

## ROSLINA IDRIS (Sr, Dr)

Senior Lecturer (FSPU)

Centre of Studies for Surveying Science and Geomatics  
Faculty of Architecture, Planning and Surveying  
Universiti Teknologi MARA,  
40450 Shah Alam,  
Selangor, Malaysia.

Research Interest Group: Geomatic Engineering  
Research Nexus UiTM (ReNeU): Industrial Technology

+6017-3773696

roslinaidris@uitm.edu.my



### Areas of Expertise

GIS, LiDAR 3D modeling and mapping, Surveying Science & Geomatics

<https://expert.uitm.edu.my/expert.php?#>

<https://publons.com/researcher/3551183/dr-roslina-idris/>

<https://www.researchgate.net/profile/Roslina-Idris/research>

<https://www.scopus.com/authid/detail.uri?authorId=55523540200>

<https://scholar.google.com.my/citations?user=p5WgWYAAAAAJ&hl=en>

<https://orcid.org/my-orcid?orcid=0000-0001-5782-0569>

<https://prisma.uitm.edu.my/prisma/?doit=DirectoryStafByIdDetail&staffid=VmtaYVUySnRWbFZXVkJaT1YcFZNbFZXVWxKTIZUbFNVRIF3UFE9PQ>

### Personal Information

Roslina Idris,  
Centre of Studies for Surveying Science and Geomatics  
Research Interest Group Geomatic Engineering

### Academic Qualifications

PhD in Built Environment (GIS by Research), 2016, University Teknologi MARA

Master in Built Environment (by Research), 2008, University Teknologi MARA

Bachelor of Surveying Science and Geomatics (Honours), 2001, University Teknologi MARA

Diploma in Geomatic Science, 1999, University Teknologi MARA

### Professional Members

1. Royal Institution of Surveyors Malaysia (RISM), Member, 2016 - present

### Teaching and Learning

1. Master, Mac 2023, Geospatial Analysis and Modelling, Lab
2. Degree, Mac 2023, Land Surveying, Lecturer and Practical
3. Degree, Mac 2023 Advanced Cartography, Lab
4. Degree, Mac 2023, Automatic in Surveying, Lecturer and Tutorial
5. Master, Mac 2022, Geospatial Analysis and Modelling, Lab
6. Degree, Mac 2022, Land Surveying, Lecturer and Practical

7. Degree, Mac 2022, Programming for Surveying, Lab
8. Degree, Mac 2022 Advanced Cartography, Lab
9. Degree, Mac 2022, Automatic in Surveying, Lecturer and Tutorial
10. Degree, Mac 2022, Hydrography and Ocean Mapping, Lab
11. Diploma, Mac 2021, Introduction Surveying, Lecturer and Practical
12. Diploma, Mac 2021, Introduction Surveying, Lecturer and Practical
13. Diploma, Mac 2021, Computer Application for Surveyor, Lecturer and Lab
14. Diploma, Mac 2021, Principles of Cartography, Lecturer and Practical
15. Diploma, Mac 2021, Practicum – Geographical Information System, Practical
16. Diploma, Mac 2021, Managing Geographic Information System, Lecturer and Practical
17. Diploma, Mac 2021, Study Skills, Lecturer and Tutorial

**Student Supervision** (Student Name and ID, Thesis/Dissertation Title, Semester, Level of Supervision, Undergraduate)

Main Supervisor – Amirah Sofiya binti Ahmad Shaharmy, Studies on Automated 3D Building By Using Lidar Data In Global Mapper – completed

Main Supervisor – Muhamad Akmal bin Hilmi, Studies on Extraction of Building Outline Using LiDAR Datasets – completed

Main Supervisor – Siti Nur Aishah binti Samsul, Studies on Landslides Susceptibility Mapping and Assessment in Ampang Jaya: Comparative Techniques between Artificial Neural Network and Probabilistic Method – ongoing

Main Supervisor – Siti Aisyah binti Rofiny, Studies on Utilizing LiDAR Data for Height of Buildings – completed.

Main Supervisor - Siti Natasha Nabila Binti Abdul Kha'ar. The Use of Lidar Data to Estimate Rooftop Solar Photovoltaic Potential: UiTM Shah Alam – completed.

Main Supervisor - Norlyana Hanani Ruzahan Anuar. Detection Of Paddy Field Using Remote Sensing – completed.

Main Supervisor - Fariz Hafizin Bin Mohd Rizal. Crime Pattern Analysis Using GIS in Ampang Jaya Selangor – completed.

Main Supervisor - Anis Nadhirah Binti Razali. Route Optimization Using GIS Application for Domestic Waste Activity at Southern Kuala Lumpur – completed.

Main Supervisor - Muhammad Hakimi Bin Mohd Junaidi. Road Map for Urban Transportation Planning in Taman Kosaso, Rawang, Selangor – ongoing

Main Supervisor - Aqmar Rifqi Bin Rozaidi. Prone to Potential Peat Fire in Pahang By ERDAS Environment – ongoing

## Publications

### SCIENTIFIC PUBLICATION (Reference Book)

Jasmee Jaafar, Redwan Misran, **Roslina Idris**, Adly Rezduan Shaary, Mohamed Nasri Md Rani (2016). Asas UKUR KEJURUTERAAN. Shah Alam, Selangor: Penerbit UiTM. ISBN: 9789673630714

### SCIENTIFIC PUBLICATIONS (International Journals-Refereed)

J Jaafar, JRA Hamid, **R Idris**, AAM Habib (2012). Field-Based Automated Survey for Extracting Tree Inventory Attributes and 3-D Models in a Forested Area. Journal of Earth Science and Engineering,2(9), 561.

Muhammad Afiq Abdullah, Jasmee Jaafar, **Roslina Idris**, Suriati Juhari, Khairul Nizam Tahar, Wan Mazlina Wan Mohamed (2018). Validation Assessment of Shipping Container Counting Approach Using Unmanned Aerial Vehicle (UAV) and ARCGIS Model Builder. UTM eJournal Editorial Team (Scopus)

### SCIENTIFIC PUBLICATIONS (International Article-Refereed)

**Idris, R.**, Abu Bakar, R., & Abdul Rasam, A. R. (2023). LiDAR Assessments and Mapping for Klang Valley: a Case Study at Jinjang District, Selangor. The International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences, 48, 445-450.

Mohammad, N. S., Abdul Rasam, A. R., Ghazali, R., **Idris, R.**, & Abu Bakar, R. (2023). Spatial Clustering Phenomena of Covid-19 Cases in Selangor: A Hotspot Analysis And Ordinary Least Squares Method. *The International Archives of Photogrammetry, Remote Sensing and Spatial Information Sciences*, 48, 237-243.

Mustapha, N. I., Rasam, A. R. A., Saraf, N. M., **Idris, R.**, & Wakijan, A. (2023, September). Cycling Route Mapping via Cartography and GIS Techniques. In *IOP Conference Series: Earth and Environmental Science* (Vol. 1240, No. 1, p. 012008). IOP Publishing.

Samsul, S. N. A., **Idris, R.**, Zulkarnain, S. H., Ahmad, C. B., Rasam, A. R., & Idris, M. R. (2023, September). Landslide Susceptibility Mapping in Ampang Jaya: Comparing Probabilistic Method and Weighted Overlay Method. In *IOP Conference Series: Earth and Environmental Science* (Vol. 1240, No. 1, p. 012016). IOP Publishing.

Ahmad, C. B., Abdullah, J., **Idris, R.**, Rasam, A. R. A., Mustapha, A. A., & Kavzoglu, T. (2022, October). Spatial Land Use and Land Cover (LULC) Changes for A Sustainable Biodiversity Conservation: Factors for Potential Implementation of Buffer Zone for FRIM Natural Heritage Site, Malaysia. In *IOP Conference Series: Earth and Environmental Science* (Vol. 1067, No. 1, p. 012015). IOP Publishing.

Jasmee JAAFAR, Suriati JUHARI, **Roslina IDRIS** & Mohammed Yaziz AHMAD (2014). Land Parcel Location via Quick Response (QR) Code In FIG Congress 2014 Engaging the Challenges, Enhancing the Relevance Kuala Lumpur, Malaysia,

**Roslina Idris**, Zulkiflee Abd Latif, Jasmee Jaafar, Juazer Rizal Abd Hamid (2013). Integrating LiDAR Dataset and Photographic Images Towards the Construction of 3D Building Model. *IOP Conference Series: Earth and Environmental Science*. Volume 18. Issue 1. IOP Publishing.

**Roslina Idris**, Zulkiflee Abd Latif, Jasmee Jaafar, Juazer Rizal Abd Hamid (2013). Integrating LiDAR Dataset and Photographic Images Towards the Construction of 3D Building Model. *The International Society for Digital Earth, Kuching, Sarawak*

**R Idris**, ZA Latif, J Jaafar, NM Rani, F Yunus. (2012). Quantitative Assessment of LiDAR Dataset for Topographic Maps, *International Conference on System Engineering and Technology (ICSET2012) "Control and Computer Technology In The Future Application"*, IEEE

Yunus, Fariza; Jaafar, Jasmee; Mahmud, Zamalia; Shafie, Aziz; **Idris, Roslina**. (2012). Role of environmental factors in modeling of air temperature element in peninsular Malaysia, *International Conference on System Engineering and Technology (ICSET2012) "Control and Computer Technology in The Future Application"*, IEEE

Jaafar, J., Abd Hamid, JR., **Idris, R.**, Ali, A. (2012). Accuracy Assessment of MDL Laser for Point Positioning and 3D Modeling in Forestry Application. *The conferences GIS Ostrava 2012. Surface Models for Geosciences, Ostrava-Poruba, Czech Republic*

**Roslina Idris**, Zulkiflee Abd Latif, Jasmee Jaafar. (2012). Evaluation of LiDAR DSM for Topographic Map Revision: Urban Environment Mapping Application in *Proceedings of Akept 2nd Global Annual Young Researchers Conference & Exhibition 2012, Akept*

**Idris, R.**, Abd Latif, Z., Jaafar, J. (2011). Accuracy Assessment of Elevation Models Derived from LiDAR. In *Proceedings of 10th International Symposium & Exhibition on Geoinformation 2011 (ISG 2011) And ISPRS 2011, Universiti Teknologi MARA Malaysia*

Jaafar, J., **Idris, R.**, Ali, A. (2004). Tree Mapping System. In *Proceedings of International Symposium & Exhibition on Geoinformation 2004 (ISG 2004) And ISPRS 2004, Universiti Teknologi MARA Malaysia*

## Research Grants and Contracts

Member, Flexibility in Land Use Decision Making Towards Food Security. Projek Penyelidikan Dana National Real Estate Research Coordinator (NAPREC) Dibawah Rancangan Malaysia Ke-12 (RMK12) Fasa 2, Institut Penilaian Negara (INSPEN), Jabatan Penilaian Dan Perkhidmatan Harta (Jpph). Jan – Dec 2023, RM 52 000

Member, Rapid Airborne Geospatial Mapping System, Malaysia Laboratories for Academia-business Collaboration (MYLAB) grant, Jan 2015-Dec 2016, RM +1.09mil.

Member, An Evaluation of LiDAR Datasets Towards Automated Construction of Digital Terrain Models (DTMs), Digital Surface Models (DSMs) and 3D-city Models. Ogos 2012-Julai 2014

Member, Evaluation of Digital Surface Model (DSM) Constructed using Digital Photogrammetry for Mapping Application'. Okt 2003- Dis 2003

Member, Assessment of LIDAR dataset with MACRES (Malaysian Centre of Remote Sensing)

Member, Accuracy of DEM using Topographical Map

Member, Tahap Kepenggunaan Schoolnet 2007 Project

Member, TNB 'Overhead Line Airborne Laser Scanning Survey' Project

## Consultation & Expertise

Consultant, Project Validation Assessment of Shipping Container Counting Approach Using Unmanned Aerial Vehicle (UAV) and ARCGIS Model Builder. Jan 2016-Jul 2019

Consultant, Project Field-Based Automated Survey for Extracting Tree Inventory Attributes and 3-D Models in a Forested Area. Jan 2012-Dec 2016

Consultant, Project Accuracy Assessment of MDL Laser for Point Positioning and 3D modelling In Forestry Application. Jan 2012-Dec 2016

Consultant, Project Database creating for TREE MAPPING SYSTEM. Jan 2004-Dec 2013

## Innovation, Commercialization & Entrepreneurial

**GOLD** medal for the Invention/Innovation/Design of 'Halal Food Traceability Via Qr Code' at iideX 2017: A Celebration of Invention, Innovation, Design Exposition 2017

**SECOND PLACE** for the 'Hadiah Penerbitan ANGKASA 2013' 'My Map Portal Engine Search (MMPes) Utilizing Spatial Dataset with Google Earth' in Third Category for 'Kertas Kerja Profesional Dalam Bidang Teknologi ANGKASA Pembentangan di Persidangan'.

**BRONZE** medals for the invention/innovation of 'Automated Tracking System' at IID 2009: A Celebration of Inventions, Innovations and Designs 2009, UiTM Shah Alam.

**SILVER** medal for the invention/innovation of 'e-Portal' at IID 2008: A Celebration of Inventions, Innovations and Designs 2008, UiTM Shah Alam.

**SILVER** medal for the invention/innovation of 'Automated Forest Database- optimised logging revenue' at The Seoul International Invention Fair 2008, Seoul, Korea.

**SILVER** medal for the invention/innovation of 'e- portal Automated Digital Management System' at The 59th international IENA 2007 trade fair in Nuremberg, Germany.

**GOLD** medal for the invention/innovation of 'Automated Forest Inventory System (3D Database & 3D Model)' at The World Exhibition of Innovation, Research and New Technologies Brussels- Innova & Eureka held in Brussels Expo 2006, Belgium.

**BRONZE** medal for the invention/innovation of '3D – Portal' at The Malaysian Technology Expo 2006, Kuala Lumpur.

**SILVER** medal for the invention/innovation of 'Tree Mapping System' at The 33rd Salon International Des Inventions Geneve 2005, Geneva, Switzerland.

**GOLD** medal for the invention/innovation of 'Tree Mapping System' at IID 2004: A Celebration of Inventions, Innovations and Designs, UiTM Shah Alam

### **Services & Administration**

Appointed as Resident Staff Collage (Kolej Kesenai 1, UiTM Cawangan Perlis) (Dis 2020 – Dec 2022)

Appointed as Advisor (Jawatankuasa MyRA UiTM Cawangan Perlis (April 2021 – Mac 2022)

Appointed as Academic Advisor for Diploma Science Geomatic (AP120) UiTM Cawangan Perlis (October 2020 – Mac 2022)

Appointed as Secretary for Centre of Science Geomatic UiTM Cawangan Perlis (Jan 2021 – Dec 2021)

Appointed as Academic Advisor for Degree Science Geomatic (AP220) UiTM Shah Alam (Mac 2022 – present)

Appointed as Organiser committee in National Geomatic/Geoinformatics Student Innovation Competition, NNGSIC 2022

### **Work and Collaboration Experience**

Initiator for MOU between Universiti Teknologi MARA and Geoid Solution Sdn Bhd (Mei 2021)

Committee Member of RISM Academy under Royal Institution of Surveyor Malaysia (RISM)- since 2016

Lecturer (Part Time Fulltime) Faculty Architecture, Planning and Surveying, UiTM Sri Iskandar, Perak, Aug 2019-Jan 2020

Lecturer (Part Time) Faculty Architecture, Planning and Surveying, UiTM Shah Alam, Selangor, Aug 2019-Jan 2020

Lecturer (Part Time) Faculty Civil Engineering, UiTM Shah Alam, Selangor, Aug 2019-Jan 2020

Lecturer (Part Time) Faculty Applied Science, UiTM Shah Alam, Selangor, Aug 2019-Jan 2020

Lecturer (Part Time Fulltime) Faculty Architecture, Planning and Surveying, UiTM Cawangan Arau, Perlis, Aug 2019-Jan 2020

Research Officer (RO), Mac 2016 - Jun 2017 at School of Humanities, Universiti Sains Malaysia, Penang with research on "Computerized Flight Planning System and Processing" Malaysia Laboratories for Academia-business Collaboration (MYLAB) grant.

Research Assistant (RA), Feb 2015 - Feb 2016 at Institute Research, Management & Innovation (IRMI), MARA University of Technology with research on Research on "Rapid Airborne Geospatial Mapping System (RAGmap)" Malaysia Laboratories for Academia-business Collaboration (MYLAB) grant.

Research Assistant (RA), Ogos 2012 - Jul 2014 at Institute Research, Management & Innovation (IRMI), MARA University of Technology with research on 'An Evaluation of LiDAR Datasets Towards Automated Construction of Digital Terrain Models (DTMs), Digital Surface Models (DSMs) and 3D-city Models.'

Research Assistant (RA), Okt 2003 - Dis 2003 at Institute Research, Management & Innovation (IRMI), MARA University of Technology with research on 'Evaluation of Digital Surface Model (DSM) Constructed using Digital Photogrammetry for Mapping Application'.

Graduated Research Assistant (GRA), at Institute Research, Management & Innovation (IRMI), MARA University of Technology with research on 'Assessment of LIDAR dataset with MACRES (Malaysian Centre of Remote Sensing)'

Graduated Research Assistant (GRA), at Institute Research, Management & Innovation (IRMI), MARA University of Technology with research on 'Accuracy of DEM using Topographical Map'

Graduated Research Assistant (GRA), at Institute Research, Management & Innovation (IRMI), MARA University of Technology with research on 'Tahap Kepenggunaan Schoolnet 2007'

Graduated Research Assistant (GRA), at Institute Research, Management & Innovation (IRMI), MARA University of Technology with Research on TNB 'Overhead Line Airborne Laser Scanning Survey' Project

### **Awards & Recognitions**

Hadiah Penerbitan Angkasa 2013 "Kategori 1: Kertas Kerja Professional dalam Bidang Sains Angkasa - Penerbitan di persidangan", MOSTI and Angkasa Malaysia (November 2014).

### **Contribution to Society**

"Initiator" memorandum of understanding (MOU) between Universiti Teknologi MARA and Geoid Solution Sdn. Bhd. 6 May 2021

Invited Speaker - Short Course on UAV LiDAR Mapping at UiTM Shah Alam, Selangor (25- 27 July 2016)

Invited Speaker - Short Course on LiDAR Mapping at UiTM Shah Alam, Selangor (19- 21 Ogos 2014)

Invited Speaker - Short Course on LiDAR Mapping at UiTM Shah Alam, Selangor (6- 8 Mei 2014)

Invited Speaker - Short Course on LiDAR Mapping at UiTM Shah Alam, Selangor (10- 12 Sept 2013)

Invited Speaker - Short Course on LiDAR Mapping at Century Pine Resort, Cameron Highland, Pahang (24- 27 Apr 2013)

Invited Speaker - Short Course on LiDAR Mapping at UiTM Shah Alam, Selangor (9- 11 Apr 2013)

Invited Speaker - Short Course on LiDAR Mapping at Ancasa AllSuites Resort & Spa, Port Dickson, Negeri Sembilan. (24- 27 Apr 2012)

Facilitator - Short Course on Land & Hydrographic Survey at UiTM Shah Alam, Selangor. (5-8 Dis 2016)

Facilitator - Short Course on Remote Sensing at Hotel Crown Plaza, Klang, Selangor (11- 15 Mei 2009)

Secretariat - Series of Talk by Professor Dr Charles Egbu, UiTM, Shah Alam, Selangor (1- 15 August 2008)

Secretariat - Short Course on Research Methodology, Institut Penyelidikan, Pembangunan dan Pengkomersilan (IRDC) & Jabatan Sains Ukur & Geomatik, UiTM Shah Alam (22 – 24 Mei 2007)