CURRICULUM VITAE

PERSONAL DETAILS

Name : JAFRI BIN DIN
Gender : Male
Date of Birth : 24/12/1966
Nationality : Malaysia (661224-71-5469)
Marital Status : Married
Permanent Address :
: 1152 Jalan Lagenda 42, Taman Lagenda Putra
81000 Kulai, Johor.

Correspondent Address : Sekolah Kejuruteraan Elektrik, Fakulti Kejuruteraan,
Universiti Teknologi Malaysia
81310 UTM Johor Bahru, Johor.

Tel : (Mobile) : 013-7160250 (Office): 07 555 7012 (Fax): 07 556 6272
E-mail : jafri@utm.my, jafri@fke.utm.my
Website : http://jafri.fke.utm.my/
ID Staff : 5449

Expertise : Radio Wave Propagation, Satellite Propagation

ACADEMIC QUALIFICATIONS / POSITIONS(UTM)

- Ph.D. Electrical Engineering(1997) Universiti Teknologi Malaysia
- B. Sc. Electrical Engineering (1988) Tri State University, Indiana

- Director HICoE, WCC, UTM (01/06/2019)
- Professor (20/07/2018)
- Assoc. Prof. (03/09/2001)
- Senior Lecturer (03/03/1998)

AWARD AND HONORS RECEIVED

Date : **Awards/Achievement**

i) 2005 - Top Research Team Award, UTM.

ii) 2008 – Excellent Service Award, UTM.

iii) Nov., 2012, Final List for Best Paper Award and Young Scientiest Award (Student), International Symposium on Antenna and Propagation, Nagoya, Japan.

iv) Sept., 2013, Young Scientiest Award (Student), *Asia Pacific Radio Science Conference* (*APRSC*), Taipei, Taiwan.

v) April, 2014, Top 25 Best Papers Award Final List, European Conference on Antenna & Propagation (EuCAP 2014) The Haque, Netherlands.

vi) August, 2014, Young Scientiest Award (Student), *The XXXI General Assembly of the International Union of Radio Science* (*URSI GASS 2014*), Beijing, China.

PROFESSIONAL MEMBERSHIP / QUALIFICATIONS / RECOGNITION

Date : **Positions/Employer**

i) 1 Jan 2002– Present – Member IEEE (Institute of Electrical and Electronics Engineers), Membership No.: 40270488, Dec., 2019

ii) Graduate Engineer, Board of Engineers Malaysia, Membership No.: 77816A

iii) Tau Beta Phi, National Engineering Honor Society,1988.

iv) Eta Kappa Nu, National Electrical Engineering Honor Society,1987.

ADMINISTRATIVE EXPERIENCE

University Level

Date : **Positions/Committe**

i) 1 Jun, 2019 – Present,
Director of HICoE,
Wireless Communication Centre,

Faculty of Engineering

ii) 1 August, 2013 – 31 August, 2015,
Deputy Dean (Development) Faculty of Electrical Engineering.

iii) 1 Nov. 2012 – 31 Jul. 2013,
Academic Manager- Under Graduate, Faculty of Electrical Engineering.

iv) 1 July 2010 – 31Oct. 2012,
Head of Radio Communication Engineering Department, Faculty of Electrical Engineering.

v) 1 Oct. 2008 – 30 Jun 2010,
Head of Off-Campus Programme (SPACE), Faculty of Electrical Engineering.

vi) 4 November, 2015 – 3 November 2017

European Research Grant Champion,
Deputy Vice Chancellor (Research & Innovation).

vii) 4 November, 2015 – 3 November 2017

Leading Research Grant Champion for European,
Deputy Vice Chancellor (Research & Innovation)

viii) 1 Feb. 2014 – 30 Jun 2015, University Committee member for Moveable University Assetts.

ix) 23 Jan 2014 – 31 July 2015, University standing committee of the Senate Library and Educational Resources.

x) 1 Jan. 2010 – 31 Dec. 2010, Academic Fellow for College 10, UTM.

xi) 1 Sept. 2006 – 31 August 2007, University Technical Specification Committee.

xii) 1 Dec. 2011 – Present, Member of Task Force on University Minor programme.

xiii) 1 Feb., 2007 – 31 Jan., 2009, Deputy Head of the Electronics, Information and Communication Technologies for Society, Research Cluster, UTM.

xiv) 1 August, 2000 – 31 July, 2002, Committee Member for Aerospace, IT & Telecommunication Technologies Focus Group, UTM.

Faculty Level

Date : **Positions/Employer**

i) Sept 2013 – August 2015, Chairman of The Occupational Health and Safety Committe, Faculty of Electrical Engineering.
ii) Sept 2013 – August 2015 - Chairman of The Facility Management/Infra Working Committe, Faculty of Electrical Engineering.
iii) Sept 2013 – August 2015 - Chairman of Quality Working Committe, Faculty of Electrical Engineering.
iv) Sept 2013 – August 2015 - Chairman of The Welfare and Recreation Committe Working Committe, Faculty of Electrical Engineering.
v) Sept 2013 – August 2015 - Chairman of The Information and Publication Working Committe, Faculty of Electrical Engineering.
vi) 10 Sept. 2008 – 9 Sept. 2010, Course Coordinator for SET 3593, Antenna & Propagation.
vii) 9 Sept. 2002 – 28 March, 2003 – Forth Year Lab Coordinator.
viii) 15 Nov., 2000 – 2002, Program Coordinator, Master of Electrical Engineering (ITTHO).
ix) 15 March 2001 – 14 March 2003, Member of Working Quality.
x) 10 Sept., 2006 – 9 Sept., 2008 – Course Coordinator for SET 3593, Antenna & Propagation.
xi) 9 Sept. 2004 – 9 Sept. 2006, Course Coordinator for SET 3593, Antenna & Propagation.
xii) 9 Sept. 2004 – 9 Sept. 2006, Course Coordinator for SET 3573, Microwave Engineering.
xiii) 9 Sept. 2002 – 8 Sept 2004, Course Coordinator for SET 4563, Microwave, Antenna & Propagation.
xiv) 15 March, 2001 – 14 March 2003, Academic Management Working Committee.
xv) 1 Dec. 1999 – 30 Nov., 2001, Head of TV Studio Laboratory, FKE, UTM.

xvi) 1 Dec., 1999 – 30 Nov., 2001, 4th Year Laboratory Coordinator, FKE, UTM.
xvii) 1 July, 1999 – 20 Jun, 2001, Course Coordinator for SEE 5513, Communication Principle II.
xviii) 1 Jun, 1998 – 31 May 2000, Committe member for Final Year Project.
xix) 1 Jun, 1995 – 31 May, 1997, Head of Advanced Microwave Laboratory, FKE, UTM.
xx) 1 Jun, 1995 – 31 May, 1997 Committee Member for Faculty's Marketing and Information Dissemination.

OTHERS EXPERIENCE

NATIONAL COMMITTEE

i) Technical Committee on Electromagnetic Field, SIRIM Berhad.
(July, 2016 – Present)
ii) Working Group on Electromagnetic Field-RF, SIRIM Berhad.
(November, 2016 – Present)
iii) Appointment as External Examiner for Universiti Tun Hussein Onn, UTHM. Under Graduate Programme, Faculty of Engineering Technology) (1 Sept., 2014 – present)
iv) Appointment as Ministry of Science, Technology and innovation, MOSTI Evaluation Expert Panel for R&D Grant, Ministry of Science, Technology and Innovation. (1 March, 2013 – 31 Dec., 2015)
v) Appointment as Technical Committee Member on the impact of Climate Change on Fisheries Industry, Ministry of Agriculture. (1 Jan., 2010 – Present)
vi) Appointment as External Examiner/Advisory Panel for Curriculum and Syllabus for Universiti Teknikal Melaka Malaysia, UTeM.Under Graduate Programme, Faculty of Electronic and Computer Engineering (1 Jun, 2009 – 31 May, 2011)
vii) Appointment as External Examiner for Kolej Universiti Teknikal Melaka, KUTKM. Bachelor in Electronic Engineering (Wireless Communication), Faculty of Electronic and Communication Engineering (1 August, 2006- 31 July, 2008)

INTERNATIONAL APPOINTMENT/COMMITTEE

i) Editorial Board, Asian Journal of Electrical Sciences (2018) (invitation-accepted)

ii) Editorial Board, Community University Engagement Journal, Mahasarakham University, Thailand (2017 – present)
iii) Appointment as reviewer, Advances in Space Research, Elsevier, December, 2016.
iv) Appointment as reviewer, Journal of Atmospheric and Solar-Terrestrial Physics, Oct., 2016.
v) Appointment as reviewer, SpringerOne, June, 2016.
vi) Appointment as reviewer, SpringerOne, March, 2016.
vii) Appointment as reviewer, International Journal of Antenna and Propagation, July 2014.
viii) Appointment as Member of International Advisory Committee for Malaysia, International Symposium on Antenna and Propagation (ISAP)-International Steering Committee (ISAP-ISC) since 2014.

RESEARCH ACTIVITIES

RESEARCH PROJECT UNDERTAKEN

Date : **Project Leader/Project Member (Past 5-years)**

i) **Project Leader, Second Additional Agreement JR-UTM**, Measurement and Assessment of Second Order Statistics of Ka Band SatCom Systems in Tropical Regions, **International Contract Research**, ESA/ESTEC Contract No. 4000106180/12/NL/NR, (01/12/2017 – 30/10/2019; Euro 4,980.00)

ii) **Project Leader**, Charactherization of Rain drop shapes and oscillation modes of tropical rain for mili metre wave 5G networks, **FRGS**, (15/08/2017 – 14/08/2020); RM 98,580)

iii) **Project Leader**, Electromagnetic Scattering from Rain Drop Size Distribution Measurement for 5G Networks, **HICOE Research Grant**, (01/06/2016 – 31/05/2018; RM 119,910.00)

iv) **Project Leader**, Measurement and Assessment of Second Order Statistics of Ka Band SatCom Systems in Tropical Regions, **International Contract Research**, Joanneum Research (JR), Austria/ European Space Agency, ESA/ESTEC Contract No. 4000106180/12/NL/NR, (01/06/2014 – 31/05/2018; RM 67,594.39)

v) **Project Leader**, Morphological Structures of Equatorial Precipitation and Their Impact on Advanced Satellite

Communication Systems, **Research University Grant**, UTM, (01/04/2014 – 31/03/2016; RM 75,000.00)

vi) **Project Leader**, Characteristics Of Rain Drop Size Distribution And Radar Parameter In Equatorial Region And Its Impact On Radar Rainfall Estimation, **FRGS**, Mnistry of Education. (16/12/2013 – 15/12/2015; RM 36,600.00)

vii) **Project Leader**, Satellite Communication Site Diversity Prediction in Malaysia Using Weather Radar Network, **Research University Grant**, UTM. (01/12/2012 – 31/12/2014: RM 120,000.00)

MINISTRY OF SCIENCE, TECHNOLOGY AND INNOVATION, MOSTI (SCIENCE FUND)

Date : **Project Leader/Project Member**

i) Project Leader, Depth Dependence of Swim Bladder Target Strength for One Finlet Scad, Round Scad and Indian Mackerel. ScienceFund, MOSTI: 01-01-06-SF000
(12/01/2006 – 03/05/2008 : RM 209,394.00)

ii) Project Leader, Turtle Excluder Device (TED) Using Sound, Science Fund, MOSTI: 01-01-06-SF0225
(01/01/2007- 31/08/2009 : RM 392,250.00)

iii) Project Leader, RF Front End Design for Point-Point Microwave Link, Science Fund (Top-Down)
(01/01/2001 – 28/02/2005: RM 1,846,928.00)

iv) Project Leader, Adaptive Power Control for Point-Point Microwave Link, Science Fund (Top-Down)
(01/01/2002 – 28/02/2005: RM 1,890,016.00)

v) Project Leader, Space Diversity Study for Satellite Communications by Using Radar Data in Tropical Region, IRPA.
(09/02/1999 – 12/01/2001: RM333,450.00)

CONTRACT RESEARCH

i) Jafri Din, Issues on Reliable Communications at Frequencies Bands Above 25 GHz in the Tropics- Project 1: Rain and Propagation Studies. Malaysian Communication and Multimedia Commission, **MCMC Contract Research** (3 Sept 2007 - 3 Sept. 2009: RM 314,000.00) Project Leader.

ii) Malaysia – Hungary Bilateral Research Exchange Project, Comparative Study of Rain Attenuation and Fade Duration at Frequencies above 10 GHz in Malaysia and Hungary, **UTM – Budapest University of Technology & Economy (BUTE)**, 2004-2005. Project Leader

TEACHING ACTIVITIES

Semester	Sem	Subject Code	Subject	Credit Hour	Total
2014/2015	1	MET 1453	Special Topic in Telecommunication Engineering	3	6
2014/2015	2	MET 1383	Satellite Communications	3	16
2014/2015	1	SEE 3533	Communication Principle	3	32
2013/2014	2	MET 1453	Special Topic in Telecommunication Engineering	3	14
2013/2014	1	SEE 4513	Communication System	3	46
2012/2013	2	MET 1453	Special Topic in Telecommunication Engineering	3	17
2012/2013	1	SKEE 2073	Signal and Systems	3	57
20122013	1	UEP 0010	Research Methodology	0	93
2011/2012	2	MET 1453	Special Topic in Telecommunication Engineering	3	22
2011/2012	1	SET 3593	Antenna & Propagation	3	61

2010/2011	2	MET 1453	Special Topic in Telecommunication Engineering	3	10
2010/2011	2	SET 4533	Wireless Communication System	3	49
2010/2011	1	SEE 4513	Communication System	3	68
2009/2010	2	MET 1453	Special Topic in Telecommunication Engineering	3	4
2009/2010	1	SEE 2043	Signal & Systems	3	57
2009/2010	1	MEL 1222	Random Process	2	18
2008/2009	1	SEE 3533	Communication Principle	3	37
2007/2008	2	SET 3593	Antenna & Propagation	3	41
2006/2007	2	SET 3573	Microwave Engineering	3	74
2006/2007	1	SET 4563	Antenna, Microwave & Propagation	3	17
2006/2007	1	SEE 1003	Basic Electrical Engineering	3	68
2005/2006	2	SEE 3533	Communication Principle	3	121
2005/2006	1	SET 5514	Wireless Communication System	3	59
2004/2005	2	SEE 4513	Communication System	3	47
2004/2005	1	SET 4563; SET5514	Microwave, Antenna & Propagation; Wireless Communication System	3 4	86 57
2003/2004	2	SEE 4513	Communication System	3	53
2003/2004	1	SET 4563	Microwave, Antenna & Propagation	3	78
2002/2003	2	SEE 3533	Communication Principle	3	83
2002/2003	1	SET 4513; SET 3563	Communication System; Microwave,	3	68

			Antenna & Propagation	3	84
2001/2002	2	SET 4514	Wireless Communication System	4	82
2001/2002	1	SET 3563	Microwave, Antenna & Propagation	3	87
2000/2001	2	SEE 3533; SEE 4513	Communication Principle; Communication System	3 3	64 56
2000/2001	1	SET 3563	Microwave, Antenna & Propagation	3	83
1999/2000	2	SEE 3533	Communication Principle	3	91
1999/2000	1	SEE 4513; SET 4533	Communication System; Radio Communication System	3 3	78 72
1998/1999	2	SEE 4533; SEE 5513	Communication Principle I; Communication Peinciple II	3 3	78 67
1996/1997	2	SEE 3033	Network Analysis	3	78
			Total	121	

SUPERVISION

Post Doctoral

1. Dr. Lam Hong Yin (1 Dec. 2013 – 30 Nov. 2014), Site Diversity for Ka band Satellite Communication in Malaysia.

PhD Student

Year	No.	Name	Status	Title	Roles of Supervision
2018	1	Manhal Jaafar Jaber Al Hilali	Graduated	Rain Attenuation Prediction Based on Raindrop Size	Main Supervisor

				Distribution Measurement in Malaysia	
2018	2	Mawarni Binti Mohamed Yunus	Graduated	Second Order Fade Dynamics of Ka Band Satellite in Malaysia	Main Supervisor
2016	3	Ibtihal Fawzi Elshami	Graduated	Ku band Trophospheric Scintillation for Ku band Satellite in Malaysia	Main Supervisor
2016	4	Masoud Mohebbi Nia	Graduated	Rain Attenuation Synthesizer for Tropical Region	Main Supervisor
2015	5	Jong Siat Ling	Graduated	Fade Dynamics for Ku Band Satellite Commuciation in Malaysia	Main Supervisor
2013	6	Lam Hong Yin	Graduated	Spatial and temporal characteristics of precipitation for Satellite Communication impairment in Equatorial Malaysia.	Main Supervisor
2013	7	Khalid AlKhedairi	Graduated	Interference between terrestrial, high-altitude platform and satellite systems at 28 GHz	Main Supervisor
2013	8	Kusay Faisal A. Al-Tabatabaie	Graduated	Local multipoint distribution services architecture based on rain profile extracted from Meteorological radar	Main Supervisor
2011	9	Anton Yudhana	Graduated	Turtle hearing classification for turtle excluder device design	Main Supervisor
2010	10	Sunardi	Graduated	Target strength fish identification for Scad Species of the South China Sea.	Main Supervisor
2007	11	Nor Hisham Khamis	Graduated	Antenna Diversity for Microwave Link Operating in Malaysia by Using Radar Data	Main Supervisor

2019	12	Mustafa Ghanin Rzooki	Graduated	Milimetre-Wave link for 5G Network in Malaysia	Main Supervisor
2019	13	Iddrissa Abu Bakar	Graduated	Ka band Satellite Site Diversity in Malaysia	Main Supervisor
2014	14	Mohammad Ibrahiem Abo Zeed	On-Going (2014- 2019)	Modelling Ku band Land Mobile Satellite in Tropical Malaysia	Main Supervisor
2018	15	Mohammad Mahfujur Rashid	On-Going (2018-2022)	Path Reduction Model Based on Rain Fall Measurements for 5G Networks	Main Supervisor
2020	16	Ali Jasim	On-Going (2020 – 2024)	The Effects of Rain Drop Size Distribution on Free Space Optical System in Malaysia	Main Supervisor
2020	17	Chua Tien Han	On-Going (2020 – 2023)	RF-EMF Exposure Level From 5G Radiocommunication Infrastructure	Main Supervisor
2021	18	Nurul Najwa Binti Md Yusof	On-Going (2021-2024)	Short Distance Milimetre wave link for 5G Networks	Main Supervisor

MSc. Student

Year	No.	Name	Status	Title	Type	Roles of Supervision
2013	1	Nor Azlan Mohd. Aris	Graduated	Estimation of rain height and One-minute Rain rate Based on Tropical Rainfall Measuring Mission Product	Reseach	Main Supervisor
2010	2	Emansa Hasri Putra	Graduated	Cross Layer Design of Wireless Local Area Network for Telemedicine Applications	Reseach	Main Supervisor
2007	3	Thomas Peter S Thomas	Graduated	Integrated Low Noise Amplifier Design for	Reseach	Main Supervisor

				WLAN Applications at 5 GHz		
2004	4	Mohamad Zoinol Abidin Abd Aziz	Graduated	Low Noise Amplifier Design at 5 GHz	Reseach	Main Supervisor
2003	5	Sum Chin Sean	Graduated	Ku-band Satellite Propagation in Malaysia	Reseach	Main Supervisor
2000	6	Mohammad Karim	Graduated	Rain Attenuation Measurements at 15 GHz and 18 GHz in Malaysia	Reseach	Main Supervisor
2012	1	Tareq Omar Al Amoodi	Graduated	Rain Attenuation Time Series...	Taught Course	Main Supervisor
2009	2	Lam Hong Yin	Graduated	Propagation Studies for Mobile...	Taught Course	Main Supervisor
2009	3	Awfa A. A. M. Ali	Graduated	Slant Path Rain Attenuation Profile...	Taught Course	Main Supervisor
2009	4	AbuBaker Ahmed Elobied Ali	Graduated	Interference Between Wimax...	Taught Course	Main Supervisor
2009	5	Azam Asamm Daood	Graduated	Line of Sight Propagation...	Taught Course	Main Supervisor
2009	6	Hasrina Hassan	Graduated	A Development of Slant...	Taught Course	Main Supervisor
2008	7	Abulasad Mabruk Elgamoudi	Graduated	Mitigation Techniques for Attenuation...	Taught Course	Main Supervisor
2008	8	Mohammad A. M. Sadek	Graduated	Forward Link Power Control...	Taught Course	Main Supervisor
2008	9	Koh Cheng Soi	Graduated	Optimum Antenna Configuration ..	Taught Course	Main Supervisor
2008	10	Hatem AlMokhtar Omar AbdulKabeer	Graduated	Raindrop Size Distribution Extracted...	Taught Course	Main Supervisor
2008	11	Mohammad Ibraheim Abo-Zeed	Graduated	Intercell Interference Studies in Broadband...	Taught Course	Main Supervisor

POSTGRADUATE EXAMINATION /VIVA

PhD EXTERNAL EXAMINER

i) Muhammad Majdi bin Saad, Reconfigurable Slots Antenna Based in Mechanical Movement, UteM, 2020.
ii) Yasser Asrul Bin Ahmad, Determination of Specific Attenuation for Satellite Links in Equatorial-Tropical Region, UIAM, 2019.
iii) Mowafak Khadom Mohsen, Radiation Pattern Controlling Technique for A Half Width Microstrip Leaky Wave Antenna, UteM, 2019.
iv) Ferdous Hossain, Indoor Radio Propagation Prediction Model of Fifth Generation Wireless Networks, MMU, 2019.
v) Maizatul Alice binti Meor Said, Optimum Design of Rectenna with Improved RF-To-DC Power Conversion Efficiency for RF Energy Harvesting, UTeM, 2018.
vi) Ali Kareem Nahar, Enhanced PAPR Reduction Techniques in Multi-Carrier Wireless Communication System and Its Implemented in FPGA, UMP, 2016.
vii) Hasliza binti A Rahim, Radio Propagation Channel Characterization at 2.45 GHz and Its Exposure Effects on Well-Being and Neurophysiological of Adults, UniMAP, 2015.
viii) Nornikman bin Hassan, Enhancement Performance of Microwave Applications using Split Ring Resonator Structures, UTeM, 2015.
ix) Mohammad Mohammadpour Salut, Characteristics of Early Ionospheric VLF Pertubations Associated With Intense Lightning Discharges, UKM, 2013

MSc EXTERNAL EXAMINER

i) Mohammad Afif Saman, Development of Spectrum Management Tool for Spectrum Utilization in Malaysia, **UIAM**, 2015.
ii) Mohammad Rida Bahloul, Robust and Reliable Modulation Classification for Multiple-Input Multiple-Output Systems, **UTP**, 2015.
iii) Syazana Basyirah binti Mohammad Zaki,
Design of 10GHz Negative Resistance Dieletric Resonator Oscillator, **USM, 2013**
iv) Samiyeh Esmaeli Shaghaji,
Design and Implementation of Self-Reconfigurable Wireless Sensor Network, **USM, 2013**
v) Cheng Chen Yee,
Development of Tropospheric Scintillation Model for Earth to Space Communication Link, **UKM, 2012**
vi) Azlan Hakimi Yahaya Rashid,
Equivalent Circuit Models for Propagation Analysis of In Building Powerline Communication Systems. **UTP, 2012**
vii) Ihsan bin Ahmad Zubir,
Design of RF Front End Wireless Transceiver for Image Transmission, **USM, 2011**

viii) Ali Khadim Lwas,
Investigation Propagation Path Loss Models For Mobile Communications Based on Measured Daata in Malaysia, **UIAM,2011**

ix) Renuka D/O Nalinggam,
Investigation of Signal Degradation Due to Rain on Satellite Downlink at Ku-Band for Tropical Climate, **USM, 2011**

x) Chye Yin Hui,
Design of Multi-Modulation Baseband Modulator ad Demodulator of Software Defined Radio, **USM, 2011**

xi) Muhammad Faiz Bin Abdul Karim, Correlation Coeeficient for MIMO Wireless Communication Channel by Using Polarization Diversity, **UTeM, 2010.**

xii) Nitesh Ram Sharma A/L Nekeram,
Balanced Low Noise Amplifier Design for Wimax Application, **USM, 2009**

xiii) Yazeed Mohammad Akram Ibrahim Qasaymeh,
A 24GHz MIMO Wireless Transceiver Design, **USM, 2008**

xiv) Mohd Muhaiyiddin bin Abdullah,
Analysis and Design of Coplanar Waveguide for High-Speed Pulse Propagation on Printed Circuit Board, **USM, 2007**

xv) Tan Teik Siew,
A Discrete Distributed Power Amplifier for VHF to UHF, **USM, 2007**

xvi) Khomsan Dao,
Development of a Software Package for the Design of a Microwave Link in Malaysia, **UIAM, 2006**

xvii) Mohammad Arif Bin Abdullah,
A Low Cost Satellite-Based Telecommunicatin System for Rural Area, **USM, 2003**

PhD INTERNAL EXAMINER

i) Zulkifli bin Ambak, Downlink Remote Antenna Using Low TemperatureCofired Ceramic for Milimeter Wave Radio over Fibre System, March, 2020.

ii) Nur Ilham Aliyaa Binti Ishak, Specific Absorption Rate Characterization of Multiple-Antenna Usage in Wireless Communication Systems, Jun, 2020.

iii) Mohammed Bahjat Majed, Channel Characterization and Path Loss Modelling in Indoor Environment for 5G Mobile Communication, June, 2018.

iv) Ahmed Mohammed Al Saman, Ultra-Wideband Channel Characterization and Prediction of Milimeter-Wave Bands for Fifth Generation Systems, November, 2016

v) Rahat Ullah, Fractional Frequency Reuse Based Interference Mitigation in Irregular Geometry Multicellular Networks, May, 2016

vi) Abdallah Mataria, Narrowband Outdoor Propagation Modeling for 5G Milimeter wave Cellular Communications, August, 2016.

vii) Yaseer Reza Zahedi, Artifact Paths Removal Algorithm for Ultra-Wideband Channels, January, 2016.

viii) Hashim Eltahir Ahmed Elshafie, Television White Space Management Schemes, April, 2015.

ix) Nor Syahidatul Nadiah binti Ismail, Hybrid Medium Access Control in Wireless Sensor Networks, April 2015.

x) Hazilah binti Mad Kaidi, Turbo Cross-Layer Design Automatic Repeat Request Error Control for Wireless Communication System, April 2015.

xi) Shadi Danesh, Frequency Reconfigurable Dielectric Resonator Antennas, January, 2015.

xii) Sameer Ahmed Abdulqader Al-Gailani,
Characterization and Optimization of Free Space Optics in Tropical Region, 2014

xiii) Rozeha A. Rashid,
Optimal Opportunistic Spectrum Sensing in Clustered Cognitive Radio Network, 2014

xiv) Mohd Zoinol Zainal Abidin,
Wireless Mimo Channel Capacity Enhancement with Double Stage Diversity Technique, 2014

xv) Mastaneh Mokayef, Coexistence and Sharing between High Altitude Platform System and Terrestrial System in 5850 – 7075 MHz, 2014.

xvi) Norulhusna binti Ahmad,
Non-Orthogonal Frequency Division Multiplexing with Turbo Equalization, 2014

xvii) Yussuff Abayomi Isiaka Olanrewaju,
Characterization of Bright-Band in a Tropical Station for Satellite Communication, 2014

xviii) Dyg Norkhairunnisa binti Abang Zaidel,
RF Front End Design of Ultra Wide Band Butler Matrix Beam Forming Network, 2014

xix) Kesavan A/L Ulaganathan,
Rain Propagation and Mitigation Technique at 26 GHz using 5.8 GHz link for Point to Point Application, 2013

xx) Shipun Anuar b Hamzah,
Design of Harmonic Suppressed Reconfigurable Fractal Dipole Antenna, 2013

xxi) Nik Noordini binti Nik Abd Malik,
Optiization of Radiation Beam in Wireless Sensor Networks, 2012

xxii) Marwah Yousif Ahmed,
Spectrum Planning for High Altitude Platform Station Gateway Link at 5850-7075 MHz and Coexistence with Fixed Satellite Service, 2011

xxiii) Reza Firsandaya Malik,
The Wireless Mesh Routing Protocol Using Optimization Algorithm, 2011

xxiv) Okonkwo Uche Anieetus Kennedy,
Time-Scale Domain Approach in Wireless Channel Characterization for Mobile Communication Systems, 2010

xxv) Adel Ali Ahmed Abdullah, Secure Real-Time Routing Protocol for Wireless Sensor Networks, 2008.

xxvi) Mokhtar Harun, Speech Intelligibility Evaluation and Frequenct Dependent Prediction Model in Room with Dome, 2004,

xxvii) Yusnita Rahayu, Reconfigurable Ultra Wideband Antenna Design and Development for Wireless Communication, 2003

xxviii) Tan Kim Geok,
Propagation Prediction and Simulation at 2 GHz Band for Fixed Wireless Access Application, 2000.

MSc INTERNAL EXAMINER

i) Nor Aswani binti Mamat, Affine Based Time-Scale Ultra Wideband Wireless Channel Simulator For Time Varying Communication Environmnet, September, 2014.
ii) Fadalia Dina binti Dahalan, A Spiral Antenna for Band Notch Characteristics and Frequency Reconfigurability, September, 2014.
iii) Mohd Ezwan bin Jalil, Multiband Fractal Koch Textile Antenna For Wearable Application, December, 2013.
iv) Nor Aishah binti Muhammad, Influences of Wind and Rain on Radio-wave Propagation in Foliated Fixed Wireless Acess at 5.8GHz, April, 2012.
v) Mohd Adib Sarijari, Dynamic Spectrum Access Using Cognitive Ratdio Utilizing GNU Radio and Universal Software Radio Peripheral, March, 2011.
vi) Mohd Nazri bin A Karim, Fractal Koch Antenna Design for Wireless Application, November, 2009.
vii) Ahmad Elsayed Mohy Eldeen Mustafa Rateb, Performance and Improvement for Ultra Wideband System Employing Detect and Avoid Mechanisms, 2009.
viii) Rajan Ratti A/L Satya Nand, Modelling and Simulation of WLAN Physical Layers Based on Orthogonal Frequency Division Multiplexing, November, 2005.
ix) Chua Tien Han, WiFiGeoloc: A multi-floor IEEE802.11/g Wireless Local Area Network Based Indoor Geo-Location System, 2005.
x) Fitri Dewi binti Jaswar, FPGA Implementation of Multifrequency Continuous Phase Shift Keying Modulation Technique for HF Data Communication, 2004.
xi) See Guan Hei, Synthesis and Modeling of RF Integrated Planar Spirall Inductor, May, 2004.
xii) Tan Min Keen, Channel Modeling and Bit Error Rate Performance for Fixed Broadband Wireless Access System, 2004.
xiii) Farah Ayu binti Ismail, Small Aperture Radial Slot Array Antenna Design and Development for Indoor WLAN Application, July, 2003.
xiv) Lim Tien Sze, Radiation Pattern Modeling Software and Testbed Development for Radial Line Slot Array Antenna, 2001.
xv) Gan Beng Ser, Bit Error Rate and Propagation Measurement for 3rd Generation Mobile Communication, Jun, 2000.
xvi) Muhammad Waseem Aamer, International Mobile Telecommunications Technoloies: Evaluation and Fixed Wireless Access Applications, April 1999.
xvii) Noraini binti Alias, Fixed Wireless Access in Malaysia, December, 1998.

PUBLICATIONS

JOURNAL

ISI Journal:

1. Elijah, O., Rahim, S.K.A., Sittakul, V., **Din, J.,** Tharek, A.R. 'Effect of Weather Condition on LoRa IOT Communication Technology in a Tropical Region: Malaysia', IEEE Access, Vol. 9, 2021 **(Impact Factor 4.098, Q1)**

2. Seah, S.J., Jong, S.L., Lam, H.Y., **Din, J**. 'Rain Fade Margin of terrestrial line-of-sight (LOS) links for 5G networks in Peninsular Malaysia, International Journal of Microwave and Wireless Teshnologies, 2021 **(Impact Factor 1.064, Q4)**

3. Anuar, S. U., Jamaluddin, M. H., **Din, J**., Dahri, M. H., Idris I.H., 'Triple Band MIMO Dieletric Resonator Antenna for LTE Applications', AEU-International Journal of Electronics and Communications, Vol. 118, May 2020. (**Impact Factor 2.853, Q2**)

4. Mohammad Abo Zeed, **Jafri Bin Din**, Ibrahiem Shayea and Mustafa Ergen, 'Survey on Land Mobile Satellite System: Challenges and Future Research Trends', IEEE Access, Vol. 7, 2019. **(Impact Factor 4.098, Q1)**

5. Siat Ling Jong, Carlo Riva, **Jafri Din**, Michele D'Amico and Hong Yin Lam, 'Fade Slope Analysis for Ku-band Earth-Space Communication Links in Malaysia', IET Microwaves, Antennas & Propagation, July, 2019. **(Q3)**

6. Siat Ling Jong, Carlo Riva, Michele D'Amico, Hong Yin Lam, Mawarni Mohamed Yunos and **Jafri Din**, 'Performance of Synthetic Storm Technique in Estimating Fade Dynamics in Equatorial Malaysia', International Journal of Satellite Communications and Networking, Vol. 36, Issue 5, September 2018. (**Impact Factor 1.079, Q2**)

7. Hong Yin Lam, **Jafri Din** and Siat Ling Jong,'Statistical and Physical Descriptions of Randrop Size Distributions in Equatorial Malaysia from Distrometer Observations', Advances in Meteorology, Vol. 2015. DOI: 10.1155/2015/253730 . **(Impact Factor 1.348, Q3)**

8. Masoud Mohebbi Nia, **Jafri Din**, A. D. Panagapoulos and Hong Yin Lam,'Survival Probability of Precipitations and Rain Attenuation in Tropical and Equatorial Regions', International Journal of Electronics, 2015. DOI: 10.1080/00207217.2014.979451 **(Impact Factor 0.751, Q3)**

9. Khairayu Badron, Ahmad Fadzil Ismail, MdRafiqul Islam, Khaizuran Abdullah, **Jafri Din** and Abdul Rahman Tharek, 'A modified rain attenuation prediction model for tropical V-band satellite earth link', *Int. J. Satell. Commun. Network.* 2014. DOI: 10.1002/sat.1071 **(Impact factor: 0.896, Q2)**

10. Siat Ling Jong, Michele D'Amico, **Jafri Din**, and HongYin Lam, 'Analysis of Fade Dynamic at Ku-Band in Malaysia', *International Journal of Antennas and Propagation* Volume 2014. (**Impact factor: 0.827, Q3)**

11. Nor Azlan Mohd Aris, Lorenzo Luini, **Jafri Din** and Hong Yin Lam. 1-minute Integrated Rain Rate Statistics Estimated from Tropical rainfall Measuring Mission Data, *IEEE Antennas and Wireless Propagation Letters*, ISSN:1536-1225, 12,132-135, 2013. DOI: 10.1109/LAWP.2013.2243103 **(Impact factor: 1.948, Q1)**

12. Hong Yin Lam, Lorenzo Luini, **Jafri Din**, Carlo Capsoni and Athanasios D. Panagopoulos, Investigation of Rain Attenuation in Equatorial Kuala Lumpur, *IEEE Antennas and Wireless Propagation Letters*, ISSN:1536-1225, 11, 1002-1005, 2012. DOI: 10.1109/LAWP.201.2214371. **(Impact factor: 1.667, Q1)**

13. K.Badron, A.F.Ismail, **J.Din** and A.R.Tharek , "Rain induced attenuation studies for V-band satellite communication in tropical region" *Journal of Atmospheric and Solar-Terrestrial Physics*, ISSN 1364-6826, Vol. 73 (5-6), 601-610, April 2011. DOI: 10.1016/j.jastp.2010.12.006. **(Impact Factor: 1.596, Q2)**

SCOPUS Journal:

1. M Rashid, **Jafri Din**, 'Effects of Reduction Factor on Rain Attenuation Predictions over Milimeter-Wave Links for 5G Applications', Bulletin of Electrical Engineering and Informatics, Vol 9, Issue 5, 2020 **(Scopus Indexed).**

2. Mustafa Ghanim, Manhal Alhilali, **Jafri Din** and Hong Yin Lam,'Rain Attenuation Statistics over 5G milimetre wave links', Indonesian Journal of Electrical Engineering and Computer Science, Vol. 14, No. 2, 2019 **(Scopus Indexed).**

3. Mohammad Ibrahim Abozeed, Manhal Alhilali, Lam Hong Yin and **Jafri Din**,'Rain Attenuation Statistics for Mobile Satellite Communications Estimated from Radar Measurements in Malaysia', Telkomnika, Vol. 17, No. 3, 2019. **(Scopus Indexed)**

4. Ibtihal El-Shami, Lam Hong Yin, **Jafri Din**, Ali Elgayar and Manhal Alhilali, 'Tropospheric Scintillation with Rain Attenuation of Ku Band at Tropical Region', Telkomnika, Vol. 16, No.5 October 2018 (**Scopus Indexed)**

5. Manhal Alhilali, Lam Hong Yin and **Jafri Din**,'Comparison of Raindrop Size Distribution Charactheristics Across the Southeast Asia Region', Telkomnika, Vol. 16, No.6, December 2018 (**Scopus Indexed**)

6. Abu Bakar, I., **Din, J**., Lam, H.J., Disparities in the induced rain attenuation between beacon (Narrowband) and broadband satellite links in tropical zones', Indonesian Journal of Electrical Engineering and Computer Science, Vol. 10, No. 2, May 2018. (**Scopus Indexed**)

7. Yunus, M. M, **Din, J**., Jong, S.L., Lam, H.Y., 'Slant Path Ka-Band rain attenuation statistics in equatorial Malaysia obtained using stratiform convective-synthetic storm technique', International Journal of Engineering and Technology(UAE), Vol. 7, No. 2, 2018. (**Scopus Indexed**)

8. Jong, S. L., Lam H. Y., D"Amico, M., Cuervo, F., Yunus, M. M., **Din, J**., 'Impact of link elevation angles on rain attenuation statistics in heavy rain region predicted using the synthetic storm technique', Journal of Telecommunication, Electronic and Computer Engineering, Vol. 9, No. 3-8, 2017. (**Scopus Indexed**)

9. Felix Obite, Kamaludin M. Yusof, **Jafri Din,'**A Mathematical Aproach for Hidden Node in Cognitive Radio Networks', Telkomnika (Telecommunication Computing Electronics and Control) Vol. 15, No. 3, 2017. (**Scopus Indexed**)

10. Alhilali, **J. Din,** M. schönhuber, H.Y. Lam, "Estimation of Milimeter Wave Attenuation Due to Rain Using 2D Video Disdrometer", Indonesian Journal of Electrical Engineering and Computer Science, Vol. 7, No. 1, July, 2017. **(Scopus Indexed)**

11. F. Obite, **Jafri Din**, Kamaludin M Yusof, Basliza M. Noor,'Investigation of HAPs Propagation Channel for wireless Access in a Tropical Region at Ka-Band', International Journal of Electrical and Computer Engineering, Vol. 7, No. 3, June 2017. **(Scopus Indexed)**

12. Paulson E. N., Adedeji K. B., Kamaludin M. Y., Popoola J., **Jafri Din** and Sharifah Kamilah S. Y, 'Spectrum Occupancy Measurement: A Case for Cognitive Radio Network in Lagos, Nigeria', ARPN Journal of Engineering and Applied Sciences, ISSN: 1819-6608, Vol. 12, No. 4, Feb. 2017. **(Scopus Indexed)**

13. Idrissa Abu Bakar, **Jafri Din**, Manhal Alhilali and Hong Yin Lam, 'Interference and Electromagnetic Compatibility Challenges in 5G Wireless Network Deployments', Indonesian Journal of Electrical Engineering and Computer Science, Vol. 5 No. 3, 2017 **(Scopus Indexed)**

14. Mawarni Mohamed Yunus, **Jafri Din** and Siat Ling Jong,'Interfade Duration Statistics at Ku-band for Satellite Earth Links System in Equatorial Malaysia: Modeling Distribution', Telkomnika. Vol. 15, 2017. **(Scopus Indexed)**

15. Numan, P. E., Yusof, K. M., Suleiman, D. U., Yusof, S. K. S., **Din J**., 'Hidden Node Scenario: A case for cooperative spectrum Sensing in Cognitive radio Networks', Indian Journal of Science and Technology, Vol. 9(46), December 2016. **(Scopus Indexed)**

16. Masoud Mohebbi Nia, **Jafri Din**, Hong Yin Lam & Athanasios D. Panagopoulos, 'Stochastic Approach to a Rain Attenuation Time Series Synthesizer for Heavy Rain Regions', International Journal of Electrical and Computer Engineering, ISSN: 2088-8708, Vol. 6, No. 5, October 2016. **(Scopus Indexed)**

17. Ibtihal Fawzi Elshami & **Jafri Din**,'Seasonal and Diurnal Variation on Trophospheric Scintillation at Ku-Band in Tropical Climate', International Journal of Electrical and Computer Engineering, ISSN: 2088-8708, Vol. 6, No. 4, August 2016. **(Scopus Indexed)**

18. Idrissa Abubakar, Hong Yin Lam & **Jafri Din**,'Implementation of Adaptive Coding and Modulation for Satellite Communication Links in Heavy Rain Region: An Operator's Perspective', ARPN Journal of Engineering and Applied Sciences, ISSN: 1819-6608, Vol. 11, No. 12, June 2016. **(Scopus Indexed)**

19. Radwan, A., D'Amico, M., **Din, J**., Gentili, G. G., Verri, V., 'Bandwidth and Gain Enhancement of Graphene-based Metamaterial Antenna for the RHz Band', ARPN Journal of Engineering and Applied Sciences, ISSN: 1819-6608, Vol. 11, No. 10, May 2016. **(Scopus Indexed)**

20. Aris, N. A. **Din, J**., 'One-Minute Rain Rate Statistics prediction using Ito-Hosoya Model in Malaysia', ARPN Journal of Engineering and Applied Sciences, ISSN: 1819-6608, Vol. 11, No. 5, March 2016. **(Scopus Indexed)**

21. El-Shami, I. F., Lam, H. Y., **Din, J**. and Jong, S. L., 'Clear Sky Diurnal Behavior of Tropospheric Scintillation at Ku-Band Satellite Communication in Equatorial Malaysia', Jurnal Teknologi, Vol. 77, No. 10, 2015. **(Scopus Indexed)**

22. Jong, S. L., Lam, H. Y., **Din, J**. D'Amico, M., 'Investigation of Ka-band Satellite Communication Propagation in Equatorial Regions", ARPN Journal of Engineering and Applied Sciences, ISSN: 1819-6608, Vol. 10, No. 20, 2015. **(Scopus Indexed)**

23. Nor Azlan Aris and **Jafri Din**. Rain Height Statistics from Spaceborne Radar for Satellite Communication in Malaysia, *Jurnal Teknologi (sciences & Engineering)*, eISSN 2180-3722, ISSN 0127-9696, 58, 1-5, 2012. **(Scopus Indexed)**

24. Sunardi, Anton Yudhana, **Jafri Din**, Raja Bidin Raja Hassan, " Fish Species Identification Based on Its Acoustic Target Strength Using In Situ Measurement, *International Journal of Aquaculture, Aquarium, Conservation & Legislation* (AACL), Vol. 3, Issue 3, November 2010. **(Scopus Indexed)**

NON INDEXED Journal:

1. NWM Saad, AF Ismail, K Badron, NHM Sobli, **Jafri Din,** TA Rahman, " Assessments of Time Diversity Rrain Fade Mitigation Technique for V-band Space-Earth Link Operating in Tropical Climate", *International Journal of Electrical Energy*, ISSN: 2301-3656, Vol. 1, No. 4, Dec., 2013.

2. Sunardi, Anton Yudhana, **Jafri Din**, Saberi Mawi. Sound Profile for White Seabass (Cynoscion nobilis) Habitat in the Brackish Water. *International Journal of Basic & Applied Sciences*. ISSN: 2077-1223, 11(02): 115-119, April 2011.

3. K.Badron, A.F.Ismail, **J.Din** and A.R.Tharek, "V-Band Fade Dynamics Characteristics Analysis in Tropical Region", *American Journal of Applied Sciences* 7(8), ISSN: 1546-9239, e-ISSN: 1554-3641, 1109-1114, 2010.

4. Anton Yudhana, Sunardi, **Jafri Din**, Syed Abdullah, Raja Bidin Raja Hassan., "Green Turtle Hearing identification Based on Frequency Spectral Analysis". *Journal of Applied Physics Research*. Canada. ISSN: 1916-9639 (print), 1916-9639 (online). Vol. 2, No. 1, May 2010.

5. Anton Yudhana, Sunardi, **Jafri Din**, Syed Abdullah, Raja Bidin Raja Hassan. Turtle Hearing Capability Based on ABR Signal Assesment. *Journal of Telecommunication, Computation, Electronics, and Control*. ISSN: 1693-6930 (print), 2087-278X (online). Indonesia, 8(2): 187-194, August 2010.

6. Sunardi, Anton Yudhana, Ahmad Syahril Mohd Nawi, **Jafri Din**, Saberi Mawi. Sound of Paddle Wheel on Sea Bass Growth. *Journal of Telecommunication, Computation, Electronics, and Control*. ISSN: 1693-6930 (print), 2087-278X (online). Indonesia, 7(1): 1-12, April 2009.

7. Sunardi, **Jafri Din**, Anton Yudhana, Raja Bidin Raja Hassan, "Target Strength for Fish Identification Using Echo Sounder", *International Journal of Applied Physics Research*. Canada. ISSN: 1916-9639 (print), 1916-9639 (online). 1(2): 92-101, November 2009.

8. Sunardi, Anton Yudhana, **Jafri Din**, Raja Bidin Raja Hassan. Swimbladder on Fish Target Strength. *Journal of Telecommunication, Computation, Electronics, and Control*. ISSN: 1693-6930 (print), 2087-278X (online). Indonesia, 6(2): 139-144, August 2008.

INVITED Article

1. **Jafri Din**, An Overview of Propagation Impairment Mitigation Techniques for Satellite Communication Systems, *myConvergence*, A publication of the Malaysian Communications and Multimedia Commission, ISSN 1985-188X, Vol. 6, No.2, January 2013.

2. Nor K. Nordin, **Jafri Din**, Md Fadzil Ain, Chuah Teong Chee and Daniel Wong, Reliable Communications at Above 25 GHz in the Tropics, *myConvergence*, A publication of the Malaysian Communications and Multimedia Commission, ISSN 1985-188X, Vol. 5, No.1, January 2011.

H INDEX : 9 (Scopus); 12 (Scholar Google)

PROCEEDINGS/CONFERENCE

1) S. L. Jong, H. Y. Lam, M. D'Amico, **J. Din**, 'Analysis of precipitation Characteristics over Southern Peninsular Malaysia for Satellite Propagation Application', 2016 URSI Asia-Pacific Radio Science Conference, URSI AP-RASC 2016; Grand Hilton Seoul HotelSeoul; South Korea; 21-25 August 2016.

2) M. Mohamed Yunus, **J. Din**, H. Y. Lam, S. L. Jong, 'Estimation of interfade Duration for Ku- and Ka-Band Satellite Communication System in Equatorial Malaysia', 2016 URSI Asia-Pacific Radio Science Conference, URSI AP-RASC 2016; Grand Hilton Seoul HotelSeoul; South Korea; 21-25 August 2016.

3) M. Mohamed Yunus, **J. Din**, H. Y. Lam, S.L. Jong, 'Analysis of Interfade Intervals at Ku-Band in Heavy Rain Region', 6th IEEE International RF and Microwave Conference, RFM 2015; Riverside Majestic HotelKuching, Sarawak; Malaysia; 14-16 December, 2016.

4) F. Cuervo, M. Schönhuber, M., Capsoni, C., Yin, L.H., Jong, S.L., **Din, J**.. and Martellucci, A., 'Ka-band propagation campaign in Malaysia - First months of operation and site diversity analysis', 10th European Conference on Antennas and Propagation, EuCAP 2016; Davos; Switzerland; 10-15 April, 2016.

5) H.Y. Lam, L. Luini, **J. Din**, C. Capsoni, A. D. Panagopoulos, "Performance of Site-Diversity Satellite Communication System in Equatorial Malaysia Investigated through Weather Radar Data", *European Conference on Antennas & Propagation* (*EuCAP 2015*), 12-17 April 2015, Lisbon, Portugal.

6) H.Y. Lam, **J. Din** and S.L. Jong, "Evaluation of Small-scale Spatial Distribution of Rain Cells in Equatorial Malaysia for Rain Attenuation Modeling", *IEEE 2014 Asia-Pacific Conference on Applied Electromagnetics (APACE 2014)*, 8-10 December 2014, Johor Bahru, Malaysia.

7) H.Y. Lam, **Jafri Din** and S.L. Jong, "Interpretation Procedure of Meteorological Radar Data for Propagation Application in Heavy Rain Region", *International Symposium on Antennas and Propagation* (*ISAP2014*), 2-5 December 2014, Kaohsiung, Taiwan.

8) S.L. Jong, H.Y. Lam, **Jafri Din** and M.D'Amico, "Performance of Time Diversity Technique in Heavy Rain Region", *International Symposium on Antennas and Propagation* (*ISAP2014*), 2-5 December 2014, Kaohsiung, Taiwan.

9) S.L. Jong , H.Y. Lam, **Jafri Din** and M.D'Amico, "The Relationship between Ground Wind Direction and Seasonal Variation of Rain Attenuation at Ku band Satellite Broadcasting Services", *The XXXI General Assembly of the International Union of Radio Science* (*URSI GASS 2014*), 16-23 August 2014, Beijing, China. (**First Author selected as Young Scientist Award**).

10) H. Y. Lam, Luini, L., **Din, J**., Capsoni, C., Panagopoulos, A.D., "Performance of Site-Diversity Satellite Communication Systems in Equatorial Malaysia Investigated through Weather Radar Data", 2013 Asia-Pacific Radio Science Conference, Sept. 3 – 7, 2013, Taipei, Taiwan. (**First Auother Selected asYoung Scientist Award**)

11) H. Y. Lam, Luini, L., **Din, J**., Capsoni, C., Panagopoulos, A.D., "Assesment of seasonal Asia Monsoon rain impact on the Earth-Space Propagation in Equatorial Kuala lumppur", International Symposium on Antennas and Propagation (ISAP2012), Oct. 29 – Nov. 2, 2012, Nagoya, Japan. (**First Auother Selected as Young Scientist Award and Final List for Best Paper Award**)

12) A.F. Ismail, **J. Din** and A.R. Tharek, M.R. Islam and K. Abdullah," Analyses of Rain Fade Countermeasure Technique Time Diversity at 26 GHz", IEEE Asia-Pacific Conference on Antennas and Propagation, August 27-29, 2012, Singapore.

13) Khalid Alkhedhairi, **J. Din**, "Conversion of 15-Minutes to 1-Minute Rain Attenuation Derived From Tropical Rain Attenuation Measurement", *International RF and Microwave Conference* (*RFM*), pp. 1-4, 12-14 December 2011, Seremban, Malaysia.

14) H.Y. Lam, **J. Din**, L. Luini, A. D. Panagopoulos, C. Capsoni, "Preliminary Analysis of ITU-R Rain Attenuation Time Series Synthesizers in Equatorial Kuala Lumpur", *International RF and Microwave Conference* (*RFM*), pp. 1-4, 12-14 December 2011, Seremban, Malaysia.

15) H.Y. Lam, **J. Din**, L. Luini, A. D. Panagopoulos, C. Capsoni, "Analysis of Raindrop Size Distribution Characteristics in Malaysia for Rain Attenuation Prediction", *XXX General Assembly and Scientific Symposium of the International Union of Radio Science (Union Radio Scientifique Internationale-URSI)*, pp. 1-4, 13-20 August 2011, Istanbul, Turkey.

16) Nor Azlan, J. Din, H.Y.Lam, "Rain Height Information from TRMM Precipitation Radar for Rain Attenuation Prediction in Malaysia", The 2011 International Conference on Space Science & Communication (IconSpace2011), pp. 1-4, 12-13 July 2011, Penang, Malaysia.

17) Ismail, A.F., Islam, M.R., **Din** J., Tharek, A.R., Jamaludin, N.L.I, "Investigation of rain fading on a 26 GHZ link in tropical climate", International Conference on Telecommunication Systems, Services, and Applications (TSSA 2011), pp. 126-129, 2011.

18) Putra, E.H., Suprianto, E. **Din J**., Satria, H., "Cross layer design of wireless LAN based on H.264/SVC and IEEE 802.11E", International Conference on Electrical Engineering and Informatics (ICEEI 2011), pp. 1-6, 2011.

19) Lam, H. Y., Luini, L., **Din, J**., Capsoni, C. and Panagopoulos, A. D, Application of the SC EXCELL model for rain attenuation prediction in tropical and equatorial regions", IEEE Asia-Pacific Conference on Applied Electrofmagnetics (APACE), 2010.

20) Lam, H. Y., Luini, L., **Din, J**., Capsoni, C. and Panagopoulos, A. D, "Stratiform and convective rain discrimination for equatorial region", IEEE Student Conference on Research and Development (SCOReD), 2010.

21) K. Badron, A.F. Ismail, M.R.Islam, K.Abdullah, **J. Din** and A.R. Tharek, "Rain *Fade Characteristics analyses for V-band link in tropical region",* International Conference on Microwave and millimeter wave Technology 2010, 4-7th May 2010.

22) K. Badron, A.F. Ismail, **J. Din** and A.R. Tharek, "*Rain Induced Attenuation Studies for V-band in Tropical Regions*",Loughborough Antenna and Propagation Conference,16th - 17th November 2009.

23) Putra, E.H.; Supriyanto, E.; **Din, J**.; Satria, H., "Cross layer design of wireless LAN for Telemedicine Application", Third Asia international Conference on Modelling & Simulation, 2009, pp. 264-269, 2009.

24) Putra, E.H.; Supriyanto, E.; **Din, J**.; Satria, H., "Cross layer design of IEEE 802.11e Enhanced Distributed Channel Access wireless network for telemedicine application," *Innovative Technologies in Intelligent Systems and Industrial Applications, 2009. CITISIA 2009* , vol., no., pp.129-133, 25-26 July 2009

25) Nabi, A.G.; **Din, J**., "Link availability improvement using site diversity for high altitude platform station in Malaysia," *RF and Microwave Conference, 2008. RFM 2008. IEEE International* , vol., no., pp.395-398, 2-4 Dec. 2008

26) Al-tabatabaie, K, Din, J., Khamis, N. and Islam, M.R.U., "Co-channel interference for site diversity during hevy rain in LMDS System," *RF and Microwave Conference, 2008.*, 2-4 Dec. 2008.

27) Zaid A. Shamsan[1], and Din J, 'USING SITE DIVERSITY TO MITIGATE RAIN FADING IN BFWA AT 26 GHz', International Conference on Communication Systems and Networks (AsiaCSN 2008), April 2-4, 2008, Langkawi, Malaysia.

28) Sunardi, Hassan, R.B.R., Seman, N., Mohd, A., and Din, J. 2008. "*In situ* Target Strength Measurement of Selar boops (*Oxeye scad*) and Megalaspis cordyla (*Torpedo scad*) in South China Sea", Proceedings ICES Symposium on the Ecosystem Approach with Fisheries Acoustics and Complementary Technologies (SEAFACTS2008). Bergen, Norway.

29) Sunardi, Din, J., Mohd, A., Hassan, R.B.R., and Seman, N. 2008. *In situ* Target Strength Measurements Compared with X-Ray Images of Swimbladder. In Proceedings of the International Conference on Computer and Communication Engineering (ICCCE'08). Kuala Lumpur, Malaysia.

30) Zaid A. Shamsan, Abo-Zeed M. I. and Din J.,"Site Diversity Against Rain Fading in LMDS Systems", In Proceedings of the Asia Pacific Conference on Applied Electromagnetic (APACE2007). Melaka, Malaysia.

31) Kusay Al-tabatabaie and Din J., "Long-term Attenuation Probability and Site Diversity Gain Prediction", In Proceedings of the Asia Pacific Conference on Applied Electromagnetic (APACE2007). Melaka, Malaysia.

32) Jafri Din and Nor Hisham Haji Khamis, Determination of Rain Characteristics for Propagation Studies in UTM, In Proceedings of the Asia Pacific Conference on Applied Electromagnetic (APACE2007). Melaka, Malaysia.

33) Sunardi, Hassan, R.B.R., Seman, N., Mohd, A., and Din, J. 2007. Target Strength Measurement of Selar boops (*Oxeye scad*) Using 38 kHz and 120 kHz". In Proceedings of the Asia Pacific Conference on Applied Electromagnetic (APACE2007). Melaka, Malaysia.

34) Sunardi, Hassan, R.B.R., Seman, N., Mohd, A., and Din, J. 2007. Fish Target Strength Using Sonar", In Proceedings of International Conference on Robotic, Vision, Information, and Signal Processing (ROVISP'07). Pulau Pinang, Malaysia.

35) R. Singliar, J. Din, L. Csurgai, A. R. Tharek, P. Horváth and J. Bitó, "Comparison of 38 GHz Rain Fade Dynamics between Malaysia and Hungary", *Proc. Of 15th IST Mobile & Wireless Communications Summit*, 4 – 8 June 2006, Myconos, Greece.

36) R. Singliar J. Bitó, J. Din, A. R. Tharek, "Comparison of predicted attenuation of satellite rain attenuation distribution in Malaysia and Hungary", *Proc. of 16th International Czech - Slovak Scientific Conference RADIOELEKTRONIKA 2006*, Bratislava, Slovak Republic, 25-26 April, 2006, pp. 246-249.

37) Nor Hisham Haji Khamis, Jafri Din, and Tharek Abdul Rahman, "Analysis of Rain Cell Size Distribution from Meteorological Radar Data for Rain Attenuation Studies," ASIA - PACIFIC CONFERENCE ON APPLIED ELECTROMAGNETICS (APACE2005), 19-21 December 2005, Johor Bahru, Malaysia.

38) Nor Hisham Haji Khamis, Jafri Din, and Tharek Abdul Rahman, "Characterization Of Slant Path Propagation Based On Radar Data For Satellite Communication," International Conference on Defense Technology 2005, 30th November – 1st December 2005, Putrajaya, Malaysia.

39) Nor Hisham Haji Khamis, Jafri Din, and Tharek Abdul Rahman, "Derivation of Path Reduction Factor from the Malaysian Meteorological Radar Data," 1 st International Conference on Computers, Communications, and Signal Processing with Special Track on Biomedical Engineering, CCSP'05, 14th – 16th Nov. 2005, Kuala Lumpur, Malaysia.

40) M.A.Awang, J.Din, *"Comparison of the Rain Drop Size Distribution Model in Tropical Region",* RF And Microwave Propagation Conference 2004 (IEEE), 5-6 October 2004, Hyatt Subang Hotel, Shah Alam, Selangor, Malaysia.

41) Sum Chin Sean, Jafri Din, Tharek A.R, Mohd. Zoinol Abidin. *"Studies On Characteristics Of Rain Fade At 23 Ghz For Terrestrial Links In Malaysia".* 9th Ka & Broadband Communication Conference. November 5-7, 2003. Island of Ischia, Italy.

42) Sum Chin Sean, Jafri Din, Tharek A.R, Mohd. Zoinol Abidin. *" Studies On Characteristics Of Rain Fade At 23 Ghz For Terrestrial Links".*2003 Asia Pacific Conference on Applied Electromagnetic Proceeding. August 12-14, 2003. Shah Alam, Malaysia.

43) Yusnita Rahayu, Jafri Din and Tharek Abdul Rahman. *"Rain Attenuation Effect To The 23 GHz Transceiver System Design For Point-To-Point Microwave Link".* Proceeding of the 6th Quality in Research QIR. October 1-2, 2003. Depok, Indonesia: University of Indonesia, 2003.

44) Yusnita Rahayu, Jafri Din and Tharek Abdul Rahman. *" System Level Analysis of A 23 GHz Transmitter Design For Point-to-Point Microwave Link".*Proceeding of the 9th Asia Pacific Conference on Communication APCC. September 21-24, 2003. Penang, Malaysia: IEEE, 2003. 576-579.

45) Yusnita Rahayu, Tharek Abdul Rahman and Jafri Din. *"The Non-Linear Behaviour Measurement Result For 23 GHz Transceiver System Design".* Proceeding of the 9th

International Symposium on Microwave and Optical Technology ISMOT. August 11-15, 2003. Ostrava, Czech Republic: IEEE, 2003.

46) Yusnita Rahayu, Jafri Din and Tharek Abdul Rahman. "*RF Front End Design for Point-to-Point Microwave Link"*. Poster Exhibition of The National Symposium on Science and Technology: Strategic Research and Innovation Towards Economic Development. July 28-30, 2003. Kuala Lumpur, Malaysia: MOSTE, 2003.

47) Yusnita Rahayu, Tharek Abdul Rahman and Jafri Din. *"System Design of a 23 GHz Receiver"*. *Proceeding of the 9th National Conference on Communications NCC*. Jan 31– Feb 2, 2003. Madras, India: The Joint Telematics Group of the IITs/IISc, 2003.

48) Yusnita Rahayu, Jafri Din and Tharek Abdul Rahman. *"23 GHz Transceiver System Design For Point-to-Point Microwave Link"*. Proceeding of the 4th National Conference on Telecommunication Technology NCTT. January 14-15, 2003. Shah Alam, Malaysia: IEEE, 2003.

49) Yusnita Rahayu, Jafri Din, Tharek A.R., *"Optimised Performance of a 23 GHz Transceiver System for Point-To-Point Microwave Link",* 8th IEEE Internasional Conference on Communication Systems (ICCS), Singapore, 25 – 28 November, 2002.

50) S.K. A. Rahim, A. R. Tharek and J. Din, *"Comparison of Measured and Predicted Reduction Factors Models From the Network Rain Gauges in Malaysia"* Progress in Electromagnetic Research Symposium (PIERS 2001),18-22 July, 2001. Osaka , Japan.

51) S.K. A. Rahim, A. R. Tharek and J. Din, *"Rain Attenuation Prediction For Satellite Communication System at Ka Band in Malaysia",* Eleventh International Conference on Antennas and Propagation (ICAP),17-20 April, 2001. UMIST, Manchester, U.K.

52) S.K. A. Rahim, A. R. Tharek and J. Din, *'Development of Rain Contour Map in Malaysia for Microwave Communication System',* (SCOReD) 2001.

53) N. Khamis, J. Din, A. Awang, F. Yatim,, A. R. Tharek, S. Kamal A. Rahim, Sum Chin Sean, '*Ka- Band Space Diversity Study by Using TRMM NASA Data In Tropical Region for Satellite Communication.'* NCTT 2000, Johor Bahru, Johor, Nov 2000.

54) A. R. S. Kamal, A. R. Tharek, J. Din and C. S. Sum, *'Effect of Wet Antenna on Microwave Communication System Operating in Tropical Region',* COSTAM'2000, Genting Highland, Malaysia, 7-9 Nov 2000.

55) A. R. S. Kamal, J. Din and A. R. Tharek *'Preliminary Analysis of Rain Attenuation Measurement on Two 26 GHz Links in Malaysia',* IWTS' 2000, Shah Alam, Selangor, Mei 2000.

56) N. Khamis, J. Din, A. Awang, F. Yatim, S. N. Nawi and A. R. Tharek, *'Space Diversity Study For Satellite Communication By using Radar Data In Tropical Region.'* IWTS' 2000, Shah Alam, Selangor, Mei 2000.

57) M. Karim, M. R. Islam, J. Din and A. R. Tharek,' '*A Comparison of Various Horizontal Reduction Factor Models with Rain Attenuation Measurements in Malaysia',* AP2000,Davos, Switzerland, April 2000.

58) N. Khamis, J. Din and A. R. Tharek, *'Rain Cell Size Distribution Analysis Using Rain Gauge Network for Rain Attenuation Studies'* COSTAM' 99, Johor Bahru, Johor, 1999.

59) N. Khamis, J. Din and A. R. Tharek, *''Space-Diversity Study by using Radar Data in Malaysia', U*RSI Canada, 1999.

60) M. R. Islam, M. Karim, J. Chebil, J. Din and T.A. Rahman, *'Investigation of the Path Length Reduction Factor based on Attenuation Measurements at 15 GHz Over Peninsular Malaysia'*, Proc. of 4th IEEE Malaysia International Conf. on Comm., MICC '99, Melaka, Nov. 1999.

61) N, Khamis, J. Din and A. R. Tharek, *'Preliminary Analysis of Radar Measurements for Antenna Diversity'*, Research Seminar on Electrical, Electronics, Aerospace, Information Technology and Telecommunication, UTM, Skudai, Malaysia, March 1998.

62) J. Din, J. Chebil and A. R. Tharek, *Rain Attenuation Studies on Microwave Links in Malaysia'*, Conference on Microelectronics and Information Technology between Malaysia and Italy, Johor Bahru, Malaysia, Oct. 1996.

63) J. Din and A. R. Tharek, *''Radiowave Propagation on Microwave Links in Malaysia',* XXVth General Assembly URSI Lille, France, August 1996.

64) J. Din and A. R - Tharek, *'Predicted of Path Statistics Calculated from Radar Reflectivity Data of Rain in Malaysia'*, 2nd Asia-Pacific Conference on Communications, Osaka, Japan, June 1995.

65) J. Din and A. R. Tharek, *'Influence of Tropical Drop Size Distribution on the Attenuation Due to Rain in Malaysia'*, 4th Technical Conference on Telecommunications, Amman, Jordan, May 1995.

66) J. Din and A. R. Tharek, 'Studies *on the Structure of Rain Profile for Estimating Rain Induced Attenuation by using Radar Data'*, Malaysian Science and Technology Congress '94, Kuala Lumpur, 1994.

67) J. Din and A. R. Tharek, *'Predicted Rain induced Attenuation at Microwave Frequencies based on Drop Size Distribution Measurements in Malaysia'*, International Conference on Robotics, Vision and Parallel Processing for Industrial Automation (ROVPIA '94), Ipoh, Malaysia, May 1994.

68) J. Din and A. R. Tharek, *'Evaluation of Specific Attenuation at 13, 16 and 23 GHz based on Drop Size Distribution Measurements in Malaysia'*, Malaysia International Conference on Communication '93, Kuala Lumpur, Nov. 1993.

69) A.R. Tharek and J**.** Din, *'Rain Attenuation Studies on Microwave Frequencies in Tropical Region'*, Malaysian Science and Technology '93, Kuala Lumpur, August 1993.

70) J. Din and A. R. Tharek, *'Rainfall Drop Size Distribution Measurements for radiowave attenuation studies in Malaysia'*, XXIV General Assembly of URSI, Kyoto, Japan, August 1993.

71) A. R. Tharek and J. Din, *'Rainfall Drop Size Distribution Measurements in Malaysia*', Proc. of URSI Comm. F Open Symposium, Ravenscar, U.K., June 1992.

72) T. Z. T. Abdullah, J**,** Din, R. A. Rashid and T. A. Rahman**,** *'Proposal for the Radiowave Attenuation Measurements due to Rain in Tropical Region'*, Proc. of URSI Comm. F 1990 Symposium, Rio de Janeiro, Dec., 1990.

THESIS

i) Jafri Din, Influence of Rainfall Drop Size Distribution on Attenuation at Microwave Frequencies in a Tropical Region, Ph.D. Thesis, Universiti Teknologi Malaysia, Malaysia (1997).

BOOK CHAPTER

i) **Jafri Din**, Site Diversity on Rain Fading in Broadband Fixed Wireless Access at 26 GHz, Penerbit UTM, ISBN 978-983-52-0663-4, 2008.

ii) **Jafri Din**, Determination of Rain Characteristic for Propagation Studies, Penerbit UTM, ISBN 978-983-52-0663-4, 2008.

iii) Sum Chin Sean, **Jafri Din**, Tharek A Rahman, Mohd Zoinol Abidin, The Study of Rain Fade Characteristics for Terrestrial Links at 23 GHz, Penerbit UTM, ISBN 978-983-52-0686-3, 2008.

iv) Md Rafiqul Islam, Tharek A Rahman, **Jafri Din**, Jalel Chebil, The Study of Wet Antenna Effects on Microwave Propagation, Penerbit UTM, ISBN 978-983-52-0686-3, 2008.

v) Sharul Kamal A. Rahim, Tharek A Rahman, **Jafri Din**, Effect of Rain Rate in Malaysia for Future Satellite Operation in Ku-band, Penerbit UTM, ISBN 978-983-52-0686-3, 2008.

vi) Sharul Kamal A. Rahim, Sum Chin Sean, **Jafri Din**, Tharek A Rahman, M. Zoinol Abidin, M A. Awang, Study Over Rain Attenuation Effects on Terrestrial And Earth-Satellite Links in Malaysia, Penerbit UTM, ISBN 978-983-52-0686-3, 2008.

vii) Sharul Kamal.A.Rahim, Tharek A Rahman, **Jafri Din**, " Rain Contour Map In Malaysia For Microwave Communication", Penerbit UTM,ISBN 978-983-52-0686-3, 2009.

viii) Thomas Peter, **Jafri Din**, 'Active Integrated Antenna with Low Noise Amplifier Design, Penerbit UTM, ISBN 978-983-52-0664-1, 2007.

ix) Farid Zubir, **Jafri Din**, 'Circular Array and Linear Array Microstrip Antenna Design", Penerbit UTM, ISBN 978-983-52-0667-2, 2007.

ENCYCLOPEDIA SCIENCE AND TECHNOLOGY

i) Jafri Din, Ensiklopedia Sains dan Teknologi, Jilid Kejuruteraan Elektrik, UTM & DBP, Malaysia, 2003.

PLENARY LECTURE / KEYNOTE ADDRESS

i. **Keynote Speaker**, EECSI 2018, 5th International Conference on Electrical Engineering, Computer Science and Informatiocs, 16-18 October 2018, Malang, Indonesia. '**Milimeter-Wave Wireless Communications for 5G: Propagation Perspectives'.**

ii. **Keynote Speaker, ICON-CSE 2014** International Conference on Computer Science and Engineering, 01-02 October 2014, Palembang, Indonesia. '**Challenges of Next Generation Broadband Multimedia Satellite Communication & Its Propagation Impairment Mitigation Techniques: The Wave Propagation Perspective'**.

iii. **MCMC Lecture Series No. 03/2011, 'Propagation Impairment Mitigation Techniques For Satellite Communication System',** 15 December, 2011, Malaysian Communications and Multimedia Commission, MCMC, Cyberjaya, Malaysia

iv. **MCMC Lecture Series No. 03/2008, 'Propagation Effect by Rain in Wireless Communication System',** 1 Ogos, 2008, Malaysian Communications and Multimedia Commission, MCMC, Cyberjaya, Malaysia.

INVITED/GUEST SPEAKER

i. Guest Lecture/Speaker, 6-8 December, 2016, Modul on Mobile Communication, Program Pascasarjana, Universitas Ahmad Dahlan, Yogyakarta, Indonesia.

ii. Invited Speaker, 6 December, 2016, Post Graduate Reseach Practices, Fakultas Sains dan Teknologi, Universitas 'Aisyiyah Yogyakarta, Indonesia.

iii. **Invited Paper, 2014 IEEE Asia-Pacific Conference on Applied Electromagnetics (APACE 2014), 08-10 December, 2014, Johor Bahru,**

Malaysia. 'Evaluation of Small-scale Spatial Distribution of Rain Cells in Equatorial Malaysia for Rain Attenuation Modeling'**.**

iv. Knowledge Sharing Session (20th Oct., 2011) on Rain Fading Issues-Communication at Frequencies Bands above 25GHz, SKMM, Cyberjaya.

v. **Invited Paper**, 'IEEE 2007 Asia-Pacific Conference on Applied Electromagnetics', 4-6 December, 2007, Melaka, Malaysia. **'Determination of Rain Characteristics for Propagation Studies in UTM, Malaysia'.**

RESOURCE PERSON

i. Professional Certificate in Air Defence Radar & Communication Security, TUDM, July-Oct. 2011.
ii. Sistem Komunikasi Wayarles untuk PDRM (*Wireless Communication for Royal Malaysia Police)*, 13-15 Jun, 2005.
iii. Short Course on Radio Wave Propagation – Motorola, 20-24 Dec. 2004
iv. Kursus Pengurusan Spektrum ATM Siri 1/2001 (*Short Course on Spectrum Management for Armed Forces Malaysia*), Bahagian Komunikasi dan Elektronik Pertahanan, Markas Angkatan Tentera Malaysia. July 2001.

MOU

i. UTM-Natioal Technical University of Athens, Greece. 2011 – 2015.
ii. UTM- University of StellenBosh, South Africa, 1997- 2000.

CONSULTATIONS

i. Professional Certificate in Air Defence Radar & Communication Security, TUDM, July 2011 – Oct. 2011. (RM122,000.00)
ii. DGNSS Network Malaysia for Jabatan Laut: ATSB, Feb. 2009 – Jun 2010. (RM 98,000.00)
iii. Study on GSM 900 Cellular Network Key Performance Indicators for Maxis Communications Berhad, Dec. 2004
iv. Signal Level and Rain Intensity Measurement for Local Multipoint Distribution System for Maxis-Alcatel, 2000 – 2001.