

# NORLIZA KATUK

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## EDUCATION

PhD. (Information Technology), Massey University, New Zealand, 2012.  
Thesis: Learning Experience in Dynamic and Non-Dynamic Curriculum Sequencing Systems

MSc. Computer Science (Information Security), Universiti Teknologi Malaysia, 2002.  
Thesis: The Use of Hash Function in Mobile Agent for Data Modification Issue in Electronic Commerce.

B. Information Technology, Universiti Utara Malaysia, 2000.

## WORK HISTORY

Senior lecturer, 2012- present  
Universiti Utara Malaysia

Lecturer, 2002- 2012  
Universiti Utara Malaysia

Tutor, 2000-2002  
Universiti Utara Malaysia

## INTERESTS

Information security, computer-based learning experience, internet and web technology, technology for disaster management

## PROFESSIONAL SERVICES

- Editorial Board Member of Journal of ICT, UUM Press, 2013 - Present
- Panel Member of R, D & C Funds, Ministry of Science & Technology Malaysia (MOSTI), 2012-2015
- Panel Member for Selection of APEL Candidates, MQA, 2019

## AWARDS

- Excellent Service Award, Universiti Utara Malaysia, 2013
- Excellent Administrative Service Award, Universiti Utara Malaysia, 2017
- Outstanding Contribution in Reviewing, Computer Human Behavior, Elsevier, The Netherland, 2017

## COURSES TAUGHT

- Distributed Systems
- Networks and Systems Security
- Computer System Organization

- Discrete Structures
- Statistics for Information Technology (IT)
- Project in Computer Network
- Data Communications
- Information System in Organizations
- Web Application Development
- Computer Applications in Management

## SUPERVISION

### DOCTOR OF PHILOSOPHY (INFORMATION TECHNOLOGY/COMPUTER SCIENCE)

- Fuad Sameh Ali Alshraideh – On-going
- Apri Siswanto – On-going
- Chiadighikaobi Ikenna Rene – On-going
- Nadher Mohammed Ahmed – Graduated

### MASTER OF SCIENCE (INFORMATION TECHNOLOGY)

- Nurul Asyikin Abd. Rashid - Graduated
- Abdi Rizak Sa'id Ghedi - Graduated
- Mohd. Nur Faiz Abd. Razak - Graduated
- Shahida Shamsudin - Graduated
- Lee Kah Ho - Graduated
- Lee Kah Moey – Graduated
- Cho Sook Fong – Graduated
- Kang Hean Yong - Graduated
- Koo Lee Chun – Graduated
- Afiq Aisamuddin Mohd Shariff – Graduated
- Norhaslinda Mat Isa – Graduated
- Noor 'Aqilah Halim – Graduated
- Kartiyani Baskaran – Graduated
- Mohamad Subri Halim – Graduated

## PUBLICATIONS

### BOOKS

Bohari, A.M., Zakaria, N.H. & Katuk, N. (2006). *Asas dan teori sistem maklumat kontemporari [Contemporary information system fundamental and theory]*. Kuala Lumpur: Prentice Hall.

Bohari, A.M., Zakaria, N.H., Katuk, N. & Mat Aji, Z. (2006). *Sistem maklumat dalam organisasi kontemporari [Contemporary information system in organization]*. Kuala Lumpur: Prentice Hall.

Zakaria, N. H., Bohari, A.M., Mat Aji, Z., Katuk, N., Yahya, N. I. & Idrus, M.R. (2005). *Pengenalan kepada sistem maklumat dalam organisasi [Introduction to information system in organization]*. Kuala Lumpur, Malaysia: McGrawHill.

Katuk, N. & Omar, M. (2004). *Pengenalan kepada pengaturcaraan internet [Introduction to internet programming]*. Sintok, Malaysia: Penerbit Universiti Utara Malaysia.

### ELECTRONIC BOOKS

Katuk, N. & Omar, M. (2004). *Pengenalan kepada pengaturcaraan internet [Introduction to internet programming]*. Eloka.com.

### ARTICLE IN MAGAZINE

Katuk, N. & Bohari, A.M. (2005). Penggunaan agen pintar dalam konteks pengurusan [The use of intelligent agent in management perspective]. *JELAPANG*, 4, 1, 83-97.

### ARTICLES IN BOOKS

Katuk, N., Tahir, H. M., Zakaria, N. H., & Halim, M. S. (2015). Can Single Sign-on Improve Password Management? A Focus Group Study. In *Pattern Analysis, Intelligent Security and the Internet of Things* (pp. 85-93). Springer International Publishing.

Katuk, N., & Zakaria, N. H. (2015). Engagement in Web-Based Learning System: An Investigation of Linear and Nonlinear Navigation. In *Pattern Analysis, Intelligent Security and the Internet of Things* (pp. 75-83). Springer International Publishing.

Katuk, N., Wang, R., & Ryu, H. (2011). Enhancement of learning experience using skill-challenge balancing approach. In *AI 2011: Advances in Artificial Intelligence* (pp. 707-716). Springer Berlin Heidelberg.

Katuk, N & Omar, M. (2006). *Analisa keperluan aplikasi perdagangan elektronik berasaskan web: pendekatan UML [Requirement analysis for web-based electronic commerce: UML approach]*. In Bohari, A.M., Isu-isu Kontemporari Koridor Raya Multimedia: Inovasi teknologi [Contemporary Issues in Multimedia Super Corridor] (pp. 101-106). Kuala Lumpur: Prentice Hall.

Katuk, N. (2005). *Perdagangan elektronik dan keselamatan data: Analisis dalam konteks persekitaran agen bergerak [Electronic commerce and data security: Analysis in perspective of mobile agent]*. In Bohari, A.M., Isu-isu Profesional ICT Di Malaysia: Teknologi dan perniagaan [Professionals ICT Issues in Malaysia: Technology and Business] (pp.127-142). Kuala Lumpur, Malaysia: IBS Books Publisher Pte. Ltd.

#### **ARTICLES IN JOURNALS**

Katuk, N., Jayasangar, T., & Yusof, Y. (2019). Design and Development of Smart List: A Mobile App for Creating and Managing Grocery Lists. *Baghdad Science Journal*, 16(20/6/2019), 462-476.

Katuk, N., Ku-Mahamud, K. R., & Zakaria, N. H. (2019). A review of the current trends and future directions of camera barcode reading. *Journal of Theoretical and Applied Information Technology*, 97(8), 2268-2288.

Katuk, N., Zakaria, N. H., & Ku-Mahamud, K. R. (2019). Mobile Phone Sensing using the Built-in Camera. *International Journal of Interactive Mobile Technologies*, 13(2), 102-114.

Ho, L. K., & Katuk, N. (2018). Users' Acceptance Study of OAuth Manager Module for Social Login in Mobile Environment. *Journal of Telecommunication, Electronic and Computer Engineering (JTEC)*, 10(2-4), 41-45.

Siswanto, A., Katuk, N., & Ku-Mahamud, K. R. (2018). Fingerprint Template Protection Schemes: A Literature Review. *Journal of Theoretical & Applied Information Technology*, 96(10), 2764-2781.

Razak, M. N. F. A., & Katuk, N. (2017). Searching Halal Food Information from Distributed Databases: An Architecture of a Barcode Scanning Application using Smartphones. *Journal of Engineering and Applied Sciences*, 12(21), 5542-5547.

Shariff, A. A. M., Katuk, N., & Zakaria, N. H. (2017). An Overview to Pre-fetching Techniques for Content Caching of Mobile Applications. *Journal of Telecommunication, Electronic and Computer Engineering (JTEC)*, 9(2-12), 37-43.

Zakaria, N. H., Nayan, N. H. M., Tahir, H. M., Katuk, N., & Mohammed, A. (2017). The Requirement Model for Improved OpenID Single Sign-On (SSO) Authentication to Thwart Phishing Attack. *Advanced Science Letters*, 23(6), 5410-5414.

Katuk, N., Zakaria, N. H., Wahab, A. A., & Ghazali, O. (2017). IT-Tutor: An Architecture for Web-Based Content Sequencing System. *Advanced Science Letters*, 23(5), 3975-3979.

Katuk, N., Zakaria, N. H., Wahab, A. A., & Ghazali, O. (2017). Student's Engagement In Computer-Based Learning: Skill-Challenge Balancing Technique for Learning Programming, 9, 32-42.

Zakaria, N. H., Yaacob, W. M. Y. W., Katuk, N., Tahir, H. M., & Omar, M. N. (2016). A Page Token Prototype of OpenID Single Sign-On (SSO) to Thwart Phishing Attack. *Journal of Telecommunication, Electronic and Computer Engineering (JTEC)*, 8(10), 59-66.

Wang, R., Ryu, H., & Katuk, N. (2015). Assessment of Students' Cognitive-Affective States in learning Within A Computer-Based Environment: Effects on Performance. *Journal of Information & Communication Technology*, 14, 153-176

Katuk, N., & Zakaria, N.H. (2015). Linear and Non-Linear Navigations of Learning Content. *International Journal of Computer Information Systems and Industrial Management Application*, 7, 22-31.

Katuk, N., Chun, K. L., Zakaria, N. H., Tahir, H. M., & Halim, M. S. (2015). Authenticate Yourself Once Using OpenID. *Journal of Information Assurance & Security*, 10(3).139 - 151

Kim, J., Ryu, H., Katuk, N., Wang, R., & Choi, G. (2014). Enhancing Competence and Autonomy in Computer-Based Instruction Using a Skill-Challenge Balancing Strategy. *Journal of Educational Computing Research*, 50(1), 1-28.

Chun, K. L., & Katuk, N. (2014). A Usability Study of Social Media Credentials As A Single-Sign-On Mechanism: Student Access to Online Teaching Materials. *Journal of Industrial and Intelligent Information*, 2(3), 217-221.

Nadher, A.-S., Hassan, S., & Katuk, N. (2014). On Multi Attribute Decision Making Methods: Prioritizing Information Security Controls. *Journal of Applied Sciences*, 14(16), 1865-1870.

Al-Safwani, N., Hassan, S. & Katuk, N. (2014). A Multiple Attribute Decision Making for Improving Information Security Control Assessment. *International Journal of Computer Applications*, 89(3), 19-24.

Katuk, N., Halim, M.S., Mohamad-Tahir, H., Ahmad, A. & Mat-Yusof, S. (2013). Behavioral Analysis of Students' Login Credentials Management in Mobile Environment. *Journal of Industrial and Intelligent Information*, 1(3), 132-138.

Katuk, N. (2013). Progressive Assessment of Student Engagement with Web-based Guided Learning. *Interactive technology and Smart Education*, 10(2), 116 - 129

Katuk, N., Kim, J. & Ryu, H. (2013). Experience beyond knowledge: Pragmatic e-learning systems design with learning experience. *Computers in Human Behavior*, 29 (May), 747-758.

Katuk, N., Ku Mahamud, K.R., Norwawi, N. & Deris, S. (2009). Web-based Support System for Flood Response Operation in Malaysia. *Disaster Prevention and Management: An International Journal*, 18(3), 327-337.

Ku Ruhana Ku-Mahamud, Norita Md Norwawi, Norliza Katuk, & Safaai Deris (2008). Autonomous Notification and Situation Reporting for Flood Disaster Management. *Computer and Information Science*, 1(3), 20-26. (Available online <http://journal.ccsenet.org/index.php/cis/article/viewFile/89/78>)

Ku-Mahamud, K.R., Norwawi, N., Katuk, N., Deris, S. (2007). Agent Based Mobile Flood Notification System. *Journal of Institute of Mathematics and Computer Sciences (Computer Science Series)*, 18(2), 91-102.

#### **ARTICLES IN PROCEEDINGS**

Yong, K. H., Katuk, N., & Zakaria, N. H. (2018). *A user preference study of authentication mechanisms for mobile learning applications*. Paper presented at the AIP Conference Proceedings.

Katuk, N., Ku-Mahamud, K. R., Zakaria, N. H., & Maarof, M. A. (2018). *Implementation and recent progress in cloud-based smart home automation systems*. Paper presented at the 2018 IEEE Symposium on Computer Applications & Industrial Electronics (ISCAIE).

Shamsudin, S., Katuk, N., & Abdullah, K. (2017, March). Analysis of Wireless Network Usage at Universiti Utara Malaysia: A Preliminary Study towards Bandwidth Management. In *Proceedings of the International Conference on High Performance Compilation, Computing and Communications* (pp. 102-106). ACM.

Abd Razak, M. N. F. & Katuk, N. (2017). A barcode scanning mobile application for searching halal information of food products in Zulikha, J. & N. H. Zakaria (Eds.), *Proceedings of the 6th International Conference of Computing & Informatics* (pp 418-425). Sintok: School of Computing.

Ho, L. K., & Katuk, N. (2016, May). Social login with OAuth for mobile applications: User's view. In *Computer Applications & Industrial Electronics (ISCAIE), 2016 IEEE Symposium on* (pp. 89-94). IEEE.

Moey, L. K., Katuk, N., & Omar, M. H. (2016, May). Social login privacy alert: Does it improve privacy awareness of facebook users?. In *Computer Applications & Industrial Electronics (ISCAIE), 2016 IEEE Symposium on* (pp. 95-100). IEEE.

Tahir, H. M., Said, A. M., Osman, N. H., Zakaria, N. H., Sabri, P. N. A. M., & Katuk, N. (2016, August). Oving K-Means Clustering using discretization technique in Network Intrusion Detection System. In *Computer and Information Sciences (ICCOINS), 2016 3rd International Conference on* (pp. 248-252). IEEE.

Katuk, N., Fong, C. S., & Chun, K. L. (2015, December). Security of social network credentials for accessing course portal: Users' experience. In *AIP Conference Proceedings* (Vol. 1691, No. 1, p. 030014). AIP Publishing.

Katuk, N., Omar, M., & Halim, N. (2014, December). Improving Engagement in Hypermedia Learning: A Design for Navigation Support. In *Proceedings of the 16th International Conference on Information Integration and Web-based Applications & Services* (pp. 40-43). ACM.

Katuk, N., Zakaria, N.H, Omar, M., Romli, R. & Md. Isa, N. (2014). Does personality influence web-based learning performance of novice programmers? A preliminary study. In the Proceedings of Knowledge Management International Conference 2014 (KMICE 2014), pp. 196-201.

Katuk, N. & ., Shariff, A. A. M (2014). Web Information Retrieval for Gold and Silver Prices: A Design of A Wrapper Program. In the Proceedings of Knowledge Management International Conference 2014 (KMICE 2014), pp. 166-171.

Katuk, N., Zakaria, N. H., Shariff, A. A. M., Al-Ghushami, A., & Yusoff, M. H. (2013). Web information gathering processes for gold and silver price information. In the Proceedings of *International Conference on Research and Innovation in Information Systems (ICRIIS), 2013* (pp. 291-295). IEEE.

Zakaria, N. H., & Katuk, N. (2013). Towards designing effective security messages: Persuasive password guidelines. In *Research and Innovation in Information Systems (ICRIIS), 2013 International Conference on* (pp. 129-134). IEEE.

Koo, L. C., Liew, P. F., & Katuk, N. (2013). Composite Web Services To Support Information Searching. The Proceedings of the 4<sup>th</sup> International Conference on Computing and Informatics 2013 (ICOCI2013), 28-30 August 2013, Kuching, Sarawak, pp. 475-481.

Katuk, N. (2012). Students' Experiences in Guided Computer-based Learning A Progressive Evaluation. The proceedings of the 2012 IEEE Symposium on Humanities, Science and Engineering Research, 641-608.

Katuk, N., Wang, R., & Ryu, H. (2011). Enhancement of learning experience using skill-challenge balancing approach. In D. Wang and M. Reynolds (Eds.), *Lecture Notes in Computer Science (7106)*, Springer-Verlag, Berlin, Heidelberg, 707-716

Katuk, N. & Ryu, H. (2011). Does a Longer Usage Mean Flow Experience? An Evaluation of Learning Experience with Curriculum Sequencing Systems (CSS), 2011 Sixth IEEE International Symposium on Electronic Design, Test and Application (DELTA) 17-19 Jan. 2011, pp.13-18

Katuk, N. & Ryu, H. (2010). Finding an optimal learning path in dynamic curriculum sequencing with flow experience, The 2010 International Conference on Computer Applications and Industrial Electronics (ICCAIE) 5-8 Dec. 2010, pp.227-232

Katuk, N. & Ryu, H. (2010). Seeing is believing? Rehearsing Mayer's multimedia effects in intelligent tutoring systems. In the *Proceedings of the 11th International Conference of the NZ Chapter of the ACM Special Interest Group on Human-Computer Interaction (CHINZ '10)*. ACM, New York, NY, USA, 25-28

Katuk, N., Sarrafzadeh, A., & Dadgostar, F. (2009) "Effective ways of encouraging teachers to design and use ITS: feature analysis of intelligent tutoring systems authoring tools," *International Conference on Innovations in Information Technology, 2009 (IIT '09)* 15-17 Dec. 2009, pp.100-104

Ku Ruhana Ku-Mahamud, Norharyani Zakaria, Norliza Katuk & Mohamad Shbier (2009). Flood Pattern Detection Using Sliding Window Technique. In the Proceedings of the Third Asia International Conference on Modelling & Simulation, 2009, pp. 45-50

Norliza Katuk, Nur Haryani Zakaria, Faudziah Ahmad, Wan Rozaini Sheikh Osman, Nor Farzana Abdul Ghani & Kamarul Faizal Hashim (2007). The implementation of web-based application for agribusiness in Malaysia: The case of Agribazaar. *Proceedings of The Rural ICT Development Conference 2007, November 20-21, 2007*, Kedah, Malaysia.

Faudziah Ahmad, Wan Rozaini Sheikh Osman, Norliza Katuk, Nur Haryani Zakaria, Nor Farzana Abdul Ghani & Kamarul Faizal Hashim (2007). Issues and challenges of Malaysian rural ICT: The case of Agribazaar. *Proceedings of The Rural ICT Development Conference 2007, November 20-21, 2007*, Kedah, Malaysia.

Kamarul Faizal Hashim, Nor Farzana Abd Ghani, Faudziah Ahmad, Wan Rozaini Sheikh Osman, Norliza Katuk & Nur Haryani Zakaria (2007). Knowledge Sharing through Community of Practice Among Communities in Agribazaar. *Proceedings of The Rural ICT Development Conference 2007, November 20-21, 2007*, Kedah, Malaysia.

Norwawi, N., Ku-Mahamud, K.R., Katuk, N., & Deris, S. (2007). Autonomous information system model for flood management. *Proceedings of Conference on Information Management and Internet Research, November 6-7, 2007*, Joondalup, Western Australia, pp. 342-352.

Ku-Mahamud, K.R., Katuk, N., Norwawi, N., & Deris, S. (2007). Web-based Flood Response System: A Case Study. *Proceedings of The International Conference on Rural Information & Communication Technology (r-ICT 2007)*, August 6-7, 2007, Bandung, Indonesia.

Ku-Mahamud, K.R., **Katuk, N.**, Norwawi, N., & Deris, S. (2007). Integrated Reporting Scheme for Web-based Flood Response System. *Proceedings of The International Conference on Rural Information & Communication Technology (r-ICT 2007)*, August 6-7, 2007, Bandung, Indonesia.

Ku-Mahamud, K. R., Norwawi, N., **Katuk, N.** & Deris, S. (2007). Mobile Notification System for Flood Operation Management. *Proceedings of The International Conference on Mathematics and Computer Science (ICMCS-2007)*, March 1-3, 2007, Chennai, India, pp. 532-536.

**Katuk, N.**, Ku Mahamud, K.R., Norwawi, N. & Deris, S. (2006). Web-based support system for flood response operation. *Proceedings of The 3<sup>rd</sup> International Workshop on Web-based Support System (WSS '06)*, December 18, 2006, Hong Kong, pp. 169-171.

Omar, M. & **Katuk, N.** (2005). Pengujian model rekabentuk UML bagi aplikasi berasaskan web [Testing UML design model for web-based system]. *Prosiding Seminar Kebangsaan Sosio-Ekonomi dan IT ke-3 [Proceedings of The 3<sup>rd</sup> National Socio-economic and IT Seminar]*, August 20-21, 2005, Perlis, Malaysia.

Omar, M. & **Katuk, N.** (2005). Design modeling of web-based reservation system using WAE for UML. *Proceedings of the Brunei International Conference on Engineering and Technology*, August 15-18, 2005, Brunei.

Omar, M. & **Katuk, N.** (2005). Testing UML design model for web-based system. *Proceedings of the International Advanced Technology Congress 2005*, December 6-8, 2005, Putrajaya, Malaysia.

**Katuk, N.** & Bohari, A.M. (2004). Penggunaan agen pintar dalam pembuatan keputusan organisasi [The use of intelligent agent in organization's decision making]. *Proceedings of the National Decision Science Seminar*, December 15-17, 2004, Penang, Malaysia.

Daud, A.Y., Maarof, M.A., **Katuk, N.** & Zainal, A. (2003). Attack on intrusion detection system host: Simulation and analysis. *CITA 2003, Sarawak, Malaysia*, pp. 256-260.

**Katuk, N.**, Daud, A.Y. & Maarof, M. A. (2003). Hash function for data integrity protection in electronic commerce system. *Proceedings of the Advanced Technology Congress 2003 (ATC 2003)*, Putrajaya, Malaysia, May 20 – 21.

**Katuk, N.** & Maarof, M.A. (2002). Mobile agent in e-commerce environment: Hash function for data integrity protection. *Proceeding of the 2<sup>nd</sup> World Engineering Congress (WEC' 2002)*, Sarawak, Malaysia, 22-25 July 2002.

Daud, A. Y., **Katuk, N.**, Zakaria, N.H., Salleh, M. & Ibrahim, S. (2001). Rijndael: Comparison with other symmetric-key ciphers. *Proceedings of the International Conference on Information, Technology and Multimedia at UNITEN (ICIMU 2001), Recent Advances and Future Trends in Information Technology and Multimedia*, 13 – 15 August 2001, Malaysia.

#### **TECHNICAL REPORTS**

**Katuk, N.**, Mohamad Tahir, H., Omar, M.H. & Awang Nor, S. (2016). A New Technique for Establishing Privacy and Trust In Content-Centric Environment Based On Contributor-Content Verified (CCV) Approach. Research Report, School of Computing, Universiti Utara Malaysia.

**Katuk, N.**, Zakaria, N. H., Abd. Wahab, A., & Ghazali, O. (2016). Investigating the Effects of Skill-Challenge Balancing (SCB) Technique on Student's Engagement in Computer-based Learning System for Java Programming Course. Research Report, School of Computing, Universiti Utara Malaysia.

**Katuk, N.**, & Mohamad Tahir, H. (2014). Security and privacy of Single-Sign-On (SSO) in mobile environment: Students' experiences and perceptions. Research Report, School of Computing, Universiti Utara Malaysia.

Ku-Mahamud, K.R., Norwawi, N., **Katuk, N.**, Deris, S. (2007). *Web-based Flood Management System: A Multiagent Approach*. Research Report, Faculty of Information Technology, Universiti Utara Malaysia.

Omar, M. & **Katuk, N.** (2005). *Testing UML design modeling of web-based reservation system*. Research Report, Faculty of Information Technology, Universiti Utara Malaysia.

**Katuk, N.** & Daud, A. Y. (2004). XML encryption: Comparison to conventional encryption. Research Report, Faculty of Information Technology, Universiti Utara Malaysia.

#### **RESEARCH GRANTS**

January 2019- December 2021 (On-going)

Grant name: Fundamental Research Grant Scheme (FRGS)

Organization: Ministry of Higher Education Malaysia

Amount: RM 100 000

Title: A Lightweight Multi-Factor User Authentication Scheme for IoT-Cloud Environment

Research team: **Norliza Katuk** (Leader), Nur Haryani Zakaria, Hatim Mohamad Tahir

January 2018- December 2018 (On-going)

Grant name: UUM Special Grant

Organization: UUM

Amount: RM 5 000

Title: A Benchmarking Study Toward Increasing the Impact of Journal of ICT

Research team: Ku Ruhana Ku Mahamud (Leader), **Norliza Katuk**, and Nur Haryani Zakaria.

February 2018 – January 2019 (On-going)

Grant name: Matching Grant

Organization: UUM-Universitas Pasundan, Indonesia

Amount: RM 10 000

Title: Perception of Foreign Muslim Tourists towards the Implementation to Halal Tourism and its Implications on Tourism Industry in Bandung

Research team: Ku Ruhana Ku Mahamud (Leader), Kalsum Kayat, **Norliza Katuk**, Nur Haryani Zakaria, Mohd. Noor Abdul Hamid, Ayi Purbasari, Asep Dedy Sutirino, and Leony Lidya

January 2015- December 2018 (Completed)

Grant name: Trans Disciplinary Research Grant Scheme (TRGS)

Organization: MOE

Amount: RM 142 590

Title: A New Architecture for Mobile Barcode Retrieval From Distributed Halal Certification Databases

Research team: **Norliza Katuk** (Leader), Ku Ruhana Ku Mahamud, Nur Haryani Zakaria.

January 2015- December 2018 (Completed)

Grant name: Trans Disciplinary Research Grant Scheme (TRGS)

Organization: MOE

Amount: RM 303 600

Title: Lightweight Encryption Technique & Ant-based Routing Algorithm for Secure and Sustainable Smart Home

Research team: Ku Ruhana Ku Mahamud (Leader), **Norliza Katuk**, Nur Haryani Zakaria.

Disember 2014 – May 2017 (Completed)

Grant name: Fundamental Research Grant Scheme (FRGS)

Organization: Ministry of Higher Education Malaysia

Amount: RM 75 000

Title: An Openid Single Sign-On (SSO) Improved Model To Thwart Phishing Attack

Research team: Nur Haryani Zakaria (Leader), Hatim B Mohamad Tahir, **Norliza Katuk**, Mohd. Nizam Omar.

Disember 2014 – May 2017 (Completed)

Grant name: Fundamental Research Grant Scheme (FRGS)

Organization: Ministry of Higher Education Malaysia

Amount: RM 91 800

Title: An Openid Single Sign-On (SSO) Improved Model To Thwart Phishing Attack

Research team: Hatim B Mohamad Tahir (Leader), Osman Ghazali, Mohd. Hasbullah Omar, Nur Haryani Zakaria, **Norliza Katuk**.

January 2014- December 2014 (Completed)

Grant name: Scholarship of Teaching and Learning

Organization: UTLC, UUM

Amount: RM 15 000

Title: Investigating the Effects of Skill-Challenge Balancing (SCB) Technique on Student's Engagement in Computer-based Learning System for Java Programming Course.

Research team: **Norliza Katuk** (Leader), Nur Haryani Zakaria, Alawiyah Abdul Wahab, Osman Ghazali.

December 2012- November 2014 (Completed)

Grant name: Research Acculturation Grant Scheme (RAGS)

Organization: Ministry of Higher Education (MOHE)

Amount: RM 23 000  
Title: A New Technique for Establishing Privacy and Trust In Content-Centric Environment Based On Contributor-Content Verified (CCV) Approach  
Research team: **Norliza Katuk** (Leader), Hatim Mohamad Tahir, Mohd. Hasbullah Omar, Shahrudin Awang Nor.

May 2013 – Oct 2015 (Completed)

Grant name: Fundamental Research Grant Scheme (FRGS)  
Organization: Ministry of Higher Education Malaysia  
Amount: RM 65 800  
Title: A Dynamic Agile Model Of Software Team Composition For Realizing A High Performance Workforce  
Research team: Mazni Omar (Leader), Nor Laily Hashim, Rohaida Romli, **Norliza Katuk**.

December 2012- November 2014 (On-going)

Grant name: Research Acculturation Grant Scheme (RAGS)  
Organization: Ministry of Higher Education (MOHE)  
Amount: RM 18 000  
Title: Evaluation Method Of Datagram Congestion Control Protocol Over 4G Networks  
Research team: Shahrudin Awang Nor (Leader), Ahmad Suki Che Mohd. Ariff, Mohd. Hasbullah Omar, **Norliza Katuk**, Suhaidi Hassan.

August 2012 – July 2016 (Completed)

Grant name: Long term Research Grant Scheme (LRGS)  
Organization: Ministry of Higher Education (MOHE)  
Amount: RM 250 670  
Title: Early Public Flood Notification System  
Research team: Ku Ruhana Ku Mahamud (Leader), Mohd. Hasbullah Omar, Suhaidi Hassan, Massudi Mahmuddin, Shahrudin Awang Nor, Ahmad Suki Che Mohd. Ariff, **Norliza Katuk**.

August 2012 – July 2013 (Completed)

Grant name: LEADS  
Organization: Universiti Utara Malaysia  
Amount: RM 6 000  
Title: Security and Privacy of Single-Sign-On (SSO) in Mobile Environment: Students' Experiences and Perceptions  
Research team: **Norliza Katuk** (Leader), Hatim Mohamad Tahir.

October 2007 – October 2008 (Completed)

Grant name: UUM Internal Grant  
Organization: Ministry of Higher Education Malaysia  
Amount: RM 5 000  
Title: Keretapi Tanah Melayu Berhad: A Case Study  
Research team: Ku Ruhana Ku Mahamud (Leader), Che Su Bt Mustafa, **Norliza Katuk**.

October 2007 – September 2008 (Completed)

Grant name: Fundamental Research Grant Scheme (FRGS)  
Organization: Ministry of Higher Education Malaysia  
Amount: RM 40 000  
Title: Public Mobile Flood Notification System  
Research team: Ku Ruhana Ku Mahamud (Leader), **Norliza Katuk**, Nur Haryani Zakaria.

November 2006 – June 2008 (Completed)

Grant name: Fundamental Research Grant Scheme (FRGS)  
Organization: Ministry of Higher Education Malaysia  
Amount: RM 15 000  
Title: Performance & evaluation of web-based agri-business in Malaysia  
Research team: Faudziah Ahmad (Leader), Wan Rozaini, Nur Haryani Zakaria, **Norliza Katuk**, Farzana Ghani, Kamarul Faizal Hashim.

July 2005 – November 2006 (Completed)

Intensification Research in Priority Area (IRPA)  
Organization: Ministry of Science, Technology & Innovation  
Amount: RM 55 000  
Title: Multiagent architecture for web-based flood management system  
Research team: Ku Ruhana Ku Mahamud (Leader), Norita Norwawi, **Norliza Katuk**, Safai Deris.



June 2004 – December 2004(Completed)

Faculty Short Term Research Grant

Organization: Universiti Utara Malaysia

Amount: RM 3 000

Title: Testing of UML design model for web-based reservation system

Research team: Mazni Omar (Leader), [Norliza Katuk](#).

June 2003 – December 2003(Completed)

Faculty Short Term Research Grant

Organization: Universiti Utara Malaysia

Amount: RM 3 000

Title: XML Encryption: Comparison to conventional encryption

Research team: [Norliza Katuk](#) (Leader), Ali Yusni Daud.