

## CURRICULUM VITAE

Dr. Jaw Siow Wei is currently a senior lecturer in the Department of Geoinformation, Faculty of Geoinformation & Real Estate and research fellow of Geoscience and Digital Earth Centre (INSTeG), Universiti Teknologi Malaysia (UTM). She received her doctorate degree and a First Class Honours Bachelor Degree in Remote Sensing at Universiti Teknologi Malaysia (UTM), Malaysia. At present, her niche of expertise encompasses remote sensing and geoinformation for applied and environmental sciences related research and development and innovation (R & D & I). As a professional member of International Society for Trenchless Technology (IIST) and IEEE



with the experience in digital image processing, has led her to publish numbers of scientific articles in refereed journals, international conference proceedings, such as Journal of Tunnelling and Underground Space Technology, Remote Sensing and Structural Concrete as well as in Asian Conference on Remote Sensing and IEEE International RF and Microwave Conference (RFM). Currently, she serves as invited reviewer for the Arabian Journal for Science and Engineering. Dr. Jaw also has achieved awards at both national and international levels for her outstanding R&D&I in the field of underground mapping and related geospatial sciences and its applications.

### PERSONAL INFORMATION

Name: Jaw Siow Wei  
Date of Birth: 16 February 1985  
Place of Birth: Seremban, Negeri Sembilan  
Nationality: Malaysian  
Gender: Female  
Contact No.: 016-3037463 (Mobile); 07-5557698 (Office)  
Email: swjaw@utm.my; swjaw@yahoo.com

### ACADEMIC QUALIFICATIONS

1. Doctor of Philosophy (Ph. D.)  
Area of Study: Remote Sensing (Ground Penetrating Radar in Subsurface Mapping)  
University: Universiti Teknologi Malaysia  
Year: 2009-2013  
Thesis: Reconstruction of Ground Penetrating Radar Backscatter of Subsurface Features for Utility Mapping
2. Bachelor of Science (BSc.)  
Area of Study: Remote Sensing  
University: Universiti Teknologi Malaysia  
Year: 2005-2009  
CGPA: 3.80/4.00 (First Class Honours)  
Thesis: Selection of Optimal Change Detection Algorithms for Detecting Urban Changes.

## **FIELD OF SPECIALIZATIONS**

1. ENGINEERING SCIENCES
  - *Geomatic Engineering, Mapping from Space and Remote Platforms.*
2. APPLIED SCIENCES AND TECHNOLOGIES
  - *Aerospace, Remote Sensing.*
3. ENVIRONMENTAL SCIENCES,
  - *Microwave Remote Sensing Image Processing and Remote Sensing Applications*
4. INFORMATION, COMPUTER AND COMMUNICATION TECHNOLOGY (ICT)
  - *Signal Processing, Image Processing and Programming*

## **LANGUAGES**

1. Bahasa Melayu: Fluent (written and spoken)
2. English: Fluent (written and spoken)
3. Mandarin: Fluent (written and spoken)
4. Cantonese: Fluent (written and spoken)
5. German (Deutsch): Basic.

## **EMPLOYMENTS**

1. Position: Senior Lecturer and Research Fellow  
Period: 1 June 2014 – Present.  
Employer: Universiti Teknologi Malaysia  
Department: Department of Geoinformation, Faculty of Geoinformation & Real Estate and Geoscience and Digital Earth Centre (INSTeG), Research Institute of Sustainability and Environment (RISE), Universiti Teknologi Malaysia.  
Task: Research & development & innovation in the aspect of underground geotechnical inspection and mapping as well as publication
2. Position: Post-Doctoral Fellow  
Period: 1 November 2013 – 31 May 2014.  
Employer: Institute of Geospatial Science & Technology (INSTeG), UTM.  
Under supervision of Prof. Sr. Dr. Mazlan Hashim  
Task: Handle research project regarding condition assessment of underground infrastructure and publication
3. Position: Visiting Junior Researcher  
Period: 1 April 2013 – 30 September 2013.  
Employer: Institute of Geospatial Science & Technology (INSTeG), UTM.  
Task: Handle research projects and publication
4. Position: Graduate Research Assistant (GRA)  
Period: July 2009 to March 2013.  
Employer: Institute of Geospatial Science & Technology (INSTeG), UTM.  
Tasks: Handle research project
5. Position: Industrial Trainee  
Period: 5 May 2008 – 11 July 2008.  
Employer: RS & GIS Consultancy Sdn Bhd.  
Under supervision of Mr. Eric Choy Kam Thye  
Tasks: Update geodatabase

## PUBLICATIONS

### A. *Journal:*

#### i) *Scientific Citation Index*

Ma, C. K., Awang, A. Z, Omar, W., **Jaw, S. W.** and Azimi, M. (2016). Flexural Capacity Enhancement of Rectangular High-Strength Concrete Columns Confined With Post-Tensioned Steel Straps: Experimental Investigation And Analytical Modeling. *Journal of Structural Concrete*. February (2016). Impact Factor: 1.023 (Q2)

Hashim, M., Reba, N. M., Nadzri, M. I., Pour, A. B., Mahmud, M. R., Yusoff, A. R. M., Ali, M. I., **Jaw, S. W.**, Hossain, M. S. (2016). Satellite-based Run-off Model for Monitoring Drought in Peninsular Malaysia. *Journal of Remote Sensing*. August (2016). Impact Factor: 3.036 (Q1)

**Jaw S. W.** and Hashim, M. (2013). Locational accuracy of Underground Utility Mapping using Ground Penetrating Radar. *Journal of Tunnelling and Underground Space Technology*. 35 (2013), 20-29. Impact Factor: 1.741 (Q1)

### B. *Proceedings/ Conferences*

#### i) *Scopus/ IOP Indexed*

Ng, H. L., Hashim, M., **Jaw, S. W.** (2015). Detection of Pre-cast Concrete Beam Defects Using Finite-Difference Time-Domain Modelling. 2015 IEEE 3rd International Conference on Smart Instrumentation, Measurement and Applications (ICSIMA). 24-25 November. Kuala Lumpur, Malaysia.

**Jaw, S. W.**, Hashim, M. and Goh, K. H. (2015). Ground Penetrating Radar Backscatter Reconstruction for Subsurface Utility Determination. 36<sup>th</sup> Asian Conference on Remote Sensing (ACRS 2015). 19-23 October. Manila, Philippines.

Hashim, M., Misbari, S., Mohd, N.R., Pour, A. B., **Jaw, S. W.**, Ab Lah, N. Z., and Halim, M. K. A. (2015). Satellite-Based Inventorying Major Landslides in Kelantan River Basin Due To Massive December 2014 Flood Episode. 36<sup>th</sup> Asian Conference on Remote Sensing (ACRS 2015). 19-23 October. Manila, Philippines.

Hashim, M., Pour, A.B., Mohd, N.R. and **Jaw, S. W.** (2015). Research Excellence and Gaps within Geoinformatic-Based In Asean Region According To Sci-Val Spotlight Analysis. 36<sup>th</sup> Asian Conference on Remote Sensing (ACRS 2015). 19-23 October. Manila, Philippines.

**Jaw, S. W.** and Hashim, M. (2014). Calibration Facility for Analysing Locational and Detectability Accuracies of Ground Penetrating Radar. 35<sup>th</sup> Asian Conference on Remote Sensing (ACRS 2014). 27 – 31 October. Nay Pyi Taw, Myanmar.

Lee, L. M., **Jaw, S. W.** and Hashim, M. (2014). Experimental and Analytical Study of Invisible Water Leaks Detection Using Ground Penetrating Radar. 35<sup>th</sup> Asian Conference on Remote Sensing (ACRS 2014). 27 – 31 October. Nay Pyi Taw, Myanmar.

Ng, H. L., Hashim, M. and **Jaw, S. W.** (2014). Building Concrete Cracks Detection Using Image-Based Non-Destructive Geotechnical Technique. 35<sup>th</sup> Asian Conference on Remote Sensing (ACRS 2014). 27 – 31 October. Nay Pyi Taw, Myanmar.

**Jaw, S. W.** and Hashim, M. (2014). Urban Underground Pipelines Mapping Using Ground Penetrating Radar. IOP Conference Series: Earth and Environmental Science 18 (1), 012167.

**Jaw, S. W.** (2014). Acquiring Underground Infrastructure's As-Built Information for Cities' Sustainability. IOP Conference Series: Earth and Environmental Science 18 (1), 012190.

**Jaw, S. W.** and Hashim, M. (2013). Detection of vertically and horizontally stacked underground utility pipelines using non-destructive testing technique. 34<sup>th</sup> Asian Conference on Remote Sensing (ACRS 2013). 20 – 24 October. Bali, Indonesia.

**Jaw, S. W.** and Hashim, M. (2012). Detection and Mapping of Subsurface Utility Using Ground Penetrating Radar. 33<sup>rd</sup> Asian Conference on Remote Sensing (ACRS 2012). 26 – 30 November. Pattaya, Thailand.

**Jaw, S. W.** and Hashim, M. (2011). Accuracy of Data Acquisition Approaches with Ground Penetrating Radar for Subsurface Utility Mapping. 2011 IEEE International RF and Microwave Conference (RFM 2011). 12 – 14 December. Seremban, Malaysia.

Hashim, M., **Jaw, S. W.** and Marghany, M. (2011). Ground Penetrating Radar Data Processing for Retrieval of Utility Material Types and Radius Estimation. 2011 IEEE International RF and Microwave Conference (RFM 2011). 12 – 14 December. Seremban, Malaysia.

**Jaw, S. W.** and Hashim, M. (2011). Detection and Mapping of Subsurface Utility Using Ground Penetrating Radar. 32<sup>nd</sup> Asian Conference on Remote Sensing (ACRS 2011). 3 – 7 October. Taipei, Taiwan.

Hashim, M., **Jaw, S. W.** and Marghany, M. (2010). Subsurface Utility Mapping for Underground Cadastral Infrastructure. 31<sup>st</sup> Asian Conference on Remote Sensing (ACRS 2010). 1 – 5 November. Hanoi, Vietnam.

**Jaw, S. W.**, Hashim, M. and Marghany, M. (2010). New Approach for Extraction of Sub-Surface Cylindrical Pipe Diameter and Material Type from Ground Penetrating Radar Image. 31<sup>st</sup> Asian Conference on Remote Sensing (ACRS 2010). 1 – 5 November. Hanoi, Vietnam.

ii) *Non-Indexed*

Reba, M. N. M., Ab. Lah, N. Z. and **Jaw, S. W.** (2016). Evaluation of the Improved Local Chlorophyll-A Algorithm in the Strait of Malacca. The International Symposium on Earth Observation for One-Belt and One Road (EOBAR). 16-17 May 2016. Beijing, China.

Hashim, M., **Jaw, S. W.** and Ahmad, S. (2014). A Conceptual Framework for Underground Utility Mapping Accuracy Assessment Using Ground Penetrating Radar. *XXV FIG Congress 2014*. 16-21 June 2014. Kuala Lumpur, Malaysia.

**Jaw, S. W.**, Hashim, M. and Marghany, M. (2011). Accuracy of Commercial Ground Penetrating Radar Data Acquisition for Subsurface Utility Mapping. *Ph.D Colloquium*, 4 – 5 April. Johor Bahru, Malaysia.

**Jaw, S. W.** and Hashim, M. (2010). An Accuracy of Subsurface Utility Mapping by Ground Penetrating Radar Imaging. *MAP ASIA 2010 & ISG 2010*. 26 - 28 July. Kuala Lumpur, Malaysia.

Hashim, M., **Jaw, S. W.** and Marghany, M. (2010). Subsurface Utility Features Mapping and Identification Using Ground Penetrating Radar: Effects of Scanning in Data Acquisition. *MRSS 6th International Remote Sensing & GIS Conference and Exhibition*. 28 – 29 April. Kuala Lumpur, Malaysia.

## **AWARDS**

1. **GOLD MEDAL** in Industrial Art & Technology Exhibition (INATEX 2016), Universiti Teknologi Malaysia, Johor Bahru, 4-6 October 2016.
2. **JURY AWARD** and **GOLD MEDAL** in Industrial Art & Technology Exhibition (INATEX 2015), Universiti Teknologi Malaysia, Johor Bahru, 3-5 November 2015.
3. **SILVER MEDAL** in 12<sup>th</sup> Malaysia Technology Expo 2013 (MTE 2013) & Invention & Innovation Awards 2013, Putra World Trade Centre, Kuala Lumpur, 21 – 23 February 2013.
4. **SILVER MEDAL** in Industrial Art & Technology Exhibition (INATEX 2012), Universiti Teknologi Malaysia, Johor Bahru, 3-5 October 2012.
5. **THIRD PRIZE** in National Geomatic / Geoinformatics Students Innovation Competition 2012: Technical Paper Writing Competition for Ph.D category, 2 July 2012
6. **JSPRS AWARD** in 32<sup>rd</sup> Asian Conference on Remote Sensing, Taipei, Taiwan, 3-7 October 2011

## **PROFESSIONAL MEMBERSHIP**

1. International Society for Photogrammetry and Remote Sensing (ISPRS), National Coordinator
2. Asian Association on Remote Sensing Student Group, National Coordinator
3. IEEE, Member ID: 93316670
4. IEEE Geoscience and Remote Sensing Society, Member ID: 93316670

5. IEEE Young Professionals, Member ID: 93316670
6. Smart Cities, IEEE, Member ID: 93316670
7. International Society for Trenchless Technology, Member ID: IS320