1. Record Nr. UNINA9910484639103321

Titolo	Urban Heat Island (UHI) Mitigation : Hot and Humid Regions / / edited by Napoleon Enteria, Matteos Santamouris, Ursula Eicker
Pubbl/distr/stampa	Singapore : , : Springer Nature Singapore : , : Imprint : Springer, , 2021
ISBN	981-334-050-9
Edizione	[1st ed. 2021.]
Descrizione fisica	1 online resource (X, 307 p. 167 illus., 127 illus. in color.)
Collana	Advances in 21st Century Human Settlements, , 2198-2554
Disciplina	551.525091732
Soggetti	Environment Climatology Human geography Environmental management Sustainability Environmental Sciences Climate Sciences Human Geography Environmental Management
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Morphology of buildings and cities in hot and humid regions -- Assessment of the effects of urban heat island on buildings -- Urban heat island monitoring with Global Navigation Satellite System (GNSS) Data -- An estimation of air-conditioning energy-saving effects through urban thermal mitigation -- Urban heat island, contributing factors, public responses and mitigation approaches in the tropical context of Malaysia -- Urban heat island studies in hot and humid climates: A review of the state of art in Latin-America -- Urban heat island simulation and monitoring in the hot and humid climate cities of Guayaquil and Durán, Ecuador.
Sommario/riassunto	This book discusses the concepts and technologies associated with the mitigation of urban heat islands (UHIs) that are applicable in hot and humid regions. It presents several city case studies on how UHIs can be reduced in various areas to provide readers, researchers, and policymakers with insights into the concepts and technologies that

should be considered when planning and constructing urban centres and buildings. The rapid development of urban areas in hot and humid regions has led to an increase in urban temperatures, a decrease in ventilation in buildings, and a transformation of the once green outdoor environment into areas full of solar-energy-absorbing concrete and asphalt. This situation has increased the discomfort of people living in these areas regardless of whether they occupy concrete structures. This is because indoor and outdoor air quality have both suffered from urbanisation. The development of urban areas has also increased energy consumption so that the occupantsof buildings can enjoy indoor thermal comfort and air quality that they need via air conditioning systems. This book offers solutions to the recent increase in the number of heat islands in hot and humid regions.