

# Contents

<b>1</b>	<b>Influence of Seismic Wave Angle of Incidence Over the Response of Long Curved Bridges Considering Soil-Structure Interaction . . . . .</b>	<b>1</b>
	Anastasios G. Sextos and Olympia Taskari	
<b>2</b>	<b>Alternative Approaches to the Seismic Analysis of R/C Bridges. . . . .</b>	<b>19</b>
	Tatjana Isakovic and Matej Fischinger	
<b>3</b>	<b>Multi-platform Hybrid (Experiment-Analysis) Simulations . . . . .</b>	<b>37</b>
	Oh-Sung Kwon	
<b>4</b>	<b>Field Structural Dynamic Tests at the Volvi-Greece European Test Site . . . . .</b>	<b>65</b>
	George C. Manos	
<b>5</b>	<b>An Intercontinental Hybrid Simulation Experiment for the Purposes of Seismic Assessment of a Three-Span R/C Bridge. . . . .</b>	<b>77</b>
	Anastasios G. Sextos and Olympia Taskari	
<b>6</b>	<b>Experimental Seismic Assessment of the Effectiveness of Isolation Techniques for the Seismic Protection of Existing RC Bridges . . . . .</b>	<b>89</b>
	L. Di Sarno and F. Paolacci	
<b>7</b>	<b>Modeling of High Damping Rubber Bearings. . . . .</b>	<b>115</b>
	Athanasios A. Markou, Nicholas D. Oliveto and Anastasia Athanasiou	
<b>8</b>	<b>Experimental Methods and Activities in Support of Earthquake Engineering. . . . .</b>	<b>139</b>
	Stathis N. Bousias	

<b>9</b>	<b>Time Reversal and Imaging for Structures . . . . .</b>	<b>159</b>
	C.G. Panagiotopoulos, Y. Petromichelakis and C. Tsogka	
<b>10</b>	<b>Decentralized Infrastructure Health Monitoring Using Embedded Computing in Wireless Sensor Networks . . . . .</b>	<b>183</b>
	Kosmas Dragos and Kay Smarsly	
<b>11</b>	<b>Effects of Local Site Conditions on Inelastic Dynamic Response of R/C Bridges . . . . .</b>	<b>203</b>
	Ioanna-Kleoniki Fontara, Magdalini Titirla, Frank Wuttke, Asimina Athanatopoulou, George D. Manolis and Petia S. Dineva	
<b>12</b>	<b>BEM-FEM Coupling in the Time-Domain for Soil-Tunnel Interaction . . . . .</b>	<b>219</b>
	S. Parvanova, G. Vasilev, P.S. Dineva and Frank Wuttke	
<b>13</b>	<b>Energy Methods for Assessing Dynamic SSI Response in Buildings . . . . .</b>	<b>237</b>
	Mourad Nasser, George D. Manolis, Anastasios G. Sextos, Frank Wuttke and Carsten Könke	
<b>14</b>	<b>Numerical and Experimental Identification of Soil-Foundation-Bridge System Dynamic Characteristics. . . . .</b>	<b>259</b>
	P. Faraonis, Frank Wuttke and Volkmar Zabel	
<b>15</b>	<b>Quantification of the Seismic Collapse Capacity of Regular Frame Structures . . . . .</b>	<b>269</b>
	David Kampenhuber and Christoph Adam	

Dynamic Response of Infrastructure to Environmentally  
Induced Loads

Analysis, Measurements, Testing, and Design

Sextos, A.; Manolis, G.D. (Eds.)

2017, X, 286 p. 155 illus., 123 illus. in color., Hardcover

ISBN: 978-3-319-56134-9