CURRICULUM VITAE



DR. MD MAMUN BIN IBNE REAZ
(Vice Chancellor)

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ResearchGate: https://www.researchgate.net/profile/Mamun-Bin-Ibne-Reaz

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SHORT BIOGRAPHY

Dr. Md Mamun Bin Ibne Reaz

Professor
Universiti Malaysia Perlis (UniMAP)

Dr. Md Mamun Bin Ibne Reaz is the Vice Chancellor of the Islamic University of Technology (IUT), Gazipur, Bangladesh. He previously served as a Professor of Electronic Engineering at Universiti Malaysia Perlis (UniMAP), bringing more than twenty-five years of experience in research, teaching, and institution-building across Malaysia and Bangladesh. Trained in VLSI design and applied electronics, he earned his PhD in Science and Engineering from Ibaraki University, Japan, in 2007, after completing his BSc in 1988 and MSc in 1990 in Applied Physics and Electronics from the University of Rajshahi. Before his tenure at UniMAP, he held long-standing appointments at Universiti Kebangsaan Malaysia, along with earlier roles at the International Islamic University Malaysia and Multimedia University. He also returned to Bangladesh as Dean of the School of Engineering, Technology & Sciences at Independent University, Bangladesh. Across these positions, he helped shape academic programs, laboratories, and research priorities linking electronic engineering with national innovation and regional development. His cross-functional outlook connects ECE fundamentals with healthcare, advanced manufacturing, and sustainable smart systems.

An author of more than 400 refereed publications and several books, Prof. Reaz's contributions span integrated-circuit design, instrumentation, biomedical sensors, and AI-enabled embedded systems. His work is widely cited: on Google Scholar he has 20,000+ citations with an h-index of 49, and on Scopus about 11,500+ citations with an h-index around 43. He is repeatedly listed among Stanford University's "Top 2% Scientists," has delivered 20+ keynotes and over 100 invited talks, and actively serves the community as Topic/Guest Editor and reviewer for high-impact journals. Recent outputs from his teams include flexible capacitive EMG sensors for wearable health monitoring, machine-learning models for diabetic neuropathy risk, and efficient FPGA/SoC implementations for real-time signal processing.

Beyond scholarship, he offers seasoned leadership and partnership-building. He has won and managed over 75 competitive research grants totalling roughly USD 4 million as principal investigator and co-researcher, drawing support from the Qatar National Research Fund, ASEAN-India mechanisms, and national ministries in Malaysia and Bangladesh. He coordinated the ICTP (Italy) Affiliated Centre at UKM and has co-directed ICTP schools and workshops, while chairing or leading IEEE conferences and steering academic policy, curriculum review, and research strategy in multiple institutions. These roles reflect his capacity to build high-performing teams, align research with societal needs, and steward resources responsibly.

As an educator and mentor, Prof. Reaz has supervised more than fifty postgraduate theses and led the creation of laboratories and curricula in VLSI, smart systems, and biomedical signal processing. He was a Senior Associate and Associate of The Abdus Salam International Centre for Theoretical Physics (ICTP), Italy, and Visiting Consultant to prominent universities in Bangladesh awarded by ICTP. He is a Senior Member of IEEE and maintains active collaborations with industry and government including on IC fabrication and packaging, biomedical sensing, and technology transfer helping students and colleagues translate ideas into prototypes, publications, and impact. Prof. Reaz is an academic and administrative leader who can combine vision with delivery, balancing rigorous research, quality teaching, and results-oriented administration, he brings a proven record of performance, international credibility, and a collaborative, growth-minded approach.

DR. MD MAMUN BIN IBNE REAZ

Curriculum Vitae

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Website: https://www.iutoic-dhaka.edu

PERSONAL

Date of Birth	:	30 December 1963
Place of Birth	:	Pabna, Bangladesh
Gender	:	Male
Marital Status	:	Married
Citizenship	:	Bangladesh

EDUCATION

Doctoral Studies

Degree	:	PhD in Science and Engineering
Graduation Date	:	30 September 2007
University	:	Ibaraki University, Japan
Field of Study	:	Major in VLSI Design
Dissertation	:	Advanced FPGA Implementation of Smart Systems with Application to Power, EMG, and Image
Supervisor	:	Prof. Masaru Kamada

Graduate Studies

Degree	:	Master of Science
Graduation Date	:	11 September 1990
University	:	University of Rajshahi, Bangladesh
Field of Study	:	Applied Physics and Electronics
Dissertation	:	Computer Aided Analysis of Active Circuit
Supervisor	:	Prof. Ramesh Chandra Debnath

Undergraduate Studies

Degree	:	Bachelor of Science (Honours)
Graduation Date	:	10 April 1988
University	:	University of Rajshahi, Bangladesh
Field of Study	:	Applied Physics and Electronics

OTHER EDUCATION AND TRAINING

Course Title/Organized by	Date and Venue
Joint ICTP-IAEA School on Detector Signal Processing and Machine Learning for Scientific Instrumentation and Reconfigurable Computing, organized by the Abdus Salam International Centre for Theoretical Physics (ICTP), Italy	27 Oct -7 Nov 2025 Trieste, Italy
Advanced Workshop on FPGA-based Systems-On-Chip for Scientific Instrumentation and Reconfigurable Computing, organized by the Abdus Salam International Centre for Theoretical Physics (ICTP), Italy	26 Nov -7 Dec 2018 Trieste, Italy
Advanced School on Programmable System-on-Chip for Scientific Instrumentation, organized by the Abdus Salam International Centre for Theoretical Physics (ICTP), Italy	20 Nov -1 Dec 2017 Trieste, Italy
Innovations in Strongly Correlated Electronic Systems: School and Workshop, organized by the Abdus Salam International Centre for Theoretical Physics (ICTP), Italy	6-17 August 2012 Trieste, Italy
Joint ICTP-TWAS Workshop on Science Communication in Developing Countries: Bridging the Gap between Science, Policy, and the General public, organized by the Abdus Salam International Centre for Theoretical Physics (ICTP), Italy	17-21 October 2011 Trieste, Italy
Co-sponsored School/Workshop on Integrable Systems and Scientific Computing, organized by the Abdus Salam International Centre for Theoretical Physics (ICTP), Italy	15-20 June 2009 Trieste, Italy
Advanced School in High Performance and Grid Computing, organized by the Abdus Salam International Centre for Theoretical Physics (ICTP), Italy	3-14 November 2008 Trieste, Italy
Asian-Pacific School on Statistical Physics and Interdisciplinary Applications, organized by the Abdus Salam International Centre for Theoretical Physics (ICTP), Italy	11-22 September 2006 Beijing, China
ICTP Microprocessor Laboratory Asian Course on Advanced VLSI Design Techniques using A Hardware Description Language, organized by the Abdus Salam International Centre for Theoretical Physics (ICTP), Italy	25 Nov–13 Dec 2002 Manila, Philippines
IWTS2000 tutorial session on Design with VHDL, organized by Emerald Systems Sdn Bhd, Malaysia	15– 16 May 2000 University Technology Mara, Malaysia
Course on Computer Vision (EPSRC'99), organized by EPSRC, England	7-11 June 1999 University of Surrey, Guildford, England

WORK EXPERIENCE

Current Position

Vice-Chancellor (Jun 14, 2026 – present), Islamic University of Technology, Boardbazar, Gazipur, Bangladesh

Previous Work Experience

Professor, Full Time (Jun 03, 2025 – June 13, 2026), Faculty of Electronic Engineering & Technology, Universiti Malaysia Perlis (UniMAP), Pauh Putra, 02600 Arau, Perlis, Malaysia

Coordinator (Oct 24, 2022 – Sep 30, 2025), ICTP Affiliated Centre - Centre of Advanced Electronic and Communication Engineering, Universiti Kebangsaan Malaysia, Selangor, Malaysia

Professor, Full Time (Sep 24, 2024 – Feb 28, 2025), Department of Electrical and Electronic Engineering, Independent University, Bangladesh, Bashundhara, Dhaka, Bangladesh

Dean and Professor, Full Time (May 02, 2023 – Sep 23, 2024), School of Engineering, Technology & Sciences, Independent University, Bangladesh, Bashundhara, Dhaka, Bangladesh

Professor, Full Time (August 28, 2012 – August 27, 2023), Department of Electrical, Electronic and Systems Engineering, Faculty of Engineering and Built Environment, Universiti Kebangsaan Malaysia, 43600 UKM, Bangi, Selangor, Malaysia

Visiting Professor (October 01, 2022 – September 30, 2023), Malaysia-Japan International Institute of Technology, Universiti Teknologi Malaysia, 81310 UTM, Johor Bahru, Malaysia

Associate Fellow (September 01, 2020 - April 30, 2023), Institute of IR4.0, Universiti Kebangsaan Malaysia, 43600 UKM, Bangi, Selangor, Malaysia

Associate Fellow (September 01, 2011 – August 31, 2020), Institute of Visual Informatics, Universiti Kebangsaan Malaysia, 43600 UKM, Bangi, Selangor, Malaysia

Associate Professor, Full Time (May 07, 2010 – August 27, 2012), Department of Electrical, Electronic and Systems Engineering, Faculty of Engineering and Built Environment, Universiti Kebangsaan Malaysia, 43600 UKM, Bangi, Selangor, Malaysia

Senior Lecturer, Full Time (December 23, 2008 – May 06, 2010), Department of Electrical, Electronic and Systems Engineering, Faculty of Engineering and Built Environment, Universiti Kebangsaan Malaysia, 43600 UKM, Bangi, Selangor, Malaysia

Assistant Professor, Full Time (September 30, 2007 – December 22, 2008), Department of Electrical and Computer Engineering, Faculty of Engineering, International Islamic University Malaysia, 53100 Kuala Lumpur, Malaysia

Lecturer, Full Time (August 01, 2006 – August 29, 2007), Department of Electrical and Computer Engineering, Faculty of Engineering, International Islamic University Malaysia, 53100 Kuala Lumpur, Malaysia

Lecturer, Full Time (March 01, 2001 – July 31, 2006), Faculty of Engineering, Multimedia University, 63100 Cyberjaya, Selangor, Malaysia

Lecturer, Part Time (December 2007 – April 2008), Department of Electrical, Electronic & Systems Engineering, Universiti Kebangsaan Malaysia, 43600 Bangi, Selangor, Malaysia

Lecturer, Part Time (November 2007 – March 2008), School of Engineering Infrastructure, Kuala Lumpur Infrastructure University College, 43009 Kajang, Selangor, Malaysia

Lecturer, Part Time (January 2007 – May 2007), Department of Electrical, Electronic & Systems Engineering, Universiti Kebangsaan Malaysia, 43600 Bangi, Selangor, Malaysia

Lecturer, Part Time (May 2001 – September 2001), Kolej Ikram Sdn. Bhd., 43009 Kajang, Selangor, Malaysia

Lecturer, Part Time (November 2000 – March 2001), Kolej Ikram Sdn. Bhd., 43009 Kajang, Selangor, Malaysia

Lecturer, Part Time (May 2000 – September 2000), Kolej Ikram Sdn. Bhd., 43009 Kajang, Selangor, Malaysia

Tutor, Part Time (November 1999 – March 2000), Department of Electrical Engineering, University Tenaga Nasional, 43009 Kajang, Selangor, Malaysia

Lab Demonstrator, Part Time (August 1999 – September 1999), Department of Electrical Engineering, Universiti Tenaga Nasional, 43009 Kajang, Selangor, Malaysia

Customer Service Engineer (January 1996 – October 1997), The Crescent Technologies Ltd. (A business partner of IBM), Topkhana, Dhaka, Bangladesh

AWARDS, PRIZES AND HONOURS

Listed within world's top 2% scientists by Stanford University Data for "Updated science-wide author databases of standardized citation indicators" in 2020, 2021, 2022, 2023, 2024, 2025 & 2026.

Research Awards

Johan 1 & Gold Medal, A Flexible Capacitive Biosensor for Reliable Muscle Activity Measurement, UTeMEX 2021, Universiti Teknikal Malaysia Melaka, Ayer Keroh, Melaka, Malaysia
(Ng Charn Loong, **Mamun Bin Ibne Reaz**, Dr. Sawal Hamid Bin Md. Ali, Prof. Ir. Dr. Ahmad Ashrif Bin A Bakar, Dr. Noorfazila Binti Kamal)

Gold Medal, A Capacitive Biosensor for Extramural Monitoring of Electromyography Signals, Research and Innovation Technology Competition (RITEC 2021), UTHM, Batu Pahat, Johor, Malaysia
(Ng Charn Loong, **Mamun Bin Ibne Reaz**, Dr. Sawal Hamid Bin Md. Ali, Prof. Ir. Dr. Ahmad Ashrif Bin A Bakar, Dr. Noorfazila Binti Kamal)

Gold Medal, A Flexible Capacitive Biosensor for Ambulatory Electromyography Measurement, Invention, Innovation and Design Exposition (iidex 2021), UiTM, Selangor, Malaysia
(Ng Charn Loong, **Mamun Bin Ibne Reaz**, Dr. Sawal Hamid Bin Md. Ali, Prof. Ir. Dr. Ahmad Ashrif Bin A Bakar, Dr. Noorfazila Binti Kamal)

Bronze Medal, Capacitive Electromyography Sensor a Non-Contact Method to Measure Muscle Activity, International Conference and Exposition on Inventions by Institutions of Higher Learning (PECIPTA 2019), UTHM, Batu Pahat, Johor, Malaysia
(Ng Charn Loong, **Mamun Bin Ibne Reaz**)

Best Award Satellite Event C, A Low Power Pseudo Differential Based Ring-VCO with Wide Tuning Range for Cost-Effective Portable Devices in RF Communication Systems, International Innovation, Design and Articulation (iIDEA 2014), UiTM, Perlis, Malaysia
(Jubayer Jalil, **Mamun Bin Ibne Reaz**)

Gold Medal, A Low Power Pseudo Differential Based Ring-VCO with Wide Tuning Range for Cost-Effective Portable Devices in RF Communication Systems, International Innovation, Design and Articulation (iIDEA 2014), UiTM, Perlis, Malaysia
(Jubayer Jalil, **Mamun Bin Ibne Reaz**)

Gold Medal, Active inductor-based T/R switch with high isolation and low insertion loss for low-cost portable RF Devices, International Innovation, Design and Articulation (iIDEA 2014), UiTM, Perlis, Malaysia
(Mohammad Arif Sobhan Bhuiyan, **Mamun Bin Ibne Reaz**)

Gold Medal, A Power-Efficient Ring Oscillator Based Multi-Phase Injection Locked Frequency Divider for Multi-Standard Wireless Application, International Innovation, Design and Articulation (iIDEA 2014), UiTM, Perlis, Malaysia
(Jubayer Jalil, Oh Soo Ling, **Mamun Bin Ibne Reaz**)

Gold Medal, A novel parallel resonance based Transmit/Receive switch for cost-efficient portable RF devices, International Invention, Innovation and Design Competition and Conference (ICON 2014), UiTM, Terengganu, Malaysia
(**Mamun Bin Ibne Reaz**, Mohammad Arif Sobhan Bhuiyan, Norfazila Kamal)

Gold Medal, An Efficient Charge Pump Circuit for RFID Transponder EEPROM, International Invention, Innovation and Design Competition and Conference (ICON 2014), UiTM, Terengganu, Malaysia
(Labonnah Farzana Rahman, **Mamun Bin Ibne Reaz**, Mohammad Alauddin Mohammad Ali)

Gold Medal, Low Power and High Sensitivity Phase Frequency Detector for Cost-Efficient RF Devices, International Invention, Innovation and Design Competition and Conference (ICON 2014), UiTM, Terengganu, Malaysia
(Khairun Nisa' Minhad, **Mamun Bin Ibne Reaz**, Sawal Hamid)

Bronze Medal, Low Power Phase Frequency Detector Employing Optimized CMOS Dynamic Logic Design Techniques for Cost-Efficient RF Communication System, International Innovation, Design and Articulation (iIDEA 2014), UiTM, Perlis, Malaysia
(Khairun Nisa Minhad, **Mamun Bin Ibne Reaz**)

Bronze Medal Award, Active Inductor Based Fully Integrated CMOS T/R Switch for 2.4 GHz RF Transceiver, Innovate Malaysia Design Competition: Silterra Track 2014, Penang, Malaysia
(Yeoh Zijie, **Mamun Bin Ibne Reaz**)

Second best award, An Affordable GPS/IMU Integrated Safe and Secured Vehicle System Using GSM Network, World Telecommunication, and Information Society Day 2013 (WTISD-2013), Ministry of Posts and Telecommunications and Information Technology, Bangladesh.
(Md. Syedul Amin, **Mamun Bin Ibne Reaz**, Jubayer Jalil)

Silver Medal Award, Ring-based Injection Locked Frequency Divider for Short Range Wireless Communication, Innovate Malaysia Design Competition: Silterra Track 2013, Penang, Malaysia
(Oh Soo Ling, **Mamun Bin Ibne Reaz**)

Silver Medal Award, Demodulator IC for High Frequency RFID Reader, Pemacuan Kege Milangan Warisan Ilmu UKM, 2011, Universiti Kebangsaan Malaysia, Malaysia.
(**Mamun Bin Ibne Reaz**, Mohd. Alauddin Mohd Ali, Nissar Karim, Syedul Amin, Jubayer Jalil)

Publication Awards

Best Presenter Award, Design of a Low-Dropout Linear Regulator in 0.13um CMOS Technology, 5th Technology and Innovation International Conference (TECHON 2019), Bintulu, Sarawak, Malaysia
(Author: **Mamun B. I. Reaz**)

Best Paper Award, Design of a Row Decoder for RFID Transponder EEPROM, Micro and Nano Electronics Track, 2016 International Conference on Advances in Electrical, Electronic and Systems Engineering (ICAEESE), Putrajaya, Malaysia
(Authors: Labonnah F. Rahman, **Mamun B. I. Reaz**, Mohammad A. S. Bhuiyan, Md. T. I. Badal, Md. A. Mukit)

Best Author Award, Smart Tracking: Usage of IPv6 in RFID System for Global Mobility, United Nations Pavilion, Expo-2010, Shanghai, China

(Authors: Labonnah F. Rahman, M. R. Alam, Mohd. Marufuzzaman, **M. B. I. Reaz**, M. A. Mohd Ali)

Service and Research Award in the Universiti Kebangsaan Malaysia (UKM)

- *Outstanding Individual Award (Overall), MyRA 2020,* 18 May 2022
- *Outstanding Individual Award (Publication), MyRA 2020,* 18 May 2022
- *Outstanding Individual Award (Funding), MyRA 2020,* 18 May 2022
- *Appreciation Publication Award, MyRA 2019,* 07 July 2021
- *Top 100 Excellent Academic (Research and Publication) Award 2016,* 26 Oct 2016
- *Excellent Service Award 2015,* 26 Jun 2015
- *Excellent Research Award (Indexed Journal),* 2014
- *Research Awards, Informatics Research Group,* 2013
- *Excellent Service Award 2011,* 16 Jun 2011
- *Level of Excellence in Teaching,* 20 October 2011
  Courses KKKC4023 – Rekabentuk Litar VLSI,
  Semester 2, Academic Session of 2010-2011

RESEARCH FUNDING

Funded Research Projects

Total Research Project: 76 ($4,124,321)
Project Leader: 39 ($1,913,177)
Co-Researcher: 37 ($2,211,144)

Research in Progress

	Role	Title of Research Project	Total Provision	Period
1.	Principle Investigator	Affordable Myoelectric Prosthetic Hand Enabling Essential Daily Activities for Low-Income Amputees in Bangladesh RDG Area: IT Solutions Addressing Disability Issues (University Grants Commission of Bangladesh)	Tk.12,000,000	01/01/2026-31/12/2029
2.	Principle Investigator	Q-Cattle, an integrated AI and IoT framework for sustainable livestock management to increase the efficiency of milk and meat production in Qatari Market FSC05-0406-240026 (Qatar National Research Fund)	USD437,273	01/02/2025-01/02/2028

Completed Projects

	Role	Title of Research Project	Total Provision	Period
3.	Principle Investigator	Risk Prediction of Chronic Kidney Disease of Diabetes Patients in Bangladesh: A Machine Learning Framework for 1-Year Prognosis	Tk.250,000	01/09/2023-31/08/2026

		SRG-232388 (Ministry of Science and Technology, Bangladesh)		
4.	Project Leader	Canonical Signed Digit based Multiply-Accumulate Unit to Accelerate Neural Network Computation on Portable Devices for Edge Computing in Industry 4.0 Applications FRGS/1/2021/TK0/UKM/01/4 (FRGS Grant, Ministry of Higher Education, Malaysia)	RM 142,900	07/09/2021-06/03/2025
5.	Project Leader	Publication grant GP-K017701 (Incentive Grant (GP), Universiti Kebangsaan Malaysia, Malaysia)	RM18,000	10/02/2023-09/02/2025
6.	Principle Investigator	Real Time Implementation of Electromyography Based Diabetic Sensorimotor Polyneuropathy Severity Classifier Using Adaptive Neuro-Fuzzy Inference System SERB/F/2910/2021-2022 (ASEAN-India Science & Technology Development Fund)	Rs.3,517,806	06/09/2021-05/03/2024
7.	Project Leader	Publication grant GP-2021-K017701 (Incentive Grant (GP), Universiti Kebangsaan Malaysia, Malaysia)	RM18,000	10/09/2021-09/09/2023
8.	Project Leader	A Real-Time Anomaly Detection Model for Edge Computing in the Industry 4.0. GUP-2021-019 (Research University Grant (GUP), Universiti Kebangsaan Malaysia, Malaysia)	RM70,000	01/09/2021-31/08/2023
9.	Principle Investigator	A Novel Contactless ANFIS-EMG Wearable Device for Diabetic Sensorimotor Polyneuropathy (DSPN) NPRP12S-0227-190164 (Qatar National Research Fund)	USD599,198	01/02/2020-05/07/2023
10.	Principle Investigator	A Novel Contactless ANFIS-EMG Wearable Device for Diabetic Sensorimotor Polyneuropathy (DSPN) DPK-2021-001 (Incentive Grant (DPK), Universiti Kebangsaan Malaysia, Malaysia)	RM38,000.00	01/02/2020-05/07/2023
11.	Project Leader	Optimized Heterogeneous Architecture to Reduce Cloud Dependence and Network Congestion for Machine Learning Applications in Smart IoT Infrastructure	RM100,000	01/08/2020-31/01/2023

		DIP-2020-004 (Research University Grant (DIP), Universiti Kebangsaan Malaysia, Malaysia)		
12.	Project Leader	Publication grant GP-2020-K017701 (Incentive Grant (GP), Universiti Kebangsaan Malaysia, Malaysia)	RM21,000	01/06/2020-31/05/2022
13.	Project Leader	Highly Efficient and Low-Cost Transition Metal Dichalcogenide MoS2 Based Photodetectors MI-2020-002 (Research University Grant (DMI), Universiti Kebangsaan Malaysia, Malaysia)	RM100,000	01/02/2020-31/07/2021
14.	Project Leader	A Real Time EMG Signal Measurement System using Capacitive Biosensor and Multi-stage Analog Filter GUP-2018-141 (Research University Grant (GUP), Universiti Kebangsaan Malaysia, Malaysia)	RM60,000	15/11/2018-14/07/2021
15.	Project Leader	Hardware Design of An Approximate Multiplier Based on Minimal Signed Digit Representation for Faster Convolutional Neural Networks GP-2019-K017701 (Incentive Grant (GP), Universiti Kebangsaan Malaysia, Malaysia)	RM24,000	11/07/2019-09/07/2021
16.	Project Leader	A Polyimide Film and Textile Insulated Capacitive Electromyography Sensor for Extramural Monitoring of Muscle Activity DPB-2020-077 (Research University Grant (DPB), Universiti Kebangsaan Malaysia, Malaysia)	RM6,000	17/08/2020-16/02/2021
17.	Project Leader	Enhancing Healthcare System of Diabetic Patients through Diabetic Sensorimotor Polyneuropathy (DSP) Severity Classification using ANFIS during Gait AP-2017-008/1 (Research University Grant (AP), Universiti Kebangsaan Malaysia, Malaysia)	RM100,000	01/09/2017-29/08/2020
18.	Project Leader	Design of An Efficient Charge Pump Circuit with Higher Output Voltage Gain and Lower Power Consumption in 130nm CMOS Process for Non-Volatile Memories P02C2-14 (CREST Grant)	RM128,868	01/04/2015-31/08/2018

19.	Project Leader	Biomedical Signal Analysis and Denoising for Enhanced Assessment of Depth of Anaesthesia and Muscle Fatigue DIP-2014-031 (Research University Grant (DIP), Universiti Kebangsaan Malaysia, Malaysia)	RM150,000	10/11/2014-09/11/2016
20.	Project Leader	Development of a Novel Petri Net Model and a Graph-Based Optimized Search Algorithm to Describe Platoon Progression Characteristics along Arterials in a Sub-Urban Network in Malaysia FRGS/1/2014/TK07/UKM/01/1 (FRGS Grant, Ministry of Higher Education, Malaysia)	RM76,700	01/07/2014-30/09/2016
21.	Project Leader	Prototyping of a Charge Pump Circuit in 180nm CMOS Process for Non-Volatile Memories INOVASI-2014-013 (Research University Grant (INOVASI), Universiti Kebangsaan Malaysia, Malaysia)	RM100,000	15/04/2015-14/04/2016
22.	Project Leader	Research Incentive IP-2014-029 (Research University Grant (IP), Universiti Kebangsaan Malaysia, Malaysia)	RM8,000	01/06/2014-31/05/2016
23.	Project Leader	Predictive decision support algorithm and corresponding intelligent controller to predict inhabitant's behaviour LRGS/TD/2011/UKM/ICT/03/03 (LRGS Grant, Ministry of Higher Education, Malaysia)	RM369,408	01/08/2011-30/04/2015
24.	Project Leader	A Contactless Sensing System for Extramural Monitoring of Muscle Activity AP-2013-001 (Research University Grant (AP), Universiti Kebangsaan Malaysia, Malaysia)	RM200,000	01/08/2013-31/07/2015
25.	Project Leader	The Fabrication and Testing of a Newly Designed CMOS Transmit/Receive Switch ETP-2013-037 (Research University Grant (ETP), Universiti Kebangsaan Malaysia, Malaysia)	RM71,000	01/02/2014-31/01/2016
26.	Project Leader	Design of Ring Based Injection Locked Frequency Divider In 0.18 um CMOS Process from Active RFID Applications DLP-2013-016 (Research University Grant (DLP), Universiti Kebangsaan Malaysia, Malaysia)	RM100,000	01/08/2013-31/01/2015

27.	Project Leader	Prototyping of A Ring VCO for RFID Transponder in Wireless Communication Systems INOVASI-2013-009 (Research University Grant (INOVASI), Universiti Kebangsaan Malaysia, Malaysia)	RM100,000	01/10/2013-30/09/2014
28.	Project Leader	A Smart RFID System for E-health and E-commerce Related Applications Employing IPv6 and IEEE 802.11 Protocol UKM-AP-ICT-20-2010 (Research University Grant (AP), Universiti Kebangsaan Malaysia, Malaysia)	RM340,000	01/10/2010-30/09/2013
29.	Project Leader	Exploration of FPGA Approach of Smart EMG Signal Analyzer to Identity Neuromuscular Diseases and Muscle Fatigue using Higher Order Statistics Algorithm UKM-GUP-2011-052 (Research University Grant (GUP), Universiti Kebangsaan Malaysia, Malaysia)	RM30,000	08/08/2011-07/02/2013
30.	Project Leader	Pitot Program for Early Detection of Ganoderma Disease ln Oil Palm Field in Sepang, Malaysia KOMUNITI-2011-026 (Research University Grant (KOMUNITI), Universiti Kebangsaan Malaysia, Malaysia)	RM25,000	16/05/2011-14/11/2012
31.	Project Leader	Hardware prototyping on an Intelligent Controller Utilizing Distributed Spatiotemporal Prediction INDUSTRI-2011-032 (Research University Grant (INDUSTRI), Universiti Kebangsaan Malaysia, Malaysia)	RM 25,000	16/05/2011-14/11/2012
32.	Project Leader	A Novel Algorithm for Smart Home Environment using Agent Modelling and task Distribution UKM-GGPM-TK-046-2010 (Research University Grant (GGPM), Universiti Kebangsaan Malaysia, Malaysia)	RM23,000	01/06/2011-30/06/2012
33.	Project Leader	A New Method for Fetal Monitoring Using Artificial Neural Network and Correlation UKM-KK-02-FRGS0127-2009 (FRGS Grant, Ministry of Higher Education, Malaysia)	RM50,000	01/11/2009-31/10/2011
34.	Project Leader	Hardware Prototyping of Multi-Point Vascular Monitor System using Photoplethysmography 03-01-02-SF0611	RM172,000	01/10/2009-30/09/2011

		(eScienceFund Grant, Ministry of Science, Technology and Innovation, Malaysia)		
35.	Project Leader	Hardware Implementation of a Real Time Image Compression System for Next Generation Mobile Communications 01-01-08-SF0022 (eScienceFund Grant, Ministry of Science, Technology and Innovation, Malaysia)	RM77,000	01/12/2006-31/05/2008
36.	Project Leader	Hardware Prototyping of a Multiagent Based Smart Home for Disabled People 01-01-08-SF0045 (eScienceFund Grant, Ministry of Science, Technology and Innovation, Malaysia)	RM138,000	01/09/2007-28/02/2009
37.	Project Leader	Brain Signal Analysis using WT and HOS with the Aim of using in the Intelligent Wheelchair for disabled People FRGS 0106-19 (FRGS Grant, Ministry of Higher Education, Malaysia)	RM 60,000	01/12/2006-30/11/2009
38.	Project Leader	Gesture Recognition using Muscle Signals for Human Computer Interaction Endowment Fund, IIUM (IIUM Grant, International Islamic University Malaysia, Malaysia)	RM20,000	01/06/2008-31/08/2009
39.	Project Leader	Hardware Realization of Fuzzy Wavelets Neural Network to Power Quality Analysis 03-99-01-0074 EA071 (IRPA Grant, Ministry of Science, Technology and Innovation, Malaysia)	RM131,561	01/01/2004-31/12/2005
40.	Co-Researcher	High Sensitivity of Hybrid Geophone-Distributed Acoustic Sensing for Earthquake Early Warning System FRGS/1/2021/TK0/UKM/02/17 (FRGS Grant, Ministry of Higher Education, Malaysia)	RM153,490	07/09/2021-06/09/2024
41.	Co-Researcher	CovidSense - An Integrated Application for Covid-19 Outbreak Control with Airborne Transmission Monitoring GPK-C19-2020-013 (Research University Grant (GPK), Universiti Kebangsaan Malaysia, Malaysia)	RM44,100	01/08/2020-31/07/2022
42.	Co-Researcher	Transistor structural study for IoT and Cloud Based transceivers for remote infectious disease monitoring system FRGS/1/2020/TK0/XMU/02/5	RM73,200	01/11/2020-31/10/2022

		(FRGS Grant, Ministry of Higher Education, Malaysia)		
43.	Co-Researcher	Characterisation of succinyl and phosphonic carrageenan as the sensing material of the optical fiber sensor on ammonium ion aqueous FRGS/1/2018/TK04/UKM/02/6 (FRGS Grant, Ministry of Higher Education, Malaysia)	RM87,300	01/01/2019-30/09/2021
44	Co-Researcher	A Reconfigurable Adaptive Digital Filter for Real Time and Dynamic Filtering Solution in EMG Signal Measurement System for Better Healthcare DIP-2018-017 (Research University Grant (DIP), Universiti Kebangsaan Malaysia, Malaysia)	RM100,000	14/12/2018-13/04/2021
45.	Co-Researcher	Smart and Sustainable Transport System Towards Carbon Neutrality Campus DCP-2017-006/2 (Research University Grant (DCP), Universiti Kebangsaan Malaysia, Malaysia)	RM116,400	01/02/2018-31/01/2020
46.	Co-Researcher	Sustainable Energy Management through Optimized Consumption in Home Utilizing Multiagent System GUP-2017-059 (Research University Grant (GUP), Universiti Kebangsaan Malaysia, Malaysia)	RM70,000	16/10/2017-15/10/2019
47.	Co-Researcher	IOT Optical Sensor Based on Novel Polysaccharides Derivatives Nanocoating Material for Real-Time Water Quality Monitoring DIP-2017-003 (Research University Grant (DIP), Universiti Kebangsaan Malaysia, Malaysia)	RM150,000	16/10/2017-15/10/2019
48.	Co-Researcher	Automatic Eating Behaviour Monitoring System for calorie estimation DIP-2016-008 (Research University Grant (DIP), Universiti Kebangsaan Malaysia, Malaysia)	RM150,000	24/10/2016-23/04/2019
49.	Co-Researcher	MYREN TV for Sustainable Knowledge Enhancement and Disbursement TD-2016-019 (Research University Grant (TD), Universiti Kebangsaan Malaysia, Malaysia)	RM70,000	01/01/2017-30/06/2019
50.	Co-Researcher	Mobile Sensing Technology for Augmented Reality and Medical Application AP-2013-011	RM360,000	01/11/2013-30/10/2017

		(Research University Grant (AP), Universiti Kebangsaan Malaysia, Malaysia)		
51.	Co-Researcher	Investigation of the Performance Enhancement in MIMO Access Point Employing Suspended Loop Technique for WLAN/WiMAX Applications ERGS/1/2012/TK06/UKM/02/8 (ERGS Grant, Ministry of Higher Education, Malaysia)	RM70,000	01/06/2012-31/05/2015
52.	Co-Researcher	Vision Guided Pointer for Tele-Assisted Surgery and Medical Consultation 01-01-02-SF0882 (eScienceFund Grant, Ministry of Science, Technology and Innovation, Malaysia)	RM216,590	01/11/2012-31/10/2015
53.	Co-Researcher	Smart Solar House: An Approach to Optimize Solar Energy Consumption for Home Utilizing Multiagent System 01-01-02-SF0744 (eScienceFund Grant, Ministry of Science, Technology and Innovation, Malaysia)	RM252,900	01/03/2013-31/08/2015
54.	Co-Researcher	Hardware Prototyping of Fatigue Monitoring System Using Wavelet Transform and Higher Order Statistics to Detect Neuromuscular Diseases 03-01-02-SF0743 (eScienceFund Grant, Ministry of Science, Technology and Innovation, Malaysia)	RM270,000	01/04/2012-31/03/2014
55.	Co-Researcher	System development for endothelial and erectile dysfunction diagnosis based on pulse wave velocity characterization 03-01-02-SF0703 (eScienceFund Grant, Ministry of Science, Technology and Innovation, Malaysia)	RM200,000	01/09/2011-24/08/2013
56.	Co-Researcher	Low Power, High Resolution, Low Noise, Unified Sensor Electronics 01-03-04-SF0026 (eScienceFund Grant, Ministry of Science, Technology and Innovation, Malaysia)	RM260,000	01/12/2011-30/04/2013
57.	Co-Researcher	Highly Reconfigurable, On-The Fly Power Adaptable Programmable Baseband for Short Range Communication Baseband Applications UKM-AP-2011-14 (Research University Grant (AP), Universiti Kebangsaan Malaysia, Malaysia)	RM100,000	01/08/2011-30/07/2013

58.	Co-Researcher	Development of Future Vehicle Safety Systems UKM-AP-2011-13 (Research University Grant (AP), Universiti Kebangsaan Malaysia, Malaysia)	RM100,000	01/08/2011-30/07/2013
59.	Co-Researcher	Exploration of FPGA Approach of Electroencephalogram (EEG) Signal Analyzer using Wavelet Transform and HOS to Remove Artifacts from Brain Signal UKM-GUP-2011-042 (Research University Grant (GUP), Universiti Kebangsaan Malaysia, Malaysia)	RM30,000	08/08/2011-07/08/2012
60.	Co-Researcher	A Novel Sequence Prediction Algorithm in Ubiquitous Environment Using Time, Event and Location Agent Modelling UKM-GUP-2011-043 (Research University Grant (GUP), Universiti Kebangsaan Malaysia, Malaysia)	RM30,000	08/08/2011-07/08/2012
61.	Co-Researcher	Exploration of FPGA approach of a smart home controller using agent modelling and task distribution UKM-GUP-2011-350 (Research University Grant (GUP), Universiti Kebangsaan Malaysia, Malaysia)	RM30,000	08/08/2011-07/08/2012
62.	Co-Researcher	The Design and Fabrication of RFID Transponder Employing IPv6 Addressing and IEEE 802.11 Standard MOSTI/BGM/R&D/20 (BGM Grant, Ministry of Science, Technology and Innovation, Malaysia)	RM191,400	01/04/2010-31/03/2012
63.	Co-Researcher	Real Time Self-Automated Intelligent Hardware Implementation of Energy Efficient Green Motion Controller TF1008C130 (TechnoFund Grant, Ministry of Science, Technology and Innovation, Malaysia)	RM4.5 million	01/10/2009-31/03/2012
64.	Co-Researcher	An Adaptive Online Algorithm for Smart Home Sequence Prediction Using Higher Order Markov Model and Probabilistic Prediction UKM-KK-03-FRGS0123-2010 (FRGS Grant, Ministry of Higher Education, Malaysia)	RM40,000	15/03/2010-14/03/2012
65.	Co-Researcher	Development of Medical Instrumentation Based on Photoplethysmography UKM-AP-TKP-07-2009	RM200,000	01/07/2009-31/12/2011

		(Research University Grant (AP), Universiti Kebangsaan Malaysia, Malaysia)		
66.	Co-Researcher	Novel Theoretical Model of a MEMS Biosensor for Real Time Study of the Cell Adhesion Process FRGS, MOHE (FRGS Grant, Ministry of Higher Education, Malaysia)	RM75,000	01/10/2008-30/09/2010
67.	Co-Researcher	Vision-Based Road Detection for Autonomous Intelligent vehicles 01-01-08-SF0072 (eScienceFund Grant, Ministry of Science, Technology and Innovation, Malaysia)	RM117,470	01/11/2008-30/04/2010
68.	Co-Researcher	Development of an Emergency Medical Care Information System for Fetal ECG Monitoring HRD grant from the Asia-Pacific Telecommunity and the Ministry of Internal Affairs and Communications, Japan	US$29,752	01/12/2008-31/10/2009
69.	Co-Researcher	Hardware Prototyping of Fetal Heart Rate Monitoring System Using Artificial Intelligence 01-01-08-SF0029 (eScienceFund Grant, Ministry of Science, Technology and Innovation, Malaysia)	RM151,200	01/12/2006-31/10/2008
70.	Co-Researcher	The Design and Fabrication of UHF RFID Transponder Chip Employing Silterra 0.18-micron Technology 01-02-01-SF0063 (eScienceFund Grant, Ministry of Science, Technology and Innovation, Malaysia)	RM167,000	01/09/2007-28/02/2009
71.	Co-Researcher	The Design of 13.56 MHz RFID Reader Employing Silterra Technology 01-01-02-SF0369 (eScienceFund Grant, Ministry of Science, Technology and Innovation, Malaysia)	RM358,000	01/09/2007-31/07/2009
72.	Co-Researcher	EMG Signal Analysis to Identify Neuromuscular Diseases and Muscle Fatigue FRGS, MOHE (FRGS Grant, Ministry of Higher Education, Malaysia)	RM63,000	01/10/2007-30/09/2008
73.	Co-Researcher	A New Multi-biometric based Algorithm for Human Verification FRGS, MOHE (FRGS Grant, Ministry of Higher Education, Malaysia)	RM83,000	01/06/2007-31/05/2009

74.	Co-Researcher	The Development of Power Control Module in RFID Reader Circuit Design Endowment Fund, IIUM (IIUM Grant, International Islamic University Malaysia, Malaysia)	RM20,000	01/06/2008-30/09/2009
75.	Co-Researcher	A Low Power CMOS Integrated Transponder Chip Employing TSMC 0.18μ Technology with Advanced Mixed-Signal ESD Protection Circuit IRPA, MOSTI (IRPA Grant, Ministry of Science, Technology and Innovation, Malaysia)	RM44,000	01/01/2004-31/03/2006
76.	Co-Researcher	Runtime Dynamic Allocation Reconfigurable Computing in Multitasking Environment IRPA, MOSTI (IRPA Grant, Ministry of Science, Technology and Innovation, Malaysia)	RM191,800	01/12/2003-31/11/2006

SCIENTIFIC AND PROFESSIONAL ACTIVITIES

Recognition in Scientific Communities / International Expert Groups

Coordinator, nominated by the ICTP EAU Affiliated Centre (Centre of Advanced Electronic and Communication Engineering), Universiti Kebangsaan Malaysia, Malaysia), October 2022 – September 2026

Co-Director, FPGA-Driven Scientific Instrumentation and Embedded Machine Learning: Bridging Supercomputing and Edge Intelligence" and "International Conference on Advances in Electrical, Electronic and System Engineering (ICAEESE 2026) organized by the International Centre for Theoretical Physics (ICTP), Italy in Perlis, Malaysia, 14 – 27 Sep 2026

Co-Director, Workshop on Fully-Programmable Systems-on-Chip (SoC) for Scientific Applications organized by the International Centre for Theoretical Physics (ICTP), Italy in Doha, Qatar, 27 – 31 Oct 2024

Visiting Scholar, awarded by the Abdus Salam International Centre for Theoretical Physics (ICTP), Italy for University of Rajshahi, Rajshahi, Bangladesh, Jan 2020 – Dec 2022

Senior Associate, the Abdus Salam International Centre for Theoretical Physics (ICTP), Italy, Jan 2016 - Dec 2022

Chairman, 2019 International Conference on Advances in Electrical, Electronic and System Engineering (ICAEESE 2019), 2 – 3 Nov 2019

Co-Director, School and Conference on Fully Programmable Systems-On-Chip for Scientific Instrumentation organized by the International Centre for Theoretical Physics (ICTP), Italy in Guwahati, India, 2 – 9 Nov 2019

Visiting Scholar, awarded by the Abdus Salam International Centre for Theoretical Physics (ICTP), Italy for East West University, Dhaka, Bangladesh, Mar 2015 – Mar 2018

Associate, the Abdus Salam International Centre for Theoretical Physics (ICTP), Italy, Sep 2011 - Dec 2015

Chairman, 2016 International Conference on Advances in Electrical, Electronic and Systems Engineering (ICAEESE 2016), 14-16 Nov 2016

Co-Director, Regional Workshop and Conference on Advanced Reconfigurable Instrumentation for Scientific Applications organized by the International Centre for Theoretical Physics, Trieste, Italy in Bangi, Selangor, Malaysia, 14 – 25 Nov 2016

Co-Director, Joint ICTP-TWAS First ICTP Regional Microelectronics Course on VHDL for Hardware Synthesis and FPGA Design in South and Southeast Asia organized by the International Centre for Theoretical Physics, Trieste, Italy in Dhaka, Bangladesh 31 Jan – 18 Feb 2011

Visiting Scholar, Department of Electrical and Computer Engineering, University of the West Indies, St. Augustine, Trinidad and Tobago, West Indies, 2010

Co-Director, First ICTP Regional Microelectronics Workshop and Training on VHDL for Hardware Synthesis and FPGA Design in Asia-Pacific organized by the International Centre for Theoretical Physics, Italy in Kuala Lumpur, Malaysia, 16 Jun – 11 Jul 2008

Director, High Performance Cyber Design Research Area, Malaysia Research and Education Network (MYREN), Malaysia, 2006-2010

Governor, SERVE (Enterprise for Regeneration of Values in Education) Foundation, Bangladesh, and USA, 2006-2008

Memberships of Editorial Boards of Scientific and Scholarly Journals

Chair, Microelectronis, ResearchBack's Editorial Governance Program, 2025 - 2026.

Guest Editor, Diagnostics (special Issue on Deep Learning Applications in Healthcare Wearable Devices), MDPI Publications, 2024. ISSN: 2075-4418.

Guest Editor, Diagnostics (special Issue on Biosensors for Clinical and Point-of-Care Diagnostics), MDPI Publications, 2022

Guest Editor, Analog Integrated Circuits and Signal Processing (special issue on CISCE2021), Springer Nature, 2021

Guest Editor, Computing in Intelligent Transportation Systems (Special Issue), EAI/Springer, 2021

Topic Editor, Frontiers in Neuroscience (Hardware-Software Co-Design for Neurorehabilitation), 2020 - 2022

Member, Editorial Board, Transaction on Biomedical Engineering Applications and Healthcare, 2020 - present

Member, Editorial Board, Advances in Electrical Engineering, Hindawi Publishing Company, 2014 - 2018

Member, Editorial Board, SM Musculoskeletal Disorders, SM Online Publishers, 2016 - present

Guest of Honor

International Leadership Lecture Series on "Leadership in STEM", Sinhgad Group of Management & Engineering Institutes, Pune, India, 12-21 Aug 2021

International Conference on "IoT Inclusive Life", NITTTR Chandigarh, Chandigarh, India, 19-20 Dec 2019

International Conference on IT Revolutions in Business World, Sinhgad Institute of Management, Pune, India, 27 Feb 2018

Seminar on Modernizing Business through Social Media & Technology Innovations, Nivrutti Babaji Navale College of Commerce, Pune, India, 28 Feb 2018

International Conference on Communication, Computing & Networking (ICCCN 2018), NITTTR Chandigarh, Chandigarh, India, 29 – 30 Mar 2018

Keynote/Plenary Lectures

5th International Conference on Applied Photonics and Electronics (InCAPE 2025), Universiti Malaysia Perlis, Penang, Malaysia, 06 October 2025

2nd International Conference on Social and Sustainable Innovation In Technology And Engineering (SASI-ITE 2025), Sasi Institute of Technology and Engineering, Andhra Pradesh, India, 26 September 2025

Undergraduate Conference on Intelligent Computing and Systems (UCICS 2025), Varendra University, Rajshahi, Bangladesh, 26 February 2025

5th International Conference on Future Smart Cities: Smart Manufacturing, Xiamen University Malaysia, Sepang, Selangor, Malaysia, 18 November 2022

3rd International Conference on Communication, Devices and Computing (ICCDC 2021), Haldia Institute of Technology, Haldia, India, 16 August 2021

IEEE International Conference on "Emerging Trends in Industry 4.0 (ETI 4.0), OP Jindal University, Raigarh, India, 19 May 2021

International Web Conference on Computing and Technological Solutions with Artificial Intelligence (ICCTSAI 2021), Society of IT Engineers and Researchers, London, UK, 24 April 2021

2nd International Symposium on Engineering and Technology (ISTE 2020), National Chung Hsing University, Taiwan, 14 November 2020.

International Web Conference on Recent Trends and Developments in Applied Research and Industrial Practices, Amity University, Kolkata, India, 20 November 2020

International online Conference on Current Pandemic and Beyond: The Physicists Response, Manipal University, Jaipur, India, 02 June 2020

International Conference on Computing, Communication and Control (ICCCC-2020), Chennai, India, 28 Feb 2020

International Conference on IoT Inclusive Life (ICIIL-2019), Chandigarh, India, 19 Dec 2019

International Conference on New Achievements in Multidisciplinary Research (ICNAMR-19), Coimbatore, India, 26 Sep 2019

5th IEEE International Conference of Convergence in Technology (I2CT-2019), Pune, India, 29 Mar 2019

Fifth International Conference on Biosignals, Images, and Instrumentation (ICBSII 2019), Chennai, Tamil Nadu, India, 14 Mar 2019

International Conference on Advances in Material Science and Nanotechnology (ICMN-2K19), Kanyakumari, Tamil Nadu, India, 29 Apr 2019

International Conference on Computing, Communication, Electrical and Nanotechnology (I2CN-2K19), Kottayam, Kerala, India, 25 Apr 2019

International Conference on Computer, Communication, Chemical, Materials and Electronic Engineering (IC4ME2-2018), Rajshahi, Bangladesh, 8 Feb 2018

International Conference on Computer, Communication, Chemical, Materials and Electronic Engineering (IC4ME2-2016), Rajshahi, Bangladesh, 24 Mar 2016

Distinguished Speaker

Seminar on 'Academic Transformation Fund (ATF)', organized by Ahsanullah University of Science and Technology, Dhaka, Bangladesh, 22 January 2025

Online Workshop on 'How to Write Good Research Paper', organized by UGC-HRDC, Jai Narain Vyas University Jodhpur, Rajasthan, India, 07 March 2022

Online Workshop on 'Strategies to Attract External Research Fund and Writing Research Articles for the Impactful Journals', organized by Southeast University, Dhaka, Bangladesh, 23 January 2022

Workshop on 'Academic Writing Strategy for Impacted Journal', organized by University of Liberal Arts Bangladesh, Dhaka, Bangladesh, 06 January 2022

Seminar on 'Academic Writing Strategy for Impacted Journal', organized by Varendra University, Rajshahi, Bangladesh, 18 January 2022

International Webinar on 'Academic Writing Skills for Research Journal Article', organized by P. R. Pote Patil College of Engineering and Management, Amravati, India, 04 Aug 2020

International Webinar on 'Research Article Writing and Publishing in Good Impact Journal', organized by the Institute for Engineering Research and Publication, India, 13 June 2020

International Webinar on 'Writing Article in Impacted Journal', organized by the MGM's Dr. G.Y. Pathrikar College of Computer Science and Information Technology, Aurangabad, Maharashtra, India, 19 May 2020

Seminar on 'How to Write Research Article' organized by the KRE Society's Karnatak Arts, Science and Commerce College, Bidar, Karnataka State, India, 10 Aug 2018

Seminar on 'Research Proposal Writing' organized by the Department of Pharmacy, Dhaka University, Dhaka, Bangladesh, 28 Feb 2018

Reviewer of Articles in Impacted Journals

* IEEE Access
* Sensors
* IEEE Transactions on Biomedical Circuits and Systems
* IEEE Transactions on Biomedical Engineering
* IEEE Transactions on Circuits and Systems I: Regular Papers
* Microwave Magazine, IEEE
* Journal of Biomedical Informatics
* Computers and Electrical Engineering
* International Journal of Electronics and Communications
* Sensors and Actuators: A. Physical
* Analog Integrated Circuits and Signal Processing
* Biomedical Engineering Online
* Taylor & Francis Engineering, Computing & Technology
* Reviewed several articles for multiple international conferences since 2002

Peer Evaluation of Funding Applications

Reviewer of the Grant Proposals for the National Center of Science and Technology, Kazakhstan, 2024.

Reviewer of the Grant Proposals for the Qatar University, Qatar, September 2023.

Reviewer of the Grant Proposals for the National Center of Science and Technology, Kazakhstan, February 2022 - April 2023.

Reviewer of the Grant Proposals for the Qatar University, Qatar, May 2022.

Member of the Ministry of Higher Education (DP KPT) Research Fund Evaluation Program Committee in National University Malaysia, 2021-2022.

Reviewer of the Grant Proposals for the National Research and Development Agency (ANID), Ministry of Science, Technology, Knowledge and Innovation, Chile, October 2021.

Member of the Ministry of Higher Education (DP KPT) Research Fund Evaluation Program Committee in National University Malaysia, 2020-2021.

Member of the Research Grant Evaluation Committee under the University Research Fund (Up), Universiti Kebangsaan Malaysia, 2021.

Expert Panel of the Long-Term Research Grant Scheme Application Evaluation Committee-Expert Master's Track (LRGS-JSU), Universiti Kebangsaan Malaysia, 2021.

Reviewer of the Grant Proposal for Xiamen University, Malaysia, November 2020.

Reviewer of the Grant Proposals for the National Center of Science and Technology, Kazakhstan, October 2019.

Member of the Malaysian Higher Education Ministry's research Fund evaluation committee, 2019.

Reviewer of the Grant Proposals for the National Center of Science and Technology, Kazakhstan, October 2017.

Reviewer of the Grant Proposal for the Technology Foundation STW, the Netherlands Organization for Scientific Research and the Dutch Ministry of Economic Affairs, 18 February 2010.

Reviewer of the Grant Proposals for Fundamental Research Grant Scheme (FRGS), Trans-Disciplinary Research Grant Scheme (TRGS), Prototype Research Grant Scheme (PRGS), Exploratory Research Grant Scheme (ERGS) in Universiti Kebangsaan Malaysia under the Ministry of Higher Education (MOHE), Malaysia, 2015

Reviewer of the Grant Proposals for Fundamental Research Grant Scheme (FRGS), Trans-Disciplinary Research Grant Scheme (TRGS), Prototype Research Grant Scheme (PRGS), Exploratory Research Grant Scheme (ERGS) in Universiti Kebangsaan Malaysia under the Ministry of Higher Education (MOHE), Malaysia, 2016

Reviewer of the Grant Proposals for Fundamental Research Grant Scheme (FRGS), Trans-Disciplinary Research Grant Scheme (TRGS), Prototype Research Grant Scheme (PRGS), Exploratory Research Grant Scheme (ERGS) in Universiti Kebangsaan Malaysia under the Ministry of Higher Education (MOHE), Malaysia, 2017

Reviewer of the Grant Proposals for Fundamental Research Grant Scheme (FRGS), Trans-Disciplinary Research Grant Scheme (TRGS), Prototype Research Grant Scheme (PRGS) in Universiti Kebangsaan Malaysia under the Ministry of Higher Education (MOHE), Malaysia, 2018

Reviewer of the Grant Proposals for Trans-Disciplinary Research Grant Scheme (TRGS), in Universiti Kebangsaan Malaysia under the Ministry of Higher Education (MOHE), Malaysia, 2019

Reviewer of the Grant Proposals for Fundamental Research Grant Scheme (FRGS) in Universiti Kebangsaan Malaysia under the Ministry of Higher Education (MOHE), Malaysia, 2019

Reviewer of the Grant Proposals for Fundamental Research Grant Scheme (FRGS) in Universiti Kebangsaan Malaysia under the Ministry of Higher Education (MOHE), Malaysia, 2021

Panel Member of the Grant Proposals for Long-term Research Grant Scheme (LRGS-JSU) in Universiti Kebangsaan Malaysia under the Ministry of Higher Education (MOHE), Malaysia, 2021

Reviewer of the Grant Proposal for Business Start-up Fund under the Malaysian Technology Development Cooperation Sdn Bhd, Malaysia, 2017.

Collaboration with Industry and Academic Institutes for Research

Collaboration with Penang Skill Development Cednter (PSDC), Penang, Malaysia for re-skillimg, student employability and joint research project fund, 2025 - present

Collaboration with Adorsho Pranisheba Ltd., Bangladesh for joint research project fund from Qatar National Research Fund, Qatar, 2024 - present

Research collaboration and networking with Universiti Kebangsaan Malaysia, Malaysia, 2023 - present

Research collaboration and networking with Rajshahi University of Engineering and Technology, Bangladesh, 2023 - present

Research collaboration and networking with Dr. Ram Manohar Lohia Avadh University, Ayodhya, India, 2019 - present

Collaboration with Emerald Systems Sdn. Bhd., Malaysia for joint research project fund from Ministry of Higher Education (MOHE), and Ministry of Science, Technology and Innovation (MOSTI), and CREST, Malaysia, 2010 - 2023

Collaboration with Linear DMS Sdn. Bhd., Malaysia for joint research project fund from Ministry of Higher Education (MOHE), Ministry of Science, Technology and Innovation (MOSTI), Malaysia, 2017 - 2023

Collaboration with Globetronics, Penang Malaysia for Universiti Kebangsaan Malaysia (UKM) IC packaging, 2012 - 2023

Collaboration with Silterra, Malaysia for Universiti Kebangsaan Malaysia (UKM) IC fabrication, 2012 - 2023

Collaboration with MIMOS Berhad, Malaysia for joint research project fund from Ministry of Higher Education (MOHE), Malaysia, 2012 - 2015

Research collaboration and networking with Ibaraki University, Japan, 2007 - present

Research collaboration and networking with Qatar University, Qatar, 2020 - present

Research collaboration and networking with International Centre for Theoretical Physics (ICTP), Italy, 2008 - present

Technical reporter for Asian Technology Information Program (ATIP), USA, 2004 - 2006

Memberships and Positions of Trust in Scientific and Scholarly Societies

Senior Member, Institute of Electrical & Electronics Engineers (IEEE), Membership no.: 41476497, 2002 - present

Member, Institute of Electronics, Information and Communication Engineers (IEICE), Membership no.: 1083350, 2010 – 2023

Member, International Association of Engineers (IAENG), Membership no.: 62731, 2007 - present

Member, World Academic-Industry Research Collaboration Organization, Membership no.: 02000213, 2013 – present

Member, International Federation for Medical & Biological Engineering, 2005 - present

Associate Member, Malaysian Society of Medical and Biological Engineering, 2006 - present

Associate Member, Institute of Nanotechnology, 2004 – present

Associate Member, Bangladesh Computer Society, Membership no.: AM528, 1992 – present

SERVICE ACTIVITIES

Administrative Involvement

Vice Chancellor, Islamic University of Technology, Gazipur, Bangladesh, 2026-present

Dean, School of Engineering, Technology and Sciences, Independent University, Bangladesh, 2023-2024

Member, Committee on Academic/University ranking, Independent University, Bangladesh, 2023-2024

Coordinator, Coding for All, Independent University, Bangladesh, 2023-2024

Member & Advisor, Committee on developing Research policy for IUB, Independent University, Bangladesh, 2023-2024

Member, Research committee, Department of Electrical, Electronic and Systems Engineering, Universiti Kebangsaan Malaysia, 2020-2023.

Member, Master of Microelectronic Engineering Program Development Committee (Open Learning Distance, ODL), Department of Electrical, Electronic and Systems Engineering, Faculty of Engineering and Built Environment, Universiti Kebangsaan Malaysia, 2022

Member, Professional Certificate Program Development Committee: CMOS Analog Integrated Design, Department of Electrical, Electronic and Systems Engineering, Faculty of Engineering and Built Environment, Universiti Kebangsaan Malaysia, 2022

Member, Graduate program review committee, Faculty of Engineering and Built Environment, Universiti Kebangsaan Malaysia, 2020.

Coordinator, KRA 5: Generation of Strategic Wealth and Intensive, Department of Electrical, Electronic & Systems Engineering, Universiti Kebangsaan Malaysia, 2018-2019.

Member, Committee Chapter 6: Academic Staff and Support for the Preparation of the Department's Self-Assessment Report, Department of Electrical, Electronic & Systems Engineering, Universiti Kebangsaan Malaysia, 2017-2018.

Member, Committee for KRA 2: Research an Innovation and High Impact, Faculty of Engineering and Built Environment, Universiti Kebangsaan Malaysia, 2014-2017.

Coordinator, Research Committee, Department of Electrical, Electronic & Systems Engineering, Universiti Kebangsaan Malaysia, 2016-2017.

Member, Committee for KRA 5: Generation of Strategic Wealth and Intensive, Faculty of Engineering and Built Environment, Universiti Kebangsaan Malaysia, 2014-2017.

Coordinator, Industrial and Community Network, Department of Electrical, Electronic & Systems Engineering, Universiti Kebangsaan Malaysia, 2015-2017.

Member, Research and Publication Committee, Faculty of Engineering and Built Environment, Universiti Kebangsaan Malaysia, 2014-2016.

Chairman, Short-Course Committee, Department of Electrical, Electronic & Systems Engineering, Universiti Kebangsaan Malaysia, 2015-2017.

Advisor, MEng in Microelectronics Program Development Committee, Department of Electrical, Electronic & Systems Engineering, Universiti Kebangsaan Malaysia, 2014-2017.

Coordinator, Research Committee, Department of Electrical, Electronic & Systems Engineering, Universiti Kebangsaan Malaysia, 2011-2014.

Member, International Research Grant Committee, Faculty of Engineering and Built Environment, Universiti Kebangsaan Malaysia, 2011-2014.

Member, UP3/OBE Committee, Department of Electrical, Electronic & Systems Engineering, Universiti Kebangsaan Malaysia, 2011-2014.

Member, Final Year Project Committee, Dept. of Electrical, Electronic and Systems Engineering, Universiti Kebangsaan Malaysia, 2011-2014.

Coordinator, Consultancy & Commercialization, International Islamic University Malaysia, 2008.

Member, Curriculum Development Committee, Faculty of Engineering, Multimedia University, 2002-2005.

TEACHING AND PEDAGOGICAL COMPETENCE

List of Undergraduate Courses Conducted

Among the courses taught at the undergraduate level include: Analogue Electronics, IC Manufacturing Technology, VLSI Circuit Design, Electronics, Electronic Circuits, Digital Integrated Circuits, Digital Systems, Digital Logic Design, VLSI System Design and Modelling Technique, Microelectronic Circuit Analysis & Design, Microelectronics, Operating Systems.

List of Graduate Courses Conducted

Among the courses taught at the postgraduate level include: Integrated Circuit Design, VLSI System Design, Digital Integrated Circuits, Digital System Engineering, Advance IC Design, and VLSI Design.

List of Short Courses Conducted

An Intensive 54-hour 'Basic RF' Course conducted for Graduate Reskilling Scheme in Design & Development for 6 (six) consecutive batches, Penang Skills Development Centre (PSDC), Penang, Malaysia, August 2005, April 2005, October 2003, and April 2003, February 2003.

Curriculum Development

Advisor for the committee of the development of the program 'Master of Engineering in Microelectronics Systems at the Department of Electrical, Electronic and Systems Engineering, Universiti Kebangsaan Malaysia, Malaysia, 2014-2017.

Chairman of the committee for the development of Short Courses under the Department of Electrical, Electronic and Systems Engineering, Universiti Kebangsaan Malaysia, Malaysia, 2015-2017.

Member of the committee for the updating and revision of the subjects Electronics, Electronic Circuits, for the Bachelor of Engineering in Electronics (Computer and Information Science) at Faculty of Engineering, International Islamic University Malaysia, Malaysia, 2006.

Developer of the syllabus for the program of Bachelor of Electronics Engineering (Hons) in Kuala Lumpur Infrastructure University College (KLIUC), Kajang, Selangor, Malaysia, 2005.

Designer and developer of 'Basic RF' Course for Graduate Reskilling Scheme in Design & Development, Penang Skills Development Centre (PSDC), Penang, Malaysia, April 2003 - August 2005

Member of the committee for the development of the subjects Digital System Engineering, Analog CMOS Integrated Circuits, Advanced Microprocessor Systems and Digital Integrated Circuits for the Master of Engineering in Microelectronics at Faculty of Engineering, Multimedia University, Malaysia, 2005.

Member of the committee for the development of the subjects Microelectronic Circuit Analysis & Design, Digital Systems, Digital Integrated Circuits, Analog Integrated Circuits, VLSI System Design & Modelling, Integrated VLSI Systems Technique, for the Bachelor of Engineering (Honours) Electronics at Faculty of Engineering, Multimedia University, Malaysia, 2003.

Member of the committee for the development of the subject Advanced IC Design and revised the subject VLSI Design for the Master of Engineering in Microelectronics at Faculty of Eng., Multimedia University, Malaysia, 2002-2003.

List of New Laboratories for Research and Teaching

* System Design Laboratory – FKAB Old Building, Ground floor, Universiti Kebangsaan Malaysia
* VLSI Design Laboratory – FOE Building, Ground floor, International Islamic University Malaysia

OTHER ACADEMIC MERITS

Academic Consultancy

Independent Appraiser for promotion activities of academic staff in Qatar University, Doha, Qatar, May 2020 – June 2020.

Independent Appraiser for promotion activities of academic staff in Universiti Putra Malaysia by Universiti Putra Malaysia, Serdang, Selangor, Malaysia, March 2019 – February 2022.

Academic Consultant for the Bachelor of Engineering Programme (Electrical and Electronics Engineering) by the KBU International College, Kuala Lumpur, Malaysia, September 2014 – August 2015.

External Examiner for Bachelor of Engineering Programme (Electrical Power Engineering and Electronics & Communication Engineering) by the School of Engineering and Science, Curtin University, Sarawak, Malaysia, 2011.

Member, Industrial Advisory Panel by Kuala Lumpur Infrastructure University College for the Department of Electrical and Electronic Engineering in the School of Engineering and Technology Infrastructure, January 2011 – December 2012.

Member, Board of Study by Kuala Lumpur Infrastructure University College for its B.Sc. Engineering program in the School of Engineering Infrastructure (Department of Electrical and Electronic Engineering), January 2010 – December 2011.

Research Consultant for Military Institute of Science and Technology, Mirpur Cantonment, Dhaka, Bangladesh, January 2006 – December 2006.

Overseas Academic Lecture

Guest Lecturer in the Joint ICTP-IAEA School on Detector Signal Processing and Machine Learning for Scientific Instrumentation and Reconfigurable Computing organized by the Abdus Salam International Centre for Theoretical Physics (ICTP) in Trieste, Italy on the topic "*Green Intelligence at the Edge: Sustainable Hardware for AI*", November 07, 2025

Guest Lecturer in the Joint ICTP-IAEA School on Systems-on-Chip Based on FPGA for Scientific Instrumentation and Reconfigurable Computing organized by the Abdus Salam International Centre for Theoretical Physics (ICTP) in Trieste, Italy on the topic "*Academic Writing Strategy for Impacted Journal*", November 30, 2023

Guest Lecturer in the Joint ICTP-IAEA School on FPGA-based SoC and its Applications to Nuclear and Scientific Instrumentation organized by the Abdus Salam International Centre for Theoretical Physics (ICTP) in Trieste, Italy on the topic "*Academic Writing Strategy for Impacted Journal*", November 25, 2022

Distinguished Visiting Faculty to Chandigarh University, Chandigarh, India, December 20, 2019

Guest Lecturer in the School and Conference on Fully Programmable Systems-On-Chip for Scientific Instrumentation organized by the Abdus Salam International Centre for Theoretical Physics (ICTP) in Guwahati, India on the topic "*Academic writing skills for research journal article*", November 8, 2019

Guest Lecturer in the Advanced Workshop on FPGA-based Systems-On-Chip for Scientific Instrumentation and Reconfigurable Computing organized by the Abdus Salam International Centre for Theoretical Physics (ICTP) in Trieste, Italy on the topic "*Academic writing skills for research journal article*", December 7, 2018

Distinguished Visiting Professor to the School of Electrical and Electronics Engineering at Chung Ang University, Seoul, Korea from December 15, 2012 to March 14, 2013.

Guest Lecturer to the Venture Business Laboratory of Ibaraki University on the topic i) *How to make a good research proposal*, ii) *Research project design and management*, and iii) *Broadening the research network to contribute better*, Hitachi, Ibaraki, Japan, 3-7 March, 2008.

Evaluation of Academic Competence

External Assessor for promotion activities of academic staff in Qatar University, Doha, Qatar, May 2020 – June 2020.

External Assessor for promotion activities of academic staff in Universiti Putra Malaysia by Universiti Putra Malaysia, Serdang, Selangor, Malaysia, March 2019 – February 2022.

External Assessor for Academic Position to Associate Professor for Faculty of Engineering, Universiti Teknologi Mara, Shah Alam, Selangor, Malaysia, March 08, 2019.

External Reviewer for Academic Position to Professor for Associate Professor Dr Nor Hisham Hamid from Department of Electrical & Electronic Engineering, Universiti Teknologi Petronas, Ipoh, Malaysia, April 10, 2018.

PhD and Master's Thesis Examination

External Examiner, Ph.D. thesis examination of Rupal Shukla, Indira Gandhi Delhi Technical University for Women, India, *Investigations on the Performance of Intelligent Techniques for Control and Fault Diagnosis in Pressurized Water Reactor*, 2025.

External Examiner, Ph.D. thesis examination of Swetha R. Kumar, Bharathidasan University, India, *Investigations on the Performance of Intelligent Techniques for Control and Fault Diagnosis in Pressurized Water Reactor*, 2023.

External Examiner, Ph.D. thesis examination of S. Parakkadullah, Bharathidasan University, India, *An Enhanced Classification Method for Optimize Diseases Dermatology, Lung Cancer, and Hepatitis Using Medical Big Data Analytics*, 2023.

External Examiner, Ph.D. thesis examination of Luis Guillermo Garcia Ordóñez, Università di Trieste, Italy, *High Voltage Power Supply System and Front-End DAQ on FPGA/SOC for High Energy Particle Detectors*, 2022.

External Examiner, Ph.D. thesis examination of Rakesh S, Noorul Islam Centre for Higher Education, Kanyakumari, Tamilnadu, India, *Performance Analysis of Different Mac Unit Architectures for Low Power Signal Processing Applications*, 2020.

External Examiner, Ph.D. thesis examination of Asish B. Mathews, Noorul Islam Centre for Higher Education, Kanyakumari, Tamilnadu, India, *Design and Implementation of a Novel Distortion Compensated High Dynamic Range Photonic Link*, 2020.

External Examiner, Ph.D. thesis examination of Kodeeswari M, National Institute of Technology, Hamirpur, India, *Lane Detection in Hilly Terrain for Driver Assistance System*, 2020.

External Examiner, Ph.D. thesis examination of Mr. Kharudin Bin Ali, Universiti Tenaga Nasional, Malaysia, *Design and Optimization of Piezoelectric Sensor Array for Detecting Multiple Pipeline Cracks*, 2020.

External Examiner, Ph.D. thesis examination of Mr. Ajay Abrol, IKG Punjab Technical University, Kapurthala, Punjab, India, *Development of Hybrid Neuro-Computing Technique for Analysis of Effect of Electromagnetic Radiations on Electrocardiogram*, 2019.

External Examiner, M.Sc. thesis examination of Mr. Mohd Ali Mat Nong, Universiti Putra Malaysia, Malaysia, *Motorcycle Image Detection and Plate Recognition for Traffic Environment*, 2019.

External Examiner, Ph.D. thesis examination of Mr. Chirag Arora, Dr. APJ Abdul Kalam Technical University, Uttar Pradesh, Lucknow, India, *Design and Implementation of Metamaterial Inspired Antenna Array for Wireless Communication*, 2018.

External Examiner, Ph.D. thesis examination of Mr. Caffiyar Mohamed Yousuff, Universiti Teknologi Petronas, Malaysia, *Enabling Micro Fluidic Technologies to Isolate Dendritic Cells for Cancer Immunotherapy*, 2018.

External Examiner, M.Phil. thesis examination of Mr. Lim Huey Woan, Universiti Teknologi Malaysia, Malaysia, *Embedded System-on-Chip Design of Atrial Fibrillation Classifier using Wavelet Transform and Artificial Neural Network*, 2018.

External Examiner, M.Phil. thesis examination of Mr. Yeap Han Chien, Universiti Teknologi Malaysia, Malaysia, *A Face Detection Hardware Accelerator Module Designed using C-Based High-Level Synthesis Method*, 2017.

External Examiner, Ph.D. thesis examination of Ms. Archana Nathan, Anna University, India, *Exploration of the Application of a Novel Metaheuristic Algorithm for Optimal Location of Facts Devices*, 2017.

External Examiner, Ph.D. thesis examination of Mr. Harriezan Bin Ahmad, Universiti Tenaga Nasional, Malaysia, *Signature Analysis and Classification of Technical Faults in Medium Voltage Circuit Breaker using Hybrid Expert Rules and Gaussian Mercer Classifier*, 2017.

External Examiner, Ph.D. thesis examination of Ms. Geetha, Vel Tech Dr. RR & Dr. SR Technical University, India, *A Secure Communication Scheme using Hybrid Key Management Technique for Wireless Sensor Networks*, 2017.

External Examiner, Ph.D. thesis examination of Mr. A. K. M. Zakir Hossain, International Islamic University Malaysia, Malaysia, *Design and Development of RFID Reader Front-end for Chipless Tag using Ultra Wide Band Technology*, 2017.

External Examiner, Ph.D. thesis examination of Mr. C. Mahesh, Vel Tech Dr. RR & Dr. SR Technical University, India, *A Novel Approach for Diagnosing Hepatitis Viruses using Generalized Regression Neural Network*, 2016.

External Examiner, Ph.D. thesis examination of Mr. Vivekanand, VIT University, India entitled *Quantification and Classification of Myosignal Parameters in Hansen's Disease*, 2015.

External Examiner, Ph.D. thesis examination of Mr. Ravikumar Patchmuthu, Curtin University, Malaysia, *Link Analysis Algorithms to Handle Hanging and Spam Pages*, 2014.

External Examiner, Ph.D. thesis examination of Mr. Pitchandi Velrajkumar, Multimedia University, Malaysia, *An Improved Speed and Low Power CORDIC Circuit for Armdroid Robotic Processor*, 2014.

External Examiner, M.Eng.Sc. thesis examination of Mr. Lai Kok Keong, Taylor's University, Malaysia, *Novel Asynchronous Completion Detection for Arithmetic Datapaths*, 2014.

External Examiner, M.Sc. thesis examination of Mr. Rasoul Garmabdari, Universiti Putra Malaysia, Malaysia, *Four Sensor Bidirectional Water Flow Detection and Measurement System*, 2014.

External Examiner, M.Phil. thesis examination of Mr. Kwang Leng Alex Goh, Curtin University, Malaysia, *Methods for Demoting and Detecting Web Spam*, 2013.

External Examiner, M.Eng. thesis examination of Mr. Anglenine Teoh Szu Fern, Universiti Malaya, Malaysia, *VLSI Floor Planning Optimization using Genetic Algorithms (GA) and Cross Entropy Method*, 2012.

External Examiner, M.Sc. thesis examination of Mr. Tung Li Qian, Universiti Putra Malaysia, Malaysia, *A Local Tone Mapping Operator for High Dynamic Range Image*, 2011.

External Examiner, M.Eng.Sc. thesis examination of Mr. Wong Ting Hwee, Multimedia University, Malaysia, *An Instruction-Set Extension Approach for Optimizing the Runtime Performance of Description Logic Reasoner*, 2011.

External Examiner, M.Sc. thesis examination of Miss. Zahraa ElHassan Mohamed Osman, Universiti Teknologi Petronas, Malaysia, *Optimization of FPGA Based Processor Architecture for Sobel Image Edge Detection Operator*, 2011.

Supervised 3 (three) students (Miss. Raphaela Kreiser, Mr. Paul Schmiedeke, and Mr. Michael Schraml) from Germany in 2013, 2014, and 2017 respectively under RISE - Program (Research Internships in Science and Engineering), Germany

SUPERVISION OF THESIS AND PROJECTS

Total: 122

Supervisor	**Co-Supervisor**	**Completed**
Post-Doc: 1	PhD: 8	Post-Doc: 1
PhD: 16	Master: 8	PhD (Thesis): 22
Master: 17		Master (Thesis): 24
Master (Course): 16		Master (Course): 16
Undergraduate: 56		Undergraduate: 56

Postdoctoral Research Associate Supervision at Universiti Kebangsaan Malaysia (UKM)

1.	Supervisor	Dr. Haroon Rashid	*Highly Efficient and Low-Cost Transition Metal Dichalcogenide MoS_2 Based Photodetectors*	01/02/2020 31/07/2021

Supervision of PhD Thesis at Universiti Kebangsaan Malaysia (UKM)

1.	Supervisor/ Co-Supervisor	Arifa Ferdousi (P119673)	*Electrode Position Invariant EMG Feature Extraction for Finger Movement Recognition*	In Progress
2.	Supervisor/ Co-Supervisor	Rabindra A/L Gandhi Thangarajoo (P108081)	*Implementation of Parallel Processed Cryptographic Algorithm with FPGA*	In Progress
3.	Supervisor/ Co-Supervisor	Md. Nakib Hayat Chowdhury (P115175)	*Analysis of Conventional Machine Learning Algorithms for Identification of Chronic Kidney Disease in Type 1 Diabetes Mellitus Patients*	Completed 2020-2024
4.	Co-Supervisor	Leong Yang Sing (P107849)	*Improved Supercontinuum Generation for Coherent Anti-Stoke Raman Scattering (CARS) Spectroscopy Using Graphene-Coated Silica Crystal*	Completed 2019-2023
5.	Supervisor	Amith Khandakar (P104612)	*An Early Detection and Classification System for Diabetic Foot Complication using Thermal Images*	Completed 2019-2023
6.	Supervisor	Ng Charn Loong (P99998)	*A Reconfigurable Adaptive Digital Filter for A Capacitive Electromyography Biosensor*	Completed 2019-2023
7.	Supervisor	Kh Shahriya Zaman (P98738)	*An Area-Efficient System-On-Chip with Neural Networking Capabilities for Use in Edge Computing.*	Completed 2019-2023

8.	Co-Supervisor	Johirul Islam Tusher Rajshahi University, Bangladesh	*Signal Normalization to Improve the Force Invariant Myoelectric Pattern Recognition of Transradial Amputees*	Completed 2018-2022
9.	Supervisor	Fahmida Haque (P97594)	*Diabetic Sensorimotor Polyneuropathy (DSP) Severity Classification using ANFIS during Gait*	Completed 2019-2022
10.	Supervisor	Khairun Nisa Binti Mihat (P73135)	*Human Emotion Recognition System*	Completed 2015-2019
11.	Co-Supervisor	Samla Gauri (P83770)	*Rapid screening and detection kit for HLA-B1502 and HLA-B5801 using HRM analysis*	Completed 2015-2019
12.	Co-Supervisor	Chong Kim Soon (P80413)	*Development of Upper Limb Musculotendon Dynamic Model for Personalized Stroke Rehabilitation*	Completed 2015-2019
13.	Co-Supervisor	Nur Hasiba Binti Kamaruddin (P59613)	*Improvement on 3.3um Mid-Infrared Photodetector through Avalanche Mechanism to Increase Photocurrent*	Completed 2013-2018
14.	Supervisor	Labonnah Farzana Rahman (P68099)	*A Low Power and Low Ripple CMOS High Voltage Generator for RFID Transponder EEPROM*	Completed 2013-2017
15.	Supervisor	Abdulla Amin Abdulla Aburomman (P64097)	*Intrusion Detection System Based on Hybrid Supervised Machine Learning Algorithms*	Completed 2013-2017
16.	Supervisor	Mohammad Marufuzzaman (P68081)	*Design and Implementation of Sequence Prediction Algorithm Using Finite Order Markov Model and Multiple Agents for Smart Home*	Completed 2013-2017
17.	Supervisor	Mohammad Arif Sobhan Bhuiyan (P64153)	*Design of A Low Power Compact CMOS Direct Conversion Receiver for 2.4 GHz Radio Frequency Applications*	Completed 2011-2016
18.	Co-Supervisor	Mahmoud Ibraheem Ali Al-Kadi (P57624)	*Classification of Electroencephalography – EEG – for Consciousness Detection*	Completed 2011-2016
19.	Supervisor	Ng Kok Mun (P62730)	*Modelling and Implementing Intelligent Traffic Control using Probabilistic Petrinet and Time-Color Petrinet for Arterials and Intersections in Traffic Networks*	Completed 2011-2016
20.	Supervisor	Md. Syedul Amin (P57586)	*GPS/IMU Based Smart Vehicle Accident Detection and Location System*	Completed 2011-2015
21.	Co-Supervisor	Anis Shahida Niza Bt. Mokhtar (P55869)	*FPGA-based Scaling-free CORDIC Algorithm with Octant Mapping Technique*	Completed 2010-2015

22.	Supervisor	Sahnius Bt. Usman (P46818)	*Development of a Noninvasive Technique for Increased Arterial Stiffness Assessment Among Diabetic Patients using Photoplethysmography*	Completed 2010-2014
23.	Supervisor	Yousef Kamel Oqla Qawqzeh (P46820)	*A Predictive Model for The Assessment of High-Risk Atherosclerosis using Photoplethysmography*	Completed 2007-2011
24.	Co-Supervisor	S. M. A. Motakabber (P43311)	*Design of an RFID Reader using Rotating Magnetic Field Approach*	Completed 2007-2011

Supervision of Thesis for Master of Science at Universiti Kebangsaan Malaysia (UKM)

1.	Supervisor/ Co-Supervisor	Zakaria Shams Siam (P122047)	*Medical Tomographic Image Reconstruction Based on Deep Learning*	In Progress
2.	Supervisor	Mohammad Shahriar Khan Hemel (P114543)	*Design of A Low Phase Noise Power-Efficient CMOS Phase Locked Loop for High Band 5g Transceiver Applications*	Completed 2022-2024
3.	Supervisor	Moajjem Hossain Chowdhury (P113968)	*Predicting Heart Rate and Respiration Rate Using Remote Photoplethysmography for Vital Health Metric Monitoring Using Deep Learning*	Completed 2022-2024
4.	Supervisor	Md Nazmul Islam Shuzan (P114153)	*Classification of healthy and impaired gaits using Ground Reaction Force (GRF) signals*	Completed 2022-2024
5.	Co-Supervisor	Khandaker Reajul Islam (P111445)	*Early Prediction of Sepsis Using Machine Learning Techniques*	Completed 2021-2023
6.	Supervisor	Md Shafayet Hossain (P108100)	*Motion Artefacts Removal from EMG Signal*	Completed 2021-2023
7.	Supervisor	Araf Farayez (P90055)	*Predictive Analysis of Next users Action in Smart Home*	Completed 2017-2019
8.	Supervisor	Ng Charn Loong (P73278)	*A Contactless Sensing System for Extramural Monitoring of Muscle Activity*	Completed 2016-2018
9.	Supervisor	Md. Torikul Islam Badal (P84117)	*Developing Transmitter for RFID Tag using 0.13μm CMOS Technology*	Completed 2016-2018
10.	Supervisor	Siti Nurul Salwa Binti Sh Abdul Nasir (P64102)	*An Efficient Accident Location System Employing QGIS*	Completed 2013-2015
11.	Supervisor	Jubayer Jalil (P58255)	*Design of Ring Oscillator Based VCO and Frequency Divider for Active RFID Transponder*	Completed 2011-2014
12.	Supervisor	Rubana H. Chowdhury (P64138)	*Classification of the Surface Electromyographic Signal for Detecting Localized Muscle Fatigue*	Completed 2012-2014

13.	Supervisor	Mohammad Marufuzzaman (P52909)	*Hardware Implementation of Current DQ PI controller for Permanent Magnet Synchronous Motor Drive*	Completed 2009-2011
14.	Supervisor	Labonnah Farzana Rahman (P52906)	*The Design and Fabrication of Low Power Sense Amplifier and Charge Pump Circuits for Readerless RFID Transponder*	Completed 2009-2011
15.	Supervisor	Muhammad Raisul Alam (P44359)	*Hardware Prototyping of Agent Based Intelligent Control for Home Appliances*	Completed 2008-2010
16.	Supervisor	Nissar Mohammad Karim (P44360)	*Design of an Integrated Demodulation System for 13.56 MHz RFID Reader*	Completed 2008-2010

Supervision of Thesis for Master of Engineering at International Islamic University Malaysia (IIUM)

1.	Co-Supervisor	Md. Jasim Uddin	*The Development of Power Control Module in RFID Reader Circuit Design*	Completed 2007-2010
2.	Co-Supervisor	Muhammad Asraful Hasan	*Hardware Prototyping of Fetal Heart Rate Monitoring System using Artificial Intelligence*	Completed 2007-2009
3.	Co-Supervisor	Awss Jalal	*Hardware Realization of a Multi-Agent System for Smart Home, Master of Engineering*	Completed 2006-2008
4.	Co-Supervisor	Mohammed Sazzad Hussain	*FPGA Implementation of Higher Order Statistics algorithm for EMG Signal analysis and characterization*	Completed 2006-2007

Supervision of Thesis for Master of Engineering and Science at Multimedia University (MMU)

1.	Supervisor	Masuma Akhter	*Hardware Prototyping of An Efficient Image Compression System in Real-Time for Mobile Communication*	Completed 2004-2006
2.	Co-Supervisor	Khaw Mei Kum	*The IC Design of RFID Reader and Transponder*	Completed 2004-2006
3.	Co-Supervisor	Teh Ying Khai	*The IC Design of Configurable UHF RFID Transponder System with UART Interface*	Completed 2004-2006
4.	Co-Supervisor	Shazia Seemi	*High Speed Nyquist Analog to Digital Converter in CMOS*	Completed 2003-2006
5.	Supervisor	Florence Choong Chiao Mei	*Hardware Realization of Fuzzy Wavelets Neural Network to Power Quality Analysis*	Completed 2003-2006

Supervision of Dissertation & Scientific Project for Master of Science (Microelectronic) (Course Work) at Universiti Kebangsaan Malaysia (UKM)

1.	Supervisor	Khairun Nisa' Binti Mihat (P60843)	*A Development of Low Power Dynamic Phase Frequency Detector with Charge Pump and Loop Filter for High Speed PLL Application in 0.18-μm CMOS*	Completed 2013
2.	Supervisor	Mastura Binti Omar (P65374)	*Design and Implementation of Band Pass Filter for 2.45GHz Readerless RFID Transponder*	Completed 2013
3.	Supervisor	Vahid Sohani (P50903)	*FPGA Realization of Fuzzy Inferencing for Signature Verification and Forgery Detection*	Completed 2012

4.	Supervisor	Lee Wee Kee (P57793)	*The Design of Neural Network Based IRIS Recognition Hardware using FPGA*	Completed 2011
5.	Supervisor	Hamzeh Aljarajreh (P62277)	*Development of Low Noise Amplifier in Analog Front of Readerless RFID Tag*	Completed 2010

Supervision of Dissertation & Scientific Project for Master of Engineering in Microelectronic at Multimedia University (MMU) (Course Work)

1.	Supervisor	Eugene Lim Soon Tat	*Hardware Synthesis of Fuzzy Inference for Signature Verification and Forgery Detection*	Completed 2005–2006
2.	Supervisor	Chin Chee Loong	*Leakage Current Mechanism and Reduction Techniques in Deep Submicron CMOS Circuits*	Completed 2004–2006
3.	Supervisor	Shee Kian Wong	*I/O Buffer Behavioral Modeling*	Completed 2004–2006
4.	Supervisor	Kok Hong Chan	*Design Challenge and Circuit Solution for 0.13um USB2 Transmitter*	Completed 2003–2006
5.	Supervisor	Mohammad Azam Bin Mohammad	*Clock Tree Generation*	Completed 2002–2006
6.	Supervisor	Teoh Kong Yu	*VHDL Modeling of Speech Recognition using Neural Network*	Completed 2002–2005
7.	Supervisor	Tan Hung Khong	*VHDL Modeling of Fetal QRS Complex Detection Algorithm*	Completed 2002–2004
8.	Supervisor	Ong Seng Hooi	*VHDL Modeling of QRS Complex Detection Algorithm*	Completed 2001–2003
9.	Supervisor	Ong Poay Yin	*FIR Filter Design using VHDL*	Completed 2001–2003
10.	Supervisor	Huang Seow Ling	*Pipelined Floating-Point ALU Design*	Completed 2001–2003
11.	Supervisor	Yew Teong Guan	*A RISC Design: Synthesis of the MIPS Processor Core*	Completed 2001–2003

Supervision of Dissertation & Scientific Project for Bachelor of Engineering at Universiti Kebangsaan Malaysia (UKM)

1	2022/2023	Supervisor	Tsara` Irdina Binti Himily Hairul (A174823)	*Performance analysis of different feature ranking algorithms for identifying the most significant features for chronic kidney disease prediction*
2.	2021/2022	Supervisor	Deepanraj a/l K.Vasanthan (A169058)	*A Nomogram-based diabetic sensorimotor polyneuropathy severity prediction using Michigan neuropathy screening instrumentations*
3.	2021/2022	Supervisor	Kwek Yeek Ping (A169694)	*Hardware design of an approximate multiplier based on minimal signed digit representation for faster Convolutional Neural Networks*
4.	2020/2021	Supervisor	Muhammad Taufiq Asri Bin Mohammad Nazari (A164330)	*Design of A Low-Dropout Linear Regulator in 0.13 µm CMOS Technology*

5.	2020/2021	Supervisor	Muhammad Akmal Bin Abdul Ghani (GA04296)	*Low Power Low Phase Noise CMOS Voltage Controlled Ring Oscillator*
6.	2019/2020	Supervisor	Ooi Jun Wei (A160725)	*Design of Low Power Phase Detector in 0.13 um CMOS Technology*
7.	2017/2018	Supervisor	Muhammad Ariff Bin Rizal	*Spade Activity Prediction Algorithm for Diagnosis of Early Dementia Development*
8.	2016/2017	Supervisor	Tan Kah Lok (A144020)	*Design and Implementation of Power Amplifier for 2.4GHz RF devices*
9.	2015/2016	Supervisor	Siti Nur Mastura Binti Che Has (A140167)	*Design and implementation of a Variable Gain Amplifier (VGA) for 2.45 GHz Readerless RFID transponder.*
10.	2015/2016	Supervisor	Mohd Raimi Bin Ruhaizad (A141207)	*A Time Series-Based Sequence Prediction Algorithm to Predict Activities of Daily Living for Multi-People in Smart-Home*
11.	2014/2015	Supervisor	Yeo Yong Jiet (A136389)	*A Location Based Sequence Prediction Algorithm to Predict Inhabitants Behavior in a Smart Home*
12.	2013/2014	Supervisor	Chew Jia Xien (A133112)	*Design of an Active Inductor based CMOS Low Noise Amplifier for RF Receivers*
13.	2013/2014	Supervisor	Yeoh Zijie (A133231)	*Design of a CMOS Transmit/Receive Switch for 2.4 GHz RF Applications*
14.	2012/2013	Supervisor	Oh Soo Ling (A130249)	*Design of Ring-based Injection Locked Frequency Divider in 0.18μm CMOS for Active RFID Applications*
15.	2012/2013	Supervisor	Muhammad Tazarudin Bin Mohd Taib (A129098)	*Design of a Band Pass Filter in 0.18μm CMOS for 2.45 GHz For Readerless RFID Transponder Front End*
16.	2011/2012	Supervisor	Kang Cheng Wei (A122688)	*CMOS Charge Pump Circuit for RFID Tag EEPROM*
17.	2010/2011	Supervisor	Phe Yeong Long (A116354)	*FPGA Realization of Fuzzy Based Image Enhancement*
18.	2010/2011	Supervisor	Peh Kong Siang (A116789)	*FPGA Realization of Fuzzy Wavelet Based Texture Segmentation*
19.	2009/2010	Supervisor	Norashikin Alias (A113776)	*IC Design and Layout of a 10-bit SAR Analog to Digital Converter*

Supervision of Dissertation & Scientific Project for Bachelor of Engineering at International Islamic University Malaysia (IIUM)

1.	2007/2008	Supervisor	Wan Nurkhaireen Mior Khairudin	*FPGA Realization of Partial Encryption of Compressed Images*
2.	2007/2008	Supervisor	Nursabrina Hazizan and Nurul Shakirah	*Hardware Implementation of Logic-Based Model Checking Edge Detector*
3.	2007/2008	Supervisor	Nurul Ain Bt Ahmad Shahuri and Siti Hajar Bt Basiran	*FPGA Realization of Backpropagation for Stock Market Prediction*

Supervision of Dissertation & Scientific Project for Bachelor of Engineering at Multimedia University (MMU)

1.	2005/2006	Supervisor	Poh Leong Meng	*Hardware Implementation of Logic-Based Model Checking Edge Detector*
2.	2005/2006	Supervisor	Yip Sook Chin	*Hardware Implementation of DICOM Standard Lossless Compression of Medical Images*
3.	2005/2006	Supervisor	Chia Kok Sun	*FPGA Realization of Fuzzy Wavelet Based Texture Segmentation*
4.	2005/2006	Supervisor	Koh Kim Ean	*FPGA Implementation of Fuzzy Logic Based Image Enhancement and Smoothing Algorithm*
5.	2004/2005	Supervisor	Muhammad Raisuddin Ahmed	*ANN based Fetal QRS complex detection*
6.	2004/2005	Supervisor	Chia Kenn Yong	*FPGA Realization of Backpropagation for Stock Market Prediction*
7.	2004/2005	Supervisor	Khandaker Asaduzzaman	*FPGA Realization of RSA Encryption Engine*
8.	2004/2005	Supervisor	Low Lay Chen	*FPGA Realization of Fuzzy Wavelet Based Handwritten Character Recognition*
9.	2003/2004	Supervisor	Chan Foong Tek	*Hardware Realization of ECC (Elliptic Curve Cryptography) Encryption Engine*
10.	2003/2004	Supervisor	Chee Shing Wei	*Hardware Realization of triple DES (Data Encryption Standard) Encryption Engine*
11.	2003/2004	Supervisor	Lim Choon Leng, Khor Cheng Aun	*VLSI implementation of ANN based QRS complex detection*
12.	2002/2003	Supervisor	Tan Chin	*FPGA Realization of Partial Matching Lossless Data Compression*
13.	2002/2003	Supervisor	Tan Ai Leng	*FPGA Realization of IRIS Recognition using Neural network*
14.	2002/2003	Supervisor	Tho Kee Thai, Yeow Keng Hon	*FPGA Realization of Boolean Function Classification Schemes in Lossless Data Compression*
15.	2002/2003	Supervisor	Tan Siew Li, Tan Huah Yuah	*FPGA Realization of Partial Encryption of Compressed Images*
16.	2001/2002	Supervisor	Wendy Chia Chin Hui, Liana Jacinta	*FPGA Implementation of an Electric Train Controller*
17.	2001/2002	Supervisor	Ooi Phaik Eo, Ng Joh	*Development of a Prototype Telemedicine Project*
18.	2001/2002	Supervisor	Low Thiam Hen, Lim Sim Ee	*FPGA Implementation of a Fuzzy Controller*
19.	2001/2002	Supervisor	Wong Sau Yee, James Wong Sing Toh	*Reliable QRS Complex Algorithm Development*
20.	2001/2002	Supervisor	Thiruvarasu A/L Muthusamy	*GUI Development of ECG Monitoring System*
21.	2001/2002	Supervisor	Simon Lau Boung Yew, Chee Fong Kim	*FPGA Implementation of a QRS Complex Detector*

22.	2001/2002	Supervisor	Chew En Geen, Ngu Ik Tse	*Pipelined Floating-Point ALU Design*
23.	2001/2002	Supervisor	Winnie Teng Sung Shin, Ng See Leng	*FPGA Implementation of a RISC Processor*
24.	2001/2002	Supervisor	Soh Lip Kai, Lim Chiew Luan	*VHDL Modelling of a Neural Network*
25.	2001/2002	Supervisor	Jen Sen, Lim Ming Yi	*VLSI Chip Development of a MP3 Encoder/Decoder using VHDL*
26.	2001/2002	Supervisor	Azadeen Bin Alaudeen, Florence Chong Chiao Mei	*VLSI Chip Development for the Digital Energy Meter*
27.	2001/2002	Supervisor	Chong Min Jie	*VLSI Design of FIR Filter*
28.	2001/2002	Supervisor	Yeong Yeng Yee	*VLSI Design of IIR Filter*
29.	2001/2002	Supervisor	See Siew Kiong	*VLSI Design of LZW Algorithm for Binary Data Compression*
30.	2001/2002	Supervisor	Ooi Mann Yee	*VLSI Design of Dynamic Random-Access Memory (DRAM)*
31.	2001/2002	Supervisor	Chong Chee Hou	*VLSI Design of Sequential Logic Circuit*
32.	2001/2002	Supervisor	Suneeta Kaur	*VLSI Design of Combinational Logic Circuit*
33.	2001/2002	Supervisor	Sugeeta Bhanoo	*VLSI Design of Arithmetic Logic Unit of Smart Card Architecture*
34.	2001/2002	Supervisor	Lee Siew Fung	*VLSI Design of Built-in-self-test for System on Chip (SOC) Design*

SCIENTIFIC PUBLICATIONS AND PATENTS

SCOPUS	GOOGLE
Total Articles Listed: 410	**Total Articles Listed: 603**
Number of Citations: 12,271	**Number of Citations: 20,018**
***h*-index = 43**	***h*-index = 50**

List of Journal Publications

Total: 281

Indexed: 275

ISI Listed and Impacted: 176 **SCOPUS Listed: 275**

Non-Indexed: 6

Q1: 69 **Q2: 32** **Q3: 30** **Q4: 45**

*** Corresponding author**

2026 (4 Articles)

1. Mansura Naznine, Muhammad E.H. Chowdhury, Sawal Hamid Md Ali, Mohd Faisal Ibrahim, **Mamun Bin Ibne Reaz**, Asma Begam Mohamed Meeran, Rajendran Sankaran. 2026. *Spectral–spatial integration of hyperspectral imaging for glioblastoma classification with cross-modal attention and swin transformer*, Engineering Applications of Artificial Intelligence, Volume 177, Part 2, Article ID: 114883, 27 pages, ISSN: 0952-1976, ISI listed, Impact factor – 8.0, Q1. (doi.org/10.1016/j.engappai.2026.114883)
2. Abdulla Amin Aburomman, Marwan Alakhras, **Mamun Bin Ibne Reaz**. 2026. *Leakage-safe IoT intrusion detection with White Shark Optimizer-based feature selection*, Engineering Applications of

Artificial Intelligence, Volume 30, Article ID: 100903, 10 pages, ISSN: 2590-0056, ISI listed, Impact factor – 4.5, Q1. (doi.org/10.1016/j.array.2026.100903)

3. Abdulla Amin Aburomman, **Mamun Bin Ibne Reaz**. 2026. *AutoML for Network-Based Intrusion Detection: Evaluation Practice, Dataset Quality, and Deployment Constraints*, Future Internet, Volume 18, Part 8, p383, ISSN: 1999-5903, ISI listed, Impact factor – 4.6, Q2. (doi.org/10.3390/fi18080383)
4. Syed Shamroz Arshad, Geetika Srivastava, SachchidaNand Shukla, **Mamun Bin Ibne Reaz**, Edi Kurniawan, and Mihir Narayan Mohanty. 2026. *Low Power Electronically Tunable Compound Sziklai Pair-Based Low Noise Amplifier for High Frequency Applications*, Journal of Circuits, Systems and Computers, Article ID: 2650204, 24 pages, ISSN: 0218-1266, ISI listed, Impact factor – 0.255, Q3. (doi.org/10.1142/S021812662650204X)

2025 (8 Articles)

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