



## CURRICULUM VITAE



Prof. Dr. Borhanuddin Mohd Ali  
Jabatan Kejuruteraan Sistem Komputer dan Komunikasi,  
Universiti Putra Malaysia,  
43400 UPM Serdang, Selangor

T: 03-8946 6443  
F: 03-8656 7127

### Education

1985: Ph.D University of Wales, Cardiff, UK.  
1981: MSc University of Wales, Cardiff, UK  
1979: BSc (Hons) Electrical and Electronics Engineering, Loughborough University of Technology, UK.  
1976: OND Brighton Technical College, UK

### Areas of Interest

WSN, LTE, WiMAX, OFDM, Cognitive Radios

### Professional Qualification/ Membership/ Affiliation

- Senior Member, IEEE
- Senior Member, ComSoc
- Member IET, CEng

### Appointments

Position	Duration (yrs)
	6
Head, Department of Electronics and Computer Eng	3
Head, Department of Computer and Communication Eng	5
Director, Institute of Multimedia and Software Devp	3
Director, Institute of Advanced Technology	3

### Publications

#### Journals (30 most recent journals)

1. Marzook, A.K., Ismail, A., **Ali, B.M.**, Sali, A., Khatun, S. A new technique for multi-cell joint channel estimation in time division code division multiple access based on reduced rank singular value decomposition (2014) *Wireless Networks*, 20 (4), pp. 759-773.
2. Waheed, B.M.S., **Ali, B.B.M.**, Khatun, S., Mohd, R.B. Hybrid low cost flooding scheme for on-demand routing protocols in manets(2014) *Asian Journal of Scientific Research*, 7 (2), pp. 147-161
3. Waheed, B.M.S., **Ali, B.B.M.**, Khatun, S., Sidek, R.B.M. Enhanced marking process (EMP) for constructing dominating set in mobile ad-hoc networks with unidirectional links(2014) *Asian Journal of Scientific Research*, 7 (2), pp. 131-146.
4. Alsahag AM, **Ali BM**, Noordin NK, Mohamad H. Fair uplink bandwidth allocation and latency guarantee for mobile WiMAX using fuzzy adaptive deficit round robin. *Journal of Network and Computer Applications* 2014;39(1):17-25.
5. Mehdizadeh A, Hashim F, Abdullah RSAR, **Ali BM**. Performance evaluation of cost-effective multicast-unicast key management method. *Wireless Personal Communications* 2014:1-18.
6. Dahham Z, Sali A, **Ali BM**. An efficient backoff algorithm for IEEE 802.15.4 wireless sensor networks. *Wireless Personal Communications* 2013:1-16.





7. Varahram, P., **Ali, B.M.**, Mohammady, S., Sulaiman, N. Power amplifier linearisation scheme to mitigate superfluous radiations and suppress adjacent channel interference, IET Communications, Volume 8, Issue 2, 2014, Pages 258-265
8. Ben-Mubarak MA, **Mohd. Ali B**, Noordin NK, Ismail A, Ng CK. Fuzzy logic based self-adaptive handover algorithm for mobile WiMAX. Wireless Personal Communications 2013;71(2):1421-42.
9. Tahir YH, Ng CK, Noordin NK, **Ali BM**. Transmission of visual data over wireless fading channel in real-time systems based on superposition coding scheme. Arabian Journal for Science and Engineering 2013;38(6):1459-69.
10. Mehdizadeh A, Abdullah RSAR, Hashim F, **Ali BM**, Othman M, Khatun S. Reliable key management and data delivery method in multicast over wireless IPv6 networks. Wireless Personal Communications 2013:1-25.
11. Ben-Mubarak MA, **Ali BM**, Noordin NK, Ismail A, Ng CK. Mobile station movement direction prediction (MMDP) based handover scanning for mobile WiMAX system. Wireless Personal Communications 2013:1-27.
12. Pooria Varahram, **Borhanuddin Mohd Ali**, Low Complexity Partial Transmit Sequence with Complex Gain Memory Predistortion in OFDM Systems, Wireless Personal Communications, Wireless Personal Communications, Volume 68, Issue 4, February 2013, Pages 1435-1448
13. Salman M, Abdulhasan M, Ng C, Noordin N, Sali A, **Mohd Ali B**. Radio resource management for green 3gpp long term evolution cellular networks: Review and trade-offs. IETE Technical Review (Institution of Electronics and Telecommunication Engineers, India) 2013;30(3):257-69.
14. Al-Surmi I, Othman M, Hamid NAWA, **Ali BM**. Latency low handover mechanism considering data traffic lost preventing for proxy mobile IPv6 over WLAN. Wireless Personal Communications 2013;70(1):459-99.
15. Seyedzadegan M, Othman M, **Ali BM**, Subramaniam S. Zero-degree algorithm for internet GateWay placement in backbone wireless mesh networks. Journal of Network and Computer Applications 2013.
16. Marzook AK, Ismail A, **Ali BM**, Sali A, Khalaf MH, Khatun S. Reduced rank technique for joint channel estimation and joint data detection in TD-SCDMA systems. Wireless Personal Communications 2013;69(4):1629-46.
17. Ng WL, Ng CK, **Ali BM**, Noordin NK. Performance evaluation of wireless controller area network (WCAN) using token frame scheme. Wireless Personal Communications 2013:1-27.
18. Varahram P, Mohammady S, **Ali BM**. A robust peak-to-average power ratio reduction scheme by inserting dummy signals with enhanced partial transmit sequence in OFDM systems. Wireless Personal Communications 2013:1-13.
19. Al-Jubari AM, Othman M, **Mohd Ali B**, Abdul Hamid NAW. An adaptive delayed acknowledgment strategy to improve TCP performance in multi-hop wireless networks. Wireless Personal Communications 2013;69(1):307-33.
20. Manap Z, **Ali BM**, Ng CK, Noordin NK, Sali A. A review on hierarchical routing protocols for wireless sensor networks. Wireless Personal Communications 2013:1-28.
21. Varahram P, **Ali BM**. Low complexity partial transmit sequence with complex gain memory predistortion in OFDM systems. Wireless Personal Communications 2013;68(4):1435-48.
22. Marzook AK, Ismail A, **Ali BM**, Sali A, Khatun S. Singular value decomposition rank-deficient-based estimators in TD-SCDMA systems. Circuits, Systems, and Signal Processing 2013;32(1):205-21.
23. Marzook AK, Ismail A, **Ali BM**, Sali A, Khatun S. Reduced-rank technique for joint channel estimation in TD-SCDMA systems. International Journal of Electronics 2013;100(2):274-87.
24. Al-Surmi I, Othman M, Abdul Hamid NAW, **Ali BM**. Enhancing inter-PMIPv6-domain for superior handover performance across IP-based wireless domain networks. Wireless Networks 2013:1-20.
25. Gilanian Sadeghi MM, **Mohd Ali B**, Ma M, Ab Manan J-. Scalable and efficient key management for mobile WiMAX networks. International Journal of Communication Systems 2012.
26. Ahmad SMS, **Ali BM**, Adnan WAW. Technical issues and challenges of biometric applications as access control tools of information security. International Journal of Innovative Computing, Information and Control 2012;8(11):7983-99.
27. Ee GK, Ng CK, Hashim F, Noordin NK, **Ali BM**. Originator recognition (or) path recovery mechanism for load-based routing protocol. Lecture Notes in Electrical Engineering 2012;203 LNEE:149-57.
28. Chong JH, Ng CK, Noordin NK, **Mohd. Ali B**. A low complexity multi-layered space frequency coding detection algorithm for MIMO-OFDM. Lecture Notes in Electrical Engineering 2012;203 LNEE:39-47.
29. Chong JH, Ng CK, Noordin NK, **Mohd. Ali B**. A low complexity V-BLAST/STBC detection algorithm for MIMO system. Lecture Notes in Electrical Engineering 2012;203 LNEE:59-67.
30. Sargolzaey H, **Ali BM**, Khatun S. A cross layer metric for discovering reliable routes in mobile ad hoc networks. Wireless Personal Communications 2012;66(1):207-16.

### Books (If any)

In press.

### Chapter in Books (If any)

1. Ng WL, Ng CK, Noordin NK, Mohd. **Ali B**. Gesture based automating household appliances. Lecture Notes in Computer Science 2012;7203 LNCS:285-93.
2. Pooria Varahram, **Borhanuddin Mohd Ali**, **Peak to Average Power Ratio Reduction Techniques in Orthogonal Frequency Division Multiplexing**, Springer, 2013.
3. Mehdi Gilani, **Borhanuddin Mohd Ali**, "Key Management in Mobile WiMAX Networks, Advanced Transmission Techniques in Mobile Networks", Springer, 2013.
4. Seyyed Masoud Seyyedoshohadaei, **Borhanuddin Mohd Ali** and Sabira Khatun, **Inter-Domain Handover in WiMAX Networks**, Springer, 2012.
5. Ng WL, Ng CK, Noordin NK, Mohd. **Ali B**. Gesture based automating household appliances. Lecture Notes in Computer Science 2012;7203 LNCS:285-93.
6. Sabira Khatun, Rashid Saeed, Nor Kamariah Noordin, **Borhanuddin Mohd Ali**, "Ultra-Wideband Solutions for Last Mile Access", Springer, 2012.



7. Yong Chu Eu, Sabira Khatun, **Borhanuddin Mohd Ali** and Mohamed Othman, "Performance Evaluation of Mobile IP Heterogeneous Networks, Lecture Notes in Computer Science, LNCS, vol. 3837, pp. 57 - 67, Springer-Verlag, Berlin Heidelberg, 2007.
8. Ng Chee Kyun, Ashraf Gasim Elsid Abdalla, Nor Kamariah Noordin, Sabira Khatun, **Borhanuddin Mohd Ali** and Ratna Purnama, "Performance Evaluation of Mobile IP Heterogeneous Networks, Lecture Notes in Computer Science, LNCS, vol. 3837, pp. 57 - 67, Springer-Verlag, Berlin Heidelberg, 2007.

Research Grants					
<u>Project No.</u>	<u>Project Title</u>	<u>Amount</u>	<u>Year</u>	<u>Source of fund</u>	<u>Status</u>
	Security Enhancement of Mobile IPv6 Router Optimization		2006-2007	MOSTI	COMPLETED
	Development of a scalability solution to source specific multicast for Mobile IPv6		2006-2007	MOSTI	COMPLETED
	Human Assistive Technology		2005-2006	France	COMPLETED
	Development of a smart multi tier stack for Pervasive Computing		2004-2006	MOSTI	COMPLETED
	Development of Air Interface based Technologies on Reprogrammable hardware for Access Point in the next generation wireless networks		2004-2006	MOSTI	COMPLETED
<b>5527095</b>	ERGS: Digital Pre Distortion with analog imperfection compensator	66,300	2012-	MOHE	On Going
<b>5528700</b>	PRGS: Energy Efficient OFDM Modulator for BWA	186,000	2012-	MOHE	On Going
<b>9358400</b>	RUGS: Pre distortion to increase Power Efficiency in Broadband Mobile Devices	145,000	2012-	UPM	On Going
<b>SF5450607</b>	SciFund: Mobility Management for IoT using Partial Soft Handover scheme.	151,200	2012	MOSTI	On Going



<p><b>As Team Leader:</b></p> <ol style="list-style-type: none"> <li>1. WebEd2000; E Learning Platform. At UPM, ITEX.</li> <li>2. WebEd2000; E Learning Platform at UPM , ITEX.</li> <li>3. SDR based Wireless Transceiver at Geneva 2005.</li> <li>4. Bluetooth Application at Eureka, 2005</li> <li>5. Concatenated Modulation technique. PRPI, UPM 2010</li> <li>6. PAPR Reduction technique, PRPI 2011</li> <li>7. Concatenated Modulation technique., MTE, 2011</li> </ol> <p><b>As Team Member:</b></p> <ol style="list-style-type: none"> <li>8. INPEX Pittsburgh, USA, 2006.</li> </ol>  <ol style="list-style-type: none"> <li>9. IENA, Germany,             <ol style="list-style-type: none"> <li>a. 2009.</li> </ol> </li> </ol>	<p>Silver Gold Silver Gold Gold Bronze Bronze</p>  <p>1 GOLD and 1 Silver, and “Best of the Best Award” at MTE, 2009.</p>  <p>1 GOLD, 1 Bronze:</p>
--	---

### Professional Services/Consultation

	Consultancy projects	Client	Role	Amount	Year
<b>1</b>	Halal Tracing and Tracking	KKMM	Member	RM4m	2012-2014
<b>2</b>	Proof of Concept studies on WSN for Precision Agriculture and Slope Monitoring	KPKK	Lead Consultant	RM4 m	2008-2019
<b>3</b>	Pilot studies of WSN for PA, Slope and Infrastructure Monitoring	KPKK	Senior Consultant	RM10m	20011-2012
<b>4</b>	Development of WSN nodes and gateway for PA	NKEA/Pemandu	Leader	RM4m	2010

### Student Supervision

PhD Students graduated as Chairman (Main Supervisor)			
1.	ALI ABDUL RAHMAN AGOUB	ATM TRAFFIC MANAGEMENT	2001
2.	HADI HABAEBI	ADVANCED MULTIPLE ACCESS SCHEMES FOR MULTIMEDIA TRAFFIC OVER WIRELESS CHANNELS	2001
3.	SABIRA KHATUN	Adaptive error control schemes for supporting QoS in wireless ATM networks	2002
4.	CHOONG KHONG NENG	Policy based dynamic proxy framework: an application level infrastructure for active service creation and contents delivery	2002
5.	PRIHANDOKO	Adaptive QoS CAC with user mobility prediction for multimedia traffic over wireless networks	2002
6.	SHARLENE THIAGARAJAH	A NEW STATISTICAL MULTI-CLUSTER INDOOR CHANNEL MODEL FOR ULTRA WIDEBAND SIGNALS	2005



7.	ARASTOO ROSTAMI-RAVARI	"CHANNEL MODELING AND ESTIMATION IN MOBILE MULTIPLE-ANTENNA COMMUNICATION SYSTEMS"	2006
8.	SAHAR ABDULAZIZ MAGEED ALI	HANDLING MULTICAST SOURCE MOVEMENT OVER MOBILE IPV6	2007
9.	NOR KAMARIAH BINTI NOORDIN	A MULTIPLE-INPUT SINGLE-OUTPUT OFDM WITH SPACE-TIME-FREQUENCY CODING AND ADAPTIVE ANTENNA SELECTION SCHEME	2007
10.	MOHAMMED ABDO SAEED HEZAM	CHANNEL MODELLING AND ESTIMATION IN MULTIPLE-INPUT MULTIPLE-OUTPUT ORTHOGONAL FREQUENCY DIVISION MULTIPLEXING WIRELESS COMMUNICATION SYSTEMS	2008
11.	KHALID ELTAHIR MOHAMED	DEVELOPMENT OF A MULTI-STANDARD PROTOCOL USING SOFTWARE DEFINED RADIO FOR A MOBILE STATION TRANSCIEVER	2009
12.	VAHID SOLOUK	VERTICAL FAST HANDOFF TECHNIQUE FOR MOBILE IPV6 IN HETEROGENEOUS 4G NETWORKS.	2009
13.	WISAM FAHMI AL-AZZO	PEAK-TO-AVERAGE POWER RATIO REDUCTION AND BIT ERROR RATE IMPROVEMENT IN WIRELESS ORTHOGONAL FREQUENCY DIVISION MULTIPLEXING COMMUNICATION SYSTEMS	2009
14.	SEYED REZA KAMEL TABBAKH FARIZANI	DESIGN AND DEVELOPMENT OF DISTRIBUTED QUEUE STORAGE AND FLOATING IP ACTIVE MEASUREMENT BASED ON FLOATING IP SCHEME	2011
15.	RANIA ABDELHAMEED MOKHTAR	DISTRIBUTED COOPERATIVE SPECTRUM SENSING IN COGNITIVE RADIO NETWORK	2011
16.	WAN MOHD NUR MUZAALIFF B WAN MUSA	SEAMLESS SEMANTIC SERVICE PROVISIONING MECHANISM FOR AMBIENT ASSISTED LIVING	2013
17.	SEYYED MASOUD SEYYEDOSHODAEI	OPTIMAIZED SCHEME FOR FAST MOBILE IPV6 HANDOVER AND NETWORK MOBILITY IN IEEE 802.16 NETWORK	2013
18.	HADI SARGOLZAEY	A RELIABLE UNICAST ROUTING PROTOCOL FOR MOBILE AD HOC NETWORK	2013
19.	AHMED MOHAMMED SHAMSAN SALEH	ENERGY BALANCING MECHANISMS FOR DECENTRALIZED ROUTING PROTOCOLS IN WIRELESS SENSOR NETWORKS	2013
20.	MOHAMMED AWADH AHMED BEN MUBARAK	PREDICTION AND MULTI-CRITERIA-BASED SCHEMES FOR SEAMLESS HANDOVER MECHANISM IN MOBILE WiMAX NETWORKS	2013
21.	BASSAM WAHEED	EFFICIENT HYBRID FLOODING SCHEME FOR AD HOD ON DEMAND DISTANCE VECTOR ROUTING PROTOCOL AODV IN MANET	2014

**PhD STUDENTS GRADUATED AS MEMBER OF SUPERVISORY COMMITTEE**

1.	KU ROHANA	COMPUTER PERFORMANCE ANALYSIS	
2.	MD MAHMUD HASSAN	ROBOTICS	
3.	MALIK TAYSIR HASSAN AL-QDAH	OPTICAL BEATING INTERFERENCE IN OPTICAL COMMUNICATION SYSTEM	13-Apr-06
4.	SUHAIRI SAHARUDIN	MULTI-WAVELENGTH FIBER LASER LIGHT SOURCES BASED ON ERBIUM AND BRILLOUIN GAIN	13-Jul-06
5.	SYED ALWEE ALJUNID BIN SYED JUNID	DEVELOPMENT AND IMPLEMENTATION OF A NOVEL OPTICAL CODE DIVISION MULTIPLEXING TECHNIQUE FOR METROPOLITAN AREA NETWORK	8-Sep-05
6.	CHEAH CHENG LAI	AN ADAPTIVE ERROR CORRECTION SCHEME FOR SDH-BASED WAVELENGTH DIVISION MULTIPLEXED OPTICAL NETWORK	21-Feb-08
7.	NG CHEE KYUN	DESIGN AND ANALYSIS OF THE JOINT MULTIPLE ACCESS (CDMA AND SDMA) SCHEME USING SMART ANTENNA SYSTEM	10-May-07
8.	RASHID ABD ELHALEEM SAEED	CROSS-LAYER DESIGN (CLD) FOR ULTRA-WIDEBAND WIRELESS NETWORKS IN INDOOR ENVIRONMENTS	21-Feb-08
9.	CHONG JIN HUI	DYNAMIC TRANSMIT ANTENNA SHUFFLING SCHEME FOR HYBRID MULTIPLE-INPUT MULTIPLE-OUTPUT IN LAYERED ARCHITECTURE	13-May-10



10.	AMJAD NAJIM JABIR	EFFICIENT TREE SEARCH BASED DETECTORS FOR MIMO WIRELESS SYSTEMS	22-Nov-12
11.	AHMAD SABRI MOUSA SAQER	CENTRALIZED AND DISTRIBUTED SCHEDULING ALGORITHMS FOR WIMAX MULTI-HOP RELAY NETWORKS	14-Jun-12
12.	YASEEN HASAN TAHIR AL-HASAN	PERFORMANCE ENHANCEMENT OF WIRELESS COMMUNICATION SYSTEMS USING SUPERPOSITION CODING AND UNEQUAL ERROR PROTECTION	3-Oct-11
13.	FATEMEH AZIM ZADEH	DOCUMENT RANKING USING INFORMATION QUALITY CRITERIA IN WEBLOG SEARCH ENGINE	11-Apr-13
14.	IBRAHIM ABDULLAH AHMED AL-SURMI	ENHANCEMENT OF INTRA/INTER-DOMAIN MOBILITY AND HANDOVER MANAGEMENT IN FUTURE IP-BASED PMIPv6 WIRELESS NETWORKS	14-Nov-13
15.	ABBAS MEHDIZADEH ZARE ANARI	MULTICAST-UNICAST KEY MANAGEMENT AND DATA DELIVERY METHOD IN WIRELESS IPV6 NETWORKS	13-Sep-12
16.	ALI KAMIL MARZOOK	REDUCED RANK TECHNIQUE FOR JOINT CHANNEL ESTIMATION AND JOINT DATA DETECTION IN TD-SCDMA SYSTEMS	11-Jul-13
17.	NOR ZAKIAH BINTI YAHAYA	DEVELOPMENT OF MICROSTRIP PATCH SENSOR FOR DETERMINATION OF MOISTURE CONTENT OF HEVEA RUBBER LATEX	27-Sep-13

MS STUDENTS GRADUATED AS MEMBER OF COMMITTEE			
1.	GO YUN II	CONTENTION RESOLUTION SCHEME FOR BUFFERLESS SYNCHRONOUS WDM OPTICAL PACKET SWITCH	24-Feb-05
2.	WAN HAFIZA BT. WAN HASSAN	AN ORTHOGONAL FREQUENCY DIVISION MULTIPLEXING WITH THE ENHANCEMENT OF CLIPPING TECHNIQUE	10-Aug-06
3.	FAEZAH BINTI JASMAN	ADAPTIVE MODULATION AND CODING USING SIGNAL-TO-NOISE RATIO SWITCHING THRESHOLD	11-Sep-09
4.	YONG CHU EU	MULTICAST BASED AND FAST HANDOVER IN MOBILE IPV6 WIRELESS NETWORK	11-May-06
5.	RANIA ABDELHAMEED MOKHTAR	AUTHENTICATION METHOD USING BLUETOOTH-ENABLED MOBILE PHONE	14-Jul-05
6.	NIDHAL A S ODEH	PERFORMANCE ENHANCEMENT OF COMBINED CODE-SPACE DIVISION MULTIPLE ACCESS TECHNIQUES USING MULTIUSER RECEIVER WITH PARALLEL INTERFERENCE CANCELLATION	13-Sep-07
7.	ADENIJI OLUWASHOLA DAVID	ENHANCED NETWORK MOBILITY SOLUTION IN MOBILE IPV6 NETWORK.	15-Jan-09
8.	AHMED MOHAMED SALIH BAKHRAIBA	SOFTWARE-DEFINED RADIO-BASED MODULATION AND DEMODULATION SCHEME	9-Jul-09
9.	AYYOUB AKBARI MOGHANJOUGH	SWARM INTELLIGENCE: A DISTRIBUTED QOS-BASED ROUTE DISCOVERY FOR LOAD BALANCING IN MOBILE AD-HOC AND WIRELESS MESH NETWORKS.	10-Dec-09
10.	SABAH ABDULMATALIB SEWAN	IMPURE ORTHOGONAL SPACE TIME BLOCK CODES FOR MULTIPLE TRANSMIT ANTENNAS SYSTEM	13-May-10
11.	ASEM AHMAD MOHAMAD SALAH	AN EFFICIENT RESOURCE ALLOCATION ALGORITHM FOR OFDMA COOPERATIVE RELAY NETWORKS WITH FAIRNESS AND QOS GUARANTEED	12-May-11
12.	BAHMAN AZARBAD	ADAPTIVE ENHANCEMENT IN DVB-S2 FOR VIDEO TRANSMISSION	9-Jan-14
13.	EE GEE KENG	PATH RECOVERY FOR AD-HOC ON-DEMAND DISTANCE 6LOWPAN ROUTING PROTOCOL	16-May-13
14.	ZAHRAA D.A. QADAWI	AN EFFICIENT BACK-OFF MECHANISM FOR IEEE 802.15.4 WIRELESS SENSOR NETWORKS	15-Aug-13

CURRENT STUDENTS, PhD AND MASTERS				
	NAME	THESIS TOPIC	LEVEL	STATUS
1.	YASSEIN SOUBHI ALHAMADANY	LTE Handover	PhD	Writing up
2.	ALI MOHAMMED MANSOOR ALSAHAG	WiMAX scheduling and QoS management	PhD	Draft thesis
3.	MOHAMMAD MEHDI GILANIAN SADEGHI	WIMAX Key Management	PhD	Writing up
4.	KHALID TAHER MOHAMMED AL HUSSAINI	PAPR Reduction	PhD	Sem 2
5.	MOHAMMADREZA SAHEBISHAHAMABADI	WSN Network Mobility	PhD	On going
6.	MUSTAFA M KHALIFA	6LoWPAN mobility	PhD	On going
7.	HAVZHIN IRANPANAH	Cognitive Radio	MS	On going
8.	IBRAHIM MUSTAPHA	WSN and Cognitive Radio	PhD	On going
9.	MAYADA SALIH ABDALLA MUSTAFA		PhD	Deferred
10.	ZAHARIAH MANAP	WSN Clustering	PhD	Deferred
11.	NAZMUS SAADAT	WiMAX Resource Scheduling	PhD	
12.	ABDELNASSER	QoS on Mesh Network	PhD	

REFEREE:

1. Assoc Prof Dr Iqbal Saripan, Head of Department, Computer and Communications Systems Engineering, UPM
2. Assoc Prof Dr Azmi Yahya, Dean, Faculty of Engineering, UPM

BMA June 2014

