# CURRICULUM VITAE

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ACADEMIC/PROFESSIONAL QUALIFICATIONS	Dip., Adv. Dip.in Land Surveying, UiTM, 1985 MSc. GIS University of Nottingham, UK, 1994 Phd. GIS University of Nottingham, UK, 1998 Royal Institution of Surveyors Malaysia (RISM)
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## RESEARCH AND PUBLICATION

### 1.1 Research Grant (as Principal Investigator)

(Project Title), (Sponsorship), (Total Grant), (Date/Duration)

- 1. Development of Geo-Spatial Database for Intelligent Transport System for Ipoh Urban Areas, USM S/Term, RM20,000.00, 1/7/2000-30/6/2001.
- 2. Development of University Campus Wide Information System (UCWIS) using Integrated GIS Map and Database Management, USM S/Term, RM20,000.00, 15/4/2005-14/4/2007.
- Formulating Optimisation Process in Spatial Site Selection, FRGS/KPT, RM50,000.00, 15/10/2007-15/10/2009.
- 4. Utilization Of Existing Landfill Spatial Variables To Model A Sustainable Landfill Site Selection, USM (RU), RM129,350.00, 1/8/2010-31/12/2012.
- 5. Establishing an Industrialized Building System [IBS] One Stop Centre in Pulau Pinang Using GIS Site Suitability Model, USM S/Term, RM31,321.00, 15/11/2010-14/11/2012.
- 6. Formulating Multiple Criteria Facility Location Decision Model For Selecting IBS Manufacturing Sites, FRGS/KPT, RM50,000.00, 1/8/2011-31/7/2013.

## 1.2 Research Grant (as Co-Researcher)

(Project Title),(Sponsorship),(Total Grant),(Project Leader),(Date/Duration)

- 1. Sinkholes (potholes) Location Detection using La Coste and Romberg Gravity Meter in Kinta Valley, USM S/Term, RM10,000.00, (Principal: Mohamad Razip Bin Selamat ), 1/12/1987-30/11/1988.
- 2. Statistical Analysis on Cadastral Survey Backlogs in Survey Department, Malaysia, USM S/Term, RM20,000.00, (Principal: Wan Muhd Aminuddin Bin Wan Hussin), 1/5/1990-31/12/1992.
- 3. Preparation of Survey Data and Land Information Systems for Seri Iskandar New Township, Perak, IRPA-RM6, RM55,000.00, (Principal: Wan Muhd Aminuddin Bin Wan Hussin) 1/1/1991- 31/12/1991.
- 4. Effect of Carbonation on Reinforced Concrete Structures, USM S/Term, RM20,000.00, (Principal: Sabarudin Bin Mohd), 1/5/1991-30/4/1993.
- Cost-Benefit Analysis of the Automated Survey System Versus Traditional Methods 'From Field To Finish', USM S/term, RM20,000.00, (Principal: Wan Muhd Aminuddin Bin Wan Hussin), 1/6/1994-31/8/1996.
- 6. Investigation into 'Throw' and Scattering of Fragments in Bench Blast Design, IRPA S/Term, RM20,000.00, (Principal: Mohamad Khalil Bin Mohammad Hashim), 15/5/1999-14/10/2000.

- Development of Digital Surface Model of Building Structures Using Close Range Photogrammetric Method, USM S/Term, RM20,000.00, (Principal: Wan Muhd Aminuddin Bin Wan Hussin), 15/2/2001-14/2/2002.
- 8. Flood Risk Mapping For Rivers In Malaysia Incorporating Sediment Transport In River Channel: Case Study Of Pari River, Ipoh, Perak, RM8 EA Category, RM126,000.00, (Principal: Aminuddin Bin Ab Ghani), 1/4/2002-31/3/2005.
- 9. Efficient Development of Wind Farms in East Coast Peninsular Malaysia, USM S/Term, RM20,000.00, (Principal: Shamshad Ahmad), 1/8/2002-31/10/2003.
- 10. GIS Based Watershed Management System For Non-Point Source (NPS) Pollution Modelling, RM8 EA Category, RM194,000.00, (Principal: Shamshad Ahmad), 1/11/2003-30/4/2007.
- 11. Alert System and Mitigation For Hill slope Hazard , USM S/Term, RM20,000.00, (Principal: Fauziah Binti Ahmad), 1/4/2004-30/9/2006.
- 12. Treatment of Missing Data in the Modeling of Cadastral Survey Workload in Malaysia, USM S/Term, RM40,000.00, (Principal: Wan Muhd Aminuddin Bin Wan Hussin), 15/3/2007-14/3/2009.
- 13. Proposal On Reengineering Of Agricultural Pratice For The Improvement Of Padi Fields Farmers' Income In Nothern Corridor Economic Region , USM (RU), RM858,900.00, (Principal: Hamidi Bin Abdul Aziz @ Abdul Rahman), 10/10/2007-9/6/2011
- 14. Study on the Characteristics of the National Cadastral Surveying Backlog, FRGS/KPT, RM80,000.00, (Principal: Wan Muhd Aminuddin Bin Wan Hussin), 15/10/2007-15/10/2009.
- 15. Advancement Of The Best Waste Management Practice In The Northern Corridor Economic Region (NCER), USM (RU), RM1,000,000.00, (Principal: Ismail Bin Abustan), 5/12/2007-4/11/2010.

## **1.2 Research Publication** [cited as Ahamad M.S.S. (International ) or Mohd Sanusi S.A. (National)] Article in Magazine

(Author),(Title),(Name of Journal),(Publisher),(Year),(Pages)

- 1. Mohd Sanusi, S.A., 1999, Multiple Criteria and Multiple Objective Decision Making Using GIS For Land Selection. Annual Bulletin of IEM Perak, 46-50
- 2. Mohd Sanusi S.A., Shamshad A., Wan Hussin W.M.A., 2006, The Sensitivity of AHP Weightings As Applied in GIS/MCE Land suitability Model, National Spatial Data and Mapping Commission, 12-21
- 3. Mohd Sanusi S. A. and Rabi'ah A., Effect of the Decision Makers on GIS Site Suitability Analysis, Buletin GIS, National Spatial Data and Mapping Commission, 2009, (1)1-10, ISSN 1394-5505.
- 4. Mohd Sanusi S. A. and Rabi'ah A., Detecting The Layout Error Of Constructed Buildings Using GIS Spatial Analytical Tool. Bulletin GIS. National Spatial Data and Mapping Commission, 2009 (2), 15-23, ISSN 1394-5505.
- Azman, M.N.A., Ahamad, M.S.S., Majid, T.A. & Hanafi, M.H, A Study of Precast Concrete in Malaysia, Holbrooks Printers Ltd., UK, Concrete Engineering International, 2012, 46(10), 50-52, ISN 0010-5317
- Hashim, M.Z., Azman, M.N.A., Ahamad, M.S.S. & Shahadan, Constructability of IBS Blockwork System for Bungalow Houses, Ad-Media GmbH, Germany, Concrete Plant International, 2012, (Issue 5), 36-47, ISSN 1437-9023.

## Chapter In Research Book

(Author), (Title of Article), (Name of Book), (Publisher), (Year), (Pages)

- Shamshad, A., Megat Johari, M.A., Wan Hussin, W.M.A., Mohd. Sanusi, S.A., Majid, A,. Digital Image Analysis Of Cracks In Concrete Of Different Grades, Concrete Repair, Rehabilitation, and Retrofitting –Alexander [eds]. 2006, Book Chapter Theme 2 (212-217). Taylor and Francis Group London. ISBN 041539649.
- Hashim, M.Z., Azman, M.N.A., Ahamad, M.S.S., Shahadan, A., A Constructability of IBS Blockwork System: A case study of Bungalow House, Industrialized Building System (IBS)- Construction Industry Requirement and Application, Construction Research Institute of Malaysia (CREAM), 2011, Chapter 8 (71-77), ISBN 978-967-024204-0
- Kamar, K.A.M, Hamid, Z.A., Azman, M.N.A., Ahamad, M.S.S., Majid T.A., Drivers and Barriers of IBS Roadmap in Malaysia., Industrialized Building System (IBS) - Construction Industry Requirement and Application, Construction Research Institute of Malaysia (CREAM), 2011, Chapter 11(114-122), ISBN 978-967-024204-0
- 4. Azman, M.N.A., Ahamad, M.S.S., Majid, T.A., and Hanafi, M.H., Off-Site Construction Industry: The Common Pattern, Industrialized Building System (IBS)- Definition, Concept and Issues, Construction Research Institute of Malaysia (CREAM), 2011, Chapter 4(35-40), ISBN 978-967-0124-03-3

- Azman, M.N.A., Majid, T.A., Ahamad, M.S.S., and Hanafi, M.H, A Study on the Trend of the use of IBS Components and the Setting up of IBS Manufacturing Factories in the Malaysian Construction Industry, Industrialized Building System (IBS)- Definition, Concept and Issues, Construction Research Institute of Malaysia (CREAM), 2011, Chapter 7 (56-66), ISBN 978-967-0124-03-3
- Azman, M.N.A., Ahamad, M.S.S., Majid, T.A., and Hanafi, M.H., Conceptual Spatial Site Selection for One Stop Centre for IBS Manufacturing Plant in Pulau Pinang, Industrialized Building System (IBS)-Definition, Concept and Issues, Construction Research Institute of Malaysia (CREAM), 2011, Chapter 8 (57-77) ISBN 978-967-0124-03-3
- Azman, M.N.A., Ahamad, M.S.S., Majid, T.A., and Hanafi, M.H., Chapter 7 The Setting Up of IBS Precast Manufacturing Factory in the Malaysian Construction Industry, IBS Towards Open Building System in Malaysia, International islamic University Malaysia, 2011, Chapter 7 (147-176), ISBN 978-967-0225-51-7

#### Citation Indexed Journal

(Author),(Title of Article),(Name of Journal),(Year),(Volume),(Edition),(Number Of Pages)

- 1. Shamshad, A, Hussin, WMAW, Bawadi, MA, Ahamad, M.S.S., Simulating Wind Speed Data by Stochastic Markov Chain Model., Energy and Environment., 2003, 1&2 (326-332), WOS:000221355500059, (ISI).
- Sinnakaudan, S.K., Ab Ghani, A., Ahamad, M.S.S., and Zakaria, N.A., Flood Risk Mapping for Pari River Incorporating Sediment Transport., Journal of Environment Modelling & Software., 2003, 18(2), 119-130, DOI:10.1016/s1364-8152(02)00068-3, (ISI).
- 3. Shamshad, A, Wan Hussin, W.M.A., Ahamad, M.S.S., First and Second Order Markov Chain Models for Synthetic Generation of Wind Speed Time Series., ENERGY-The International Journal, 2005, 30(5), 693-708, DOI:10.1016/j.energy.2004.05.026, (ISI).
- Sinnakaudan, S.K., Ab. Ghani, A., Ahamad, M.S.S., and Zakaria N.A., Multiple Linear Regression Model for Total Bed Material Load Prediction, ASCE Journal of Hydraulic Engineering, 2006, 132(5), 521-528, DOI:10.1061/(ASCE)0733-9429(2006)132:5(521), (ISI).
- Shamshad, C.S. Leow, Ramlah, A., Wan Hussin, W.M.A. and Ahamad, M.S.S., Application of AnnAGPNS Model for Soil Loss Estimation and Nutrient Loading for Malaysian Condition., International Journal of Applied Earth Observation and Geoinformation., 2008, 10(3), 239-252, DOI:10.101016/j.jag.2007.10.006 (ISI)
- Kabir, S., He, D.-C., Ahamad, M.S.S., Wan Hussina, W.M.A., Texture analysis of IKONOS satellite imagery for urban land use and land cover classification, Imaging Science Journal, 2010, 58(3), 163-170, DOI:10.1179/136821909x12581187860130 (ISI)
- 7. Ab. Ghani, A., Ali, Rabie., Zakaria, N.A., Abu Hasan, Z., Chang, C.K. and Ahamad, M.S.S., Temporal Change Study of the Muda River System over 22 Years, International Journal of River Basin Management, 2010, 8(1), 25-37, DOI: 10.1080/15715121003715040 (SCOPUS)
- 8. Azman, M.N.A., Ahamad, M.S.S., Majid, T.A. and Hanafi, M.H, The Common Approach in Construction Industry, Australian Journal of Basic and Applied Sciences, 2010, 4(9), 4478-4482, ISSN: 19918178 (SCOPUS).
- 9. Majid, T.A., Azman, M.N.A., Zakaria, S.A.S., Zaini, S.S., Yahya, A.S., Ahamad, M.S.S. and Hanafi, M.H., Quantitative Analysis on the Level of IBS Acceptance in the Malaysian Construction Industry, Journal of Engineering Science and Technology, 2011, 6(2), 179-190 ISSN: 18234690 (SCOPUS).
- 10. Azman, M.N.A., Ahamad, M.S.S., Majid, T.A. and Hanafi, M.H, A Study on the trend of the use of IBS components and the setting up of IBS manufacturing factories in the Malaysian Construction Industry, Malaysian Construction Research Journal, 2011, 9(2), 18-30, ISSN: 19853807(SCOPUS).
- 11. Azman, M.N.A., Ahamad, M.S.S., Hamid, Z.A., Gomez, C.P., Kamar, K.A.M., Hilmi, N.D., Mansor, H., Ismail, Z., The Selection of IBS Precast Manufacturing Plant in Malaysia Using GIS, Malaysian Construction Research Journal., 2012, 10 (1), 77-90, ISSN: 19853807 (SCOPUS).
- 12. Azman, M.N.A., Ahamad, M.S.S., Majid, T.A. & Hanafi, M.H, A Qualitative Study of Precast Plants in Malaysia, The Indian Concrete Journal, 2012, 86 (10), 47-58, ISSN: 00194565 (SCOPUS).
- 13. M.O. Saeed, M.S.S. Ahamad , H.A. Aziz, S.Z. Ahmad, An Integrated AHP-GIS Technique for Landfill Siting: A case Study in Malaysia, Kuwait Journal of Science and Engineering, 2012, 1B, December, (ISI Article In Press).
- 14. Azman, M.N.A., Ahamad, M.S.S., Majid, T.A. and Hanafi, M.H. Statistical Evaluation of Preselection Criteria for Industrialised Building System (IBS), Journal of Civil Engineering and Management, 2012, (ISI Article In Press).

#### E-Journal

(Author),(Title of Article),(Name of Journal),(Year),(Volume),(Edition),(Number Of Pages)

1. Sinnakaudan, S., Ab Ghani, A., Mohd Sanusi, S.A., and Zakaria, N, A., Rozi, A., & Ismail, A., Design of Flood Risk Mapping, Global Practice and Issues, The MalaysiaGIS.com, 24 Jan 2001,

http://www.malaysiagis.com/gis in malaysia/articles/index.cfm

- 2. Sinnakaudan, S., Mohd Sanusi, S.A., and Mohamad, G., Development of GIS Aided Water Utility Management System, The MalaysiaGIS.com, 12 Nov 2001, <u>http://www.malaysiagis.com/gis in malaysia /articles/index.cfm</u>
- 3. Sinnakaudan, S., Ab Ghani, A., Mohd Sanusi, S.A., and Zakaria, N. A., Accurate Flood Plain Definition for sustainable flood risk analysis. The MalaysiaGIS.com, 12 Dec 2001, <u>http://www.malaysiagis.com/gis in malaysia/articles/index.cfm</u>
- 4. Azman, M.N.A., Ahamad, M.S.S., Majid, T.A., and Hanafi, M.H., Status of Industrialized Building System Manufacturing Plant in Malaysia, UNIMAS e-Journal of Civil Engineering, 2011, 2(2), http://www.feng.unimas.my/ujce/Volume-list/Volume-list/vol1-issue3-mac-2011-cover.html

## Journal

(Author),(Title of Article),(Name of Journal),(Year),(Volume),(Edition),(Number Of Pages)

- 1 W.M.A Wan Hussin, S.A. Mohd Sanusi and A. Shamshad, Stress Management and its Effect on the Performance of Young Site Engineers and Land Surveyors in Malaysia, PRANJANA The Journal of Management Awareness. 2004, 7(1), 77-89, ISN 0971-997
- Shamshad, W.M.A Wan Hussin, Mohd Sanusi S.A., and M.H. Isa., Spatial and Temporal Distribution of Rainfall and El30 Values in Pulau Pinang, Peninsular Malaysia, The Professional Journal of The Institution of Surveyors Malaysia. 2006, 41(1), 18-23, ISSN 0127-4937
- Shamshad, M.T. Nizar Alwi, W.H. Wan Ibrahim, W.M.A. Wan Hussin, Mohd Sanusi S.A., Road Network Mapping and Speed Data Collection for Field Traffic Studies Using GPS in Non-Differential Mode, The Professional Journal of The Institution of Surveyor Malaysia, 2006, 41(2), 15-20, ISSN 0127-4937.
- 4. W.M.A Wan Hussin, S.A. Mohd Sanusi and A. Shamshad, Managing Stress at the Workplace: A 3-Dimensional Approach., PRANJANA The Journal of Management Awareness, 2008, 12(2), ISN 0971-997
- 5. Wan Hussin W.M.A., Bawadi M.A., Majid, T.A., and Mohd Sanusi S.A., Optimisation and maximization of Energy Yield in Low Wind Speed Regions, The Professional Journal of the Institution of Surveyors Malaysia, 2010, 44(4), 7-11, ISSN 0127-4937
- 6. Wan Hussin W.M.A., Mohd Sanusi S.A and Shamshad A., Development of GUI for Runoff Estimation by SCS Curve Number Method Using Map Objects and Visual Basic, The Professional Journal of the Institution of Surveyors Malaysia, 2010, 45(3), 21-27, ISSN 0127-4937
- Kamar, K.A.M., Hamid, Z.A., Azman, M.N.A., and Ahamad, M.S.S., Industrialized Building System (IBS): Revisiting Issues of Definition and Classification., International Journal of Emerging Sciences, 2011, 1(2), 120-132, ISN 2222-4254
- Mohamed Osman Saeed, Hamidi Abdul Aziz, Mohd. Sanusi S. Ahamad, A Review of Municipal Solid Waste Landfill Siting Techniques., Global Journal Of Environmental Science And Technology, 2011, 2(2), ISN 2248-9630
- M.S.S Ahamad, W.M.A. Wan Hussin and A. Shamshad., Selection of Sustainable Incineration Site for Penang Island Using GIS Boolean and Fuzzy MCE Approach., The Professional Journal of The Institution of Surveyors, Malaysia, 2011, 46(2), 38-44, ISSN 0127-4937
- M.N.A. Azman, M.S.S. Ahamad, W.M.A. Wan Hussin., Comparative Study on Prefabrication Construction Process, International Surveying Research Journal, 2012, 2(1), 45-58, ISSN 2232-1309

## Proceeding (National and International)

(Author),(Year),(Title),(Publisher),(Name Of Proceeding),(Venue),(Number Of Pages)

- 1. Mohd Razip, S. and Mohd Sanusi, S.A., 1989. River Bank Stability Problems Associated With River Sand Mining. Advance Seminar on Economic Mineral Deposits, USM, 21 Jan.
- 2. Mohd Sanusi, S.A., 1999, SMART weighting process for GIS based land suitability analysis, 3rd Annual Seminar on Geoinformation Engineering., ITM Shah Alam, 17 –18 Nov
- 3. Aminuddin, A.G., Shanker, K.S., Mohd Sanusi, S.A., Nor Azazi, Z., Rozi, A., and Ismail, A., 2000, Issues and Practice in Flood Risk Mapping, National Civil Engineering Conference '99, USM, 24 –26 January.
- 4. Mohd Sanusi, S.A., and Hasania A.R., 2000, GIS based Multiple Criteria Evaluation for Site Suitability Analysis. National Civil Engineering Conference '99, USM, 24 –26 January.
- 5. Azida, A., and Mohd Sanusi, S.A., 2000, Land Slides Risk Analysis Using GIS. National Civil Engineering Conference '99, USM, 24 –26 January.
- Mohd Salleh, K., Mohd Sanusi, S.A., and Wan Aminuddin, W.H., 2000, Application of Time Series Analysis in the Land Use and Land Cover Changes in Ipoh, 4th Annual Seminar on Geoinformation Engineering, UPM, 6 –7 Nov.
- 7. Wan Aminuddin, W.H., and Mohd Sanusi, S.A., 2000, Geomatic Education and its Relation to the Civil

engineers in the New Millennium, National Civil Engineering Conference '99, USM, 24 -26 January.

- 8. Mohd Sanusi, S.A., and Wan Aminudiin, W.H., 2000, Optimal Decision Model for Spatial Land Use Allocation, , 4th Annual Seminar on Geoinformation Engineering, UPM, 6 –7 Nov.
- Abdullah, H., Wan Aminuddin, W.H., and Mohd Sanusi, S.A., 2000, Automatic Extraction of Building Structural from Digital Surface Model, 4th Annual Seminar on Geoinformation Engineering, UPM, 6 –7 Nov.
- 10. Sinnakaudan, S., Ab Ghani, A., Mohd Sanusi, S.A., and Zakaria, N., 2001, Integrating GIS with Hydraulic and Sediment Transport Model for Flood Risk Analysis, R&D Colloquium on River Engineering and Urban Drainage, USM, 14-15 August.
- 11. Mohd Sanusi, S.A., Sinnakaudan, S., and Mohamad, G., 2001, Development of Water Utility Management System Using Geographic Information System (GIS), Annual Seminar on Geoinformation, USM, 12 – 13 Nov.
- 12. Mohd Salleh, K., Mohd Sanusi, S.A., and Wan Aminuddin, W.H., 2001, Study of The Land Use and Land Cover changes in Ipoh Using Remote Sensing Technique, Annual Seminar on Geoinformation, USM, 12 –13 Nov.
- 13. Abdullah, H., Wan Aminuddin, W.H., and Mohd Sanusi, S.A., 2001, The Concept of Automatic Extraction of building form Digital Surface Model (DSM)and Digital Elevation Model (DEM), Annual Seminar on Geoinformation, USM, 12 –13 Nov.
- Wan Aminuddin, W.H., Mohd Sanusi, S.A., and Nor Azazi, Z., 2001, Young Land Surveyor and The holistic Approach Towards Stress Management, Annual Seminar on Geoinformation, Penang, USM, 12 –13 Nov.
- 15. Sinnakaudan, S., Ab Ghani, A., Mohd Sanusi, S.A., and Zakaria, N.A., 2001, Development Of an Embedded Hydraulic Model In Geographic Information System For Flood Risk Assessment, MANCID Annual Conference 9th MANCO, Cameron Highlands, Pahang, 12 –13 Nov.
- Sinnakaudan, S., Ab Ghani, A., Chang, C.K., Mohd Sanusi, S.A., and Zakaria, N.A., 2002, Integrated Triangular irregular Network (ITIN) Model for Flood Risk Analysis. Case Study: Pari River, Ipoh, Malaysia, Thirteenth Asia and Pacific Division Congress of International Association of Hydraulic Engineering Research on Hydraulic and Water Resource Engineering in early 21st Century, Singapore, August 6-8
- 17. Ahmad Shamshad, W.N.A, Wan Hussin, and Mohd Sanusi, S.A., 2002, A Holistic Approach Towards Cluster Research in Solid Waste Management Using GPS and GIS, International Symposium and Exhibition on Geoinformation 2002, Kuala Lumpur, October 22-24
- 18. Mohd Sanusi, S.A., and W.M.A., Wan Hussin., 2002, Solving Region Contiguity and Compactness Problem in GIS Based Suitability Analysis, International Symposium and Exhibition on Geoinformation 2002, International Symposium and Exhibition on Geoinformation 2002. Kuala Lumpur, October 22-24.
- 19. Sinnakaudan, S., Ab Ghani, A., Mohd Sanusi, S.A., and Zakaria, N.A., 2002, Accurate Flood Plain Definition for Sustainable flood risk analysis, Second National Civil Engineering Conference 'AWAM 2001', Star Cruses Superstar Gemini, 5-8 February.
- 20. Mohd Sanusi, S.A., Ahmad Farhan, M.S., and Wan Aminuddin, W.H., 2002, Development of Geo-Spatial Database for Transportation Infrastructure, , Second National Civil Engineering Conference -'AWAM 2001', Star Cruses Superstar Gemini, 5-8 February.
- 21. Ahmad Shamshad, W.M.A., Wan Hussin and Mohd Sanusi, S.A., 2003, First-order Markov Chain Approach for Synthetic Generation of Wind Speed Time Series at kuala Terengganu, Malaysia, South Asia Regional Conference on Transition Towards Sustainable Development, 10 –11 Febuary, New Delhi, India.
- 22. Ahmad Shamshad, W.M.A., Wan Hussin and Mohd Sanusi, S.A., 2003, Simulating Wind Speed Data by Stochastic Markov Chain Model, International Conference on Energy and The Environment, May 22-24, Shanghai, China
- 23. Mohd Sanusi, S.A., W.M.A., Wan Hussin and Shamshad Ahmad., 2003, Comparison of Normal AHP and Multiplicative AHP for Criterion weighting in GIS Based Suitability Analysis, International Symposium and Exhibition on Geoinformation, Shah Alam, October 13-14.
- 24. W.M.A., Wan Hussin, Mohd Sanusi, S.A., and S. Akmam S.Z., 2003, Jet Stress and the Flying Land Surveryor, International Symposium and Exhibition on Geoinformation, Shah Alam, October 13-14.
- 25. Shamshad Ahmad, Bawadi M.A., and Mohd Sanusi S.A., 2003, Modelling of Wind Speed Data at Mersing for Forecasting: Box-Jenkins Approach, Proceedings of 2<sup>nd</sup> Annual Seminar on Sustainability Science and Management, Kuala Terengganu, Malaysia.
- 26. Shamshad Ahmad, Bawadi M.A., and Mohd Sanusi S.A., 2003, Stochastic Generation of Hourly Wind Speed Time Series, Proceedings of International Symposium & Exhibition In Renewable Energy Environment Protection & Energy Solution For Sustainable Development, 14 17 September, Msia.
- 27. Shamshad Ahmad, Mohd Sanusi S.A., and Faridah A.H. Asaari., 2003, The Need for Up-to- date

Geospatial Information in the Effective Management of Solid Waste, Proceedings of Environmental Management and Sustainable Development for better Future Growth, Malaysia.

- 28. Shamshad Ahmad, Bawadi M.A., and Mohd Sanusi S.A., 2003, Analysis of Wind Speed Variations and Estimation of Weibull Parameters for Wind Speed Power Generation in Malaysia, Proceedings of The 2<sup>nd</sup> Dubrovnik Conference on Sustainable Development of Energy, Water and Environment Systems, Dubrovnik, Croatia.
- 29. Shamshad Ahmad, Bawadi M.A., and Mohd Sanusi S.A., 2003, Autoregressive Integrated Moving Average Model (ARIMA) For Forecasting Wind Speed, Proceedings of the 3rd International Conference on Advances in Strategic Technologies (ICAST), August 12-14, Kuala Lumpur
- 30. Shamshad Ahmad, Azinabiha Halip, Mohd Sanusi S.A., W.M.A., Wan Hussin., 2004, Role of Geographic Information System (GIS) for Selecting The Residential Site- A Case Study, Proceedings of Third Global Conference on Flexible Systems Management, 13-15 March, New Delhi, India.
- 31. W.M.A., Wan Hussin, Shamshad Ahmad and Mohd Sanusi S.A., 2004, Stress Management and its Relevance to the Performance of Site Engineers and Land Surveyor, Proceedings of Third Global Conference on Flexible Systems Management, 13-15 March, New Delhi, India
- 32. Shamshad Ahmad, W.M.A., Wan Hussin and Mohd Sanusi S.A., 2004, Incineration Site Selection using Multi-Criteria Evaluation in GIS: A Case Study in Penang Island, Malaysia, International Conference on Spatial Planning and Decision Support System 2004, 7-8 Sept 2, UIA, Malaysia
- 33. Shamshad Ahmad, W.M.A, Wan Hussin and Mohd Sanusi S.A., 2004, Comparison of different Data Fusion Approaches for Surface Feature Extraction using QuickBird Images, Geoinformatics for Spatial Infrastructure Development in Earth and Sciences: GIS-IDEAS, 16-18 Sept, Vietnam
- 34. Mohd Sanusi S.A., Ahmad Safuan M.G., W.M.A. Wan Hussin., 2004, Integrated GIS-Based MCE/Fuzzy Approach to Site Selection of New Landfill, Third National Civil Engineering Conference AWAM' 2004, July 20-22, Penang
- 35. Shamshad Ahmad, Mohd Sanusi S.A., W.M.A., Wan Hussin., 2004, Urban Feature Extraction Using QuickBird High Resolution Satellite Image, Third National Civil Engineering Conference AWAM' 2004, July 20-22, Penang
- 36. Mohd Sanusi S.A., Wan Selama W.I., and Meor Othman H., 2004, GIS Application in Road Management System Monitoring for Local Authority, Third National Civil Engineering Conference AWAM' 2004, July 20-22, Penang
- 37. W.M.A. Wan Hussin, Mohd Sanusi S.A., Shamshad Ahmad, and S.A. Syed Zakaria., 2004, Flying Engineers and the Need to Cope with Jet Stress, Third National Civil Engineering Conference AWAM' 2004, July 20-22, Penang
- 38. Mohd Sanusi S.A., and Ramlah A., 2005, GIS Smart Mapping Technique For Urban Spatial Pattern Analysis A Case Study On Nibong Tebal Sub-District, International Symposium and Exhibition on Geoinformation 27-29 September, Batu Feringghi, Penang
- 39. Nejad S.R., Mohd Sanusi S.A., and N.A. Ramli., 2005, Evaluating Air Quality Using Time Series Technique and Elemental Analysis of SPM in Kerman Iran, International Conference On Natural Resources And Environmental Management, 28-30 Nov, Kuching, Sarawak
- 40. Shamshad A., Megat Johari M.A., Wan Hussin W.M.A, Mohd Sanusi S.A., Majid, J.A., 2005, Digital Image Analysis Of Cracks In Concrete, The International Conference on Concrete Repair, Rehabilitation and Retrofitting, 21–23 Nov, Cape Town, South Africa
- 41. Saeid Rezaei Nejad, Nor Azam Ramli and Mohd Sanusi S.A., 2005, Using GIS As Tool In Air Pollution Study In Kerman, Iran, International Symposium and Exhibition on Geoinformation 27-29 September, Batu Feringghi, Penang
- 42. Shamshad, M.N. Azahari, M.H. Isa, W.M.A. Wan Hussin and Mohd Sanusi S.A, 2005, Rainfall Erosivity Mapping From Limited Pluviographic Data In a Part of Peninsular Malaysia, International Symposium and Exhibition on Geoinformation 27-29 September, Batu Feringghi, Penang
- 43. Mohd Sanusi S.A., Shamshad A., Wan Hussin W.M.A., 2005, The Sensitivity of AHP Weighting As Applied in GIS/MCE Land Suitability Model, International Symposium and Exhibition on Geoinformation 27-29 September, Batu Feringghi, Penang
- 44. Mohd Sanusi S.A., Shamshad A., W.H. Wan Ibrahim, Wan Hussin W.M.A., 2006, Layout Error Analysis By Comparing Architectural Plan With "As Built Map" Derived From Satellite Image, International Symposium & Exhibition on Geoinformation ISG06, 19-21 Sept, Shah Alam
- 45. Mohd Nordin Adlan, Hamidi Abdul Aziz, Faridah A.H. Assari, Kamar Shah Ariffin, Mohd Sanusi S.A., Hasmarini Muhammad and Ramlah Ahmad., 2006, A Study on Water Quality and Sludge Characteristic at Harapan Lake, Universiti Sains Malaysia, Asian-Pacific Regional Conference on Practical Environmental Technologies, 3rd August, Manila
- 46. Shamshad A., Wan Hussin W.M.A., Mohd Sanusi S.A., 2006, Development of GUI For Runoff Estimation By SCS Curve Number Method Using MapObjects And Visual Basic, International Symposium & Exhibition on Geoinformation ISG06, 19-21 Sept, Shah Alam

- 47. Ramlah A., Shamshad A., and Mohd Sanusi S.A., 2006, Effect of Pixel Sizes on Slope Length (LS) Factor for Soil Erosion by RUSLE, International Symposium & Exhibition on Geoinformation ISG06, 19-21 Sept, Shah Alam
- 48. Shamshad A., Seiong N.P, Azahari M.N.A, M.H. Isa, Mohd Sanusi S.A., Wan Hussin W.M.A, 2006, Evaluation the Relationship Between Land Use and Surface Water Quality in Seberang Perai Selatan Penang, International Conference on Environment (ICENV 2006), 13-15 Nov, Batu Feringghi, Penang
- 49. Ramlah A., Shamshad A., and Mohd Sanusi S.A., 2006, Application of Annualized Agricultural Non-Point Source (AnnAGNPS) Pollution Model to Study the Effect of Catchment Characteristics on River Water, University Colloquium, Universiti Sains Malaysia
- Shamshad A., Leow, C.S., Ramlah, A., Mohd Sanusi, S.A., Wan Hussin, W.M.A., 2007, AnnAGNPS as Watershed Non-Point Source Pollution Assessment Tool In Malaysia, 7th International River Engineering Conference, Shahid Chamran University, 13 - 15 Feb, Iran
- 51. Mohd Sanusi S.A and W.M.A Wan Hussin, 2007, Kajian Kesan Pembuat Keputusan Dalam Analisis Kesesuaian Tapak Bantuan GIS, Prosiding Kebangsaan Awam '07, 29-31 Mei, Langkawi, Kedah
- 52. W.M.A, Wan Hussin and Mohd Sanusi, S.A., 2007, Engineers and Sunny Stress Management, Prosiding Kebangsaan Awam '07, 29-31 Mei, Langkawi, Kedah
- 53. Fauziah, A., Shabri L.D., and Mohd Sanusi S.A., 2007, Landslide Hazard Zonation for Paya Terubung-Relau Slope Terrains In Penang Island, Proceeding of 28th Asian Conference on Remote Sensing (ACRS 2007), 12-16 Nov, Kuala Lumpur
- 54. Rabie Ali Hussein, Aminuddin Ab. Ghani, Nor Azazi Zakaria, Mohd Sanusi S.Ahmad and Zorkeflee Abu Hassan., 2007, Modeling Floodplain Inundation by Integration of Hydrological With Hydraulic Model, Case Study: Muda River, Kedah, 2nd International Conference on Managing Rivers in 21st Century: Solutions towards Sustainable River Basins (Rivers'07), 6-8 June, Kuching, Sarawak, Malaysia, pp. 243-248, ISBN: 9789833067190.
- 55. Mohd Sanusi S.A, Rabiah A., 2008, Improved Hierarchical Criterion Weighting For GIS-Multiple Criteria Site Suitability Model, The 1<sup>st</sup> ASEAN Civil Engineering Conference: Civil Engineering Innovations for Regional Development, 3-5 December, Pataya, Thailand
- 56. Saeed M., Mohd Sanusi S.A., & Hamidi A., 2008, Geographic Information System (GIS) Components for Deriving Sanitary Landfill Site Weighting Criteria, International Conference on Environment (ICENV 08), 15-17 December, Penang, Malaysia
- 57. M. N. Azhari A., Mohd Sanusi S.A.; and M. Hanizun H, 2009, A Conceptual Approach of Spatial Site Selection for Industrialised Building System Manufacturing Plant: Case Study in Pulau Pinang, The 3rd International Conference on Bulit Environment in Developing Countries, 2-3 December, USM Penang
- 58. Azlan Y., Mohd Sanusi S.A., and Mohd Fadzil A., 2009, EDM Calibration Test Using Mirror Reflection Distance Technique, National Postgraduate Conference, 25-26 March, Universiti Teknologi Petronas, Perak.
- 59. Azlan Y., Mohd Sanusi S. A. and Mohd Fadzil A, 2009, Proposed Test Site for Infrared Wave and Visible Wave EDM's, International Symposium and Exhibition on Geoinformation, 10-11 August, The Crown Princess Hotel, KL
- 60. Azlan Y., Mohd Sanusi S. A. and Mohd Fadzil A, 2009, Cadangan Tapak Ujian EDM Gelombang Inframerah dan Gelombang Nampak, The National Conference on Civil Engineering AWAM' 09, USM, 27-29 October, Corus Hotel, Kuala Lumpur
- 61. Mohd Sanusi S. Ahamad and Rabiah Ahmad, 2009, Converting Categorical Data into Quantitative Map For GIS Based Suitability Model, The National Conference on Civil Engineering AWAM' 09, USM, 27-29 October, Corus Hotel, Kuala Lumpur
- 62. M. N. Azhari A., Mohd Sanusi S.A.; and M. Hanizun H, 2009, Conceptual Spatial Site Selection for One Stop Centre for Industrialized Building System Manufacturing Plant in Pulau Pinang, The National Conference on Civil Engineering AWAM' 09, USM, 27-29 October, Corus Hotel, Kuala Lumpur
- 63. Mohamed Osman Saeed, Mohd Sanusi S. Ahamad and Hamidi Abdul Aziz, 2009, Decision Making Survey Application for Siting New Sanitary landfill in Malaysia, The National Conference on Civil Engineering AWAM' 09, USM, 27-29 October, Corus Hotel, Kuala Lumpur
- 64. Mohamed Osman Saeed, Mohd Sanusi S. Ahamad and Hamidi Abdul Aziz, 2009, Decision Making Survey Application for Siting New Sanitary landfill in Malaysia, Symposium of USM Fellowship Holders, 14 -15 Nov, Penang
- 65. Mohamed Osman Saeed, Mohd Sanusi S. Ahamad and Hamidi Abdul Aziz, 2009, The Landfill Technologies: Challenge and Trends, The 2nd Kuwait Waste Management Conference, 14-16 April, Radisson SAS Hotel, Kuwait
- 66. Shahid Kabir, M.B. Hasanat, W.M.A Wan Hussin and A.M. Sanusi, 2010, Historical Significance of Strategic Location of Umayyad Desert Palaces, First International Conference for Urban & Architecture Heritage in Islamic Countries, 23-28 May, King Faisal Conference Hall, Riyadh

Intercontinental Hotel Riyadh, Kingdom of Saudi Arabia

- 67. Majid, T.A., Azaman, M.N.Z., S.A.S., Zaini. S.S., Yahya, A.S. and Mohd Sanusi S.A., 2010, The Industrialized Building System (IBS) Survey Report 2008 Educating the Malaysian Construction Industry, 2nd International Conference on Computer Research and Development. ICCRD-IEEE, 7-10 May, Kuala Lumpur, Malaysia, 615-619
- Azman, M.N.A., Mohd Sanusi, S.A., M.N.A Majid, Abdullah, Z.A., & Hanafi, M.H., 2010, A Study on The Industrialized Building System (IBS) In Malaysia Toward Globalizing Construction Industry, The 3rd International Conference on Engineering & Gaza Reconstruction, 10-11 October, Islamic University Gaza
- 69. Azman, M.N.A., Ahamad, M.S.S., Majid, T.A. and Hanafi, M.H., 2010, Perspective of Malaysian Industrial Building System on The Modern Method of Construction, The 11th Asian Pacific Industrial Engineering And Management System Conference (APIEM), 7-10 December, Melaka
- 70. Azman, M.N.A., Ahamad, M.S.S., Majid, T.A., and Hanafi, M.H., 2010, Off-Site Construction Industry: The Common Pattern, The 4th International Conference on Built Environment in Developing Country, 2-3 December, USM Penang
- 71. Mohamed Osman Saeed, Mohd. Sanusi S. Ahamad and Hamidi Abdul Aziz., 2010, Potential Forecasting of Solid Waste Generation (SWG) During The Pilgrimage Season in Makkah, Arab Saudi, 4th National Seminar on Haji Best Practices Through Advances in Sciences and Technology, 27-29 July, Eastin Hotel, Penang
- 72. Mohamed Osman Saeed, Mohd Sanusi S. Ahamad, Hamidi Abdul Aziz., 2010, Preliminary Assessment of Landfill's Criteria And Town Planning, International Conference on Environment 2010 (ICENV 2010), 13 -15 December, Park Royal Hotel, Penang
- 73. M.N.A. Azman, M.S.S Ahamad, T.A. Majid, M.H. Hanafi, 2011, Permanent and Mobile Industrialised Building System Manufacturing Plant Based on Malaysian Case, 2nd World Conference on Information Technology, 24-27 November, East University & Bahcesehir University, Antalya, Turkey
- 74. M.S.S Ahamad and S.Z. Ahmad, 2011, Landfill Site Selection and Evaluation Applying Different Guidelines and Policies for Municipal Solid Waste (MSW), The 4th ASEAN Environmental Engineering Conference, 22-23 November, Yogyakarta, Indonesia
- 75. Siti Zubaidah Ahmad, Mohd Sanusi S. Ahamad & Wan Aminuddin Wan Hussin, 2011, Comparative Site Selection Process Based On Different Policies and Guidelines For Municipal Solid Waste Landfill Site, 10th International symposium & Exhibition on Geoinformation (ISG2011)and ISPRS 2011, 27 29 September, Shah Alam Convention Centre
- 76. Siti Zubaidah Ahmad, Mohd Sanusi S. Ahamad, Mohamad Yusry Abu Bakar, 2011, Application of GIS in Extracting Spatial Criteria From Existing Landfill Site, 11th SEASC & 13th ISC, 22 24 June, Putra World Trade Center
- 77. S.Z. Ahmad and M.S.S. Ahamad., 2011, A Vector to Raster Data Conversion on Different GIS Platform, 2nd Civil Engineering Colloquium (CEC2011), School of Civil Engineering USM, Nibong Tebal, Penang
- 78. Hilmi, N.D., Ahamad, M.S.S. and Hussin, W.M.A.W., 2012, Landslide Susceptibility Mapping using Causative Factors Weighting A case study on Bukit Paya Terubong, AWAM International Conference on Civil Engineering (AICCE12), 28 -30 August, Park Royal Penang Resort, Penang, Malaysia
- 79. Ahmad, S.Z., Ahamad, M.S.S., and Yusoff, M.S., 2012, Landfill Site Selection Using GIS-MCE Constraint Mapping Technique, AWAM International Conference on Civil Engineering (AICCE12), 28 30 August, Park Royal Penang Resort, Penang, Malaysia

#### **1.3 Publication Related to Teaching**

#### **Teaching Book**

(Authors),(Year),(Title),(Publisher),(Number Of Pages)

- Mohd Sanusi S. Ahamad, 2006, Topic 3 Surveying and Site Investigation (in Highway and Traffic Engineering EBVT4103), Faculty of Engineering and Technical Studies, Open University Malaysia (OUM), 24-37
- 2. Mohd Sanusi S. Ahamad and Shamshad Ahmad, 2007, Geomatic Engineering EDVG2103 (7 Topics), Faculty of Engineering and Technical Studies, Open University Malaysia (OUM), 128 pages

#### **Teaching Modules**

(Authors),(Year),(Title),(Publisher),(Number Of Pages)

- 1. Mohd Sanusi S. Ahamad , 1998-2003, Engineering Surveying II (EAA 233/3) School of Civil Engineering USM
- Mohd Sanusi S. Ahamad, 1998-2001, Geographic Information Systems (EAA 502/4) School of Civil Engineering USM

- Mohd Sanusi S. Ahamad, 1998-2001, Management Information Systems (EAA 362/2) School of Civil Engineering USM
- 4. Mohd Sanusi S. Ahamad, 2004-2012, Geomatic Engineering (EAK 263/4), School of Civil Engineering USM
- 5. Mohd Sanusi S. Ahamad, 2004-2012, Geographic Information System (EAK 465/2), School of Civil Engineering USM
- 6. Mohd Sanusi S. Ahamad and Wan Muhd Aminuddin Wan Hussin, 1999- 2012, Manual for Annual Intensive Geomatic Practical (IGP). School Of Civil Engineering USM

#### 1.4 Other Publication

### Report - Technical

(Authors),(Year),(Title),(Publisher),(Number Of Pages)

- 1. Mohd Sanusi S.A., 1989, Technical Report on Study Visit to South Australia Institute of Technology submitted to Australian International Development Program (AIDP)
- Mohd Sanusi S.A., 1993, Technical Report on Study Visit to University of New South Wales, University Canberra, and James Cook University, Australia submitted to Australian International Development Program (AIDP)
- 3. Mohd Sanusi S. Ahamad, 2005, Development of Program Educational Objectives and Outcomes for Outcomes Based Education, OBE Workshop for Engineering Campus, Bukit Merah Lake Town Resort
- 4. Mohd Sanusi and Ahmad Shukri Yahya, 2008, Program Bachelor of Civil Engineering Self-Study Report, Submitted to BEM for EAC Accreditation, 250 pages
- 5. Mohd Sanusi S. Ahamad, 2008, Course Detail Information for Bachelor Of Civil Engineering Programme, Submitted to BEM for EAC Accreditation, 65 pages
- 6. Mohd Sanusi S. Ahamad and Wan Muhd Aminuddin Wan Hussin, 2010, Formation of Geomatic Accreditation Council GAC, GLS/ISM Workshop on the Future Role of Surveyor, RISM, 25 pages

## 1.5 Book

### **Research Book**

(Authors),(Year),(Title),(Publisher),(Number Of Pages)

- A. Ab Ghani, N. A. Zakaria, R. Abdullah, and M. S. S. Ahamad, 2005, Review of Rivers' 04 Proceedings of the 1st International Conference on Managing Rivers in the 21st Century: Issues and Challenges. Journal Of Hydraulic Engineering © ASCE / November 2005, REDAC, Engineering Campus, Universiti Sains Malaysia, ISBN: 983-3067-08-5
- 2. Azman, M.N.A., Ahamad, M.S.S., and Ahmad, S., 2011, Non- Point Source Pollution with GIS, Lambert Academic Publishing, 125 pages, ISBN:978-3-844-1821-0

#### Monograph

(Authors),(Year),(Title),(Publisher),(Number Of Pages)

- 1. Mohd Sanusi S.A., 1998, An Integrated Model for Land Use Allocation Planning: A Case Study of Residential Land Use in Malaysia, Unpublished Phd Thesis, 380 Pages, University of Nottingham, United Kingdom
- 2. Mohd Sanusi, S.A., 1996, Multiple Criteria Complementary Objective Decision Making for Land Allocation Study, Unpublished MSc. Thesis, 250 pages, University of Nottingham, United Kingdom

## 2.0 TEACHING AND SUPERVISION

## 2.1 Graduate Teaching

(Course Title),(Semester),(Year),(Number of Lecturers),(Number of Students)

- 1. EAP584/4 Environment Impact Assessment (EIA), Semester I, 2008 -2012, 5 Lecturers, 10 15 Students
- EAA502/4 Geographic Information Systems (GIS), Semester I, 1998 2002, 2 Lecturers, 10 -15 students

#### 2.2 Undergraduate Teaching

(Course Title),(Semester),(Year),(Number of Lecturers),(Number of Students)

- 1. CIVIL ENGINEERING DRAWING , EAA110
- 2. CIVIL ENGINEERING PRACTICE , EAA273
- 3. INDUSTRIAL TRAINING ,EAA371
- 4. COMPUTATION AND PROBLEM SOLVING IN CIVIL ENGINEERING , EAA393

- 5. FINAL YEAR PROJECT , EAA492
- 6. GEOMATICS ENGINEERING ,EAK261
- 7. GEOMATICS ENGINEERING LABORATORY ,EAK262
- 8. GEOMATICS ENGINEERING ,EAK263
- 9. ADVANCED GEOMATIC ENGINEERING ,EAK462
- 10. GEOGRAPHIC INFORMATION SYSTEM ,EAK465

#### 2.3 Graduate Supervision

## (Student Name),(Category),(Thesis Title),(Year Graduated)

## GRADUATED [Main Supervision]

- 1. Mohd Salleh Khallidin, (MSc. Research), Land Use Change Detection using Time Series Analysis A case study on Ipoh urban landuse pattern. Graduated 2003
- Mohamed Nor Azhari Azman, (MSc. Research), Development of Spatial Procedure Rusle EI30 Index and Validation of AGNPS Model for Pulau Pinang, Graduated 2009
- 3. Azlan Yahya, (MSc. Research), EDM Test Using Mirror Reflection Distance Technique, Graduated 2010
- 4. Siti Zubaidah Bt. Ahmad, (MSc. Research), Spatial Analytical Study on the Effect of Municipal Solid Waste Landfill Siting Using Different Guidelines, Graduated 2012
- 5. Mohamed Osman Saeed , (PhD. Research), Assessment of Standard Landfill Criteria for Planning of New Landfill Sites, Graduated 2012
- 6. Mohamed Nor Azhari Azman, (PhD. Research), Spatial Statistical Modelling On The Selection Of Industrialised Building System Manufacturing Plant, Graduated 2012

#### GRADUATED [CO-Supervision]

- 7. Mohd Harith Fadillah, (MSc. Research), Development of School Infrastructure Information System for Ipoh District Using GIS, Graduated 2001
- 8. Shanker Kumar A/I Sinnakaudan, (PhD. Research), Hydraulic Modeling and Flood Risk Analysis in GIS Incorporating Sediment Transport for Rivers in Malaysia. Graduated 2004
- 9. Mahyun Bt. Abd. Wahab, (MSc. Research), Urban Drainage Design Using GIS. Graduated 2006,
- Rabie A. A. Hussein, (PhD. Research), Flood hazard and risk assessment through incorporating of GIS with Hydrodynamic Modelling: Case study of Muda River, Graduated 2010
  Hong Yong Fu, (MSc. Mix-Mode), Spatial Inventory of Benzene for Different Development Statuses in Penang Island, Graduated 2010
- 11. Saeid Rezaei Nejad, (MSc. Mix-Mode), Application of GIS as a Tool in Air Quality Monitoring In Kerman City, Iran, Graduated 2005

### ON GOING [Main Supervision]

- 12. Zubeida Ali Barakat Al Adwan, (MSc. Research), Development of Spatial Analytical Model for Building Vulnerability Assessment of Nibong Tebal, Penang, 2010 -
- 13. Najat Qader Omar, (PhD. Reseach), Modelling Urban-Cellular Automata Using Regression Base MCE-AHP, 2010-
- 14. Azlan Bin Yahya, (Phd, Research), Rekabentuk Ujian EDM Gelombang Inframerah (Infrared) Dan Gelombang Nampak (Visible) Menggunakan Teknik Pantulan Cermin, 2010 -
- 15. Mohamad Yusri Bin Abu Bakar, (PhD. Research), Deriving Spatial Mathematical Regression Model for Sustainable Landfill Site Case Northen Region Malaysia, 2010 -
- Ramli Bin Mohd Razak, (MSc. Research), Analysis on Regional Distribution Of Accidents, Seberang Perai Selatan, Pulau Pinang: Accident Prediction Model Development Using Geographic Information System (GIS), 2009 -
- 17. Nur Diyana Binti Hilmi, (MSc. Research), Development of Spatial Multiple Criteria Facility Location Model for Selecting Industrial or Manufacturing Sites, 2012 -
- 18. Siti Zubaidah Bt. Ahmad, (PhD. Research), Development of An Optimal Sustainable Landfill Siting Model Based on the Spatial Characteristics of Present Landfills, 2013 -
- 19. Siti Noratikah Binti Che Deraman, (MSc. Dissertation Mixed Mode), Spatial Wind Modelling, 2013 **ON GOING [Co-Supervision]**

#### 20. Mahmoud Bashir Alhasanat, (PhD. Research), Assessment of Ground Penetrating Radar (GPR) Images And The Determination of Utility Sizes For Underground Utility Mapping, 2010 -

- 21. Mohammad Almasinia, (PhD. Research), Determination of flow direction of pipeline in water distribution network, 2012-
- 22. Adrian Lim Hooi Jin, (PhD Research), Automatic Image Processing and Classification Techniques in Remote Sensing Approach, 2008-

23. Nasser Mohamad Al-Naamani, (MSc. Research), Using GIS/R.Sensing in Natural Pasture Study in Oman, 2012-

### 2.4 Undergraduate Supervision

(Student Name), (Year Graduated), (Thesis/Project Title)

- 1. Azinoor Azida bt. Abu Bakar. 2001, Land Slide Risk Analysis and Modelling along Paya Terubung Road Side Penang
- 2. Haslina bt. Amer. 2000,GIS Based Suitability Analysis for Solid Waste Disposal Site in Penang.
- 3. Norliza bt. Kamaludin. 2000, Water Quality Study on Ex Mining Pond Using GIS Technique
- 4. Hasania bt. Abdul Rahman. 2000, GIS Based Multiple Criteria Analysis for Residential Settlement in Penang
- 5. Muhammad Tajuddin b. Taib. 2000, Slope Evaluation Study Using Digital Elevation Model for Penang Hill
- 6. Nadzrina bt. Md. Rozi. 2000, Multiple Criteria Evaluation Technique for Industrial Site Selection.
- 7. Izaidi b. Ahmad. 2001, Optimal Route Analysis Using GIS
- 8. Meor Burhan Shuhdy. 2001, Digital Topographic Mapping Using AutoCad and Satellite Data.
- 9. Safwan Fakhrin Mohd. 2001, Development of Topological Spatial Data for Ipoh Municipality Using CAD/GIS Integration.
- 10. Hamizi b. Hamdan. 2001, Development of Spatial Data Base for EIA Study Using GIS.
- 11. Suzilawati bt. Hussin. 2001, GIS Based Suitability Analysis for Existing Land Fill Area in Papan Ipoh.
- 12. Suhailah bt. Mohamed Noor. 2001, Development of Optimum Residential Allocation Decision Support System.
- 13. Fazlina bt. Mohd Kassim. 2001, Optimal Settlement Analysis for USM Staff Using GIS based Decisions.
- 14. Latifah Noor Hikmah bt. Mislan. 2003, Design of GIS Database System for Bio-ecological Drainage using Autocad/ArcView Integration
- 15. Ridzwan b. Che Mohamad Hadzir. 2002, Study of Illegal Forest Reserve Exploitation Using GIS in Penang
- 16. Noor Faizah Fitri Md Yusof. 2003, Spatial Analysis Tools For Management of Solid Waste in Penang Island
- 17. Azianabiha A. Halip @ Khalid. 2003, Site Suitability Analysis For Residential Development using GIS In Seberang Perai Tengah
- Jannatul Naemah Mohamed Sedek. Role of GIS In Solid Waste Management: A Case Study Of Seberang Perai Tengah
- 19. Khairul Fiza Kamal. 2003, Impact of Landuse Change and Urban Growth on Environment : A Case Study of Penang Island
- 20. Heirolnizam Hairani. 2003, Pemetaan Bunyi Menggunakan GIS Untuk Beberapa Lokasi Terpilih Di parit Buntar
- 21. Mohd Shamsul Nizam b. Shaharom & Irwan Hadi b. Ibrahim, 2004, Penghasilan "As Build Lay-out Map" for USM Kampus Kejuruteraan menggunakan 'Integrated CAD' dengan 'High Resolution Satellite Image".
- 22. Idawati bt. Khirudin. 2004, Pemetaan Infrastruktur Kawasan Bandar Menggunakan Integrasi Teknik GIS/Remote Sensing.
- 23. Ramlah bt. Ahmad. 2004, Pengunaan GIS dalam Pemetaan Jalan dan Analisis Lalulintas untuk Bandar Parit Buntar Perak.
- 24. Mohd Faizul b. Sanusi. 2004, Analisis Kesesuaian Tapak Untuk Loji Rawatan/Olahan Air Sisa Menggunakan GIS
- 25. Mohd Ozairiee Abdul Aziz, 2005, Layout Error Analysis: Comparing As-Built Building with Satellite Image
- 26. Nooraishah Abdullah, 2005. Development of Digital Imaging Technique for Mapping Concrete Cracks
- 27. Tengku Noor Arbaee Tg. Azhar, 2005. Development of Automated Road feautre Extraction from High Resolution Satellite.
- 28. Alifah Binti Ahmad Sabrey, 2007, A Study on Outcome-Based Education (OBE) in Civil Engineering Curriculum

- 29. Mohd Fathhi Bin Mohd Radzi, 2007, Penyelesaian Masalah untuk Peta Digital bagi Kawasan Taman Pekaka, Seberang Prai Selatan.
- 30. Suhana Bt. Mohamad Razak, 2007, Membangunkan satu Teknik Pengurusan Keputusan dalam Menentukan Kawasan Industri Primari/Utama di Kawasan Seberang Perai Selatan (SPS)
- 31. Nik Asma ' Rabihah Nik Ab Rahman, 2008, GIS Site Suitability Analysis For The Location Of A Sustainable Health Centre
- 32. Siti Zubaidah Ahmad, 2009 , Development of GIS Pavement Management Database System for Parit Buntar Town
- 33. Nor Azian Bt. Mohd Yusof, 2009, Traffic Sign Management System
- 34. Bryan Rody, 2009, Optimisation in suitability model
- 35. Nadia Balqis Bt Abdul Aziz, 2010, GIS Based Site Suitability Modeling For Commercial Franchise Fast Food Outlet
- 36. Nur Diyana Bt Hilmi, 2010, Application of GIS and Analytic Hierarchical Process, (AHP) In Landslide Susceptibility Mapping
- 37. Mashita Bt Sahrom, 2010, Rainfall Runoff Modelling Using GIS
- 38. Siti Noratikah Binti Che Deraman, 2011, GIS Wi-Fi STRENGTH MAPPING WITHIN USM Engineering Campus
- 39. Nurul Ain Bt Abd Wahab, 2011, Surface Temperature Mapping Of USM Engineering Campus-Applying Portable Thermal Infrared Camera With GIS Analysis
- 40. Jebat Bin Bakar, 2011, Assessment of Road Traffic Related Accident using GIS
- 41. Hasnita bt. Mohamaddiah, 2012, Analysis And Surface Modelling Of Concrete Wall Cracks Using Combined Thermal Infra-Red And Digital Camera
- 42. Nur Adlina bt. Md Razif, 2012, Combined Thermal And Digital Photography In Mapping And Analysing Pavement Cracks

## 2.5 Professional Service

#### CONSULTANCY

- 1. Development of Civil Engineering Program and Curriculum for Universiti Teknologi Petronas, 1999 (Geomatics Curriculum) (RM 320,000.00)
- Development of Civil Engineering Laboratory for Universiti Teknologi Petronas, 1999/2000 (Geomatics Laboratory) (RM1.6 million)
- 3. Feasibility Study and Detail Design of Flood Mitigation and Drainage Improvement in Valdor, Seberang Perai P. Pinang, (1/7/99 31/12/99). (RM220,969.00).
- 4. Usage of Bio-Ecological Drainage System in Malaysia, (Sept 2000 Feb. 2003). (RM886,151.76)
- 5. Study On The Sediment Load From River Kinta Catchment and Its Implication on The Proposed Sungai Kinta Dam (Proposal Submitted to Perak Water Board in August 2003). (RM230,00.00).
- 6. Kajian Pengumpulan Data dan Analisis Endapan Sungai, 2003 (Co-Member for REDAC)
- 7. Investigation of the stability of the Clock Tower Building Teluk Intan, Perak for Perak Hilir District Council (1991 1992). (RM 10,000.00)
- 8. Soil investigation for the siting of Electric Power Station (Phase I and Phase II), Yan, Kedah for Tenaga Nasional Berhad. (1992). (RM 10,000.00)
- 9. Setting out Building and Topographic Survey of USM Archeological Research Center, Lenggong Perak. (2002/2003).
- 10. Proposed Improvement On Water Quality for Lake of Desa Harapan USM. (2003).
- 11. Slope Stability and Mitigation Study on Desa RST (Restu, Saujana dan Tekun) USM (2004)

#### PAPERWORK PRESENTATION

(Title),(Venue),(Duration),(Level)

- 1. GIS activities in the Engineering Campus USM, CENPRIS USM, 18-19 July 2008, University
- 2. Continuous Quality Assessment (CQI)for Outcome Based Education in School of Civil Engineering, Bukit Jawi Golf Resort, 20- 21 May 2009, University
- 3. Course Outcome Assessment and CQI in the School of Civil Engineering, Bukit Merah Lake Town Resort, 22-June 2009, University

- Writing the course outcomes based on Bloom's Taxonomy, Tanjung Bungah Hotel, Pulau Pinang, 31<sup>St</sup> July 2<sup>nd</sup> August 2009, University
- Landfill Site Selection and Evaluation Applying Different Guidelines and Policies for Municipal Solid Waste (MSW), Yogyakarta, Indonesia, 22- 23 Nov 2011, International
- 6. Research Colloquium-Northern Zone 2012, Politeknik Seberang Perai P.Pinang, 4 July 2012, National

## ACADEMIC RECOGNITION AND LEADERSHIP

## Academic Awards

(Name of Award), (Awarding Institution), (Year), (Level)

- 1. The Excellence in Engineering Research Award 2004. The Yayasan of Perak, National
- 2. Accolades Award- Journal Publication, USM, 2009, International
- 3. ISM Excellence Award 2010 Best Article on Surveying, Institution of Surveyors Malaysia, 2009/2010, National
- 4. ISM Excellence Award 2011 Best Article on Surveying, Institution of Surveyors Malaysia, 2010/2011, National

## Awards/Recognition

(Name of Award), (Product), (Organiser), (Event), (Venue), (Date), (Level)

- 1. Excellence Service Award, USM, 2007, University
- 2. Services Award, Service Contribution Towards USM,2012, University

## Chairman

(Title),(Event),(Organiser),(Year),(Level)

- 1. Chairman, Committee for School Of Civil Engineering Web Page, School of Civil Engineering USM, 2001
- 2. Chairman, Committee for Laboratory and Inventory, School of Civil Engineering USM, (2003 2005)
- 3. Chairman, Committee for Final Year Project, School of Civil Engineering USM, (2003 2005)
- 4. Chairman, USM Professorial Talk Event, USM, 2008
- 5. Session Chairman, 10th International Symposium & Exhibition on Geoinformation 2011, Universiti Teknologi Mara, 2011, International
- 6. Session Chairperson for International Conference (AICCE'12), AICCE' 12 International Conference, School of Civil Engineering, 2012, International
- Viva Session Chairman, Institute of Postgraduate Studies, Chairing MSc. Viva for USM, (2011 2012)

## **Invited Speaker**

(Title),(Event),(Organiser),(Organiser),(Year),(Level)

- 1. Landfill Site Selection and Evaluation Applying Different Guidelines and Policies for Municipal Solid Waste (MSW), The 4th ASEAN Environmental Engineering Conference, 22-23 November, Yogyakarta, Indonesia
- 2. Improved Hierarchical Criterion Weighting For GIS-Multiple Criteria Site Suitability Model, The 1st ASEAN Civil Engineering Conference: Civil Engineering Innovations for Regional Development, 3-5 December, Pataya, Thailand
- Prescriptive Modelling for Optimal Land Fill Site Management, The 2<sup>nd</sup> Workshop on International Federation of Surveyors (FIG 2014) Research Initiatives, 4 – 6 January 2013, Hotel Mahkota Melaka

## Assessor/ Member of a Panel Discussion / Forum

(Activity),(Organisation),(Role),(From)-(Until),(Level)

- 1. Technical Committee for MRSS 6th International Remote Sensing & GIS Conference and Exhibition 2009, University
- 2. Technical Paper Assessor for International Engineering for Sustainability Conference (INESCO 2011), USM, International
- 3. Referee for Technical Paper in "National Geomatics/Geoinformatic Students Innovation Competition 2012, National
- 4. Panel Advisory on Academic Program for Politeknik Tuanku Sultanah Bahiyah Kulim Kedah, 2012, National

## **Editorial Board**

## (Title),(Jurnal),(Year),(Level)

- 1. Editor in Geomatics Paper, Proceedings of the National Civil Engineering Conference '99 USM, 1999, National
- 2. Editor, Proceedings of the International Conference on Managing Rivers In The 21St Century: Issues and Challenges, REDAC USM, 2004, International
- 3. Editor in Geomatics Paper, Proceedings of the Third National Civil Engineering Conference –AWAM' 2004, USM, National
- 4. Conference Manager/Editor, 4th International Symposium on Geo-Spatial Information, 2005, Penang, International
- 5. Associate Editor, IST Press for IST Journals, 2008, International
- 6. Editorial Manager, Water Science and Technology, (2011-2012), International

## Member in Professional / Academic Associations

(Organisation), (Membership), (Year), (Level)

- 1. Member of the GIS and Remote Sensing Research Cluster Group, USM (2004 Present), University
- 2. Member of the Waste Management Research Cluster Group, USM (2010 Present), University
- 3. Member of Surveying and Mapping Graduates Society, Malaysia (1989 2002), National
- 4. Member of International Research Group on Geographic Information and Multiple Criteria Decision Analysis (GIMDA) (1997- Present), International
- 5. Member of National Committee of Geomatic Academicians (NCGA) (2001- 2003), National
- 6. Member of the International Technical Committee for "Geographical Information Systems ISO/TC 211" SIRIM Berhad (2003), National
- 7. Member of the National Remote Sensing Committee (2003), National
- 8. Member of the University of Nottingham Alumni (1998 Present), International
- 9. Full Member of The Royal Institution of Surveyors, Malaysia (RMISM, (2003- present), National
- 10. USM Representative for Land Surveyor Section, National Board of Land Surveyor Malaysia (GLS) (2003- Present), National
- 11. Steering Committee for International Symposium and Exhibition on Geoinformation, (2004 Present), International
- 12. Member of the Concrete Society of Malaysia, (2011 Present), National

## **Reviewing Articles in Academic Journals / Assessor of Working Papers / Reviewing Books** (*Title of Journal*),(*Name of Journal*),(*Editor*),(*Year*)

- 1. Integrated Solid Waste Management using Geographical Information Systems (GIS) for Alandur Municipality in South Chennai, India, International Journal of Environment and Waste Management, Dr. Hamidi A. Aziz, Editor in Chief, 2008
- 2. Apicultural Site Zonation Using GIS and MCDA, PERTANIKA Journal, Nayan Deep S. Kanwal, Executive Editor, 2008
- 3. Non-Taylor Series Based Positioning Method for Location Based Services, Journal of Information and Communication Technology, Prof. Dr. Ku Ruhana, Chief Editor, 2008
- 4. Simulating urban growth on the U.S.- Mexico border: Nogales, Arizona and Nogales, Sonora, The Canadian Journal of Remote Sensing, Dr. Nicholas Coops, Editor in Chief, 2009
- 5. A Combined Hydrologic and Hydraulic Modeling Approach for Testing Efficiency Of Structural Flood Control Measures, International Journal of Natural Hazards, Dr. V. Schenk, Editor in Chief, 2009
- 6 Pipeline Alignment Optimization: Automated GIS-Based Approach, Journal of Pipeline Systems -Engineering and Practice, Hazi Mohammad Azamathulla, Associate Editor, 2010
- 7 Study of Regional Monsoonal Effects on Landslide Hazard Zonation in Cameron Highlands Malaysia, Arabian Journal of Geosciences, Prof. Abdullah M. Al-Amri, Editor in Chief, 2010
- 8. GIS-Based Analytic Hierarchy Process as a Multi-Criteria Analysis Instrument, The Arabian International of Geosciences, Prof. Dr. Wael Abdel Kawy, Associate Editor, 2011
- 9. Multi-Criteria Decision Aid Approach for the Selection of the best Compromise Management Scheme - International Journal of Environment and Waste Management, International Journal of Environment and Waste Management, Dr. Hamidi A. Aziz, Editor in Chief, 2011
- 10. Fragmentation Issue in Malaysian Industrialised Building System (IBS) Projects, Journal of Engineering Science and Technology (JESTEC), Dr. Abdulkareem Sh. Mahdi Al-Obaidi, Executive Editor, 2012

- 11. Optimum Thermal Water Locations along The Gulf Of Suez Coastal Zones In Egypt, Arabian Journal of Geosciences, Prof. Dr. Wael Abdel Kawy, Associate Editor, Arabian Journal of Geosciences, 2012
- 12. Web-Based Decision Support System For Paddy Planting Management, PERTANIKA Journal, Nayan Deep S. Kanwal, Executive Editor, 2012
- 13. Technical Paper 1: Integrated GIS based model for estimation of sediment yield in Sungai Raya catchment area by implementation of MUSLE; Technical Paper 2: Land Change Detection Using Remote Sensing Application For Land Sustainability; Technical Paper 3: The WebGIS System and Case Studies of a Disaster Risk Management System in Japan and its Applicability with Alert Information in Malaysia; Technical Paper 4: Contribution of Geoinformatic Database to Numerical Assessment for the Long-term Settlement of the Reclaimed Pleistocene Foundation of Kansai Internat; Technical Paper 5: Non-destructive site mapping of underground utilities by ground penetrating radar method; Technical Paper 6: Urban Green Space Feature Assessment In Ipoh City Using GIS Technique; Technical paper 7: Vulnerability and the Urban Poor: An Application of GIS; Technical Paper 8: SensorML-NT: Innovative Geographical Sensor Description Collection for Mobile Devices Handling Environmental Issues, AWAM International Conference on Civil Engineering (AICCE'12) and Geohazard Information Zonation (GIZ'12), Kok Keong CHOONG, Chairman AICEE'12 Technical Committee, 2012

## Assessor/Examiner

## Internal Examiner

#### (Title),(Student),(University),(Duration)

- 1. Prediction of Slope Stability Failure in Meru Heights, Perak Using GIS Technique, School Of Civil Engineering, USM, MSc, 2001
- 2. The Optimal Path Analysis for Network Systems in the Intelligent Transport System. School Of Civil Engineering, USM, MSc, 2002
- 3. The Development of Spatial Land Value Model for Assessment of Property Tax. School of Humanities, USM. PhD, 2003.
- 4. Integrated Remote Sensing and GIS for Sustainable Development of Mining Land in Kinta District, Perak.. School of Material and Mineral Resources Engineering. USM, MSc, 2003
- 5. Integrating Remote Sensing and Geographic Information System Techniques for Land Use Change Monitoring. School of Aerospace Engineering. USM, MSc, 2003
- 6. Integrated Assessment for Flood Management in Urban Area-Sungai Rambai Catchment Case Study. School of Civil Engineering. USM, Phd, 2004
- 7. The Application of remote Sensing And GIS Techniques for Modelling Land Use Change and Its Effect on Soil Erosion in Ulu Kinta Catchment. School of Aerospace Engineering. USM, PhD, 2005
- 8. Development of Slope Failure Spatial Model for Upper Sub-Basin of Langat River. School of Humanities, USM, PhD,2005.
- 9. Aplikasi GIS dalam Pengurusan dan Pencegahan Penyakit Berjangkit di Kawasan Bandar: Satu Kajian Kes Penyakit Deman Denggi Berdarah di Georgetown, Pulau Pinang, School of Humanities USM, PhD, 2008
- 10. Enhance of Mangrove Wood as Activated Carbon to Treat the Wastewater, School Of Civil Engineering USM, MSc. Mix-Mode, 2011
- 11. Behavior of Methane Emission from Paddy Field, Nur Syuhanis Maksir, School Of Civil Engineering USM, MSc. Mix-Mode, 2011
- 12. Water Quality Modeling of Biochemical Oxygen Demand BOD in a Malaysia Estuary, School Of Civil Engineering USM, MSc. Mix-Mode, 2011
- 13. LEM Probabilistic Model for Slopes with Spatial Variable Soils, Roodabeh Banaki, School Of Civil Engineering USM, MSc, 2012
- 14. Application of Multiple Criteria Decision Making Approach in Prioritizing Highway Bridges Inventory for Seismic Retrofitting, Ali Yousefi, USM, MSc, 2012

### **External Examiner**

(Title),(Student),(University),(Duration)

- 1. Enhancement of GIS as a Decision Support for Town and Regional Planning Management, Faculty of Built Environment, University of Technology Malaysia (UTM), MSc, 1999
- 2. GIS Application in the Management of Mosque. Faculty of Geoinformation Science and Engineering, University of Technology Malaysia, (UTM), MSc, 2000
- 3. Redefinition of State and Parliamentary Electorate Boundaries using GIS Techniques, Faculty of Geoinformation Science and Engineering, University of Technology Malaysia, (UTM), MSc, 2001
- 4. View Shade Analysis: The Study of the Uncertainty of the Visible Area. Faculty of Geoinformation

Science and Engineering, University of Technology Malaysia, (UTM), MSc, 2002

- 5. Studying the Effect of Squatters towards the River Pollution in Sungai Tebrau using GIS, Faculty of Engineering and Geomatic Science, University of Technology (UTM), MSc, 2004
- 6. Development of Tourist Travel Information System using GIS, Faculty of Engineering and Geomatic Science, University of Technology (UTM). MSc, 2005
- 7. Developing Spatial Web Services to Interact Real Estate Users with GIS Technology, Faculty of Engineering, Universiti Putra Malaysia, MSc, 2007
- Pengujian Performance Aplikasi Sistem Maklumat Geografi Berasaskan Web: Kes kajian Pengunaan Pelayan Peta MAPGUIDE, Faculty of Engineering and Geomatic Science, University of Technology (UTM), MSc, 2007
- 9 Digital Elevation Modelling of Slope Area by using Close Range Photogrammetric Data, Department of Civil Engineering, University Technology PETRONAS (UTP), MSc, 2009
- 10. Influence of Georeference in GIS Applying for Rainfall Runoff Modelling, Faculty of Engineering and Geomatic Science, University of Technology (UTM), PhD, 2010
- 11. Geostatic as An Alternative Approach in Assessing Groundwater Vulnerability to Contamination, Faculty of Engineering and Geomatic Science, University of Technology (UTM), MSc, 2012

## SERVICE TO THE UNIVERSITY AND COMMUNITY

## (Position),(Duration)

## UNIVERSITY

- 1. Deputy Dean of Academic and Student Affairs (2003 –2009)
- 2. University Committee for Academic Coordination (JPA) (2003 –2009)
- 3. University Committee for Student Affairs (JHEP) (2003 2009)
- 4. University Committee for Engineering School Coordination (JPK) (2003 2009)
- 5. University Committee Board of Thesis Examiners (2009-present)
- 6. University Committee for Improvement in Engineering Lecturer Reward Scheme (2010)
- 7. University Committee of Engineering & Technology (2010 2012)
- 8. University Action Committee in Implementation of Bahasa Malaysia,(2011 2012)
- 1. Deputy Chairman, Committee for National Conference AWAM' 09, (2009)
- 2. Management Committee, School of Civil Engineering, (2010)
- 8. School Accreditation Committee for Bachelor of Civil Engineering Program, (2010)
- 10. Committee for School of Civil Engineering Annual Report ,(2010)
- 11. Committee, International Conference AWAM '12 (2011-2012)
- 12. School Committee in Studying Workload of Academic Staff , (2011)
- 13. School Committee for Team Building and Leadership Camp PPKA, (2011)
- 14. School Committee for Academic and Student Deveopment (2011-2012)
- 15. School Committee on Physical, Space and Laboratory Development, (2011-2012)
- 16. School Committee , Academit Editing, (2011- 2012)
- 17. Committee in Academic Collaboration USM with UNVERSITI SYIAH ACEH, (2012)

## COMMUNITY

- 1. Senior Electorate Officer for P.057 Tambun Parlimentary Seat, Perak in the National General Election, (1990)
- 2. Member, Parent and Teachers Association, Sekolah Menengah Gunung Rapat, Ipoh, (1999 Present)
- 3. Member, Parent and Teachers Association, Sekolah Kebangsaan Rapat Setia Ipoh, (2002 Present)
- 4. Adviser for UPSR Motivation Program between PPKA and Sekolah Kebangsaan Jawi (2003)
- 5. Adviser to "Civil-Moment of Friendship Camp" at Bukit Pancur Recreational Park, (2003 & 2004)
- 6. Member of the Malay Cooperative Rapat Setia, Ipoh (1992 Present)
- 7. Surveyor in charge, for As-built-Plan and Boundary Demarcation of Masjid Seri Ampangan Nibong Tebal, (2012)
- 8. Volunteer construction working member for water supply project to orang asli Kg. Langkor, Pos Kenang, Sg. Siput, (2012- 2012)