

Recent Advances in Environmental Vibration

环境振动新进展

Edited by **GAO Guangyun**
Co-Edited by **Tutumluer E, CHEN Yunmin**



同济大学出版社
TONGJI UNIVERSITY PRESS

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Recent Advances in Environmental Vibration

第六届国际环境振动学术研讨会

Proceedings of 6th international symposium on environmental vibration

Edited by GAO Guangyun

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TONGJI UNIVERSITY PRESS

图书在版编目(CIP)数据

环境振动新进展:第六届国际环境振动学术研讨会 = Recent Advances in Environmental Vibration: Proceedings of 6th international symposium on environmental vibration: 英文 / 高广运主编. — 上海: 同济大学出版社, 2013. 10

ISBN 978-7-5608-5303-1

I. ①环… II. ①高… III. ①环境振动—国际学术会议—文集—英文 IV. ①X121-53

中国版本图书馆 CIP 数据核字(2013)第 229228 号



环境振动新进展

Recent Advances in Environmental Vibration

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策划编辑 杨宁霞

责任编辑 季 慧

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封面设计 陈益平

出版发行 同济大学出版社

www.tongjipress.com.cn

(地址:上海市四平路 1239 号 邮编:200092 电话:021-65985622)

经 销 全国各地新华书店

印 刷 同济大学印刷厂

开 本 787 mm × 1 092 mm 1/16

印 张 34.75

字 数 867 000

版 次 2013 年 10 月第 1 版 2013 年 10 月第 1 次印刷

书 号 ISBN 978-7-5608-5303-1

定 价 198.00 元

本书若有印装质量问题, 请向本社发行部调换

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Proceedings of 6th International Symposium on Environmental
Vibration: Prediction, Monitoring, Mitigation and Evaluation
November 8-10, 2013, Shanghai

ISEV2013

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Supported by

Shanghai Guanglian Construction Development Co., Ltd., China
GERB (Qingdao) Vibration Control Co., Ltd., Qingdao, China
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Preface

With the rapid development of infrastructure construction, environmental vibrations have become a major concern that influences the quality of life in modern high-tech society. The environmental vibrations are caused mainly due to train/road traffic, construction activities and factory operations, etc. As the problem is becoming serious recently all over the world, people's awareness is raised to investigate and solve it, in order to improve the quality of city life.

The School of Civil Engineering, Tongji University in Shanghai is honored to be the organizer of the 6th International Symposium on Environmental Vibration (ISEV 2013) on Nov. 8-10, 2013. The five previous in the series were successfully held in Hangzhou, China (2003); Okayama, Japan (2005); Taipei, China (2007); Beijing, China (2009); Chengdu, China (2011). We are grateful to their great contribution.

The aim of the 6th International Symposium on Environmental Vibration is to provide an open forum for specialists, professionals, researchers and engineers from all over the world to share the latest technical information and research findings in these areas, to face the challenges existed in engineering projects, to create new ideas about how to solve these problems. Topics of the symposium include the prediction, control and mitigation of environmental vibrations, as well as the evaluation of the problems.

The symposium has been received a warm response from international scholars, the conference proceedings are presented in a book so as to record the international academic exchange of knowledge, experience, research findings and information during the symposium. The book contains the invited and regular papers written by famous academic professionals and engineering specialists at home and abroad. After a peer-review of the optimization, 64 full papers were selected into proceedings, which covered 7 main topics such as Wave Propagation in Soils, Prediction and Simulation Method for Environmental vibration, Field Measurement and Monitoring of Environmental Vibration, Soil-Structure Dynamic Interaction, Railroad Track and Vehicle Dynamics Modeling, Measures in Reducing Environmental Vibration, and Assessment on Structural Safety and Serviceability. We hope that the publication of the proceedings will promote the research on environmental vibrations and provide a good reference for international information communication in these areas.

Last but not least, we would like to our biggest gratitude to all the sponsors and supporters, especially to Natural Science Foundation of China, Tongji University, Shanghai Guanglian Construction Development Co. , Ltd. , GERB (Qingdao) Vibration Control Co. , Ltd. , Qingdao, Earth Products China Ltd. , for their great financial support to this symposium.

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Part I

Keynote Lectures

