

MALAYSIA BOARD OF TECHNOLOGISTS (MBOT)

*By: Nurul Najwa Abu Bakar
Assistant Registrar Operation*

MBOT establishment is to elevate the standing, visibility & recognition of technology & technical profession

Recognising Technologists as Professionals

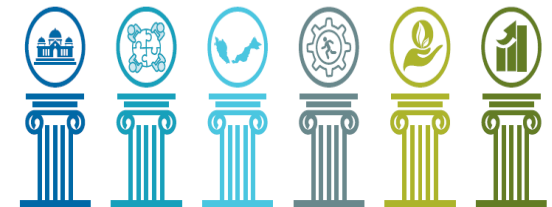
9.33 The Malaysia Board of Technologists (MBOT) will be established as an apex body to recognise the professionalism of technologists, similar to Board of Engineers (for engineering profession). MBOT will serve to elevate the technologist professional career advancement and for industry acceptance. MBOT will also provide advice on wage structure for technologists as reference for public and private employers. It will also be the professional body to govern professional ethics and conducts of technologists.

Eleventh Malaysia Plan

Strategy Paper 9: Transforming Technical and Vocational Education and Training to Meet Industry Demand

RANCANGAN MALAYSIA KESEBELAS 2016-2020

keutamaan dan penekanan baharu



Professional recognition is paramount for individual/organization's credibility



ESTABLISHMENT OF MBOT

2010



10.06.2010
Recognition of TVET
Graduates

2014



23.09.2014
Cabinet endorsed the
establishment of MBOT

2015

23.04.2015
Parliament Approved
MBOT Bill



2014



14.11.2014
Cabinet endorsed the
MBOT Bill to be tabled in
Parliament

2015

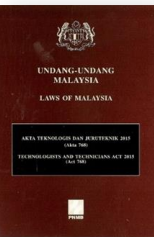


04.06.2015
Technologists and
Technicians Act 2015
(Act 768) was
gazetted

2015



01.08.2015
Effective Date of Act 768



MEET OUR BOARD MEMBERS



**YBhg. Datuk Ts. Ir. Dr.
Siti Hamisah binti Tapsir, FASc.**
Presiden MBOT



**YBrs. Ts. Dr.
Mohamad bin Sulaiman**
Ketua Pengarah
Jabatan Pembangunan Kemahiran
Kementerian Sumber Manusia

8(1)(b)(i): Perkhidmatan
awam persekutuan



**YBrs. Ts. Ir.
Yam Teong Sian**
Mantan Presiden,
Persatuan Teknologi
Malaysia (TAM)

8(1)(b)(iii): Sektor swasta



**YBrs. Ts. Mahadhir
bin Aziz**
Ketua Pegawai Eksekutif
Malaysia Digital Economy
Corporation (MDEC)

8(1)(b)(iv): Mewakili
bidang teknologi yang berkaitan



YBrs. Ts. Liew Choon Lian
Ketua Pegawai Eksekutif
MDT Innovations Sdn Bhd

8(1)(b)(iv): Mewakili
bidang teknologi yang berkaitan



**YBhg. Prof. Ts. Dr.
Mohamed Ibrahim
bin Abdul Mutalib**
Naib Canselor
Universiti Teknologi PETRONAS (UTP)

8(1)(b)(v): Institusi
pengajian tinggi



**YBrs. Tc. Kamarul Azman
bin Mohd Ikram**
Penolong Pegawai Latihan
Vokasional Kanan,
Institut Latihan Perindustrian Bukit Katil

8(1)(b)(vi): Institusi
latihan kemahiran



**YBrs. Prof. Madya Ts. Dr.
Ruslinda A. Rahim**
Pegarah
Pusat Nanoteknologi Kebangsaan,
Kementerian Sains, Teknologi
dan Inovasi (MOSTI)

8(1)(b)(i): Perkhidmatan
awam persekutuan



**YBhg. Dato' Ts. Abdul Razib
bin Dawood**
Ketua Pegawai Eksekutif
Suruhanjaya Tenaga

8(1)(b)(ii): Pihak berkuasa tempatan
atau pihak berkuasa berkanun



**YBhg. Lt. Kol. Prof. Dato' Ts. Dr.
Zaliman bin Sauli**
Naib Canselor
Universiti Malaysia Perlis
(UniMAP)

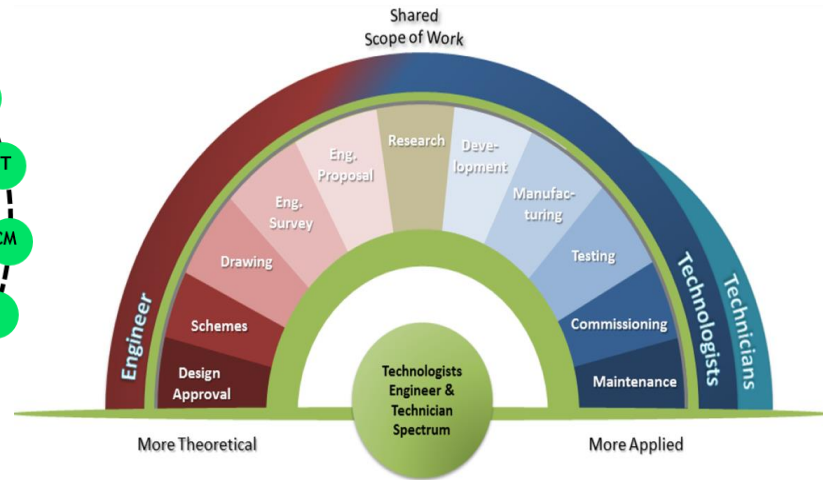
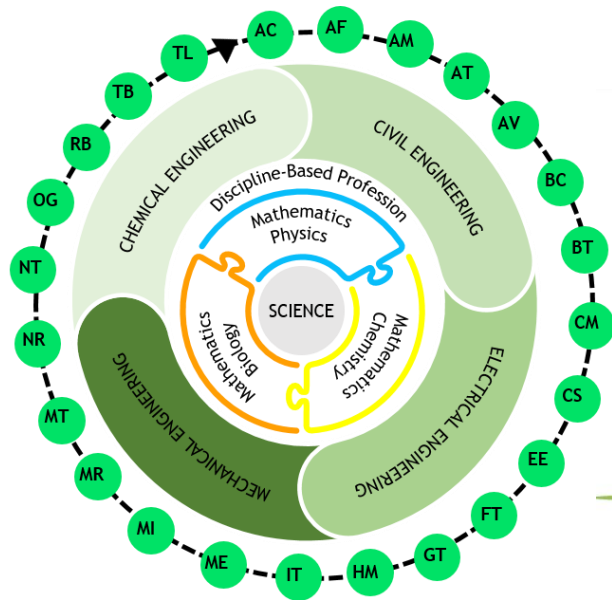
8(1)(b)(v): Institusi
pengajian tinggi



**YBrs. Ts. Dr.
Mahaletchmy Arujanan**
Pengasas Global,
International Service for the Acquisition
of Agrobiotechnology Applications
(ISAAA)

8(1)(b)(iv): Mewakili
bidang teknologi yang berkaitan

What makes MBOT different from other professional bodies in Malaysia?



MBOT is recognizing 24 Technology fields which covers wider scope than the conventional discipline-based professions. These **Technology-based Professions** are **flexible and cuts across different fields**

Technologists & Technicians Act (Act 768)

PART III

REGISTRATION OF TECHNOLOGISTS AND TECHNICIANS

Technical services and technology services

16. The Board shall determine—

- (a) technical services in respect of any operation relating to **product testing, product commissioning and product maintenance**; and
- (b) technology services in respect of any operation relating to **product development, product manufacturing, product testing, product commissioning and product maintenance**,

for the purpose of this Act.

WHAT DO WE DO?



REGISTRATION

Registration of Professional Technologists, Graduate Technologists, Certified Technicians and Qualified Technicians



ACCREDITATION

MBOT is currently the professional body involved in accrediting technology programme which includes Computer Science and Information Technology programme in HEP.



LIFE-LONG LEARNING

MBOT promotes lifelong learning through the implementation of Continuing Professional Development (CPD)

STAKEHOLDERS' ENGAGEMENT

Professional interactions with relevant stakeholders that can lead to productive collaborations.

STRATEGIC COLLABORATION

Working together with relevant parties in a mutually beneficial way.

INTERNATIONALIZATION

Forming a bilateral/multilateral collaboration with international bodies/ associations

24

FIELDS OF TECHNOLOGY & TECHNICAL RECOGNISED BY MBOT



EE
Electrical & Electronics
Technology



IT
Information &
Communication
Technology



CM
Chemical Technology



BT
Biotechnology



BC
Building & Construction
Technology



RB
Resource Based, Survey &
Geomatics Technology



ME
Manufacturing &
Industrial Technology



MR
Marine Technology



TB
Telecommunication &
Broadcasting Technology



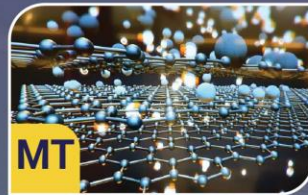
AF
Agro-based Technology



CS
Cyber Security
Technology



TL
Transportation &
Logistics Technology



MT
Material Science
Technology



OG
Oil & Gas Technology



AT
Automotive Technology



AV
Aerospace &
Aviation Technology



FT
Food Technology



MI
Maritime Technology



AC
Atmospheric Science &
Environment Technology



GT
Green Technology



NT
Nanotechnology



NR
Nuclear & Radiological
Technology



AM
Art Design & Creative
Multimedia Technology



HM
Health & Medical
Technology

DEFINITION & RELATED KEY AREA BY TECHNOLOGY FIELD

INFORMATION AND COMMUNICATION TECHNOLOGY (IT)

DEFINITION

Information and Communication Technology is the field of expertise that involve hardware, software, data, and computer network to create the technology to improve quality of life.

RELATED KEY AREA

ICT Strategic Management

Information & Data Strategy

Information Security Management

ICT Infrastructure Management

System Development

ICT Project Management

Software Testing & Quality Assurance

CYBER SECURITY TECHNOLOGY (CS)

DEFINITION

Cyber Security Technology is an applied body of knowledge in the process, practice, design, and technique to protect information, data and networks in preserving the CIA (Confidentiality, Integrity and Availability).

RELATED KEY AREA

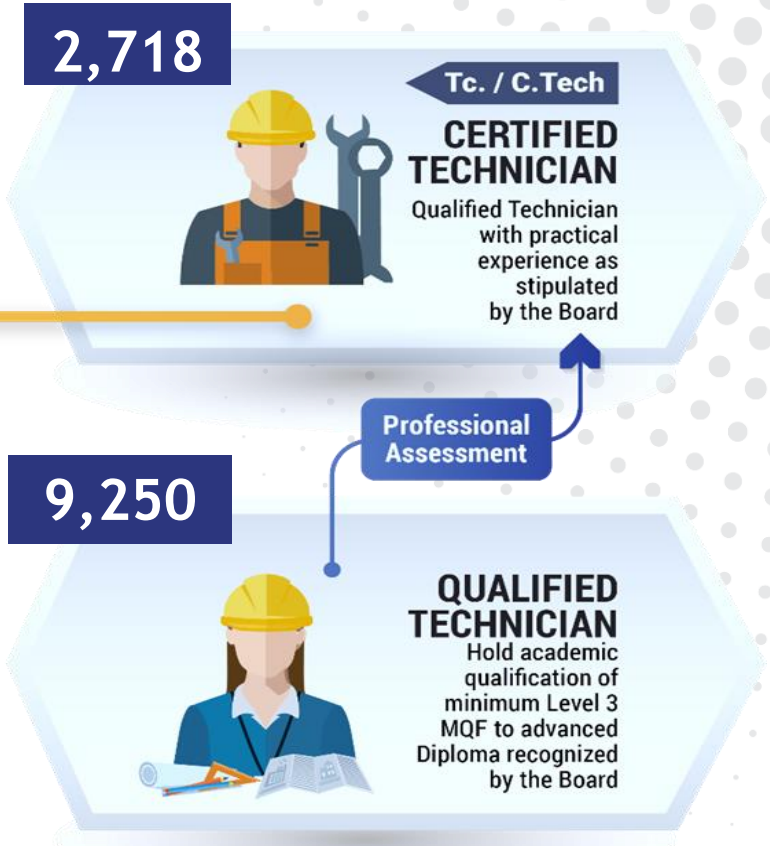
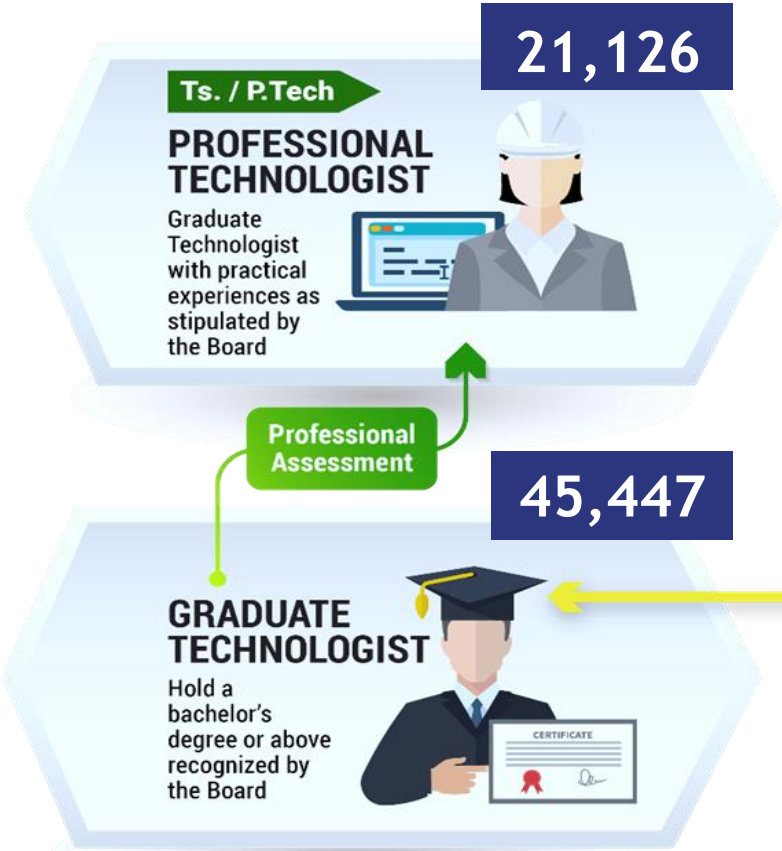
Information Assurance

Network Security

Data Security

Societal and Organizational Security

CURRENT REGISTRANTS



Total Registration as of October 2023

78,541

Wherever you maybe in your career, professional recognition will take your career forward



Recognition & Acceptance

Acknowledgment of achievement & competency



Lifelong Learning

Increase the capabilities and knowledge on the current field and explore on the advancement of technology & its application



Enhanced Credibility

Validate an individuals knowledge, skills, and expertise in a specific field, enhance credibility and boost professional reputations



Talent Mobility

Expand job prospects and gain access to a broader range of employment opportunities either locally or internationally



Networking & Community

Provide access to a network of professionals within industry in sharing knowledge and build valuable relationships



Increased Confidence

Boosting self-confidence, positively impact performance and interactions with clients, colleagues, and employers

TECHNICAL VALIDATION BY PROFESSIONALS



Professional Technologist

19. A Professional Technologist shall be entitled to—

(a) approve and certify the manner or conduct of technology services to be carried out;

- ✓ Product Development
- ✓ Product Commissioning
- ✓ Product Manufacturing
- ✓ Product Maintenance
- ✓ Product Testing

Certified Technician

20. A Certified Technician shall be entitled to—

(a) approve and certify the manner or conduct of technical services to be carried out;

- ✓ Product Commissioning
- ✓ Product Testing
- ✓ Product Maintenance



MBOT PROFESSIONAL INVOLVEMENT IN THE TELECOMMUNICATION SECTOR



MEDIA LAB ALLIANCE

SUBJECT:

WEEKLY PROJECT PROGRESS REPORT

TENDER BAGI MENAIKARAF PERALATAN SISTEM PENYIARAN RADIO DIGITAL PENYIARAN NEGERI SABAH DAN WILAYAH PERSEKUTUAN LABUAN
NO TENDER: DL21000000006915

Start Date: 17-Jan-2022

End Date: 21-Jan-2022

WORK PROGRESS

Planning: 19%

Actual: 19%

FINANCIAL PROGRESS

Planning: 0%

Actual: 0%

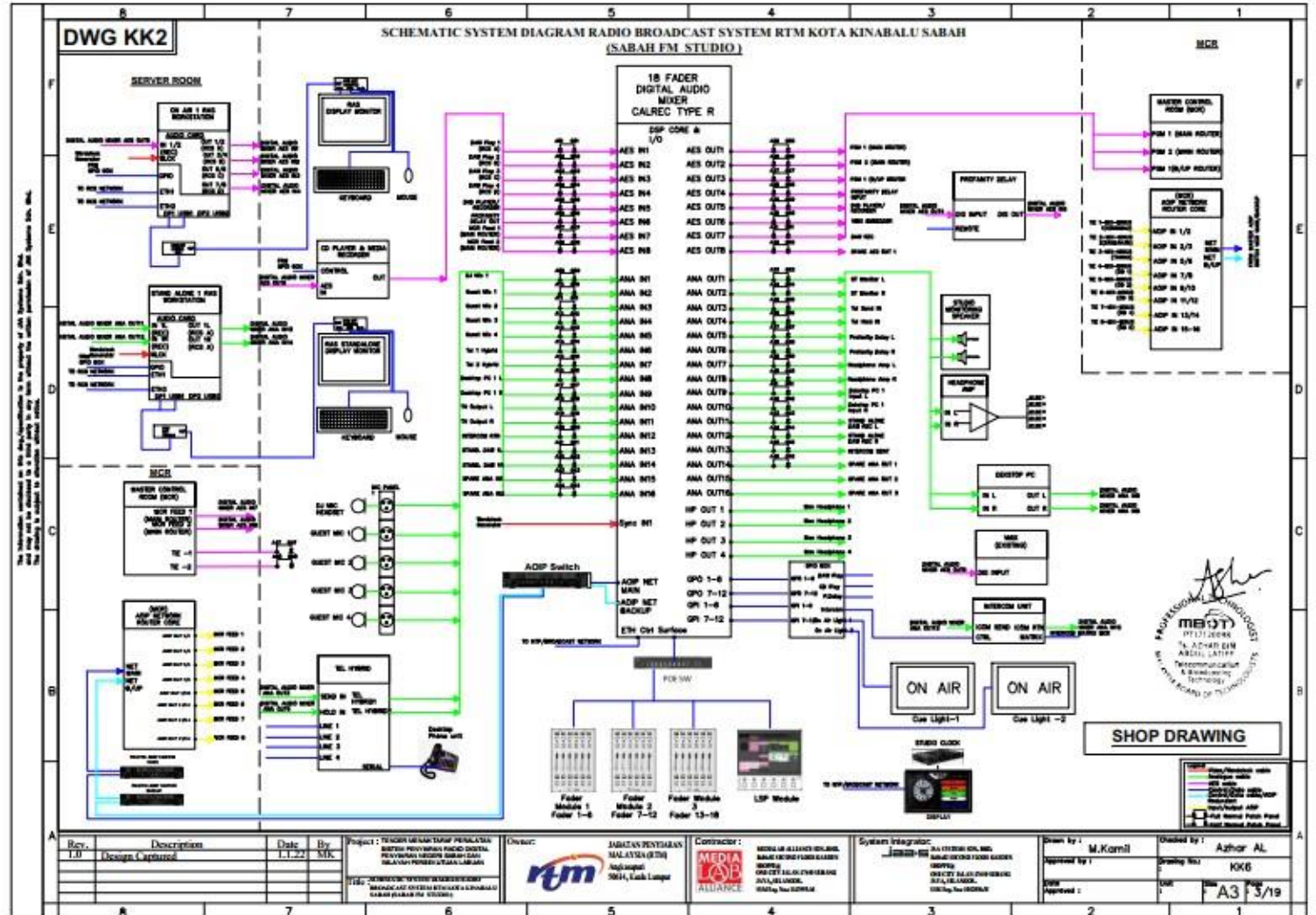
Delay: 0 hari

Notes:

- Sebahagian dari barangan pembuatan dalam negara dan komponen-komponen pemasangan telah tiba.
- Penyerahan dokumen Teknikal Proposal.

Prepared by:	Roslan Boni
Date:	21.1.2022
Checked by:	Ts. Azhar Bin Abdul Latiff
Date:	21.1.2022
Remarks:	Release Version 1.0

MEDIA LAB ALLIANCE SDN. BHD. (1143993-A)



MBOT PROFESSIONAL ACCEPTANCE IN INDUSTRY

➤ The involvement of Ts. and Tc. in **Telecommunication and Broadcasting Technology (TB)**

JADUAL PEMATUHAN (SCHEDULE OF COMPLIANCE)

FTA (CPTPP) TENDER PEMBANGUNAN DAN MENAIKTARAF SISTEM PEMANCAR RADIO FM FASA 2 JABATAN PENYIARAN MALAYSIA (SABAH DAN SARAWAK)




CLAUSE	SPECIFICATION	COMPLY	NOT COMPLY	REMARKS
4.12.2	The contractor is required to produce a valid workmen compensation policy for the full number of men employed on the work. The Government of Malaysia will not liable for any casualties due to the negligent of the Contractor			
4.12.3	The contractor shall take out a Contractor's All Risk / Erection All Risk Policy and extend the policy to cover RTM and other site owners existing/surrounding property and a Comprehensive General Liability Policy.			
4.12.4	All installations shall be carried out under the direct supervision of <i>Pengarah Bahagian Pembangunan Fasiliti</i> or his representatives. Any modifications or changes at the site due to peculiarity at the site must be approved by the above-mentioned officer/officers before carrying out the work.			
4.12.5	The Contractor shall provide at all times during the progress of the work a competent Supervisor/Engineer who is empowered to receive and carry out instructions from RTM's representative and shall attend site meetings. The resumé of the Supervisors/Engineers shall be submitted to <i>Pengarah Bahagian Pembangunan Fasiliti</i> , RTM Kuala Lumpur before the commencement of any works at the site.			
4.12.6	As there are other services operating within the vicinity of the transmitting station, the Contractor shall ensure that the new FM transmitters do not cause interference to any existing services and vice versa. In case interference does occur, the Contractor shall immediately undertake to resolve this problem. Any cost arising to rectify the interference shall be borne by the Contractor.			
4.12.7	The Contractor should ensure their employees have valid National Institute of Occupational Safety and Hazard (NIOSH) , CIDB and Working at Height (WAH) workmen licenses when performing the related work required.			
4.12.8	All drawings involve with electrical and civil work shall be approved by a certified person i) Civil and Infra work – Professional Civil Engineer Certified by BEM. ii) Electrical work – Professional Electrical Engineer Certified by BEM			
4.12.9	All drawings involved with the broadcast system by successful contractor shall be approved by a certified person from Professional Technologist registered by MBOT.			

4.12.9	All drawings involved with the broadcast system by successful contractor shall be approved by a certified person from Professional Technologist registered by MBOT.
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MBOT PROFESSIONAL ACCEPTANCE IN INDUSTRY

- The acceptance of Ts. in **Electrical and Electronic Technology (EE) and Information and Communication Technology (IT) as requirement for ICT Designer**

	DESIGN AND BUILD NEED STATEMENT ELECTRICAL SYSTEM	CKE.GP.12.10.(02).2023 Date Issued: 2014
		Revision: 2
		Date: Mac 2023
		Page: 45 of 187

Qualification and Competency of ICT Designer and Resident Engineer (RE)

Minimum Qualification and Competency of ICT Designer


- Degree in the field of Information Technology (IT), Electrical / Electronic Engineering or similar certifications.
- Minimum 5 years working experience in implementing ICT project.
- Experience in designing and implementing a minimum of five (5) ICT projects particularly in designing network infrastructure, IP based / non-IP based Telephone system, system configuration, data centre, server and back-end system, testing and commissioning.
- Experience in preparing technical specifications, user requirement specification, tender documentation, project supervision, operation and maintenance manuals of ICT project.
- Knowledgeable in windows server/client environments, TCP/IP, LAN System, Security & Firewall, Linux/Window OS, Structured Cabling System, Email/Web serving, database administration and Office application suites.
- Knowledgeable in Telephone System including IP PBX, Multiline SIP and ISDN.
- Possess a recognised Network Design Professional certification or Expert level certification from the proposed product principal.
- Knowledge and experience in AutoCAD, Visio, Microsoft Project and Microsoft Office.
- Registered as Certified Technologist by Malaysia Board of Technologists is an advantage.

MBOT PROFESSIONAL ACCEPTANCE IN INDUSTRY

- The acceptance of Graduate Technologists in **Oil and Gas Sector** as requirement for **Welding Engineer Position**

- The involvement of Professional Technologists in **Construction Sector**

PCSB Welding QC Manual



16.0 ROLES & RESPONSIBILITIES FOR

16.1 General

The company/matrix shall have at her/his disposal sufficient and competent personnel for the planning, performing and supervising of the welding production according to specified requirements.

16.2 Welding Engineer

The minimum qualification and responsibility of a welding engineer shall be as detailed below:

- Degree holder in engineering/technology with knowledge and experience in the engineering disciplines associated with welding, metallurgy and NDT (i.e. Degree in Mechanical/Metallurgy/Material), and;
- Registered as an engineer or technologist with a recognised professional organisation (e.g. Board of Engineers Malaysia (BEM) as Graduate Engineer, Malaysia Board of Technologists (MBOT) as Graduate Technologist), and;
- At least 5 years of working experience in fabrication and welding, or;
- Hold a professional certification scheme such as AWS CWEng, IWE, IWT, JWES or any equivalent certification body that is recognized by Company.

2.2 Competencies

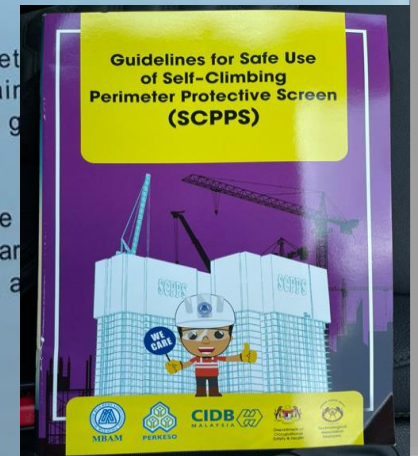
Appointing the right people, or 'competent personnel' in this of the key elements to securing construction safety and health, carry out their duties directly with SCPPS shall possess the terms of measurable skills and knowledge, namely:



- (1) **PEPC** (Professional Engineer with Practising Certificate) shall have registered under subsection 10(2) of the Registration of Engineers (Amendment) Act 2015. PEPC should possess design knowledge and experience for both reinforced concrete and steel structure and product knowledge of the SCPPS.
- (2) **P.Tech** and **C.Tech** shall have registered under the Technologists and Technicians Act 2015 (Act 768). P.Tech should possess design knowledge and experience for both reinforced concrete and steel structure and product knowledge of the SCPPS. C.Tech should possess the product knowledge, experience and skills in operating a SCPPS.
- (3) **Submitting Technical Manager** shall possess at minimum the qualification as a PETW (registered with BEM) or P.Tech (registered with MBOT).
- (4) **Designated Person (TWC)** shall be a SCPPS competent person who shall receive the required SCPPS training under a skill training programme from the supplier or the manufacturer in compliance to this guideline of the Submitting Technical Manager.
- (5) **Approved SCPPS Installer** shall have undergone on-site training by the manufacturer or supplier, or to be trained by the manufacturer or supplier; and hold a Certificate of Competency issued by the Submitting Technical Manager. (Refer Appendix H).

Attendance and competency certificate to be managed by BOE.

3 PRODUCT STANDARDS AND CERTIFICATION



MBOT PROFESSIONAL ACCEPTANCE IN INDUSTRY

➤ The involvement of Ts. in **Health and Medical Technology (HM)**



**MALAYSIAN
STANDARD**

MS 2058:2018

Code of practice for good engineering
maintenance management of active medical
devices
(Second revision)

ICS: 11.040.01

Descriptors: medical electrical equipment, code of practice, biomedical engineering, maintenance,
services, active medical devices

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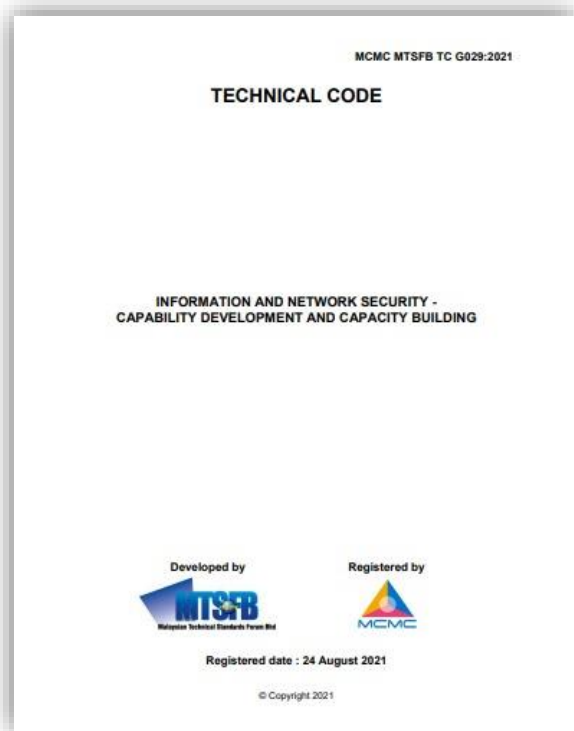
DEPARTMENT OF STANDARDS MALAYSIA

5.3 The Biomedical Technical Personnel (BTP) shall:

- a) comply with competency requirements by Medical Device Authority, Ministry of Health and shall be listed with Medical Device Authority based on *Medical Device Act 2012 (Act 737)*;
- b) The Biomedical Engineer shall register with the Board of Engineers as per specified in the *Registration of Engineers Act 1967* as appropriate;
- c) Biomedical Technician/Other Technical Personnel shall register with the Malaysian Board of Technologist per specified in the *Technologists and Technicians Act 2015 (Act 768)* as appropriate;
- d) attend relevant trainings and/or continuing professional development (CPD) trainings with recognised and authorised professional bodies; and
- e) manage and administer Biomedical Engineering Services as per 5.2.

MBOT PROFESSIONAL ACCEPTANCE IN INDUSTRY

➤ The involvement of Ts. and Tc. in **Cyber Security Technology (CS)**



5. Cyber Security Capability Development and Capacity Building Framework

The Cyber Security Capability Development and Capacity Building Framework deployed under this Technical Code is established with reference to the ISO/IEC 17024 on people certifications, ISO 9000 series on processes and ISO/IEC 27001 on security management as depicted in Figure 1.

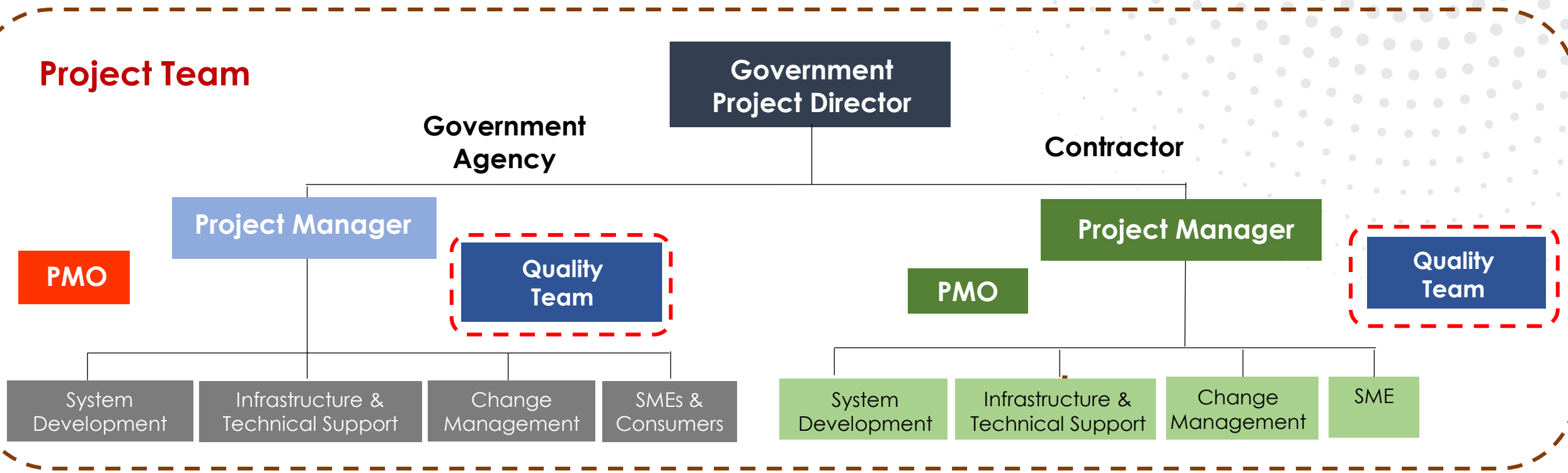


Figure 1. Cyber Security Capability Development and Capacity Building Framework

MBOT PROFESSIONAL INVOLVEMENT IN ICT PUBLIC SECTOR



➤ At least **one (1) Professional Technologists** in Contractor's Quality Team



Sources: PPrISA

MBOT PROFESSIONAL ACCEPTANCE IN INDUSTRY



Registered as **Graduate Technologists / Qualified Technician** for Technical positions.



Registered as a **Professional Technologist (Ts.)** to fill the position of Assistant Manager Grade 8 (PMKS Sustainability Unit).



Registered as a **Professional Technologist (Ts.)** for position as a Resident Electrical Engineer.



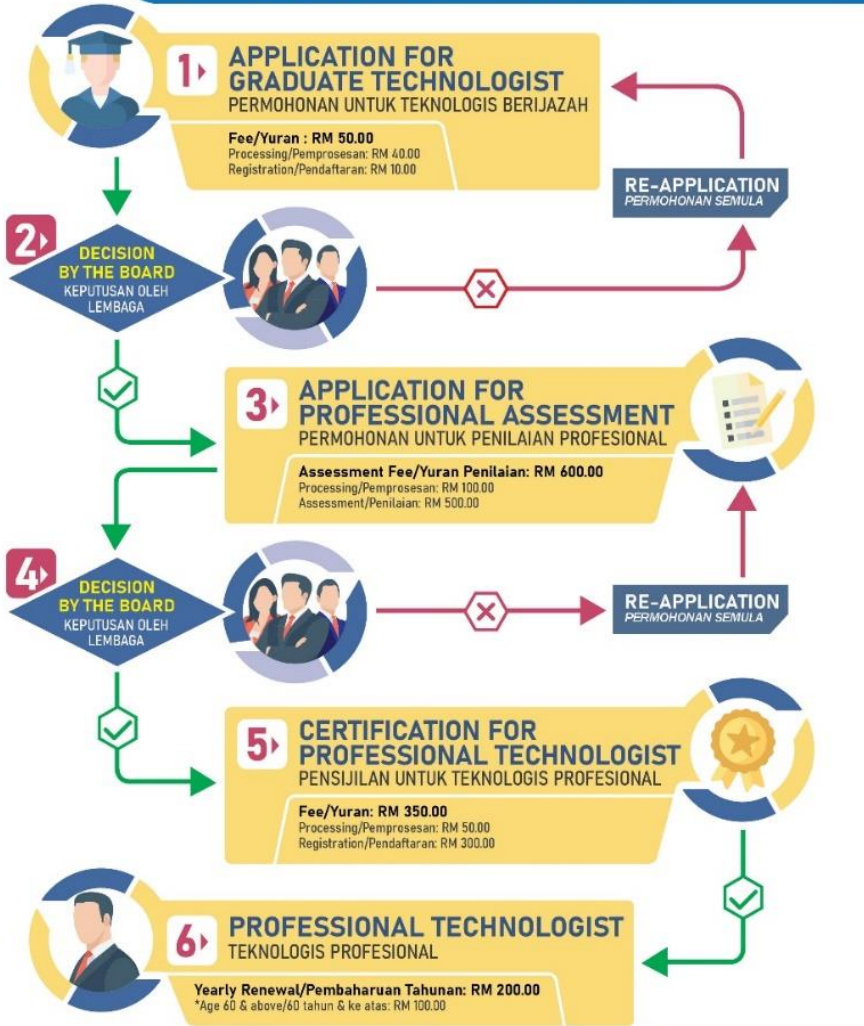
Registered as a **Professional Technologist (Ts.)** to fill position as an Executive (Technologist).



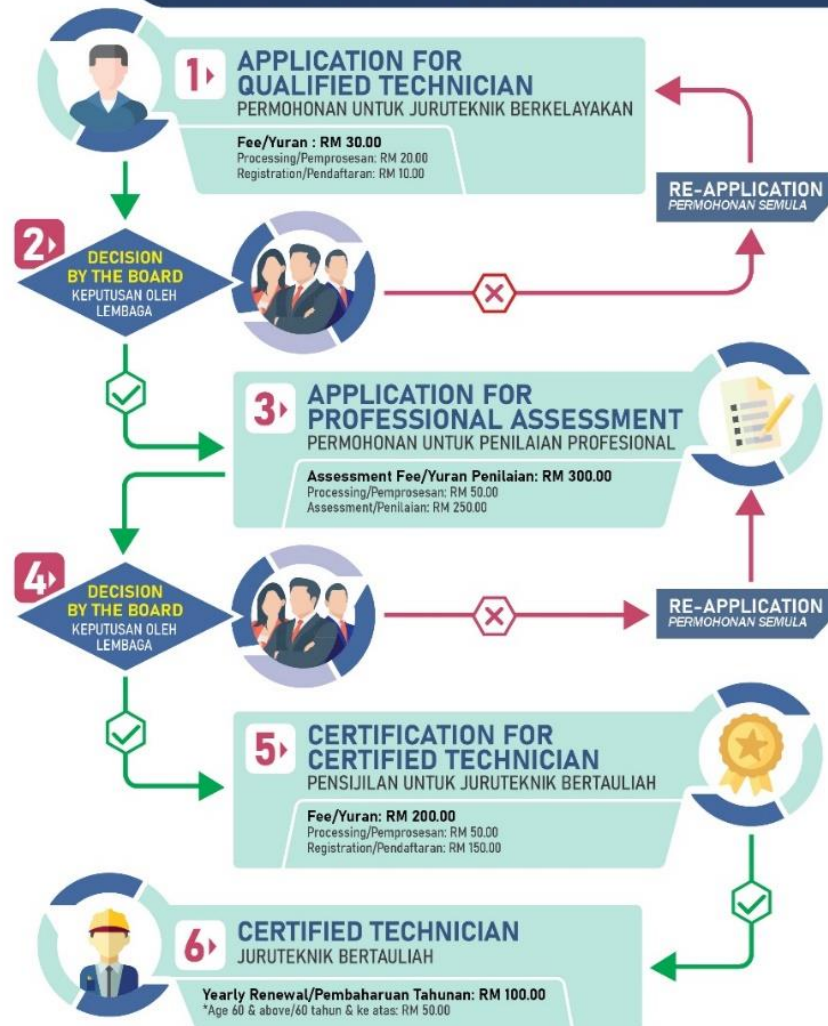
The manpower **shall certified with MBOT** to get the marks at number 5 under Research & Development (include Green Design Product) for OEM to get incentive.

REGISTRATION FLOWCHART

>>> FLOWCHART: APPLICATION FOR PROFESSIONAL TECHNOLOGIST (Ts.) CARTA ALIR PERMOHONAN TEKNOLOGIS PROFESIONAL



>>> FLOWCHART: APPLICATION FOR CERTIFIED TECHNICIAN (Tc.) CARTA ALIR PERMOHONAN JURUTEKNIK BERTAULIAH



HRD CORP
HUMAN RESOURCE DEVELOPMENT CORPORATION

**Reimbursement
Payment of
Assessment Fee**

Individual must demonstrate that they have met the profession's standards of competency and commitment.

THE NEW METHODOLOGY FOR PROFESSIONAL ASSESSMENT 3.0 STARTING IN SEPTEMBER 2023



MBOT Professional Curriculum Vitae
(for candidate's action)

Professional Assessment Candidate should complete the MBOT Professional Curriculum Vitae before the interview session, consists of;

- Personal Particulars
- Academic Qualification
- Competency-based Qualification in Related Technology and Technical
- Professional Affiliation
- Work Experience Related in Technology Field
- Technology-related Professional Experience
- Code of Professional Conduct
- Self-assessment
- Reference
- Technology and Technical Experience Report (TER)



Professional Competency Assessment (PCA)
(for candidate's information)

New scoring weights for each element in the Professional Competency Assessment (PCA)

- A- Knowledge and Understanding = 20%
- B- Application To Practice = 40%
- C- Leadership and Management = 10%
- D- Interpersonal Skills = 10%
- E- Professional Conduct = 20%



*Graduate Technologists and Qualified Technicians should submit their application for professional assessment by selecting the "Apply for Professional Certification" button in their profiles.

- Each candidate will be assessed by 2 panels from industry & academia.
- Will take around 30 minutes to complete.
- The assessors are been appointed according to the relevant fields

HRD CORP
HUMAN RESOURCE DEVELOPMENT CORPORATION

MBOT Professional Assessment Fee is Reimbursable by HRD Corp under OJT Scheme

Assessment fee:
Professional Technologist (Ts.) - RM600
Certified Technician (Tc.) - RM300

For any enquiries, please email us at assessment@mbot.org.my

For more information scan the QR code

MBOT
LEMBAGA TEKNOLOGIS MALAYSIA
MALAYSIA BOARD OF TECHNOLOGISTS

www.mbot.org.my Malaysia Board of Technologists @mbot.my @mbot_my 03-8800 6268

CPD ensures you to be proficient and competent.



90 Hours / 3 years*

Professional Technologist (Ts.)



60 Hours / 3 years*

Certified Technician (Tc.)

*Minimum 3 activities per year

Types of MBOT CPD ACTIVITIES

- A1** Formal and Informal Education
- A2** Congress/Conference/Seminar/Symposium (Local / International)
- A3** Fellowships/Attachment/Study Tour (including practical and skills courses)
- A4** Committee or Project Member
- A5** Technology and Technical Related Meetings
- A6** Technical Paper Presentation at Official Function/Seminar/Meetings (Presenter/Speakers)
- A7** Publication Of Articles in Journal/ Chapters in Book / Technical Reports
- A8** Appointed as MBOT's Assessors
 - Professional Assessor Panel
 - Accreditation Assessor Panel
 - Accreditation visits
- B1** Contribution for Technology and Technical Aspects Development
- B2** Online Platform Related to Technical and Technology
- B3** Mentoring/Coaching/Judges/Consultation Related to Profession
- D1** Hands-On/ Special Project & R&D Activities Related in Technical & Technology
- D2** CSR Program and Relevant Voluntary Work
- D3** Soft-Skills Related to Leadership and Management, Interpersonal Skills and Professional Conduct

Let us together build a conducive talent ecosystem through collaboration

Professionalism



MBOT Professional recognition



Use of professional stamp in technology and technical services

Life-long Learning Collaboration



MBOT Expert Panel



Professional Assessor



Accreditation Panel



Technology & Technical Working Group (TTWG)

HOW TO » REGISTER WITH MBOT?

The registration can be done through online registration at www.mbot.org.my.

Special arrangements are offered to organizations that want to register at least 20 pax through bulk registration. Email to registration@mbot.org.my

STEP 01

Please visit MBOT official website at www.mbot.org.my and click **REGISTER NOW** at our Home Page



STEP 04



Login and fill out all necessary information and documents

STEP 03



An account verification email from MBOT will be sent

STEP 02



Fill in the account registration information



STEP 05

Be sure to complete all required documents and click **SUBMIT** on the last page of the application



STEP 06



The application status will change to **PENDING** for review process





www.mbot.org.my

CONNECT WITH US

 **03-8800 6268**  **info@mbot.org.my**

 **A1-3-1 & A1-3-3, Ayer@8, Jalan P8G, Presint 8, 62250 Putrajaya**