



**PERSONAL DETAILS**

**Name** : SAIFULNIZAM B. ABD KHALID  
**Gender** : MALE  
**Date of Birth** : 23 JULY 1975  
**Nationality** : MALAYSIA



**Correspondent Address** : SEKOLAH KEJURUTERAAN ELEKTRIK, FAKULTI KEJURUTERAAN, UTM  
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**Expertise** : Transmission Usage Allocation for Deregulated Power System, Application of Artificial Neural Network (ANN) in Power Systems, Smart Metering Application

**ACADEMIC QUALIFICATIONS**

NO	LEVEL OF EDUCATION	COURSE	UNIVERSITY	STARTING DATE	ENDING DATE
1.	Bachelor of Engineering	Electrical	Universiti Teknologi Malaysia	1993	1998
2.	Master of Engineering	Electrical	Universiti Teknologi Malaysia	1999	2000
3.	Doctor of Philosophy	Electrical	Universiti Teknologi Malaysia	2006	2009

**AWARD AND HONORS RECEIVED**

NO	AWARD	LEVEL (FACULTY /UTM /NATIONAL /INTERNATIONAL)	YEAR
1.	Best Student Award Convocation 2009 Ceremony 43 <sup>rd</sup>	UTM (Supervised by Prof.Ir.Dr.Mohd Wazir Bin Mustafa)	2009
2.	Pro-Chancellor Award Convocation 2009 Ceremony 43 <sup>rd</sup>	UTM (Supervised by Prof.Ir.Dr.Mohd Wazir Bin Mustafa)	2009
3.	Excellent Service Award	UTM	2010
4.	Excellent Service Award	Faculty of Engineering	2019
5.	Anugerah Jasa Bakti	UTM	2020

## PROFESSIONAL MEMBERSHIP / QUALIFICATIONS / RECOGNITION

NO	NAME OF PROFESIONAL MEMBERSHIP	LEVEL (FACULTY /UTM /NATIONAL /INTERNATIONAL)	ROLE	YEAR
1.	Graduate Engineer	National	Member	2011
2.	Professional Engineer	National	Member	2021
3.	Malaysia Simulation Society	International	Member	2018

## ADMINISTRATIVE EXPERIENCE

NO	POSITION	STARTING DATE	ENDING DATE	DEPARTMENT
1.	Academic Manager	Nov 2018	30 Jun 2019	Fakulti Kejuruteraan Elektrik

## WORKING EXPERIENCE

NO	POSITION	STARTING DATE	ENDING DATE	DEPARTMENT/ORGANISATION
1.	Tutor	1998	1999	Fakulti Kejuruteraan Elektrik
2.	Lecturer	2000	2009	Fakulti Kejuruteraan Elektrik
3.	Senior Lecturer	2010	2020	Fakulti Kejuruteraan Elektrik
4.	Trainee	July 2019	Jun 2020	TNB Distribution Johor Bahru
5.	Associate Professor	2021	now	Fakulti Kejuruteraan Elektrik

## CONSULTANCY EXPERIENCE

NO	NAME OF CONSULTANCY	ROLE	AMOUNT (RM)	STARTING DATE	ENDING DATE	VOTE NO
1.	Professional Development Program for TLDM-UTM 2015	Facilitator (Organized by UTMSpace)	34,500	18 May 2015	22 May 2015	
2.	Power Engineering Research Group (PERG)	Member	2600	15 Sept 2017	16 Sept 2017	
3.	Electrical Engineering Capstone Showcase	Member	4300	11 Dec 2017	11 Dec 2017	
4.	Electrical Engineering Capstone Showcase	Member	23,000	10 Dec 2018	10 Dec 2018	
5.	Competent Visiting Consultation of 132kV & 22kV Substation Services at Pelabuhan Tanjung Pelepas for Tinta Firmanika Sdn.Bhd.	Member	36,000	Sept 2020	Sept 2021	

## FACULTY APPOINTMENT COMMITTEE

NO	NAME OF COMMITTEE	ROLE	STARTING DATE	ENDING DATE
1.	Ahli Jawatankuasa Penyambut Tetamu Sempena Pendaftaran Pelajar Baru Sesi 2009/2010	Member	2009	2009
2.	Penasihat Akademik	Academic Advisor	2009	Now
3.	Power Engineering Research Group	Member	2009	Now
4.	Editor ElektriKA	Editor	2010	2010
5.	Task Force Penyediaan Dokumen SAR-SEE	Member	2010	2010
6.	Ahli Jawatankuasa Seminar dan Kursus Pendek, FKE UTM	Member	2011	2012
7.	Jawatankuasa Penyediaan Dokumen SAR- Postgraduate	Member	2012	2012
8.	First Year Experience Committee	Facilitator	2012	2012
9.	Editor Book Chapters	Reviewer	2015	2015
10.	Ahli JawatanKuasa Electrical Engineering Student Showcase 2015	Member	2015	2015
11.	Ahli Jawatankuasa Kerja Pengajian Pasca Siswazah(JKKPS) FKE	Member	2015	2019
12.	Penyelaras Program MKEP	Coordinator	2015	2019
13.	Penyediaan Co Kursus Degree Eksekutif UTM- Ilsas TNB	Member	2016	2016
14.	Bengkel Semakan Kurikulum 2016 Jabatan Kejuruteraan Elektrik Kuasa (Power), FKE	Member	2016	2016
15.	Ahli Jawatankuasa Semakan Kurikulum SKEE	Member	2016	2016
16.	Ahli Jawatankuasa Penyediaan Laporan Akreditasi EAC Untuk Program Sarjana Muda Kejuruteraan (Elektrik) (SKEE) Fakulti Kejuruteraan Elektrik	Member	2016	2016
17.	Juruaudit Dalaman Fakulti Kejuruteraan Elektrik	Member	2016	2016
18.	Jawatankuasa Kursus Particle Swarm Optimization	Member	2017	2017
19.	Task-Force Penyediaan SAR UTMSPACE (SKEE) 2017	Member	2017	2017
20.	Ahli JawatanKuasa Electrical Engineering Student Showcase 2017	Member	2017	2017

21.	Task Force Untuk Persiapan Laporan COPPA SAR Program MKEP 2017	Member	2017	2017
22.	Ahli Jawatan Kuasa Electrical Engineering Student Showcase 2018	Member	2018	2018
23.	Penyelaras Kursus Power System Design And Operation (SKEE 4683)	Coordinator	2019	2021
24.	Penyelaras Akademik Makmal-Kuasa Asas	Coordinator	2019	2019

## UNIVERSITY APPOINTMENT COMMITTEE

NO	NAME OF COMMITTEE	ROLE	STARTING DATE	ENDING DATE
1.	Harvard Business School	Facilitator	2011	2011
2.	Course on Research Methodology to final year students	Facilitator	2011	2011
3.	How to get yourself employed	Facilitator	2011	2011
4.	Penyelaras Program MKEP Untuk ICGPA	Coordinator	2017	2017

## NATIONAL APPOINTMENT COMMITTEE

NO	NAME OF COMMITTEE	ROLE	STARTING DATE	ENDING DATE
1.	Working Group on Power System Analysis and Studies under SIRIM	Member	2011	2011

## INTERNATIONAL APPOINTMENT COMMITTEE

NO	NAME OF COMMITTEE	ROLE	STARTING DATE	ENDING DATE

## SELECTED ACTIVITIES / WORKSHOPS / SEMINARS / COURSES

NO	NAME OF ACTIVITIES	PLACE OF ACTIVITIES	STARTING DATE	ENDING DATE
1.	Overview of Power System Protection	UTM, Johor Bahru	10 Nov 2011	12 Nov 2011
2.	Safety & Health at Work	UTM, Johor Bahru	18 Nov 2011	19 Nov 2011
3.	Engineering Management Practice	UTM, Johor Bahru	22 Apr 2013	23 Apr 2013
4.	Code of Ethics/Regulations	UTM, Johor Bahru	12 Sept 2013	13 Sept 2013
5.	Electrical Safety in the Industries	UTM, Johor Bahru	15 Feb 2015	15 Feb 2015

6.	Short Course Bahagian Kejuruteraan TLDM-UTM 2015	KD Pelandok, Pangkalan TLDM Lumut Perak	18 Mei 2015	22 Mei 2015
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## RESEARCH ACTIVITIES

BIL	NAME OF GRANT	ROLE	CATEGORY OF GRANT(UTM/OTHERS)	TYPE OF GRANT	AMOUNT (RM)	STARTING DATE	ENDING DATE	VOTE NO
1.	Research University Grant	Principle investigator	UTM	Research	40,000	1/4/2011	31/3/2012	02J53
2.	Research University Grant	Principle investigator	UTM	Research	80,688.79	1/4/2014	31/3/2016	07H08
3.	Research University Grant	Principle investigator	UTM	Research	40,500	1/2/2018	31/1/2020	19H45
4.	Research University Grant	Project member	UTM	Research	80,000	1/12/2018	30/11/2021	05G47
5.	Research University Grant	Project member	UTM	Research	80,688.79	1/4/2014	31/3/2016	07H80
6.	Research University Grant	Project member	UTM	Research	108,532	1/12/2012	31/12/2014	04H60
7.	Research University Grant	Project member	UTM	Research	40,000	1/4/2011	30/9/2012	02J20
8.	Research University Grant	Project member	UTM	Research	148,000	1/4/2011	31/3/2013	01H44
9.	Research University Grant	Project member	UTM	Research	148,000	31/12/2000	30/12/2001	75202
10.	Research University Grant	Project member	UTM	Research	40,000	1/7/2017	30/9/2018	17H10
11.	Research University Grant	Project member	UTM	Research	40,000	1/7/2016	30/6/2018	16H03
12.	Fundamental Research Grant Scheme (FRGS)	Principle investigator	KPT	Research	50,000	1/4/2012	31/3/2014	3F431
13.	Fundamental Research Grant Scheme (FRGS)	Principle investigator	KPT	Research	71,910	15/11/2009	14/11/2011	4F134
14.	Fundamental Research Grant Scheme (FRGS)	Project member	KPT	Research	76,000	1/1/2019	31/12/2020	5F062
15.	Fundamental Research Grant Scheme (FRGS)	Project member	KPT	Research	88,000	1/7/2014	30/6/2016	4F439

## COLLABORATION / MOU

NO	NAME OF MOU	LEVEL OF MOU (NATIONAL/INTERNATIONAL)	STARTING DATE	ENDING DATE
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## TEACHING ACTIVITIES

### UNDERGRADUATE

YEAR OF SEMESTER	SEMESTER (1/2)	SUBJECT CODE	NAME OF SUBJECT	CREDIT HOUR	SECTION
2000/2001	1	SEU 3023	Electrical Technology	3	
2000/2001	2	SEE 2053	Electrical Technology	3	
2000/2001	2	SEU 2003	Electrical Technology	3	
2001/2002	1	SEE 3413	Basic Power & Electric Machine	3	
2001/2002	2	SEE 2033	Electrical Technology	3	
2002/2003	1	SEU 2003	Electrical Technology	3	
2002/2003	2	SEE 2033	Electrical Technology	3	
2002/2003	2	SEE 3722	Basic Power Lab	2	
2003/2004	1	SEE 3053	Electrical Technology	3	
2003/2004	1	SEE 3722	Basic Power Lab	2	
2003/2004	2	SEE 2033	Circuit Theory	3	
2003/2004	2	SEE 3722	Basic Power Lab	2	
2004/2005	1	SEE 3053	Electrical Technology	3	
2004/2005	1	SEE 3722	Basic Power Lab	2	
2004/2005	2	SEU 3023	Electrical Technology	3	
2004/2005	2	SEU 2003	Electrical Technology	3	
2004/2005	2	SEE 3722	Basic Power Lab	2	
2005/2006	1	SEU 2003	Electrical Technology	3	
2005/2006	1	SEE 4712	Advanced Power Lab	2	
2005/2006	2	SEU 2002	Electrical Technology	2	
2005/2006	2	SEE 2742	Electrotechnics Lab	2	
2006/2007	1	SEU 2002	Electrical Technology	2	
2006/2007	1	SEE 1712	Bengkel Pengamalan	2	
2009/2010	1	SEU 2003	Electrical Technology	3	
2009/2010	1	SEE 1712	Bengkel Pengamalan	2	
2009/2010	2	SEE 2053	Electrical Technology	3	
2009/2010	2	SEE 2742	Electrotechnics Lab	2	
2010/2011	1	SEE 2053	Electrical Technology	3	
2010/2011	1	SEE 4722	Advanced Power Lab	2	
2010/2011	2	SEE 2053	Electrical Technology	3	
2010/2011	2	SEE 3742	Basic Power Lab	2	
2010/2011	2	SEE 2742	Electrotechnics Lab	2	
2011/2012	1	SEE 2053	Electrical Technology	3	
2011/2012	1	SEE 4722	Advanced Power Lab	2	

2011/2012	2	SKEE 1043	Circuit and System	3	
2011/2012	2	SEE 3742	Basic Power Lab	2	
2012/2013	1	SEE 4722	Advanced Power Lab	2	
2012/2013	2	SEE 4443	Power System Analysis	3	
2012/2013	2	SKEE 2742	Electrotechnics Lab	2	
2013/2014	1	SEE 4423	Power System Engineering	3	
2013/2014	1	SEE 4722	Advanced Power Lab	2	
2013/2014	1	SKEE 3742	Basic Power Lab	2	
2013/2014	2	SEE 4443	Power System Analysis	3	
2013/2014	2	SEE 3742	Basic Power Lab	2	
2013/2014	2	SEE 2742	Electrotechnics Lab	2	
2014/2015	1	SEE 4443	Power System Analysis	3	
2014/2015	1	SKEE 3732	Basic Power Lab	2	
2014/2015	2	SKEE 4683	Power System Design & Operation	3	
2014/2015	2	SKEE 3742	Basic Power Lab	2	
2015/2016	1	SKEU 2003	Electrical Technology	3	
2015/2016	1	SKEE 3732	Basic Power Lab	2	
2015/2016	1	SKEE 4722	Advanced Power Lab	2	
2015/2016	2	SKEE 4683	Power System Design & Operation	3	
2015/2016	2	SKEE 3742	Basic Power Lab	2	
2016/2017	1	SEE 4423	Power System Engineering	3	
2016/2017	1	SKEE 3732	Basic Power Lab	2	
2016/2017	2	SKEE 4683	Power System Design & Operation	3	
2016/2017	2	SKEE 3742	Basic Power Lab	2	
2017/2018	1	SKEE 1013	Electrical Circuit Analysis	3	
2017/2018	1	SKEE 4722	Advanced Power Lab	2	
2017/2018	2	SKEE 4683	Power System Design & Operation	3	
2017/2018	2	SKEE 3742	Basic Power Lab	2	
2018/2019	1	SEE 4423	Power System Engineering	3	
2018/2019	1	SKEE 3732	Basic Power Lab	2	
2018/2019	2	SKEE 4683	Power System Design & Operation	3	
2018/2019	2	SKEE 3742	Basic Power Lab	2	
2018/2019	2	SKEE 2742	Electrotechnics Lab	2	

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**TOTAL  
CREDIT  
HOUR**

## POSTGRADUATE

YEAR OF SEMESTER	SEMESTER (1/2)	SUBJECT CODE	NAME OF SUBJECT	CREDIT HOUR	SECTION
2010/2011	1	MEP 1603	Power System Analysis & Computational Method	3	
2010/2011	3	MEP 1673	Power System Protection	3	
2012/2013	1	MEP 1603	Power System Analysis & Computational Method	3	
2014/2015	1	MEP 1603	Power System Analysis & Computational Method	3	
				<b>12</b>	

TOTAL

CREDIT

HOUR

## SUPERVISION

### PHD STUDENTS

#### Main Supervisor

No	Name	Status (Graduated/Ongoing)	Title	Date
1.	Aliyu Garba	Graduated	An Improved Algorithm For Active-Reactive and Distortion Power Measurement Using Walsh Functions	2014
2.	Isiyaku Abu Bakar	Graduated	Non-Intrusive Load Management system For Residential Loads Using ANN Based Arduino Controller	2018
3.	Shairul Wizmar Wahab	Ongoing	Optimizing and prioritizing primary equipment replacement and rehabilitation via intelligence technique in transmission system of Tenaga Nasional Berhad	2018
4.	Ganesan A/L V.Murugesu	Ongoing	Improved of Voltage Balancing on Micro Fuel Cell System	2021

#### PhD Co Supervisor

No	Name	Status (Graduated/Ongoing)	Title	Date



1.	Mamunu Mustapha	Graduated	Cuckoo Search Based Adaptive Neuro-Fuzzy inference system for short term load forecasting	2018
2.	Nor Shahida Hasan	Graduated	Virtual inertial support and wind energy conversion system using hybrid energy storage	2020
3.	Saleh Masoud Abdallah Altabawi	Ongoing	Microgrid Control Strategies Base on Improved Gradient-based Optimization Algorithm in Autonomous and Grid Connected Modes	2021
4.	Mohammed Ateequr Rahaman	Ongoing	Optimization and Reliability aspects of electrical Distribution Systems	2021

## MASTER STUDENTS

### Master by Research (Main Supervisor)

No	Name	Status (Graduated/Ongoing)	Title	Date
1.	Ahmad Fuad B. Abdul Aziz	Graduated	Modified Walsh Transform for Harmonic Assessment	2014

### Master by Research (Co Supervisor)

No	Name	Status (Graduated/Ongoing)	Title	Date

### Master by TaughtCourse (Main Supervisor)

No	Name	Status (Graduated/Ongoing)	Title	Date
1.	Khairul Rijal B. Wagiman	Graduated	Location of Voltage Sag Source By Using ANN	2016
2.	Reetha Shamini A/P Pachymuthu	Graduated	Fast Voltage Stability Index for Voltage Stability Assessment in Power Network	2016
3.	Muhammad Hafiz B. Hamzah	Graduated	Fault Location with DGs in Radial Distribution System Using RBFNN	2017
4.	Nor Isdaawati Bt. Ismail	Graduated	Overcurrent Relay Coordination in Radial Distribution System	2019
5.	Irdina Nadhrah Mohd Lutpee	Ongoing	Fault Detection and Identification Using ANN	2021
6.	Meenuja A/P Arumugam	Ongoing	Optimal Siting and Sizing of Distributed Generators Using Pareto-Based Multi-Objective Particle Swarm Optimization	2021

			for Improving Power System Operation	
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**Master by Taught Course (Co Supervisor)**

No	Name	Status (Graduated/Ongoing)	Title	Date

**UTM POSTGRADUATE EXAMINATION / VIVA**

**PHD**

NO	ROLE	NAME OF STUDENT	TITLE	YEAR
1.	Internal Examiner	Jalal Talavaei	Fault Analysis and Distance Protection for Non-Uniform Transmission System	2018
2.	Internal Examiner	Zaris Izzati Mohd Yassin	Premature Failure Detection of Distribution Transformer with Unbalanced Harmonic Loads Using Hotspot Temperature Analysis	2021
3.	Internal Examiner	Ahsanullah Memon	Improved Vector Control Scheme for Brushless Double Fed Induction Generator during Inductive load and Fault conditions	2022

### MASTER BY RESEARCH

NO	ROLE	NAME OF STUDENT	TITLE	YEAR
1.	Internal Examiner	Nurehan bt. Othman	Economic of analysis Competitive Electricity Market Model For Malaysia Electric Supply Industry	2013
2.	Internal Examiner	He Wei	Optimal operation Model for Virtual Power Plant in Datong Area	2016
3.	Internal Examiner	Nur Azrina bt. Mohd Azman	Optimal Time of Use (TOU) Electricity Pricing for Residential Customer in Malaysia	2018

### MASTER BY MIXED-MODE

NO	ROLE	NAME OF STUDENT	TITLE	YEAR

## EXTERNAL POSTGRADUATE EXAMINATION / VIVA

### PHD

NO	ROLE	NAME OF STUDENT	TITLE	YEAR

### MASTER BY RESEARCH

NO	ROLE	NAME OF STUDENT	TITLE	YEAR

**MASTER BY MIXED-MODE**

NO	ROLE	NAME OF STUDENT	TITLE	YEAR
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## PUBLICATIONS

### JOURNAL

NO	ARTICLE TITLE	JOURNAL TITLE	ISSN	Vol.	Issues	Page	Publication year	IF	Type of Publication	Category of Publication	Quartile Ranking	Category Author
1.	Reactive Power Transfer Allocation Method with the Application of Artificial Neural Network	IET Proceedings Generation, Transmission & Distribution	1751-8687	2	3	402-413	2008	2.874	Journal Article	ISI	Q2	M.W. Mustafa, S.N. Khalid (Corresponding author), H. Shareef, A.Khairuddin
2.	An application of artificial bee colony algorithm with least squares support vector machine for real and reactive power tracing in deregulated power system	Electrical Power and Energy System	0142-0615	37	1	67-77	2012	3.592	Journal Article	ISI	Q1	M.H. Sulaiman, M.W. Mustafa, H. Shareef, S.N. Khalid (Co- author)
3.	Reactive power tracing in pool-based power system utilizing the hybrid genetic algorithm and least squares support vector machine	IET Proceedings Generation, Transmission & Distribution	1751-8687	6	2	133-141	2012	2.874	Journal Article	ISI	Q2	M.W. Mustafa, M.H. Sulaiman, H. Shareef, S.N. Khalid (Co- author)
4.	Evaluation of real power and loss contributions	Electrical Power and Energy Systems	0142-0615	38	1	63-71	2012	3.592	Journal Article	ISI	Q1	S.N.Khalid (Corresponding author), H.Shareef, M.W.Mustafa. A.Khairuddin, A.Maungthan Oo

	for deregulated environment											
5.	Artificial intelligent Meter Development based on Advanced Metering Infrastructure Technology	Renewable and Sustainable Energy Reviews	1364-0321	27		191-197	2013	5.627	Journal Article	ISI	Q1	F.A.Aziz, S.N.Khalid (First author), H.Shareef, M.W.Mustafa, Aliyu Garba
6.	Application of Intelligent Systems for Real Power Transfer Allocation	Journal of Central South University of Technology	2095-2899	21	7	2719-2730	2014	0.464	Journal Article	ISI	Q3	H.Shareef, A. Mohamad, S.N. Khalid (First author), S.Herwan, M.W.Mustafa
7.	An Improved Three-Phase Reactive Power Measurement Algorithm Using Walsh Functions Transform	IEEJ Transactions on Electrical and Electronic Engineering	1931-4973	9	1	7-14	2014	0.668	Journal Article	ISI	Q4	A.Garba, S.N. Khalid, (First author). H.Shareef Khalid, M.W.Mustafa
8.	Application of load monitoring in appliances' energy management – A review	Renewable and Sustainable Energy Reviews	1364-0321	67		235-245	2017	9.184	Journal Article	ISI	Q1	I.Abubakar, S.N.Khalid (First author), M.W.Mustafa, H.Shareef, M.Mustapha
9.	Novel dynamic semiempirical proton exchange membrane fuel cell model incorporating component voltages	International Journal of Energy Research	0363-907X	42	8	2615-2630	2018	2.598	Journal Article	ISI	Q1	Saad S.Khan, H.Shareef, A.Wahyudie, S.N.Khalid (Co- author)

10.	Influences of ambient conditions on the performance of proton exchange membrane fuel cell using various models	Energy and Environment	0958-305X	30	6	1087-1110	2019	1.775	Journal Article	ISI	Q3	S.S.Khan, H.Shareef, A.Wahyudie, S.N.Khalid (Co- author), R.Sirjani
11.	Insights and Strategies for an Autonomous Vehicle with a Sensor Fusion Innovation: A Fictional Outlook	IEEE Access	2169-3536	8		135162-135175	2020	4.076	Journal Article	ISI	Q1	F.Hafeez, U.U.Sheikh,N.Khalidi, Hassan Z.A.Garni, Z.A.Arfeen, S.N.Khalid (Co-author)
12.	Detection of Non-Technical Losses in Power utilities- A Comprhensive Systematic Review	Energies	1996-1073	13	18	1-25	2020	2.822	Journal Article	ISI	Q3	M.S.Saeed, M.W.Mustafa, N.N.Hamadneh, N.A.Alshammari, U.U.Sheikh, T.A.Jumani, S.N.Khalid (Co-author), I.Khan
13.	Modeling and Scheduling Home Appliances using Nature Inspired Algorithms for Demand Response Purpose	Przegląd Elektrotechniczny	0033-2097	97	4	60-66	2021	0.244	Journal Article	ISI	Q4	I.Haroun,H.Shareef,A.A.Ibrahim, S.N.Khalid (Co-author), A.O.Idris
14.	Stateflow-Based Energy Management Startegy for Hybrid energy System to Mitigate Load Shedding	Applied Sciences	2076-3417	11	10	1-24	2021	2.458	Journal Article	ISI	Q2	M.P.Bakht, Z.Salam, A.R.Bhatti,W.Anjum, S.N.Khalid (Co-author), N.Khan



15.	A Novel Hybrid Sine Cosine Algorithm and Pattern Search for Optimal Coordination of Power system Damping Controllers	Sustainability	2071-1050	14	1	1-27	2022	3.251	Journal Article	ISI	Q2	Eslami.M, Neshat.M, S.N Khalid (First author),
16.	Real and Reactive Power Transfer Allocation Utilizing Modified Nodal Equations	International Journal of Emerging Electric Power Systems	1553-779X	9	6	1-14	2008		Journal Article	Scopus		H. Shareef, M.W. Mustafa, S.N. Khalid (First author), A.Khairuddin, A.Kalam, A. Maungthan Oo
17.	Implementation of Artificial Neural Network to Allocate Transmission Usage in Bilateral Trade Power Market	International Review of Electrical Engineering	1827-6660	3	2	253-264	2008		Journal Article	Scopus		S.N. Khalid (Corresponding author) , M.W. Mustafa, A.Khairuddin, H. Shareef, A.Kalam, A. Maungthan Oo
18.	Real Power Loss Allocation Using Modified Nodal Equations	Australian Journal of Electrical and Electronics Engineering	1448-837X	6	2	141-152	2009		Journal Article	Scopus		S.N. Khalid (Corresponding author), M.W. Mustafa, A.Khairuddin, H. Shareef, A.Kalam, H. Al-Khalidi
19.	Improved Walsh Functions Algorithm for single phase power components measurement	ARPJ Journal of Engineering and Applied Sciences	1819-6608	7	12	1628-1636	2012		Journal Article	Scopus		Aliyu Garba, S.N.Khalid (First author),M.W.Mustafa,Jafaru

20.	A New improved Walsh Function Algorithm for Active and Reactive Power Measurement	Jurnal Teknologi (Science and Engineering)	0127-9696	67	3	1-8	2014		Journal Article	Scopus		Aliyu Garba, S.N.Khalid (First author) ,Jafaru Usman, F.A.Aziz, H.Shareef
21.	Wavelet-Based Short –Term Load Forecasting using Optimized ANFIS	ARPJ Journal of Engineering and Applied Sciences	1819-6608	11	11	6920-6927	2016		Journal Article	Scopus		M.W.Mustafa,M. Mustapha, S.N. Khalid (Co- author), I. Abubakar
22.	Recent Approaches and Applications of Non-intrusive Load Monitoring	ARPJ Journal of Engineering and Applied Sciences	1819-6608	11	7	4609-4618	2016		Journal Article	Scopus		I.Abubakar, S.N.Khalid (First author), M.W.Mustafa, H.Shareef, M.Mustapha
23.	Data Selection and Fuzzy-Rules Generation for Short-Term Load Forecasting Using ANFIS	Telkomnika(Telecommunication Computing Electronics and Control)	1693-6930	14	3	791-799	2016		Journal Article	Scopus		M. Mustapha, M.W.Mustafa, S.N.Khalid (Co-author)
24.	Correlation and Wavelet-based Short-Term Load Forecasting using ANFIS	Indian Journal of Science and Technology	0974-6846	9	46	1-8	2016		Journal Article	Scopus		M. Mustapha, M.W.Mustafa, S.N.Khalid (Co-author), I.Abubakar Abdirahman M.Abdilahi

25.	Location of Voltage Sag Source by using ANN	Jurnal Teknologi (Science and Engineering)	0127-9696	79	2	11-30	2017		Journal Article	Scopus		Khairul Rijal Wagiman, S.N.Khalid (First author), H.Shareef
26.	Harmonic Suppression of Shunt Hybrid Filter Using LQR-PSO Based	International Journal of Electrical and Computer Engineering	2088-8708	7	2	869-876	2017		Journal Article	Scopus		Nor Shahida Hasan, Norzanah Rosmin, S.N.Khalid (Co-author), D.A.Awg,Ir.B.Ishak,Aede Hatib Mustaamal
27.	Calibration of ZMPT101B Voltage Sensor Module Using Polynomial Regression For Accurate Load Monitoring	ARPJ Journal of Engineering and Applied Sciences	1819-6608	12	4	1076-1084	2017		Journal Article	Scopus		I.Abubakar, S.N.Khalid (First author), M.W.Mustafa, H.Shareef, M.Mustapha
28.	Analysis and design of single phase voltage-frequency converter with optimized PI controller	International Journal of Power Electronics and Drive Systems	1819-6608	10	1	522-529	2019		Journal Article	Scopus		M.Asna, H.Shareef, S.N.Khalid (Co-author), A.Al Dosari, B.hamad, M.Alhammadi, N. Aldarmaki
29.	Design and Implementation of Universal Power Converter for Low Power Applications	International Journal of Power Electronics and Drive Systems	2088-8694	10	4	2165-2172	2019		Journal Article	Scopus		M.Asna, H.Shareef, S.N.Khalid (Co-author),O.Idris, A.N. Aldarmaki, B.Hamed

30.	Performance Comparison of Various Probability Gate Assisted Binary Lightning Search Algorithm	IAES International Journal of Artificial Intelligence (IJ-AI)	2089-4872	8	3	228-236	2019		Journal Article	Scopus		M.M. Islam, H.Shareef, S.N.Khalid (Co-author), M.Nagriah, J.Rizk, A.Hellany
31.	Real Power Transfer Allocation Method Utilizing Radial Basis Function Network	International Review of Electric Control.	1974-6059	2	3	300-308	2009		Journal Article	Non Indexed		S.N. Khalid (Corresponding author), M.W. Mustafa, A.Khairuddin, H. Shareef, S.S. Abdullah, A.Kalam, A. Maungthan Oo
32.	Transmission Usage Allocation in Pool and Bilateral Trades Using Artificial Neural Network	World Scientific and Engineering Academy and Society Transaction on Power Systems	1790-5060	2	9	215-224	2007		Journal Article	Non Indexed		M.W. Mustafa, S.N. Khalid(Corresponding author), H. Shareef, A.Khairuddin
33.	Coordinated Allocation of Dispersed Reactive Power Resources in AL-Ain Power Distribution System for Voltage Regulation and Loss Minimization	International Journal of Engineering & Technology	2227-524X	8	1.7	153-161	2018		Journal Article	Non Indexed		A.O.Idris, H.Shareef, S.N.Khalid (Co-author), M.M.Islam, S.Akbar, A.A.Alkhatib

## **H INDEX : 10**

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1. M.W. Mustafa, Azhar B. Khairuddin, H. Shareef, S.N. Khalid. Identification of Source to Sink Relationship in Deregulated Power Systems Using Artificial Neural Network. Proceedings of the 8th International Conference on Power Engineering. December 3-6, 2007. Singapore: IEEE. 2007. 6-11.
2. M.W. Mustafa, S.N. Khalid, H. Shareef, A.Khairuddin. Transmission Usage Allocation in Bilateral Energy Transaction Using Artificial Neural Network. Proceedings of the 5th International Conference on Electrical and Electronics Engineering. December 5-9, 2007. Turkey: IEEE. 2007. 1-8.
3. S.N. Khalid, M. W. Mustafa, H. Shareef, A.Khairuddin. A Novel Method for Reactive Power Allocation Using Modified Nodal Equations” Proceedings of the 7th Australasian Universities Power Engineering Conference. December 9-12, 2007. Perth, Australia: 2007. 49-55.
4. M.W. Mustafa, S.N. Khalid, H. Shareef, A.Khairuddin. Real Power Transfer Allocation Method with the Application of Artificial Neural Network. Proceedings of the 4th IASTED International Conference on Power and Energy Systems –AsiaPES. April 2-4, 2008. Langkawi, Malaysia: 2008. 135-142.
5. M. W. Mustafa, S.N. Khalid, H. Shareef, A.Khairuddin. A New Method for Real Power Transfer Allocation Using Modified Nodal Equations. Proceedings of the 2nd Power and Energy Conference. December 1-3, 2008. Johor Bahru, Malaysia: IEEE. 2008. 1306-1310.
6. S.N. Khalid, M.W. Mustafa, A.Khairuddin, H. Shareef, A.Kalam, A. Maungthan Oo. A Novel Reactive Power Transfer Allocation Method with the Application of Artificial Neural Network. Australasian Universities Power Engineering Conference. December 14-17, 2008. Sydney, Australia: 2008. 1-6.
7. S.N. Khalid, M.W. Mustafa, A.Khairuddin, H. Shareef, A.Kalam, A. Maungthan Oo. Real power loss allocation using modified nodal equations for deregulated power system. Australasian Universities Power Engineering Conference., 2009. Adelaide, Australia:1-6.
8. M.W. Mustafa, S.N. Khalid, A.Khairuddin, H. Shareef. Reactive power allocation using support vector machine. IMCIC 2010-International Multi-Conference on Complexity, Informatics and cybernatics, Orlando:41-46.
9. Aliyu Garba, S.N.Khalid, M.W.Mustafa, Jafaru Usman, H.Shareef. Digitized Walsh algorithm for reactive power estimation. IEEE 7 th International Power engineering and optimization Conference, PEOCO 2013, 144-148.
10. A.R.Minhat, M.W.Mustafa, I.Musirin, S.N.Khalid. Implementation of Artificial Bees colony algorithm on real power line loss allocation. IEEE 8 th International Power engineering and optimization Conference, PEOCO 2014, 658-662.
11. S.N.Khalid, Aliyu.G, M.W.Mustafa, H.Shareef. An algorithm for power components measurements in a harmonic load rich system using digitized walsh function. Australasian Universities Power Engineering Conference., 2014. Perth, Australia:1-7.
12. M.Mustapha, M.W.Mustafa, S.N.Khalid, H.Shareef. Classification of electricity load forecasting based on the factors influencing the load consumption and method used: An-overview. IEEE Conference on Energy Conversion, CENCON 2015. 442-447.

13. I.Abubakar, S.N.Khalid, M.W.Mustafa, H.Shareef, M.Mustapha. An-overview of Non-intrusive load monitoring methodologies. IEEE Conference on Energy Conversion, CENCON 2015. 54-59.
14. Z.A.Arfeen, U.U.Sheikh.S.N.Khalid, H.B.Ahmed, M.S. Saeed, M.Faisal, F.Hafeez. Energy management scheme for electric vehicle with Rapid-Charging facility utilizing grid power storage packs and photovoltaic generator. IEEE Conference on Automatic Control and Intelligent Systems 2020.25-32.
15. Yousif, A.S., Omar, Z., Sheikh, U.U., Khalid, S.A. A Novel Pathological Stroke Classification System using NSST and WLEPCA, Proceedings 2020 E EMBS Conference on Biomedical Engineering and Sciences, IECBES 2020 pp. 565-569.
16. Yousif, A.S., Omar, Z., Sheikh, U.U., Khalid, S.A. A New Scheme of Medical Image Fusion Using Deep Convolutional Neural Network and Local Energy Pixel Domain, Proceedings 2020 IEEE EMBS Conference on Biomedical Engineering and Sciences, IECBES 2020 pp. 384-388.
17. H.N. Saleem, Sheikj, U.U, S.S. Classification of Chest Diseases from X-ray Images on the CheXpert Dataset, 2nd International Conference on Electrical and Electronics Engineering, ICEEE 2021 pp 837-850.

## **SEMINARS/WORKSHOPS**

1. Bengkel Pengukuran & Penilaian Pembelajaran 26-27 Ogos 1998
2. Kursus Pendekatan dan Kaedah Pengajaran Berkesan 25-26 Januari 2000
3. Kursus Penulisan Artikel 28-29 Mac 2000
4. Bengkel Pengajaran Pembelajaran Komunikatif Berkesan 25 September 2000
5. Kursus Asas Pembelajaran Berbantuan Komputer (Multimedia Pendidikan) 2-3 April 2001
6. Kursus Pembinaan dan Penilaian Item Ujian/Soalan Peperiksaan 29 Mei 2002
7. Kursus Pengukuran dan Penilaian Pembelajaran 29-30 April 2003
8. Bengkel Instructional English in Engineering 24-26 Mei 2004 dan 1-2 Jun 2004
9. Kursus Penulisan Karya Asli 15-17 Mac 2005
10. Kursus Penambahbaina P & P Menerusi Amalan Reflektif 21 Disember 2005
11. Kursus Penyuntingan 28-30 Disember 2005
12. Overview of Power System Protection 10-12 November 2011
13. Safety & Health at Work 18-19 November 2011
14. Engineering Management Practice 22-23 April 2013

15. Code of Ethics/Regulations 12-13 September 2013
16. Electrical Safety in the Industries 15 February 2015
17. Capstone Workshop-Fakulti Kejuruteraan Elektrik 26-27 Julai 2016
18. Kursus Constructive Alignment 25 Ogos 2020
19. Kursus Assessment & CQI Course 26 Ogos 2020
20. Bengkel Persediaan Peperiksaan Kelayakan Profesional 14-15 September 2020

## **THESIS**

- i) Saifulnizam Abd.Khalid, Variable frequency for AC Motor Drive. Bachelor Thesis, Universiti Teknologi Malaysia (1998).
- ii) Saifulnizam Abd.Khalid, Load Flow Analysis of Power System with AC-DC Link, Master Thesis, Universiti Teknologi Malaysia (1999).
- iii) Saifulnizam Abd.Khalid, Improved Real and Reactive Power Transmission Usage Allocation Methods For Deregulated Power Systems, Ph.D.Thesis, Universiti Teknologi Malaysia (2009)

## **ORIGINAL BOOK**

- i) Isiyaku Abubakar, Saifulnizam Abd Khalid, Mohd Wazir Mustafa, Electrical appliances load monitoring and its applications, Lambert, Deutchland/Germany, (November 2016)

## **EDITED BOOK**

## **BOOK CHAPTER**

- i) Aliyu Garba, S.N.Khalid, M.W.Mustafa, F.A.Aziz. Real and Reactive Power Measurement method from Distorted Voltage and Current (Computational Tools for Power System), Penerbit UTM. 2015, Pages 11-54.
- ii) S.N.Khalid, A.Khairuddin. Application of ANN to Real and Reactive Power Allocation (Analysis Techniques in Power System Series 1), Penerbit UTM. 2015, Pages 71-115.
- iii) H.Shareef, S.N.Khalid, M.W.Mustafa, A.Khairuddin. An ANFIS approach for real power transfer allocation (Analysis Techniques in Power System Series 2), Penerbit UTM. 2015, Pages 1-22.
- iv) S.N.Khalid, Azri Hisham, A.R.Wahab, Mimi Faisyalini. Voltage sag mitigation using dynamic voltage restorer devices in electrical power system (Power System Network: Issues and Solutions Series 1), Penerbit UTHM. 2021, Pages 60-70.
- v) S.N.Khalid, M.S. Hamdzah, A.R.Wahab, Jameel Mukred. Study of power filter to reduce harmonics caused by non-linear load (Power System Network: Issues and Solutions Series 1), Penerbit UTHM. 2021, Pages 126-137.

## **ENCYCLOPEDIA OF SCIENCE AND TECHNOLOGY**

- i) Saifulnizam Abd.Khalid, Ensiklopedia Sains dan Teknologi Jilid 7: Kejuruteraan Elektrik (Artikel: Kuasa, Pengurusan Tenaga) ISBN 9836273336, DBP & UTM (2003)



## **EXPERT REPORT**

- i) Saifulnizam Abd. Khalid, Establishment of PPU Impian Emas No.2.(33/11kV:2X30 MVA), Project Report submitted to Board of Engineers Malaysia for Professional Assessment Examination (PAE), July 2020
- ii) Saifulnizam Abd.Khalid, The study of Unified Power Quality Conditioner Design Integrated with Smart Meter, End Report submitted for Research University Grant (GUP), grant number Q.J130000.2523.07H08, May 2016
- iii) Saifulnizam Abd.Khalid, Development of User Friendly Tool for Smart Meter Parameter Analysis, End Report submitted for Fundamental Research Grant Scheme (FRGS), grant number R.J130000.7823.4F134, March 2014

## **REFEREED CONFERENCES**

- i) Coordinated Allocation of Dispersed Reactive Power Resources in AL-Ain Power Distribution System for Voltage Regulation and Loss Minimization, 3<sup>rd</sup> International Conference on Advances in Mathematics, Power and Energy(AMPE2018) and 2018 International Conference on Recent Advances in Engineering, Computing and Applied Sciences (RAECAS2018), Melaka, 24-25 November 2018, Vol.8, No.1.7, pp. 153-161 (ISSN: 2227-524X)
- ii) Analysis and design of single phase voltage-frequency converter with optimized PI controller, 3<sup>rd</sup> International Conference on Advances in Mathematics, Power and Energy(AMPE2018) and 2018 International Conference on Recent Advances in Engineering, Computing and Applied Sciences (RAECAS2018), Melaka, 24-25 November 2018, Vol.10, No.1, pp. 522-529 (ISSN: 1819-6608)
- iii) Design and Implementation of Universal Power Converter for Low Power Applications, 13<sup>th</sup> International Power Engineering, Optimization and Computing Conference (PEOCO 2019), Melaka, 20-21 July 2019, Vol.10, No.4, pp.2165-2172 (ISSN:2088-8694)
- iv) Performance Comparison of Various Probability Gate Assisted Binary Lightning Search Algorithm, 13<sup>th</sup> International Power Engineering, Optimization and Computing Conference (PEOCO 2019), Melaka, 20-21 July 2019, Vol.8, No.3, pp.228-236 (ISSN: 2089-4872)

## **PLENARY/CHAIRPERSON/ORAL POSTER PRESENTER/KEYNOTE ADDRESS / INVITED GUEST SPEAKER**

<b>NO</b>	<b>ROLE</b>	<b>TITLE OF PROGRAMME</b>	<b>DATE</b>	<b>LOCATION</b>
1.	Presenter	Australasian Universities Power Engineering Conference	9-12 December, 2007	Perth
2.	Presenter	the 4th IASTED International Conference on Power and Energy Systems –AsiaPES	2-4 April, 2008	Langkawi
3.	Presenter	Proceedings of the 8th International Conference on Power Engineering	3-6 December, 2007	Singapore
4.	Presenter	2018 3 <sup>rd</sup> International Conference on Advances in Mathematics, Power and Energy(AMPE2018) and 2018 International Conference on Recent Advances in Engineering, Computing and Applied Sciences (RAECAS2018)	24-25 November, 2018	Melaka

## PROFESSIONAL SERVICES

### Consultation and Training

NO	ROLE	TITLE OF PROGRAMME	DATE	LOCATION	TOTAL INCOME GENERATED (RM)
1.	Facilitator	Professional Development Program for TLDM-UTM 2015 under UTMSpace	18-22 May 2015	KD Pelandok, Pangkalan TLDM Lumut Perak	34,500
2.	Member	Short course on Particle Swarm Optimization (PSO) under Power Engineering Research Group	15-16 Sept 2017	UTM, Johor Bahru	2600
3.	Member	Electrical Engineering Capstone Showcase	11 Dec 2017	UTM, Johor Bahru	2600
4.	Member	Electrical Engineering Capstone Showcase	10 Dec 2018	UTM, Johor Bahru	23,000
5.	Member	Competent Visiting Consultation of 132kV & 22kV Substation Services at Pelabuhan Tanjung Pelepas for Tinta Firmanika Sdn.Bhd.	Sept 2020-Sept 2021	Pelabuhan Tanjung Pelepas for Tinta Firmanika Sdn.Bhd.	36,000

### Commercialisation

NO	ROLE	NAME OF PRODUCT COMMERCIALISATION	DATE	TOTAL INCOME GENERATED (RM)

### Entrepreneurship

NO	SPIN OFF COMPANY (UTM)	TOTAL INCOME GENERATED (RM) (individual equity value based on audited company account in 3 years)
NO	1. HICOE management/agency 2. Board of Director or 3. Management for Corporation Entity	Average acquisition in 3 years.

### **Grant based on innovation and University Commercialisation Product**

BIL	NAME OF GRANT	ROLE	CATEGORY OF GRANT(UTM/OTHERS)	TYPE OF GRANT	AMOUNT (RM)	STARTING DATE	ENDING DATE	VOTE NO

### **Community Project**

NO	ROLE	NAME OF PROJECT	DATE	TOTAL VALUE OF PROJECT (RM)

### **Community and University Services**

NO	ROLE	TITLE OF PROGRAMME	DATE	LEVEL	LOCATION
1.	Facilitator	Science Tour 3.0 program	1 October 2017	UTM	UTM, Johor Bahru

### **Endowment and Wakaf to University**

NO	NAME OF ENDOWMENT AND WAKAF	TOTAL CONTRIBUTION (RM)
1.	Owned Prof. Dato'Ir.Dr.Zaini Bin Ujang book entitled "Menyuburkan Kembali Jiwa Akademia"	50

### **Patent Granted and Filing**

NO	NAME OF PATENT	STATUS OF PATENT

### **Copyright**

NO	NAME OF COPYRIGHT	STATUS OF COPYRIGHT
1.	A real and reactive power transfer allocation system	PI20093776