

# CONTEMPORARY STUDIES AND METHODOLOGY IN URBAN AND REGIONAL PLANNING IN MALAYSIA



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## CONTENTS

Foreword	iii
List of Tables	v
List of Figures	vi
<b>CHAPTER 1: THE CONCEPTS OF GOD, MAN AND THE ENVIRONMENT IN ISLAM: IMPLICATIONS FOR ISLAMIC ARCHITECTURE</b> Spahic Omer	1
<b>CHAPTER 2: THE LESSONS OF PROPHET MUHAMMAD IN URBAN PLANNING AND DEVELOPMENT</b> Spahic Omer	23
<b>CHAPTER 3: DEVELOPMENT CONTROL IN SABAH WITHIN A CONTEXT OF PLANNING SYSTEM IN MALAYSIA</b> Noor Suzilawati Rabe, Mariana Mohamed Osman and Azila Ahmad Sarkawi	43
<b>CHAPTER 4: A STUDY ON RESIDENTS' SATISFACTION WITH MAINTENANCE MANAGEMENT OF LOW-COST HOUSING IN KUALA LUMPUR</b> Mohammad Abdul Mohit and Nurul Helma Bt. Mohammad Aminullah	74
<b>CHAPTER 5: THE IMPORTANCE OF TOWN PLANNING SYSTEM IN SUSTAINING COASTAL MANAGEMENT IN MALAYSIA</b> M.Zainora Asmawi	101
<b>CHAPTER 6: REMOTE SENSING IN URBAN SPRAWL MODELING: SCENARIO AND WAY FORWARD IN DEVELOPING COUNTRIES</b> Norzailawati Mohd Noor and Alias Abdullah	115

<b>CHAPTER 7:</b>	<b>THE POLITICAL ECONOMY CHANGES AND STRUCTURE OF HOUSING PROVISION IN MALAYSIA</b>	126
	Syafiee Shuid	
<b>CHAPTER 8:</b>	<b>THE CONCEPT OF COMMUNITY PARTICIPATION IN URBAN PLANNING</b>	160
	Mariana Mohamed Osman	
<b>CHAPTER 9:</b>	<b>SAMPLE, SAMPLING AND SURVEY METHODS IN TRANSPORTATION PLANNING PROJECTS</b>	185
	Abdul Azeez Kadar Hamsa	
<b>CHAPTER 10:</b>	<b>RESEARCH METHODOLOGY ON THE STUDY OF RESPONSES OF THE SQUATTERS' COMMUNITIES TO FLOOD HAZARDS IN KUALA LUMPUR</b>	198
	Rustam Khairi Zahari and Raja Noriza Raja Ariffin	
<b>CHAPTER 11:</b>	<b>RESEARCH DESIGN FOR EXPLANATORY CASE STUDY ADOPTED MIXED METHOD APPROACH</b>	226
	Luqman Hakim Mahamod	
<b>CHAPTER 12:</b>	<b>RESEARCH METHODOLOGY ON THE STUDY OF PLANNING LAW IN SABAH, MALAYSIA</b>	239
	Noor Suzilawati Rabe, Mariana Mohamed Osman and Azila Ahmad Sarkawi	
<b>CHAPTER 13:</b>	<b>MODELLING USERS' MODE CHOICE BEHAVIOUR</b>	255
	Syahriah Bachok	

## CHAPTER 6

### REMOTE SENSING IN URBAN SPRAWL MODELING: SCENARIO AND WAY FORWARD IN DEVELOPING COUNTRIES

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#### INTRODUCTION

In developing countries, cities of 100,000km<sup>2</sup> or more are expected to triple their built up land area to 600,000km<sup>2</sup> in the first three decades of this century. The increasing of built-up area by 2.5 times between the year 2000 and year 2030 are expected to occupy some 500,000 km<sup>2</sup> of land area. Whatever the case, the data proved that developing countries are now sharing the trend of urban sprawl. Specifically, development growth in most developing countries such as Malaysia, Indonesia, China and India has become global issues, as rapid urbanization process could no longer control urban expansion. Due to uncontrolled and unmanageable development trend, the physical, environmental and socio-economic aspects apparently suffered the largest impact.

Currently, the planning system has an important role in managing and controlling the development trends. Modeling the future scenario is one of the methods used to guide urban planners and the decision maker. Modeling is used in various planning specialization such as economics, transportation, ecology, urbanization and other science social aspects. The main purpose of modeling in urban planning is to help planners to identify and to understand the natural features and the movement in urban systems. In urban sprawl, modeling has been used to simulate any possible development in the future.