

Urban Planning and Civil Engineering

Edited by

**Virginia P. Sisiopiku
Ossama E. Ramadan**

Athens Institute for Education & Research (ATINER)

2015

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Preface

Virginia P. Sisiopiku and Ossama E. Ramadan

Elements of urban planning and civil engineering played a vital role in the progression of civilization from the ancient times until today. While both fields evolved throughout the years, their value and contribution to the overall well-being of any community or society are undeniable.

The Urban Planning field is instrumental in preparing communities to face challenges of growth, expansion, and change. Urban planners strive to develop plans that enable societies to be livable, efficient, productive, sustainable, and attractive to current and future generations. Planners' insights and recommendations help civic leaders and administrators to shape policies and strategies that affect community development, transportation planning, employment opportunities, and growth.

As plans move from a holistic planning perspective to a specific project perspective, Civil Engineering comes to play a key role towards implementation. Civil Engineers are engaged in designing, constructing, maintaining, and operating infrastructure for societies and communities. Such infrastructure includes highways, transit systems, bridges, ports and docks, freight transportation systems, water treatment and distribution networks, waste management facilities, buildings, and all other supporting infrastructure. Together, Urban Planning and Civil Engineering provide key components of what is known as civilized, and efficient community building.

The compilation of articles in this book is representative of the breadth and depth of the Urban Planning and Civil Engineering disciplines. The featured articles were presented at 2012-2014 ATINER Conferences and were selected based on external reviews, editors' reviews, and thematic relevance. The 30 peer-reviewed papers included in this volume showcase research performed in 18 countries around the globe to address the contemporary issues and challenges facing urban planners and civil engineers in the design, construction, maintenance, and operation of communities and infrastructure.

The book is structured in seven chapters focusing on: Urban Planning and Traffic Safety; Environmental Planning and Historic Preservation; Community Development, Activism, and Empowerment; Risk Management and Quality Control; Structural Analysis, Design, and Reliability; Novel Manufacturing Techniques, Structural Materials, and Alternative Additives; and Geotechnical Investigations and Seismic Analyses.

This publication provides valuable insights on current research and development efforts in the subject areas and is expected to be of keen interest to academics and practitioners working in the fields of urban planning and civil engineering.

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