<table>
<thead>
<tr>
<th>No.</th>
<th>Supervisors</th>
<th>Proposed Project Title</th>
<th>Brief Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Dr Wendy Y Chen</td>
<td>(1) Societal preferences for river restoration in Hong Kong</td>
<td>Hong Kong’s rivers have been significantly modified, degraded and polluted. Recently the SAR government is planning to restore these rivers so as to transform them into ecologically healthy and aesthetically beautiful blue spaces. To align social demands and preferences with restoration plan, this study will investigate public references for various river restoration attributes using a social survey.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(2) Health benefits of urban parks</td>
<td>Nature provides better psychological and physical health responses than urban environment. Using a social survey with a set of psychological indicators, this study attempts to explore what natural elements could provide health benefits for park users.</td>
</tr>
<tr>
<td>No.</td>
<td>Title</td>
<td>Details</td>
<td></td>
</tr>
<tr>
<td>-----</td>
<td>------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>(3) Public perception of corporate social responsibility in Hong Kong</td>
<td>CSR is becoming increasingly relevant and significant to both the business sector and society. Public’s views of business responsibilities can differ not only by culture but also by their state of trust as a social phenomenon. This study will explore how public defines business responsibility in Hong Kong’s social context.</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Dr Ben A Gerlofs (Email: <a href="mailto:bgerlofs@hku.hk">bgerlofs@hku.hk</a>)</td>
<td><strong>(1) Placing Place in Cinematic Portrayals of Hong Kong</strong>&lt;br&gt;  - urban geography&lt;br&gt;  - ethnography&lt;br&gt;  - visual methods&lt;br&gt;  - neighborhood&lt;br&gt;  - geographies of humor and laughter&lt;br&gt;  This project would systematically explore Hong Kong’s contemporary and/or historical cinematic portrayal, focusing on a specific genre, time period, and/or production category (among other possible variables). The project would examine the city’s various appearances as setting (a place where certain things happen or are possible) and/or character (the city as protagonist/antagonist, the city that evolves, adapts, provides, seduces, kills, haunts, etc.) in film, along with its analytically apparent normative treatment (derision, laud, curiosity, etc.) by the auteurs in question. The project’s dual objectives would be to better understand both perceptions of Hong Kong and how real and fictive urban geography can serve artistic and narrative purposes. Project specifics to be elaborated in collaboration with Dr. Gerlofs.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>(2) Live Comedy and the Politics of Humor and Laughter in Pandemic-era Hong Kong</strong>&lt;br&gt;  This project would use interviews and participant and/or passive observation at live comedy events to explore the geographies of humor and laughter in contemporary Hong Kong. Particular research foci may include: humor and laughter as coping strategy; the spatiality and territoriality of humor in Hong Kong; the impact of COVID-19 and/or associated government policy on the economies and experiences of live comedy; differential experiences of humor and laughter at live comedy events in Hong Kong. Project specifics to be elaborated in collaboration with Dr. Gerlofs.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(3) Picturing the ‘Pearl of the Orient’: Portrayals of Hong Kong in British Media</td>
<td>This project would use interviews and participant and/or passive observation at live comedy events to explore the geographies of humor and laughter in contemporary Hong Kong. Particular research foci may include: humor and laughter as coping strategy; the spatiality and territoriality of humor in Hong Kong; the impact of COVID-19 and/or associated government policy on the economies and experiences of live comedy; differential experiences of humor and laughter at live comedy events in Hong Kong. Project specifics to be elaborated in collaboration with Dr. Gerlofs.</td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td></td>
</tr>
</tbody>
</table>
| 3. | **Dr Benjamin L Iaquinto**  
(Email: [iaquinto@hku.hk](mailto:iaquinto@hku.hk)) |   |
|   | Tourism geography  
Sustainable tourism  
Mobilities  
Practice theory and environment  
Australian geography |   |
<p>|   | (1) Domestic tourism: a way to revitalize the tourism industry after the pandemic? | Students are required to select a particular region to study (e.g. Hong Kong, Macau, Taiwan, Greater Bay Area, other country/city/state etc.) and explore how a domestic tourism industry could be developed in their region of choice. Methods could involve interviews or questionnaires with tourism workers, former tourists, tourism researchers and/or other tourism commentators. Or a review of relevant government documents, tourism literature and media commentary. |
|   | (2) How to enable sustainable tourism in Hong Kong? | Students are required to explore diverse interpretations of sustainable tourism and go beyond the Brundtland Report’s definition of sustainability to explain how Hong Kong’s tourism industry could become more sustainable. Methods could involve interviews or questionnaires with tourism workers, former tourists, tourism researchers and/or other tourism commentators. Or a review of relevant government documents, tourism literature and media commentary. Methods could also involve ethnographic approaches. |</p>
<table>
<thead>
<tr>
<th>Project ID</th>
<th>Project Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>(3)</td>
<td>Hong Kong mobilities: the experiences of moving</td>
<td>Students are required to provide an ethnographic account of using public transport in Hong Kong. The purpose of the project is to explore experiences, feelings, social interactions and micro-political moments produced by riding public transport in Hong Kong. Based on this fieldwork, students are required to provide policy recommendations for developing a more sustainable, accessible and/or safer public transport system.</td>
</tr>
<tr>
<td>4.</td>
<td>Dr Peter K Koh (Email: <a href="mailto:peterkoh@hku.hk">peterkoh@hku.hk</a>)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(1) Examining Multicultural Foodscape in Hong Kong</td>
<td>Hong Kong is often called as a food paradise where one can have a wide range of international cuisines from affordable local Cha Chaan Tengs and Dai Pai Dongs to high-end Michelin-starred eateries. However behind the scene its foodscape is overrepresented by foreign dishes, especially western and Japanese foods. The purpose of this directed project is to examine the spatial patterns of different ethnic cuisine eateries in Hong Kong.</td>
</tr>
<tr>
<td></td>
<td>(2) Healthy Food Accessibility at the neighborhood level in Hong Kong</td>
<td>Having a minimum daily consumption of 400 grams of fruit and vegetables (F&amp;V) is a key preventive health behavior. However, the elderly is often more vulnerable to inadequate F&amp;V intake due to weakened physical conditions, limited financial resources, and/or disadvantaged neighborhood food environment. The purpose of this directed project is to investigate the complexities of the F&amp;V accessibility at the neighborhood level in Hong Kong.</td>
</tr>
<tr>
<td></td>
<td>(3) K-wave and its impacts on Hong Kong</td>
<td>Korean wave or K-wave is a term broadly covering all the type of pop culture from South Korea. During the past decades, K-wave has gained more popularity in Hong Kong and beyond. This project will explore how K-wave has influenced Hong Kong up to now and how it can potentially contribute to the social and economic development in Hong Kong in the future.</td>
</tr>
</tbody>
</table>
| 5. | **Professor P C Lai**  
(Email: pclai@hku.hk) | (1) **Walkability of the HKU campus** | The topic involves an assessment of walkability and accessibility within the HKU campus by disabled students, such as wheelchair access. Selected locations and path quality will be measured using preset criteria. These locations and paths will be scored by their relative level of accessibility. Knowledge of survey by GIS measurement tools is needed. |
| --- | --- | --- | --- |
|  | • GIS (Including Public and Environmental Health Applications)  
• Cartographic Modelling and Spatial Analysis  
• Transportation Studies and Network Analysis | (2) **Trend of elderly population distribution in Hong Kong, 2030-2050** | With better healthcare services and longer life expectancy, the elderly population of Hong Kong expects to increase steadily in the coming 10-30 years. It is important to identify the likely living locations of the elderly in anticipation of the types of services and expected demand by the respective districts or communities. Background in economic geography and GIS operational knowledge would be of advantage. |
| 6. | **Dr Nicky YF Lam**  
(Email: yunlam@hku.hk) | (1) **Application of Environmental Geography on STEM education in the secondary school curriculum** | The student will explore the potential of using Geography fieldwork as part of STEM education. |
|  | • Air Pollution  
• Climate Change  
• Carbon Emissions  
• Geography and STEM education  
• Urban Heat Island (UHI) impacts | (2) **Typhoon Related Air Quality Impacts in East Asia** | The student will apply typhoon and air quality data to investigate the relationships between typhoon and air quality in East Asia. |
|  | | (3) **Understanding Impacts of Building Elevation on Urban Heat Island.** | The student will use Arduino-based instruments to measure the vertical profile of temperature in the CoWIN weather network. |
| 7. | **Dr Yongsung Lee**  
(Email: yongsung@hku.hk) | (1) **Evolving attitudes, activity-travel patterns, and residential location choice during and after the COVID-19 pandemic** | In this project, students will analyze survey data to better understand changes in travel behaviors and perceptions during the COVID-19 pandemic, and whether or how these temporary changes affect mobility and residential choices in HK. |
| and use of social network services (SNS)) and physical activity-travel patterns
| Innovations in transportation – e.g., shared mobility, Mobility as a Service (MaaS), and autonomous vehicles (AV)
| Sustainable and resilient development after the COVID-19 pandemic
| Urban planning | (2) **Longitudinal changes in residential preferences among young adults in Hong Kong**
| In this project, students will analyze HK Census from 2001 to 2016 to determine whether or to what extent young adults (e.g., age 18-34) present any changes in residential preferences. Longitudinal trends may help better plan future development of housing and employment centers. |
| (3) **Make great things even greater: identifying areas for further improvement in transportation systems in Hong Kong for the aging population** |
| In this project, students will compile and synthesize the recent findings and public discourse about Hong Kong transportation systems to identify areas and suggest directions for immediate need for improvement. |
| (1) **Climate change on the eastern Tibetan Plateau over the past five centuries** |
| Climate conditions on the Tibetan Plateau (TP) affect not only regional populations and ecosystems, but also water resources availability over most of the Asian continent. Understanding climate change on the TP is vital to improve our knowledge of regional to global climate. In this project, student will employ tree-rings to reconstruct climate change on the eastern TP over the past five centuries. With the reconstruction the student will examine the occurrence of extreme climate events at inter-annual to centennial timescales, and identify their associations with large-scale climate forcing originating from the tropical Pacific and Indian oceans. |

<p>| Dr JB Li (Email: <a href="mailto:jinbao@hku.hk">jinbao@hku.hk</a>) |
| Climate Change |
| Paleoclimate |
| Drought |
| Water Studies |
| Forest Ecology |</p>
<table>
<thead>
<tr>
<th></th>
<th>(2) Yangtze river flow variability during the twentieth century and its driving factors</th>
<th>This project will employ hydrometric records to investigate temporal changes in seasonal and annual flow of the Yangtze River during the twentieth century. Student will explore and identify long-term trend and extreme flood/dry events, and unravel the key climatic factors that underlie the Yangtze river flow variability. The findings should improve our understanding and management of water resources in the Yangtze River basin under the joint impacts of human disruptions and climate change.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(3) Atlantic Multidecadal Oscillation from Asia and Europe perspective over the past millennium</td>
<td>The Atlantic Multidecadal Oscillation (AMO) features multidecadal alternation between warm and cold phases of North Atlantic sea surface temperature, with extensive linkage to climate in different regions around the world. Instrumental records are too brief to fully reveal the features of the AMO, whereas paleoclimate records around the globe provide inconsistent information on long-term AMO variability. In this project, student will compare paleoclimate records (e.g., tree-rings, lake sediments) from Asia and Europe sector that represent the AMO variability, and then identify their similarity and difference to better understand what affects the global fingerprint of the AMO.</td>
</tr>
<tr>
<td>9.</td>
<td>Dr YJ Li (Email: <a href="mailto:yjli2510@hku.hk">yjli2510@hku.hk</a>)</td>
<td>(1) Multilevel Climate Governance in the Greater Bay Area</td>
</tr>
<tr>
<td></td>
<td>- Urban climate mitigation planning</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Urban climate adaptation planning</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Urban-scale renewable energy application</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Climate-oriented land use planning</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Community-based climate action</td>
<td>This project aims to identify the key actors in the GBA’s climate governance, to investigate the inter-city competition and/or collaboration in the related areas (e.g. public transit, renewable energy, water conservation, etc.), and to explore the relationship between urban-, regional-, and national-level climate strategies in the GMA.</td>
</tr>
</tbody>
</table>
| (2) Siting electric vehicle (EV) charging facilities in Shenzhen | Shenzhen is developing all scales and types of EV charging facilities to accommodate its ever-expanding EV fleet. Yet little is known about the role of public perception in locating these facilities in the city. This project aims to  
1. Identify the main categories of EV charging facilities;  
2. Investigate how the sites for these facilities are decided;  
3. Interrogate the public perception of EV chargers;  
4. Explore the relationship between public perception and the characteristics of EV charging facilities (e.g. scale, location, pricing, etc.). |
|---|---|
| (3) Locating prosumers in Hong Kong’s energy transition? | With the rapid development and declining costs of small-scale energy generation technologies, individuals can play both as energy producers and consumers, or ‘prosumer,’ in the energy system. This change is expected not only to promote the development of renewable energies (RE) but also ensure an inclusive and just clean energy transition. In Hong Kong, the Government has earmarked $2 billion to implement various RE projects at premises such as government buildings, venues and community facilities. The Government has also implemented facilitation measures including suitably relaxing the installation restrictions on the rooftops of New Territories Exempted Houses (commonly known as village houses), and launching Solar Harvest to install solar PV panels for eligible social organizations and actors.  
This project intends to investigate the participants in these rooftop solar PV projects. Questions to be answered include who are they? What are their social and economic characteristics? What drives their decisions? How do they benefit from the projects? On-site surveys and government documents inventories will be conducted for this project. |
| 10. | **Prof George CS Lin**  
(Email: gcsline@hku.hk) | (1) Redevelopment of “Villages in the City”: A comparative study of Beijing and Shenzhen | The objective is to identify the similarities/differences and success/failure in the redevelopment of “villages-in-the-city”, offer explanation and discuss implications for planning and policy making. |
| | • Urban redevelopment in Chinese cities  
• China’s urbanization  
• Reform of China’s State-owned enterprises | (2) Redevelopment of “Villages in the City”: A comparative study of Shanghai and Guangzhou | The objective is to identify the similarities/differences and success/failure in the redevelopment of “villages-in-the-city”, offer explanation and discuss implications for planning and policy making. |
| | | (3) Redevelopment of “Villages in the City: A comparative study of Wuhan and Shenzhen | The objective is to identify the similarities/differences and success/failure in the redevelopment of “villages-in-the-city”, offer explanation and discuss implications for planning and policy making. |
| 11 | **Prof Becky PY Loo**  
(Email: bpyloo@hku.hk) | (1) Walkability | Detailed analysis of changes in walkability in a district or region in Hong Kong; utilize maps in the Map Library for the analysis; possibly with the Map Library Internship |
| | • Sustainable transport  
• Smart cities  
• Road safety  
• Walkability  
• Transit-oriented development | (2) Hong Kong’s outlying islands | Any aspect of Hong Kong’s outlying islands from a geographical perspective; utilize maps in the Map Library for the analysis; possibly with the Map Library Internship |
| | | (3) Student proposed topic | Subject to further discussion |
| 12 | **Dr JX Qian**  
(Email: jxqian@hku.hk) | (1) Culture-led urban development in globalizing Asia | This topic investigates the ways in which cultural heritages, spaces and ambiences are used as driving forces of spatial development and capital accumulation in the city, and how cultural value is translated to economic value and assets. |
| | • Social and cultural geography  
• Urban geography  
• Cultural economic geography  
• Ethnographic methods  
• Mixed quantitative and qualitative methods | (2) Rural revitalization at Asia’s metropolitan fringes | This topic investigates the strategies and models of rural revitalization in a context of urban expansion, encroachment into rural lands, decline of rural economy, and disintegration of traditional communal relations. Special attention will be paid to issues of rural community building and environmental sustainability. |
| | | (3) Cultural economy in the high-tech industries | This topic investigates how the cultural circuits of consumer cultures feed back into the production side to stimulate new technological innovation in the high-tech sectors. |
| 13 | Dr LS Ran  
(Email: lsran@hku.hk) | (1) Spatiotemporal patterns of water quality in Hong Kong | Water quality is one of the most important factors in a healthy ecosystem and society. Clean water supports a diversity of plants and wildlife. Due to the combined impacts of natural environment and human activity, water quality is characterized by significant spatial and temporal variability. Based on data retrieved from literature and/or government reports, this project aims to holistically evaluate the spatial and temporal patterns of water quality in Hong Kong’s natural water bodies (i.e., streams, rivers, ponds, etc.) and provide potential solutions to future water management. |
| --- | --- | (2) Methane emissions from Chine inland waters | Inland waters actively transform carbon and play an important role in natural and anthropogenic greenhouse gas budgets. Yet, accurately estimating inland water carbon budgets remains challenging. As an important greenhouse gas for the atmosphere, the flux of methane (CH<sub>4</sub>) emissions from Chinese inland waters remains poorly determined. This project aims to quantitatively estimate CH<sub>4</sub> emissions from Chinese inland waters (streams, rivers, lakes, and reservoirs) and assess its importance and role in the global CH<sub>4</sub> emissions. |
|  |  | (3) Response of flow discharge and sediment load in the Dongjiang River basin to climate change and human activity | Climate change and human activity are two primary factors in influencing flow discharge and sediment transport in global rivers. However, how these factors have affected the flow and sediment fluxes in the Dongjiang River basins remain largely unknown. By using double cumulative curve method, this project aims to differentiate the impact of climatic factors (precipitation and temperature) and human activities (land use change and dams) on flow discharge and sediment load in the Dongjiang River basin. Also, future trends will be predicted based on climatic and hydrological records. |
| Dr Frank Van Der Wouden  
(Email: fvdw@hku.hk) | **(1) Innovation in Hong Kong** | What does the innovative landscape of Hong Kong look like and how has this evolved over time? Hong Kong used to be a key innovative player, but seems to have lost some of its competitive edge with the emergence of China as a global innovative power. Is Hong Kong still innovative? In what field does the region specialize? Where are the innovative agents in Hong Kong located? Do we see changes in the geographical location of innovative agents in Hong Kong, as the city is expanding and, perhaps, is focusing on different technologies? In this project we explore patent documents to answer these questions. Affinity with big-data is required. |
|---|---|---|
| Economic development  
Collaboration  
Innovation  
Technological change  
Entrepreneurship | **(2) Collaboration among scholars** | Collaboration is rapidly becoming the norm for scholarship. In most academic fields, co-authorship is becoming the norm. Some scholars have argued this has to do with the increasing complexity of contemporary knowledge. It has become so complex, a single scholar doesn’t have the resources (skills?) required to produce it. What patterns do we observe when examining collaboration on academic papers? Are people more likely to collaborate when they are close in geographical space? What do we know about collaboration among Hong Kong scholars? Lots of fun questions can be answered here. Affinity with big-data is required. |
<p>| <strong>(3) Entrepreneurship and regional development</strong> | Entrepreneurship is seen as one of the drivers of economic growth. Successful entrepreneurs are able to generate firms that, in turn, generate new jobs, markets, capital and industries. However, empirical evidence has shown that not every region is ‘entrepreneurial-friendly’. How entrepreneurial is Hong Kong? In what fields do we see successful entrepreneurship? What are the roles of ‘spin-off’ processes in this? What is the geography of entrepreneurship in Hong Kong? Has this changed over time? |</p>
<table>
<thead>
<tr>
<th>(1) Impacts of human intervention on SDG 6 (clean water and sanitation): systematic review</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sustainable Development Goals 6 (SDG 6) is clean water and sanitation which has been committed by 193 countries. But a systematic synthesis like systematic review or meta-analysis about human interventions on achieving SDG 6 is still lacking. Addressing this gap can provide useful information for policy-makers to improve efficiency of management and governance to achieve SDG 6.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(2) Impacts of human intervention on SDG 7 (affordable and clean energy): systematic review</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sustainable Development Goals 7 (SDG 7) is affordable and clean energy which has been committed by 193 countries. But a systematic synthesis like systematic review or meta-analysis about human interventions on achieving SDG 6 is still lacking. Addressing this gap can provide useful information for policy-makers to improve efficiency of management and governance to achieve SDG 7.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(3) Impacts of human intervention on SDG 14 (life below water): systematic review</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sustainable Development Goals 14 (SDG 14) is life below water which has been committed by 193 countries. But a systematic synthesis like systematic review or meta-analysis about human interventions on achieving SDG 14 is still lacking. Addressing this gap can provide useful information for policy-makers to improve efficiency of management and governance to achieve SDG 14.</td>
</tr>
</tbody>
</table>
| Dr Steven HS Zhang  
(Email: zhanghs@hku.hk) | (1) Seeing large scale urban expansion from the space | The world has witnessed unprecedented urbanization process within the recent decades. According to the UN Department of Economic and Social Affairs (UN DESA), the urban area only accounts for approximately 1% of the global land cover but hosts the 55% population by 2018, which is expected to increase to 68% by 2050. Anthropogenic activities lead to intensive transformation from natural lands to urban lands, which brings along with various ecological and environmental impacts like biodiversity, habitat and carbon storage loss globally, and urban heat island and non-point source pollution locally. The 2030 agenda Sustainable development goals 11 illustrated the importance of safe, resilient and sustainable cities and human settlements, which urges for the sustainable urban monitoring. With the large-scale, fast and timeliness ability, remote sensing techniques can be an efficient tool for “seeing” the urban expansion from the space. Multisource spaceborne remote sensing techniques including optical remote sensing, synthetic aperture radar (SAR) and nighttime light data will be leveraged for: (1). monitoring the locations, magnitudes and rates of urban expansion; (2). assessing its cause and impacts mechanism. Advances in urban remote sensing can give new insights to the eco-friendly, sustainable, and resilient urban development. |
| --- | --- | |
| Sustainable development  
Remote sensing  
Mangrove conservation  
Geographic information science  
Natural disasters management | (2) Urban land use classification using remote sensing technologies | As a reflection of human development, urbanization is taking place around the world at an unprecedented rate. Land use maps reflect the underlying natural and social processes in urban growth, thus providing essential information for urban environment monitoring, planning, and designing, and are especially useful for the study of phenomena, such as urban transport and urban heat island effects. To provide reliable data for urban planning and management, it is imperative to recognize the distribution and characteristics of urban land use automatically and accurately. Remote sensing imagery with various resolutions and flexible acquisition modes can provide us with synoptic views of the earth’s surface. The high spatial and high spectral resolution images make urban |
| (3) Impacts of urbanization on mangrove ecosystem | Mangroves are a group of trees and shrubs that grow in the coastal intertidal zone. Mangrove ecosystem is one of the most productive ecosystems. Mangrove forests stabilize the coastline from damaging storms and floods. They maintain water quality and provide resources for humans. However, there has been an alarming decline in mangrove forests worldwide since the 1980s. Urbanization is found to be a major factor behind mangrove loss mainly due to the conversion of mangrove forests to urban construction. Most coastal cities have experienced rapid urbanization process. Some existing studies have indicated that there has been negative impact of urbanization on mangrove forests. However, many countries made effort to establish protected areas and environmental protection policies. The environmental awareness is also positively related to the level of urbanization and urban development. The relationship between urbanization and mangroves tends to be harmonious. It is essential to understand the complex interaction between urbanization and mangrove system. The proposed study aims to 1) understand the impacts of urbanization on mangrove ecosystem during different periods; 2) Identify the mechanism of interaction between urbanization and mangrove ecosystem; 3) explore whether urbanization accelerate mangrove loss or promote mangrove protection. | land discrimination possible. Synthetic aperture radar (SAR) can provide full-time and full-weather monitoring for urban land use. These remote sensing technologies help us reveal dynamic spatial patterns of urban land use over a large geographic area in a consistent way, which can provide us with the potential to measure, analyze, and hence understand urban areas worldwide. |