Dynamics, Vol. 1, No. 3, Jan., 1973.

\* C. Tamura, S. Okamoto and K. Kato: Earthquake Observation on Strains of the Subaqueous Tunnel Wall, Proc. of Japan Earthquake Engineering Symposium 1973, Aug. ~ Sep., 1973.

\* C. Tamura: Aseismic Design of Foundation; Soil and Foundation, PP.173 ~ 187, JSCE, Aug., 1973.

C. Tamura and S. Morichi: On Dynamic Photoelastic Experiments using Gelatin Gel—Especially on Analysis of Elastic Wave Propagation through the Ground, SEISAN-KENKYU, Vol. 24, No. 11, Nov., 1972.

\* T. Okada, M. Seki and H. Ito: Load-Deflection Characteristics of Reinforced Concrete Members subjected to Alternated Loading, SEISAN-KENKYU, Vol. 25, No. 2, Feb., 1973.

\* T. Okada, M. Seki, H. Ito and R. Ri: Load-Deflection Characteristics of Reinforced Concrete Members subjected to repeated Loading, IV, Preprint of AIJ meeting, 1407 ~ 1410, Oct., 1973.

H. Sasama and H. Shibata: Auto Design of Piping Systems, Bull. of JSME, Vol. 16, No. 92, Feb., 1973, P.205.

\* H. Shibata and K. Sogabe: Experimental Study on Sloshing of Models of Oil Storages, Rept. of ERS, No. III-2, Mar., 1973.

\* H. Shibata: Fundamental Concept of Aseismic Design of Chemical Engineering Plant, Pre-print of JSME Meeting, No. 730-3, April, 1973, P.159.

\* H. Shibata: On aseismic Design of Chemical Engineering Plant, Jour. of the Soc. of Chemical Eng's., Vol. 37, No. 4, April, 1973, P.359.

H. Shibata and others: On Fluctuation of Responses of a Structure, Proc. of 5 WCEE, 8B-367, June, 1963.

\* H. Shibata and others: Experimental Study on Ratcheting Rapture of Nuclear Piping, Proc. of the Japan Earthquake Engineering Symposium 1973, A-4, Aug., 1973, P.21.

H. Shibata and others: On Estimated Mode of Failures of Nuclear Power Plants by Potential Earthquakes, Proc. of 2nd International Conference on Structural Mechanics in Reactor Technology, K 3/1, Sept., 1973.

H. Shibata and others: An Experimental Study on the Responses of a Model System to Natural Earthquakes in the Field and on a Shaking Table, Proc. of 2nd International Conference on Structural Mechanics in Reactor Technology, K 5/5, Sept., 1973.

H. Shibata and others: Pipe Rupture by Seismic Vibration Test, Pre-print of 2nd International Conference on Pressure

\* H. Shibata and others: Preliminary Report on the Response of a Model Cylindrical Oil Storage to Natural Earthquakes, Pre-print of JSME Meeting, No. 730-14, Oct., 1973, P.157.

\* H. Shibata and S. Yamada: Fundamental Concept of Aseismic Design of Chemical Engineering Plant: — on Codes for Strength of Structure, Pre-print of JSME Meeting, No. 730-14, Oct., 1973, P.153.

H. Sato and K. Suzuki: On the Response Analysis of the Structure System Subjected to Multi-Seismic Motions, Proc. of 5 WCEE, 1B-19, June, 1973.

H. Sato: The Response Spectrum Analysis of Building Appendage System to an Artificial Earthquake with Two Ground Predominant

Periods, Preprint of 2nd International Conference on Structural Mechanics in Reactor Technology, K 6/2, Sept., 1973.

- \* K. Mitsui and H. Sato: A Study on an Estimating Method of Damping Ratio by Power Spectrum of Impulse Response, Pre-print of JSME, 730-3, 125, 1973-4.\*
- \* K. Suzuki: A Study on Response Analysis of Machine Structure System Subjected to Two Seismic Motions, Trans. of JSME, 39-320, 1215, April, 1973.
- \* K. Suzuki: A Study on Response Analysis of Machine Structure Subjected to Multi-Seismic Motions (On the Elasto-Plastic Response of the System with Nonsymmetric Stiffness), Pre-print of JSME, 730-4, 163, April, 1973.
- \* K. Suzuki: A Study on Response Analysis of Machine Structure System Subjected to Pseudo-Earthquake Random Vibration, Pre-print of JSME, 730-7, 131, May, 1973.
- \* K. Suzuki: A Study on an Application of Multi-Dimensional Spectral Analysis to Earthquake Response Problem, SEISAN-KENKYU, Vol. 24, No. 11, Nov., 1972.
- \* K. Kubo: Behaviors of Underground Pipes during Earthquakes, SEISAN-KENKYU, Feb., 1973.
- K. Kubo: Behavior of Underground Waterpipes during an Earthquake, Pre-print of 5th WCEE, June, 1973.
- \* K. Kubo, T. Katayama and N. Sato: Dynamic Behaviors and Earthquake Resistance of Pedestrian Overbridges, Pre-print of JSCE Meeting, Oct., 1973.
- \* K. Kubo and N. Sato: Earthquake Observations at a 35,000kl LNG Tank, Pre-print of JSCE Meeting, October, 1973.
- T. Katayama and T. Ueshima: Empirical Relations among Average Maximum Ground Acceleration, Earthquake Magnitude and Epicentral Distance, SEISAN-KENKYU, Nov., 1972.
- T. Katayama: Probabilistic Assessment of Maximum Response Acceleration, Pre-print of 5th WCEE, June, 1973.
- M. Ito, T. Katayama and T. Nakazono: Some Empirical Facts on Damping of Bridges, IABSE Symposium (Lisbon), Sep., 1973.
- \* H. Tanaka, K. Takanashi and K. Udagawa: Members in Steel

Structures under Cyclic Loading, SEISAN-KENKYU, Vol. 25, No. 2, Feb., 1973.

K. Takanashi, K. Udagawa and H. Tanaka: Failure of Steel Beams due to Lateral Buckling under Repeated Loads, Preliminary Report of IABSE Symposium (Lisbon), Sep., 1973.

K. Udagawa, M. Saisho, K. Takanashi and H. Tanaka: Rotation Capacity of Steel Beams with H-shaped Section, Extra Summaries of the Annual Meeting, Trans. AIJ, Oct., 1973.

K. Udagawa, M. Saisho, K. Takanashi and H. Tanaka: Experiments on Lateral Buckling of H-shaped Beams Subjected to Monotonic Loadings, Trans. of AIJ, No. 212, Oct., 1973.

S. Shigenobu and H. Tanaka: Elastic-Plastic Behaviors of Steel Members under Cyclic Axial Forces, Extra Summaries of the Annual Meeting, Trans. of AIJ, 1973.

S. Shigenobu and H. Tanaka: Restoring Characteristics of Steel Members under Cyclic Axial Forces, SEISAN-KENKYU, Vol. 26, No. 2, Feb., 1974.

H. Tanaka: Proposal of Design Formula for Required Web-Thickness of Beam-Column Connections, Trans. of AIJ, No. 207, May, 1973.

K. Takanashi: Inelastic Lateral Buckling of Steel Beams Subjected to Repeated and Reversed Loadings, Proc. of 5WCEE, 2D-91, June, 1973.

S. Kawamata, M. Yoneda, Y. Hangai and K. Kanazawa: Studies on an Anti-Seismic Damper, Report of Project Research on Disaster Prevention in Urban Area, 1-9, Institute of Industrial Science, University of Tokyo, April, 1973.

S. Kawamata, Y. Hangai, M. Yoneda and K. Kanazawa: Studies on a Vibration Control System, Parts (1)-(3), Proc. of Annual Convention, AIJ, Oct. 1973, PP.857-862.

S. Kawamata, E. Magara and J. Kunita: Analysis of Cable Nets in Mixed Formulation, Theory and Practice in Finite Element Structural Analysis, Proc. of 1973 Tokyo Seminar of Finite Element Analysis, ed. Y. Yamada and R.H. Gallagher, Univ. of Tokyo Press, 1973, PP.157-175.

Y. Hangai, and S. Kawamata: Analysis of Geometrically Non-linear and Stability Problems by Static Perturbation Method,

Report of the Institute of Industrial Science, the Univ. of Tokyo, Vol. 22, No. 5, Jan., 1973.

Y. Hangai and S. Kawamata: A Method of Bifurcation Analysis in Perturbation Technique, SEISAN-KENKYU, Vol. 24, No. 12, Dec., 1972.

H. Tajimi: Dynamic Earth Pressures on Basement Wall, Proc. of 5WCEE, 4D-195, June, 1973.

T. Masao and H. Tajimi: Earthquake Response of Multi-Story Building Considered Surface Layer-Basement Interaction, Proc. of 5WCEE, 5C-230, June, 1973.

M. Hakuno: Hybrid Failure Test on a Structural Member, Proc. of 5WCEE, June, 1973.

M. Hakuno: Evaluation of Dynamical Properties of Pile Foundation Based on Wave Dissipation Theory, Proc. of 5WCEE, 7C-334, June, 1973.