## BULLETIN OF EARTHQUAKE RESISTANT STRUCTURE RESEARCH CENTER

NO. 10

December 1976

Earthquake Resistant Structure
Research Center
The Institute of Industrial Science
University of Tokyo



## Bulletin of Earthquake Resistant Structure Research Center

No. 10

## CONTENTS

FOREWORD	by Hisayoshi SATO 1
"Development of Earthquak Engineering Constructions' by Keizaburo KUBO	
with Thin Soft Layers"	at Rocky Ground interspersed Shunzo OKAMOTO and Hideji KAWAKAMI 11
Horizontal Force and Cons by Tsuneo OKADA , Ma	
by Koichi TAKANASHI	s in Earthquake Excitation", Kuniaki UDAGAWA,
Motions and their Respons	vation of Torsional Ground e Analysis" suya SHIGETA and Akira SONE 43
"Stability Analysis of a Hydrostatic Pressure by t by Hiroshi GOTO and	Circular Arch under he Adjoint Variational Method" Yasuhiko HANGAI ····· 48
LIST OF PAPERS OF THE MEM STRUCTURE RESEARCH CENTER	BERS OF EARTHQUAKE RESISTANT (January - December, 1976) 54
NEWS	59
	SISTANT STRUCTURE RESEARCH