



# UNIVERSITI TEKNIKAL MALAYSIA MELAKA

## STAFF PROFILE

**NAME** DR. FAKRULRADZI BIN IDRIS

**FACULTY / CENTRE** FAKULTI KEJURUTERAAN ELEKTRONIK & KEJ. KOMPUTER

**DESIGNATION** PENSYARAH UNIVERSITI

**CURRENT POSITION** PENSYARAH KANAN - FAKULTI KEJURUTERAAN ELEKTRONIK & KEJ. KOMPUTER

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### ACADEMIC QUALIFICATION

YEAR	QUALIFICATION	INSTITUTION
2018	KEDOKTORAN FALSAFAH (PH.D)	UNIVERSITY OF MANCHESTER
2008	SARJANA (MASTERS)	UNIVERSITI TEKNOLOGI MALAYSIA
2007	SARJANA MUDA KEPUJIAN(BACHELOR HONS)	UNIVERSITI TEKNOLOGI MALAYSIA

### FIELD OF INTEREST

GREEN WIRELESS NETWORKS, OPTIMIZATION, DEVICE TO DEVICE COMMUNICATION

### TEACHING EXPERIENCE *(last 5 years)*

#### UNDERGRADUATES

SESSION	COURSE
2021/2022	BENG3211 - ELECTRONIC ENGINEERING LAB 3
2021/2022	BENT3753 - COMMUNICATION PRINCIPLES
2020/2021	BENG2431 - ELECTRONIC ENGINEERING LAB2
2020/2021	BENG3211 - ELECTRONIC ENGINEERING LAB 3
2020/2021	BENG4711 - ELECTRONIC ENGINEERING LAB 5
2020/2021	BENT3733 - SIGNALS AND SYSTEMS
2020/2021	BENT4783 - WIRELESS COMMUNICATION SYSTEMS
2019/2020	BENG2431 - ELECTRONIC ENGINEERING LAB2
2019/2020	BENT3733 - SIGNALS AND SYSTEMS
2019/2020	DENE1311 - ELECTRONIC WORKSHOP & DOMESTIC WIRING
2019/2020	DENE2244 - DIPLOMA PROJECT
2018/2019	DENE1323 - ELECTRONIC PRINCIPLES
2018/2019	DENE2333 - ELECTRONICS
2018/2019	DENE3563 - MINI PROJECT

**POSTGRADUATES**

SESSION	COURSE
2020/2021	MENT5013 - ADVANCED TCP/IP NETWORK
2019/2020	MENT5013 - ADVANCED TCP/IP NETWORK

**LIST OF GRANTS (last 5 years)**

YEAR AWARDED	TITLE OF PROJECT	TYPE OF GRANT	AMOUNT (RM)	ROLE
2021	DEEP LEARNING-BASED RESOURCE ALLOCATION ALGORITHM FOR ENERGY EFFICIENT NON-ORTHOGONAL MULTIPLE ACCESS (NOMA) WITH DEVICE-TO-DEVICE (D2D) COMMUNICATIONS IN 5G SYSTEM	GERAN FRGS (NATIONAL)	69588	MAIN RESEARCHER
2020	A NEW POWER ALLOCATION ALGORITHM UTILIZING CONVEX OPTIMIZATION TECHNIQUE FOR MAXIMIZING ENERGY EFFICIENCY OF NOMA BASED IOT SYSTEM	GERAN FRGS (NATIONAL)	64100	CO-RESEARCHER
2020	RESPONSE TIME MINIMIZATION USING IOT AND GPS FOR EMERGENCY ALERT SYSTEM IN FIREFIGHTER DEPARTMENT	HIGH IMPACT (UTEM)	46000	CO-RESEARCHER
2020	IOT BASED FERTIGATION SYSTEM FOR CHILI CULTIVATION WITH HYBRID ARTIFICIAL LIGHTING	SHORT TERM (UTEM)	20000	MAIN RESEARCHER
2019	NON-ORTHOGONAL MULTIPLE ACCESS DESIGN FOR UAV HOTSPOT	SHORT TERM (UTEM)	20000	CO-RESEARCHER

**PUBLICATIONS (last 5 years)****JOURNAL**

YEAR	TITLE	NAME OF JOURNAL	AUTHORS
2021	LOCATION TRACKING USING LORA	INTERNATIONAL JOURNAL OF ELECTRICAL AND COMPUTER ENGINEERING	HASHIM N., IDRIS F., AZIZ T.N.A.T.A., JOHARI S.H., NOR R.M., WAHAB N.A.
2020	IOT BLOOD PRESSURE MONITORING SYSTEM	INDONESIAN JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCE	NORLEZAH HASHIM, NURBAHIRAH NORDDIN, FAKRULRADZI IDRIS, SITI NUR ILMANI MOHD YUSOFF, MADIHA ZAHARI
2019	AUTOMATIC TRAFFIC LIGHT CONTROLLER FOR EMERGENCY VEHICLE USING PERIPHERAL INTERFACE CONTROLLER	INTERNATIONAL JOURNAL OF ELECTRICAL AND COMPUTER ENGINEERING	NORLEZAH HASHIM, FAKRULRADZI IDRIS, AHMAD FAUZAN KADMIN, SITI SUHAILA JAAPAR SIDEK
2019	INTELLIGENT FIRE DETECTION AND ALERT SYSTEM USING LABVIEW	INTERNATIONAL JOURNAL OF ELECTRICAL AND COMPUTER ENGINEERING	FAKRULRADZI IDRIS, NORLEZAH HASHIM, AHMAD FAUZAN KADMIN, LEE BOON YEE

**CONFERENCE**

YEAR	TITLE	NAME OF CONFERENCE	AUTHORS
2020	DESIGN AND PERFORMANCE ANALYSIS OF IOT BASED SENSOR SYSTEM USING LORA	MALYSIAN TECHNICAL UNIVERSITIES CONFERENCE ON ENGINEERING AND TECHNOLOGY (MUCET 2019)	FAKRULRADZI IDRIS, MUHAMMAD SYAHMI ANUAR, MUHAMMAD HAZIM ZIN AZMAN, NORLEZAH HASHIM
2019	IOT BLOOD PRESSURE MONITORING SYSTEM	2019 INTERNATIONAL CONFERENCE ON ELECTRICAL, ELECTRONIC, COMMUNICATION AND CONTROL ENGINEERING	NORLEZAH HASHIM, NURBAHIRAH NORDDIN2, FAKRULRADZI IDRIS, SITI NUR ILMANI MOHD YUSOFF, MADIHA ZAHARI
2018	RESOURCE AND ENERGY EFFICIENT DEVICE TO DEVICE COMMUNICATIONS IN DOWNLINK CELLULAR SYSTEM	2018 IEEE WIRELESS COMMUNICATIONS AND NETWORKING CONFERENCE (WCNC)	FAKRULRADZI IDRIS, JIE TANG, AND DANIEL K. C. SO
2017	ENERGY EFFICIENT DEVICE TO DEVICE COMMUNICATION BY RESOURCE EFFICIENCY OPTIMIZATION	2017 IEEE 85TH VEHICULAR TECHNOLOGY CONFERENCE (VTC SPRING)	FAKRULRADZI IDRIS, JIE TANG, AND DANIEL K. C. SO

**PROFESSIONAL MEMBERSHIPS / LEARNED SOCIETY**

YEAR	ROLE	INSTITUTION	LEVEL
2014	AHLI	INSTITUT JURUTERA ELEKTRIK DAN ELEKTRONIK (IEEE)	ANTARABANGSA
2010	AHLI	INSTITUT JURUTERA MALAYSIA (IEM)	KEBANGSAAN
2007	JURUTERA SISWAZAH	LEMBAGA JURUTERA MALAYSIA (BEM)- (ENGINEERS ACT 1967)	KEBANGSAAN

**POSTGRADUATE SUPERVISION** *(last 5 years)*

NO	NAME	LEVEL OF STUDY	ROLE	STATUS
1	MOHAMMED MUSTAFA ALI ALAQEELI	MASTERS	MAIN SUPERVISOR	GRADUATED (2021)
2	NURULIDAYU BINTI SAINUDDIN	MASTERS	CO-SUPERVISOR	ACTIVE
3	MUHAMMAD AMIRUL BIN BUNTAT	MASTERS	CO-SUPERVISOR	ACTIVE
4	MUHAMAD NAFIS BIN MOHD KHARIL @ HAMZAH	MASTERS	MAIN SUPERVISOR	ACTIVE
5	MUHAMAD FIRDAUS BIN DARUS	MASTERS	MAIN SUPERVISOR	ACTIVE

KATEGORI MAKLUMAT	PEJABAT DIRUJUK
PERSONAL INFORMATION	BAHAGIAN SUMBER MANUSIA, PEJABAT PENDAFTAR
ACADEMIC QUALIFICATON	
PROFESSIONAL MEMBERSHIP / LEARNED SOCIETY	
TEACHING EXPERIENCE	BAHAGIAN PENGURUSAN AKADEMIK, PEJABAT PENDAFTAR
<ul style="list-style-type: none"> <li>• UNDERGRADUATES</li> </ul>	
<ul style="list-style-type: none"> <li>• POSTGRADUATES</li> </ul>	PUSAT PENGAJIAN SISWAZAH (PPS)
POSTGRADUATE SUPERVISION	PUSAT PENGAJIAN SISWAZAH (PPS)
FIELD OF INTEREST	PUSAT PENGURUSAN PENYELIDIKAN DAN INOVASI (CRIM)
LIST OF GRANTS	
LIST OF RESEARCH AWARDS	PUSAT PENGKOMERSILAN (UCC)
INTELLECTUAL PROPERTIES	
COMMERCIALIZATION	
PUBLICATIONS	PERPUSTAKAAN LAMAN HIKMAH
CONSULTANCY	PUSAT JARINGAN INDUSTRI DAN MASYARAKAT (PJIM)