

PROGRAM

OPENING SESSION

MONDAY, JULY 11  
Sankai Kaikan, Room No.1

10:00 - 10:50 a.m. Opening Ceremony

Presided by : Kazuo Minami, Professor, Waseda  
University; Member, Organizing Committee

Opening Address Kiyoshi Muto  
Chairman, Organizing Committee

Welcome Address Masao Yamagata  
Vice-President, Science Council of Japan

Address Deputy Director General, Prime Minister's Office

Greetings Vice-Minister of Education

Greetings Hisaakira Kano  
President, Association Supporting the Conference

Greetings John E. Rinne  
Chairman, Arrangements Committee of the First  
Conference  
Representing the Participants from Abroad

Special Lectures

Chairman : Kiyoshi Muto, Dean and Professor, Faculty of Engineering,  
University of Tokyo

11:00 - 11:30 a.m. On the Oldest Aseismic Iron Bridge in Japan  
by Yutaka Tanaka, Professor Emeritus, University  
of Tokyo

11:30 - 12:00 a.m. Fifty Years of Earthquake Engineering Practice  
by Tachū Naito, Professor Emeritus, Waseda  
University

Program

SESSION I

MONDAY, JULY 11  
Sankei Kaikan, Room No.2

Soil and Foundation Conditions Relative to Earthquake Problems

Chairman : T. Mogami  
Co-Chairman : M. Ichihara

- |           |                                      |  |
|-----------|--------------------------------------|--|
| 1:30 p.m. | H. Matsuo<br>S. Ohara                | Lateral Earth Pressure and Stability of Quay Walls During Earthquakes                                    |
| 1:55 p.m. | H.B. Seed                            | Soil Strength During Earthquakes   |
| 2:20 p.m. | Y. Tahara<br>T. Takata<br>M. Fukuoka | Some Experimental Studies on the Earthquake Proof Design of the Foundation of Bridge Pier in Soft Ground |
| 2:45 p.m. | Y. Ishii<br>H. Arai<br>H. Tsuchida   | Lateral Earth pressure in an Earthquake  |

Chairman : K. Hoshino  
Co-Chairman : C. M. Duke

- |           |              |   |
|-----------|--------------|---|
| 3:30 p.m. | V.A. Murphy  | The Effect of Ground Characteristics on the Aseismic Design of Structures |
| 3:55 p.m. | S. Shiraishi | Resistance of Foundation Ground against Overturning Forces                |
| 4:20 p.m. | T. Mogami    | Session Summary   |

Program

SESSION II

MONDAY, JULY 11  
Sankei Kaikan, Room No.1

Analysis of Structural Response and Instruments

Chairman : R. Tanabashi  
Co-Chairman : M. Takeuchi

- 1:30 p.m. R. Takahashi Non-linear Response Analyzers and  
Application to Earthquake Resistant  
Design
- 1:55 p.m. G.N. Bycroft Analogue Computer Techniques in Aseismic  
Design
- 2:20 p.m. G.V. Berg Energy Consumption by Structures in  
S.S. Thomaides Strong-Motion Earthquakes
- 2:45 p.m. R.L. Jennings Elastic Response of Multi-Story Shear  
N.M. Newmark Beam Type Structures Subjected to Strong  
Ground Motion

Chairman : N.M. Newmark  
Co-Chairman : K. Nakagawa

- 3:30 p.m. R.I. Skinner Earthquake Response of Bending Structures  
K.M. Adams Derived from a Mixed Mechanical-Electrical  
K.J. Brown Analogue
- 3:55 p.m. J. Penzien Elasto-Plastic Response of Idealized  
Multi-Story Structures Subjected to a  
Strong Motion Earthquake
- 4:20 p.m. E. Shima Some New Instruments Used in Earthquake  
T. Tanaka Engineering in Japan  
N. Den
- 4:45 p.m. U.S. Inspection Report on the Moroccan Earthquake Damage  
Team (W.G.Kirkland  
and R.W.Clough)  
and Jean Despeyroux

Program

SESSION II

TUESDAY, JULY 12  
Sankei Kaikan Room No.1

Analysis of Structural Response and Instruments (Cont'd)

Chairman : J.E. Rinne  
Co-Chairman : K. Kanai

- 9:00 a.m. H. Tajimi A Statistical Method of Determining the Maximum Response of a Building Structure During an Earthquake
- 9:25 a.m. R.N. Joshi Striking Behaviour of Structures in Assam Earthquakes
- 9:50 a.m. S. Kotsubo Dynamic Water Pressure on Dams During Earthquakes

Chairman : K. Otao  
Co-Chairman : T. Takada

- 10:45 a.m. R.W. Clough Effects of Earthquakes on Underwater Structures
- 11:10 a.m. W.T. Thomson A Survey of the Coupled Ground-Building Vibrations
- 11:35 a.m. F. Neumann A Broad Formula for Estimating Earthquake Forces on Oscillators

Chairman : K. Sasa  
Co-Chairman : J. Krishna

- 1:55 p.m. I. Konishi Earthquake Responses of a Long Span  
Y. Yamada Suspension Bridge
- 2:20 p.m. J.I. Bustamante Building Code Provisions on Torsional  
E. Rosenblueth Oscillations
- 2:45 p.m. A.S. Veletsos Effect of Inelastic Behavior on the Re-  
N.M. Newmark sponse of Simple Systems to Earthquake Motion

Chairman : R. Flores  
Co-Chairman: T. Hatakeyama

- 3:30 p.m. K. Kubo Aseismicity of Suspension Bridges Forced to Vibrate Longitudinally
- 3:55 p.m. A. Hirai Lateral Stability of a Suspension Bridge  
T. Okumura Subjected to Foundation-Motion  
M. Ito  
N. Narita
- 4:20 p.m. G. Oberti Dynamic Tests on Models of Structures  
E. Lauletta

Program

SESSION III

TUESDAY, JULY 12  
Sankei Kaikan Room No.2

Seismicity and Earthquake Ground Motion

Chairman : T. Matsuzawa  
Co-Chairman : E. Nishimura

- 9:00 a.m. T. Hirono Seismicity of Japan  
9:25 a.m. M.P. White The Meaning of Spectra of Earthquake  
Records Obtained in or near Structures  
9:50 a.m. E. Gajardo Seismic Provinces of Chile  
C. Lomnitz

Chairman : H. Kawasumi  
Co-Chairman : T. Hirono

- 10:45 a.m. K. Kanai An Empirical Formula for the Spectrum of  
Strong Earthquake Motion  
11:10 a.m. J. Figueroa A. Some Consideration about the Effect of  
Mexican Earthquakes

Chairman : F. Kishinoue  
Co-Chairman : Y. Sato

- 1:55 p.m. N. Nasu Investigation of the Ground in the North-  
ern Part of the City of Yokkaichi in the  
North Ise Industrial District

- 2:20 p.m. J.L. Alford Damage Produced by Small Ground Motions  
2:45 p.m. I. Muramatsu The Seismic Intensity at a Certain Dam  
T. Yabashi Site

Chairman : N. Nasu  
Co-Chairman : S. Omote

- 3:30 p.m. W.K. Cloud Ground Motions Generated by Underground  
D.S. Carder Nuclear Explosions  
3:55 p.m. H. Kawasumi Session Summary (III and V)



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SESSION IV

THURSDAY, JULY 14  
Sankei Kaikan Room No.2

Earthquake Resistant Design, Construction and Regulations

Chairman : K.S. Zavriev  
Co-Chairman : Y. Otsuki

- 9:00 a.m. Y. Tsuboi On Earthquake Resistant Design of Flat  
M. Kawaguchi Slabs and Concrete Shell Structures
- 9:25 a.m. J.E. Rinne Design Criteria for Shear and Overturning  
Moment
- 9:50 a.m. D. Vergun Aseismic Design of Two Long-Span Multi-  
D.V. Whitmore Story Buildings

Chairman : V.A. Murphy  
Co-Chairman : K. Tomonaga

- 10:45 a.m. V.A. Bikhovsky Design of Earthquake-Proof Building  
J.I. Goldenblat Structures in the USSR  
J.L. Korchynski
- 11:10 a.m. J.G. Bouwkamp Drift Limitations Imposed by Glass  
J.F. Meehan
- 11:35 a.m. K.S. Zavriev Guaranteeing Antiseismicity of Buildings  
on the Basis of Investigations Carried  
Out in the USSR

Chairman : S. Okamoto  
Co-Chairman : K. Kubo

- 1:30 p.m. A.A. Beles Engineering Aspects of Earthquakes in  
M. Ifrim Rumania in the Light of Modern Investi-  
gations
- 1:55 p.m. J.M. Raphael The Effect of Lateral Earthquake on a  
High Buttress Dam
- 2:20 p.m. J. Krishna Seismic Data for the Design of Structures
- 2:45 p.m. T. Naka Quake Resisting Design of Composite Struc-  
M. Wakabayashi tures in Japan  
S. Takada

Chairman : H. Futami  
Co-Chairman : T. Hisada

- 3:30 p.m. N. Korcinski On Aseismic Resistance of Structures  
Taking into account the Different  
Behavior of Materials to Shock Loads
- 3:55 p.m. A. Zeevaert Construction Practices for Multistory  
Buildings Subjected to Earthquakes

Program

SESSION IV

FRIDAY, JULY 15  
Sankei Kaikan Room No.1

Earthquake Resistant Design, Construction and Regulations (Cont'd)

Chairman : K. Takeyama  
Co-Chairman : Y. Mura

- 9:00 a.m. R.W. Binder Building Code Provisions for Aseismic  
W.T. Wheeler Design
- 9:25 a.m. J.F. Borges Portuguese Studies on Earthquake Resistant  
Structures
- 9:50 a.m. S.V. Medvedev The Forecast of Seismic Effects on Construc-  
tions

Chairman : H. Matsuo  
Co-Chairman : Y. Ishii

- 10:45 a.m. H.J. Degenkolb Earthquake Resistant Design of Small  
Buildings
- 11:10 a.m. M. Numata Earthquake-Resistant Design for Civil  
Engineering Structures, Earth-Structures  
and Foundations in Japan
- 11:35 a.m. Y. Otsuki Design Seismic Forces for Reinforced  
Concrete Buildings

Chairman : R.W. Binder  
Co-Chairman : Y. Tsuboi

- 1:30 p.m. T. Hatano Dynamical Compressive Deformation and  
H. Tsutsumi Failure of Concrete under Earthquake Load
- 1:55 p.m. S. Ban Behaviour of Plain Concrete under Dynamic  
H. Muguruma Loading with Straining Rate Comparable to  
Earthquake Loading
- 2:20 p.m. T. Hisada Session Summary

Chairman : S. Ban  
Co-Chairman : T. Hatano

- 3:00 p.m. R. Flores Reports on the Chilean Earthquake Damage  
K.V. Steinbrugge  
R.W. Clough  
R. Takahashi
- 4:30 p.m. K. Muto Conference Summary



SESSION V

FRIDAY, JULY 15  
Sankei Kaikan Room No.2

Recent Strong Motion Earthquakes and Resulting Damages

Chairman : F. Neumann  
Co-Chairman : M. Hatanaka

- 9:00 a.m. N.N. Ambraseys On the Seismic Behaviour of Earth Dams  
9:25 a.m. E. Rosenblueth The Earthquake of 28 July 1957 in Mexico City  
9:50 a.m. K.V. Steinbrugge Earthquake Experience in North America, V.R. Bush 1950-1959

Chairman : R. Ito  
Co-Chairman : S. Shiraishi

- 10:45 a.m. Ke-Chieh Cheng Report on the 1951 Earthquake in Taiwan  
11:10 a.m. R. Flores Engineering Aspects of the Earthquake in S. Arias the Maipo Valley, Chile, in 1958 V. Jenschke L. Rosenberg  
11:35 a.m. S. Gershanik A Solution of the Basic Differential G. Dedeabant Equation of Seismic Loads and its Relation with the Expansion on Series of Eigenfunctions

Chairman : E. Rosenblueth  
Co-Chairman : H. Kimishima

- 1:30 p.m. C.M. Duke Foundations and Earth Structures in Earthquakes  
1:55 p.m. J.A.R. Johnston A Brief History of Damaging Earthquakes in Wellington City and Developments in Multi-storey Building Construction in New Zealand  
2:20 p.m. R. Diaz de Cossio Foundation Failures During the Coatzacoalcos (Mexico) Earthquake of 26 August 1959

Program

CLOSING SESSION

MONDAY, JULY 18  
Kyoto Kaikan

Special Lectures

Chairman : Ichiro Konishi, Professor, Faculty of Engineering,  
Kyoto University

Vice-Chairman : Hisao Goto, Assistant Professor, Faculty of  
Engineering, Kyoto University

9:00 - 9:10 a.m.    Introductory Address  
                          Ichiro Konishi

9:10 - 9:40 a.m.    Design of Nuclear Power Reactors against Earthquakes  
                          by George W. Housner, President, Earthquake  
                          Engineering Research Institute, USA

9:40 - 10:10 a.m.    Earthquake Resistance of Traditional Japanese  
                          Wooden Structures  
                          by Ryo Tanabashi, Director, Disaster Prevention  
                          Research Institute, Kyoto University

10:30 - 11:20 a.m.    Business Meeting

Chairman : Kiyoshi Muto, Professor and Dean, Faculty of Engineer-  
ing, University of Tokyo

Vice-Chairman : Lydik S. Jacobsen, Professor, Stanford University  
Ryo Tanabashi, Director, Disaster Prevention  
Research Institute, Kyoto University

11:20 - 12:00 a.m.    Closing Ceremony

Closing Address  
Kiyoshi Muto