

## SECTION I

### DESIGN OF DAMS IN SEISMIC ZONES

#### List of Papers.

#### Page No.

- |    |  |    |
|----|--|----|
| 1. | “Effect of Earthquake on Pore Pressure in Earth Dam” by V.J. Patel and S. D. Bokil.                    | 1  |
| 2. | “The Seismic Stability Analysis of Earth Dams (Part II)” by N. N. Ambraseys.                           | 11 |
| 3. | “Earthquake Resistant Design of Earth Dams” by Jai Krishna.  | 22 |
| 4. | “Effect of Seismic Forces on Various Power Houses in Uttar Pradesh” by Ravi Datta and P.S. Nigam.      | 41 |
| 5. | “Water Pressure on Overflow Dams During Earthquakes” by V.G. Palnitkar.                                | 55 |
| 6. | “Some Aseismic Design Aspects of Hydro-electric Structures” by Y. K. Murthy, K. Madhavan and K.K. Rao. | 61 |

## SECTION II

### VIBRATION STUDIES OF SOILS

List of Papers	Page No.
7. "Dynamic Behaviour of Soils" by Shamsher Prakash and R. Gupta.	73
8. "Earthquake Resistant Design of Retaining Walls" by I. P. Kapila.	97
9. "Vibratory Response of a Cohesive Soil in Uniaxial Compression" by R.L. Kondner.	109
10. "Behaviour of Soils During Seismic Disturbances" by R.S. Mithal and L.S. Srivastava.	131
11. "A Simplified Method for Computing Resonant Frequency of Square Footings" by H.A. Balakrishna Rao.	153

## SECTION III

### SEISMOLOGY AND INSTRUMENTATION FOR VIBRATION STUDIES

List of Papers	Page No.
<b>SEISMOLOGY</b>	
1. "Seismology in India" by A.N. Tandon.	167
2. "Assessment of Maximum Seismic Intensity and Ground Acceleration" by A.N. Tandon.	179
3. "Seismic Regionalisation of India" by S.K. Guha	191
4. "On Predominant Period of the Surface Layer in the Assam Plateau" by B.P. Saha.	209
5. "Variation of Elastic Constants with Frequency and Under Different Physical Conditions" by V.K. Gaur.	215
6. "Preliminary Investigations of the Problem of Predicting Earthquake by Measurement of the Magnetic Field in the Region" by V.K. Gaur.	219
7. "Study of Earthquakes Recorded by Gravimeter" by S. Balakrishna.	225
<b>INSTRUMENTS FOR VIBRATION STUDIES</b>	
8. "Design of Shock Vibration Table" by Jai Krishna and A.R. Chandrasekaran	231
9. "Design of Structural Response Recorders" by Jai Krishna and A.R. Chandrasekaran	241
10. "Design of a Vibration Measuring Device" by A.R. Chandrasekaran and S. N. Pande.	255

## SECTION IV

### ANALYSIS AND DESIGN OF STRUCTURES FOR EARTHQUAKE FORCES

List of Papers	Page No.
22. "Earthquake Stresses in Tall Buildings with Set Backs" by Glen V. Berg.	267
23. "Study on the Dynamical Response of An Actually Designed Structure Against Severe Earthquake" by Hajime Umemura	285
24. "Effect of Joint Rotation on the Dynamics of Multi-Storeyed Frames" by A. R. Chandrasekaran.	305
25. "Vibrations of a Catenary Arch" by K.V. Mital and J.S. Tomar	317
26. "Response of Structures to Artificially Generated Explosion Waves in Earth" by S.K. Guha, G.V. Rao, R. Nath, B.B. Khade and R.P. Belgal.	327
27. "Structural Damping of Brick Masonry in Different Mortars" by D.V. Mallick.	343
28. "Building Construction in Seismic Zones of India " by Jai Krishna and A.S. Arya.	355
29. "Settlement Studies on a Model Footing Under Dynamic Loads" by A. Sridharan.	377
30. "Japanese Mode of Thinking of Earthquake Resistant Design" by R.N. Joshi:	393
31. "Vibration Problems in Hydraulic Structures" by Satish Chandra.	399

## SECTION V

### GEOLOGICAL STUDIES FOR ENGINEERING PROJECTS IN SEISMIC ZONES

list of Papers	Page No.
1. "Significance of the Moradabad Fault in the Indo-Gangetic Basin and Other Faults in the Sub-Himalayas, in Relation to the Ramganga River Project, U.P.", by V.S. Krishnaswamy.	411
2. "A Geological Evaluation of the Thrusts and Faults in the Vicinity of the Beas-Sutlej Link Project and the Uhl Hydel Project, Himachal Pradesh," by B.M. Hukku.	423
3. "Probable Correlation of the Structural and Tectonic Features of the Punjab Himachal Pradesh Tertiary Re-Entrant with the Patterns of Seismicity of the Region," by V.S. Krishnaswamy.	437
4. "Geological studies Relating to the Seismicity of the Sarpduli-Dhikala Thrust, Ramganga River Project, District Garhwal, U.P." by R.S. Varma	465
5. "Seismic Phenomena in North Eastern India" by P.C. Hazra and D.K. Ray,	471
6. "Regional Geology and Seismicity of the Yamuna Hydel Project, Dehradun District, U.P." by P.N. Mehta.	477
7. "Studies Relating to the Seismicity of the Satlitta Thrust, Beas Dam Project," by S.P. Jalote.	495
8. "The Origin and Significance of the Vindhyan Scarp," by F. Ahmad.	513
9. "Seismicity of the Area around Baraumi, Bihar," by R.S. Mithal and L.S. Srivastava.	527
10. "Development of Concentric Shear Planes and the Related Seismic Phenomena in the Gangetic Synclinorium", by P. Kumar	539