

## Document details

[< Back to results](#) | 1 of 1
[Export](#)
[Download](#)
[Print](#)
[E-mail](#)
[Save to PDF](#)
[Add to List](#)
[More... >](#)
[Full Text](#)
[View at Publisher](#)

IOP Conference Series: Earth and Environmental Science  
 Volume 169, Issue 1, 1 August 2018, Article number 012028  
 9th IGRSM International Conference and Exhibition on Geospatial and Remote Sensing: Geospatial Enablement, IGRSM 2018; Berjaya Times Square HotelKuala Lumpur; Malaysia; 24 April 2018 through 25 April 2018; Code 138622

## Integrating satellite temporal analysis for urban morphology study in Melaka (Conference Paper) [\(Open Access\)](#)

 Nor, M.M. [✉](#), Mohd Noor, N. [✉](#)

Department of Urban and Regional Planning, Kulliyah Architecture and Environmental Design, International Islamic University of Malaysia, Kuala Lumpur, 50728, Malaysia

### Abstract

[View references \(11\)](#)

The main objective of this paper is to analyse the changes in land use at Melaka city by different of interval times, which are 1993, 2005 and 2015. Morphology study can be obtained by conducting an analysis through using remotely sensed imagery from SPOT satellite images that offers a great opportunity for measuring and describing the urban morphology. Three classes of land use; built up, green area and water bodies, were successfully classified by using supervised classification method. The changes and expansion of Malacca city in land use changes within 22 years become tremendously develop. Overall accuracy assessment achieved 75% above and the changes of each class were quantified by MapInfo Professional. Built-up area increased from 47% to 56% at the year 1993 and 2005. But then, decreased to 53% in 2015. As for the green area, it significantly increasing from 39% to 41%. Meanwhile, water bodies were decreased because more development happened along the Sg Melaka and Malacca Strait. In conclusion, by monitoring the land use changes in the historical city, it would be a greater help for researcher and authority to control the development of the city in order to create a resilient and sustainable city that offers a good life quality to people. © Published under licence by IOP Publishing Ltd.

### Indexed keywords

Engineering controlled terms:

[Land use](#)
[Morphology](#)
[Remote sensing](#)
[Satellite imagery](#)

Engineering uncontrolled terms

[Historical cities](#)
[Overall accuracies](#)
[Remotely sensed imagery](#)
[Satellite images](#)
[Supervised classification](#)
[Sustainable cities](#)
[Temporal analysis](#)
[Urban morphology](#)

Engineering main heading:

[Quality control](#)

### Metrics [?](#)

0 Citations in Scopus  
 0 Field-Weighted Citation Impact



#### PlumX Metrics [v](#)

Usage, Captures, Mentions, Social Media and Citations beyond Scopus.

### Cited by 0 documents

Inform me when this document is cited in Scopus:

[Set citation alert >](#)
[Set citation feed >](#)

### Related documents

Maintaining character through urban morphology analysis

 Imam, S.H. (2017) *Open House International*

Urban morphology analysis by remote sensing and GIS technique, case study: Georgetown, Penang

 Nor, M.M. , Noor, N.B.M. (2014) *35th Asian Conference on Remote Sensing 2014, ACRS 2014: Sensing for Reintegration of Societies*

Geospatial technology approaches in urban morphology for resilient urban governance

 Noor, N.B.M. , Nor, M.M. , Abdullah, A. (2014) *Planning Malaysia*
[View all related documents based on references](#)
[Find more related documents in Scopus based on:](#)
[Authors >](#) [Keywords >](#)

ISSN: 17551307

Source Type: Conference Proceeding

Original language: English

DOI: 10.1088/1755-1315/169/1/012028

Document Type: Conference Paper

Volume Editors: Suparta W.

Sponsors:

Publisher: Institute of Physics Publishing

All  Export  Print  E-mail  Save to PDF  Create bibliography

- 
- 1 Allan, P., Bryant, M., Wirsching, C., Garcia, D., Teresa Rodriguez, M.  
The Influence of Urban Morphology on the Resilience of Cities Following an Earthquake  
  
(2013) *Journal of Urban Design*, 18 (2), pp. 242-262. Cited 32 times.  
doi: 10.1080/13574809.2013.772881  
  
[View at Publisher](#)
- 
- 2 Hall, A.C.  
Dealing with incremental change: an application of urban morphology to design control  
  
(1997) *Journal of Urban Design*, 2 (3), pp. 221-239. Cited 22 times.  
doi: 10.1080/13574809708724407  
  
[View at Publisher](#)
- 
- 3 Kalyani, P.  
(2013) *A Multi-scale Urban Analysis Using Remote Sensing and GIS*, pp. 1-11.
- 
- 4 Moudon, A.V.  
Urban morphology as an emerging interdisciplinary field  
  
(1997) *Urban Morphology*, 1 (1), pp. 3-10. Cited 174 times.
- 
- 5 Niković, A., Dokić, V., Marić, I.  
Revising the position of a city block within the morphological frame of a traditional city: Contemporary perspectives  
  
(2014) *Spatium*, 1 (31), pp. 1-6. Cited 3 times.  
<http://www.iaus.ac.rs/upload/download/spatium/SPATIUM%2031.pdf>  
doi: 10.2298/SPAT1431001N  
  
[View at Publisher](#)
- 
- 6 Oliveira, V.  
(2016) *The Elements of Urban Form. in Urban Morphology: An Introduction to the Study of the Physical Form of Cities*, pp. 7-30.  
2016a (Cham: Springer International Publishing)
- 
- 7 Rawat, J.S., Biswas, V., Kumar, M.  
Changes in land use/cover using geospatial techniques: A case study of Ramnagar town area, district Nainital, Uttarakhand, India ([Open Access](#))  
  
(2013) *Egyptian Journal of Remote Sensing and Space Science*, 16 (1), pp. 111-117. Cited 38 times.  
doi: 10.1016/j.ejrs.2013.04.002  
  
[View at Publisher](#)
-

- 8 Rogan, J., Chen, D.M.  
Remote sensing technology for mapping and monitoring land-cover and land-use change

(2004) *Progress in Planning*, 61 (4), pp. 301-325. Cited 259 times.  
doi: 10.1016/S0305-9006(03)00066-7

[View at Publisher](#)

- 9 Smith, M.E.  
Form and meaning in the earliest cities: A new approach to ancient urban planning

(2007) *Journal of Planning History*, 6 (1), pp. 3-47. Cited 134 times.  
doi: 10.1177/1538513206293713

[View at Publisher](#)

- 10 Xu, H.  
A new index for delineating built-up land features in satellite imagery

(2008) *International Journal of Remote Sensing*, 29 (14), pp. 4269-4276. Cited 133 times.  
<https://www.tandfonline.com/loi/tres20>  
doi: 10.1080/01431160802039957

[View at Publisher](#)

- 11 Zhu, Z., Woodcock, C.E.  
Continuous change detection and classification of land cover using all available Landsat data

(2014) *Remote Sensing of Environment*, 144, pp. 152-171. Cited 233 times.  
doi: 10.1016/j.rse.2014.01.011

[View at Publisher](#)

© Copyright 2018 Elsevier B.V., All rights reserved.

[< Back to results](#) | 1 of 1

[^ Top of page](#)

## About Scopus

[What is Scopus](#)  
[Content coverage](#)  
[Scopus blog](#)  
[Scopus API](#)  
[Privacy matters](#)

## Language

[日本語に切り替える](#)  
[切换到简体中文](#)  
[切换到繁體中文](#)  
[Русский язык](#)

## Customer Service

[Help](#)  
[Contact us](#)

ELSEVIER

[Terms and conditions](#) ↗ [Privacy policy](#) ↗

Copyright © 2018 Elsevier B.V. ↗. All rights reserved. Scopus® is a registered trademark of Elsevier B.V.  
We use cookies to help provide and enhance our service and tailor content. By continuing, you agree to the use of cookies.

 RELX Group™