



**MANPOWER INDUSTRY STEERING COMMITTEE
(MISC) CONSTRUCTION**

ARMECS

Architect - **M**echanical & **E**lectrical - **C**ivil & **S**tructural
Bridging Program

INFORMATION PACK



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First Edition September 2020

Second Edition June 2021

Updates to combine ARMECS Draughting & ARMECS RCC-Visor into one programme

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1. Introduction to MISC Construction

The Manpower Industry Steering Committee Construction (MISC Construction) was formed under the Manpower Planning and Employment Council (MPEC) in an effort to enhance local's employability and ensure that they acquire relevant skills and competencies within the construction industry. Roles and responsibilities of MISC Construction are:

- To identify the critical occupations and focuses on the type and number of jobs that are demanded by the construction industry.
- Works with construction industry to co-develop curriculum and program that aligns with the construction industry's standards and requirements.
- Propose a Construction Industry Competency Framework (CICF) alignment to the construction industry requirements and
- Approve standards and accredits programs and courses.

2. 11 Critical Occupations Identified

TOP 11 CRITICAL OCCUPATIONS IDENTIFIED



These occupations were derived from comprehensive data review & analysis, series of close consultations with construction companies, employees, job seekers, MISC Energy sector and educational institutions since April 2020.

The target has been set by MPEC for MISC Construction to ensure that 1000 locals to be employed in construction industry annually. Strategies and Plans has been formulated based on the short, medium and long term to ensure that MISC Construction would be able to meet the target.

STRATEGIES TO ENSURE JOBSEEKERS / STUDENTS ARE INDUSTRY READY

1. **Quick Win / Short-Term: Bridging Programmes** for unemployed graduates
2. **Medium-Term: Construction Industry Competency Framework (CICF) Programs for Crafts & Related Trades**
3. **Long-Term: Dual TVET Programs** for Construction-related programmes.

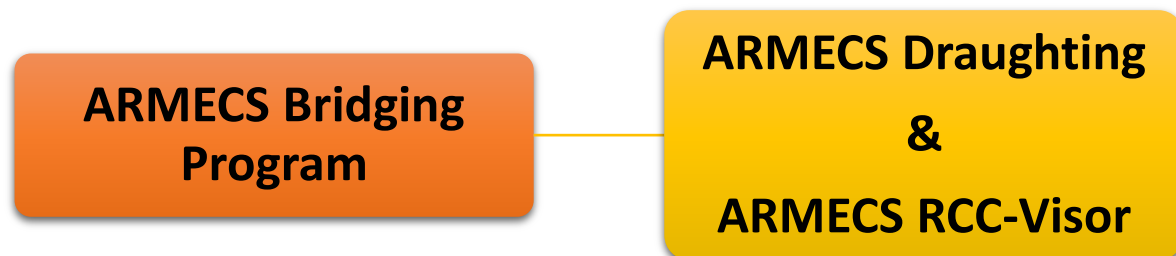
One of the key milestones and the quick win / short-term strategies is to address those unemployed graduates from IBTE and Politeknik Brunei. MISC Construction has developed an industry-based training program that suits the needs of these unemployed graduates which is called “ARMECS” Bridging Program.

3. Brief Background to ARMECS Bridging Program

The ARMECS Bridging Program is an industry-based training program aims to enhance the local graduates’ employability for the construction industry.

The 6-months Training program is designed to enrich the graduates with hands-on skills and competencies.

The acronym “ARMECS” stands for **A**rchitect – **M**echanical & **E**lectrical – **C**ivil & **S**tructural. At this stage, a program will be run which are the **combination** of ARMECS Draughting and RCC-Visor. The graduate trainees will be trained by experts from Construction Firms under i-Ready apprenticeship scheme.



4. Candidate Eligibility

Potential candidates are required to ensure their JCB account is active. As this programme is conducted under the I-ready scheme, candidates must fulfill the following criteria:

- 1) Citizens of His Majesty the Sultan and Yang Di-Pertuan Negara Brunei Darussalam or Permanent Residents of Brunei Darussalam.
- 2) Registered unemployed local jobseekers with qualifications of Degree and Above, HND (Level 5 or equivalent); OR TVET (Level 2 – 4 or equivalent).
- 3) Has minimal working experience.

5. ARMECS Draughting & RCC-Visor

ARMECS Draughting is an Industry-Based Training program designed to enrich the graduates with hands-on skills and competency in Computer Aided Draughting trained by the industry experts for the construction industry.

The program aims to meet the requirement of construction industry for more employable graduates. The objective is to enhance the graduates' employability as Draughtsman.

ARMECS RCC-Visor which is an acronym that stands for **R**esident Technical Officer (RTOF), **C**ompany Site Representative (CSRep) and **C**lerk of Works (CoW) as **S**upervisor, is an Industry-Based Training program designed to enrich the graduates with hands-on skills and competency in Supervising Construction site works and quality control trained by the industry experts for the construction industry.

This program aims to meet the requirement of construction industry for a more employable graduates that will suit positions as RTOF, CSRep and CoW.



The graduate trainees will undergo a structured training program. The training delivery will be based on 20% on attainment of Awareness and Knowledge and 80% on Experience in draughting, supervising and quality control of construction site works in the (3) three disciplines.

Draughting

At Architectural Firm	At Mechanical & Electrical Firm	At Civil & Structural Firm
<p>Awareness & Knowledge</p> <ol style="list-style-type: none"> i. Duties and responsibilities of draftsman in architectural firm ii. Acknowledge the latest Town and Country Planning (TCP) rules and regulation & submission iii. Acknowledge the latest Authorities for Building Control and Construction industry (ABCI) rules and regulation & submission iv. Exploring and understanding the procedure on approval of project v. Understanding of CAD Drawings and Building Materials vi. Advanced application of AutoCAD/Revit Drawing Software vii. Understanding submission drawing to authorities viii. Understanding of site analysis <p>Experience</p> <ol style="list-style-type: none"> i. Expose to the site inspection of the existing/ on-going/ completed projects ii. Assign to real / completed project iii. Understanding on application of 3D modelling software. e.g. Google Sketchup, 3Ds Max (Optional) 	<p>Awareness & Knowledge</p> <ol style="list-style-type: none"> i. Duties and responsibilities of draftsman in M&E firm ii. Acknowledge the latest Town and Country Planning (TCP) rules and regulation & submission iii. Acknowledge the latest Authorities for Building Control and Construction industry (ABCI) rules and regulation & submission iv. Exploring and understanding the procedure on approval of project v. Understanding of CAD Drawings and M&E Equipments vi. Understanding of M&E Services vii. Advanced application of AutoCAD Software viii. Understanding submission drawing to authorities ix. Understanding of site analysis x. Basic fundamental of M&E calculation for drafting <p>Experience</p> <ol style="list-style-type: none"> i. Expose to the site inspection of the existing/ on-going/ completed projects ii. Assign to real / completed project 	<p>Awareness & Knowledge</p> <ol style="list-style-type: none"> i. Duties and responsibilities of draftsman in C&S firm ii. Understanding the role of C&S Consultant in the submission of drawing to authorities iii. Understanding the regulation and requirement of relevant authority in submission of drawing and project implementation e.g ABCi, TCP, Bomba, PBD12, etc iv. Understanding the stages of project implementation in construction v. Understanding of basic design, terms and contents of C&S drawing <p>Experience</p> <ol style="list-style-type: none"> i. Experience in drafting C&S drawing using AutoCAD eg. Structural drawing, earthwork drawing ii. Familiarize work environment, ethics & culture iii. Conduct Site inspection to on-going projects to compare drawings vs actual iv. Experience in actual submission of Earthwork drawing via OneBiz

RCC-Visor

At Civil & Structural Firm	At Architectural Firm	At Mechanical & Electrical Firm
<p>Awareness & Knowledge</p> <ol style="list-style-type: none"> i. Duties and responsibilities of RTOF / CoW in C&S firm, and CSRep in contractor company ii. Understanding the regulation and requirement of relevant authority in submission of drawing and project implementation e.g ABCi, TCP, Bomba, PBD12, etc iii. Understanding the stages of project implementation in construction iv. Understanding of basic design, terms and contents of C&S drawing <p>Experience</p> <ol style="list-style-type: none"> i. Site work exposure / Site Supervision <ul style="list-style-type: none"> • Familiarising with construction drawings, specifications and documents • Observe and understand construction work activities & scheduling • Regular inspection of construction works on site • Conduct quality testing on materials • Taking measurements on site • Keep detailed site records of works • Monitor progress of project • Technical reporting skills 	<p>Awareness & Knowledge</p> <ol style="list-style-type: none"> i. Duties and responsibilities of CoW in Architectural firm ii. Understanding the regulation and requirement of relevant authority in submission of drawing and project implementation e.g ABCi, TCP, Bomba, PBD12, etc iii. Exploring and understanding on implementation of building projects. <p>Experience</p> <ol style="list-style-type: none"> i. Site work exposure / Site Supervision <ul style="list-style-type: none"> • Familiarising with construction drawings, building materials and documents • Observe and understanding construction work activities & scheduling including HSE • Regular inspection of construction works on site to compare actual construction work with construction drawings and specifications with the guidance of senior clerk of work • Taking measurements on site • Keep detailed site records of works and produce weekly report 	<p>Awareness & Knowledge</p> <ol style="list-style-type: none"> i. Duties and responsibilities of CoW / CSRep in M&E firm ii. Understanding the regulation and requirement of relevant authority in submission of drawing and project implementation e.g ABCi, TCP, Bomba, PBD12, etc iii. Exploring and understanding on implementation of building projects. iv. Elementary level M&E construction knowledge, work program to ensure they can prepare documents/records <p>Experience</p> <ol style="list-style-type: none"> v. Site work exposure / Site Supervision <ul style="list-style-type: none"> • Familiarising with M&E and Plumbing and Sanitary (P&S) construction drawings and documents • Observe and understanding construction work activities & scheduling • Regular inspection of construction works on site • Taking measurements on site • Keep detailed site records of works • Site measurement for valuation of works • Knowledge on checking quality of M&E materials / equipments

ARMECS Draughting & RCC-Visor targets those students who have just graduated or unemployed graduates in the following areas:

ARMECS Draughting & RCC-Visor

- Politeknik Brunei (PB) Level 5 Diploma in Interior Design
- Politeknik Brunei (PB) Level 5 Diploma in Architecture
- Politeknik Brunei (PB) Level 5 Diploma in Civil Engineering
- IBTE Level 4 HNTec in Design and Draughting
- IBTE Level 4 HNTec in Construction Engineering or
- Any other disciplines relevant to the above from local and international institutions.

Having completed ARMECS Draughting training program, the graduate trainees should be:

1. Able to work with minimal supervision
2. Industry Ready
3. Experience in draughting of real-life projects
4. Well Aware of the expectation of the employer
5. Experience in working environment
6. Draughting in 3 different disciplines in the construction industry
7. No or minimal training when employed after completed ARMECS training.

Having completed ARMECS RCC-Visor training program, the graduate trainees should be:

1. Able to supervise site works with minimal supervision
2. Gain experience in supervising real life projects
3. Be well aware of the expectation of the employer
4. Have experience in office and site working environment
5. Be able to work as supervisor both on consultant as RTOF/CoW and contractor side as CSRep.

6. Recognition and Award

Both ARMECS Bridging programs Draughting and RCC-Visor are recognized and awarded by the MISC Construction which comprises members from educational

institutions, private sectors in construction sector, the construction industry regulator and other relevant Government agencies.

7. Consultant Firms as Trainers

This program needs the commitment from construction industry, which includes:

- Responding to any correspondence from MISC Construction;
- Ensuring the training contents have been fulfilled by the trainees
- Prepare any necessary requirement to ensure the training runs smoothly such as company orientation, security passes etc
- Appoint a trainer working under the company to supervise and train the graduate trainees.

Company personnel are to serve as supervisors and trainer and are selected by the company according to the criteria provided to provide direction and guidance to the trainee during the program duration.

The roles of the Supervisor are vital as he/ she should:

- Participate in planning, supervising and evaluating the trainees.
- Provide on-site technical and professional guidance to trainees.
- Ensure trainees complete work given according to the program content provided.
- Expose trainees to a range of experiences that may extend the skills that they have already acquired.

To ensure that consultant firms select a Supervisor that provides direction and guidance to the trainee, selected Supervisor should:

- i. be a person with relevant practical experience;
- ii. be employed by the company the trainee is in;
- iii. make contributions to the development of the program;
- iv. possess adequate knowledge and experience in the relevant field;
- v. be willing to engage in a learning experience with the trainee during their training;
- vi. show willingness to have regular contact with trainees; and
- vii. Have reasonable ethical and professional conduct.

8. Trainer's Qualification

For ARMECS Draughting and RCC-Visor

- i. Minimum 3 years extensive and relevant working experience in Draughting.
- ii. Recommended by registered BAPEQS's QP.

For ARMECS Draughting and RCC-Visor

- i. Minimum 3 years extensive and relevant working experience in supervising and quality control of construction site works.
- ii. Recommended by registered BAPEQS's QP.

9. Roles & Responsibilities of Graduate Trainees

- Complete the duration of training as per outlined in the program;
- Comply to the industries code of conduct such as working hours, dress code, rules and regulations, etc;
- Ensure tasks are completed and verified by appointed Supervisor;
- Inform Supervisors or MISC Construction of any issues that may hinder their progress e.g. if tasks are not aligned with program content, harassment, bullying, etc;
- Any issues encountered during training should be addressed to the supervisor;
- If the issue continues, submit correspondence addressed to MISC Construction indicating the problem. Upon receiving your letter, an investigation will be carried out on your complaint. If the complaint is valid, further action will be taken with the relevant party.

10. Facilities and Materials required for the training

Company would provide:

For ARMECS Draughting

1. Experience senior draughtsman of the company
2. Previous / On-going projects for site visit and analysis
3. Samples of drawings of the previous projects
4. Workstations for the trainees

5. Sketch up and Photoshop software (if applicable)
6. Scale ruler
7. Plotter - Optional / A3 printer or other means used by the Firm for printing.
8. A0 - A3 paper or other source at the discretion of the Firm.

For ARMECS RCC-Visor

1. Experience senior site supervisor of the company
2. On-going project for site exposure and supervision
3. Workstations for the trainees
4. Kits and equipment for site visits, analysis, testing etc

Trainee should prepare themselves with:

1. Notebook
2. Stationery
3. Phone Camera
4. PPE for site visit
5. Purchase Insurance for the whole duration of training.
6. Laptops (med-high spec) – Optional

11. Assessment



1. The graduate trainee will be assessed by the trainer of the company.
2. Competency and skills assessment will be carried out mid-way and towards the end of the training for each discipline (Period of assessment depends on the duly discretion of the trainer)

12. Lifelong Learning and Training (LLT) Politeknik Brunei (PB) Portal Usage

ARMECS Bridging Programme use LLT PB Portal as a platform/system where trainees are required to fill in and update their tasks throughout their training. It can be done by the trainees on a daily/weekly basis. LLT PB portal is also a platform/system where trainers are required to fill in their trainee's attendance and assess their trainee's performances base on the criteria set by the LLT PB portal/system designed for ARMECS Bridging Programme.

13. JobCentre Brunei (JCB) Payroll Sheet

The payroll sheet is used to record the trainee’s attendance, including their annual leave, unpaid leave, unpaid sick leave and maternity leave. The trainer should fill in the JCB Payroll Sheet. After that the trainer needs to send it via email to finance.mppu@jpm.gov.bn and cc to misc.construction@mod.gov.bn every end of the month for JCB to keep record in order to process the trainee’s allowance accordingly.


i-READY PAYROLL SHEET


ORGANIZATION DETAILS																							
Organization Name										ORG No. 018													
Organization Website										Website													
Address										No. 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 48, 50, 52, 54, 56, 58, 60, 62, 64, 66, 68, 70, 72, 74, 76, 78, 80, 82, 84, 86, 88, 90, 92, 94, 96, 98, 100													
Email Address										Email Address													
Phone Number										Phone Number													
NOTE: 01/11/2021																							
i-READY APPRENTICE ATTENDANCE DETAILS																							
No.	Name	IC No.	Position	Station / Major / Minor / Training Station / Other	Start Date to the company	No. of days required to work	Actual No. of Working Days	Reason Date taken (applicable)	Leave														
									Annual Leave		Unpaid Leave		Unpaid Sick Leave (HCI)		Unpaid Sick Leave (HCI)		Maternity Leave		Summary Leave Balance				Other
									No. of Days Taken	Date	No. of Days Taken	Date	No. of Days Taken	Date	No. of Days Taken	Date	No. of Days Taken	Date	Annual Leave Taken	Unpaid Leave	Sick Leave Taken	Unpaid Sick Leave	
1	Abdul Wahid	81-88888	Senior	Site	10/01/18	21	21	-	0	0	0	0	0	0	0	0	0	0	0	0			
2	Abdul Wahid Bin Abdul Halim	81-11111	Senior	Site	10/01/18	21	18	10/01/18	0	0	0	0	0	0	0	0	0	0	0	0			
3	Abdul Wahid Bin Abdul Halim	81-22222	Senior	Site	10/01/18	21	19	-	0	0	0	0	0	0	0	0	0	0	0	0			
4																							
5																							

NOTE:

No. of Days required to work: Number of days required to work a month (Monday to Friday).

Actual No. of Working Days: Actual number of days the apprentice attended a small enterprise after the start.

Reason: If the apprentice had to resign, please state the appropriate and complete reason for resignation. Please specify the reason: 1) End of contract; 2) Resignation; 3) Resignation after 10 days of notice; 4) Resignation after 15 days of notice; 5) Resignation after 30 days of notice.

Unpaid Leave: Reason taken by apprentice: 1) Resignation after 10 days of notice; 2) Resignation after 15 days of notice; 3) Resignation after 30 days of notice; 4) Resignation after 10 days of notice; 5) Resignation after 15 days of notice; 6) Resignation after 30 days of notice.

Unpaid Sick Leave: Please provide supporting documents from the hospital and complete appropriate.

Maternity Leave: The number of days the apprentice is absent from work due to pregnancy, childbirth, or breastfeeding, according to the laws of Brunei Darussalam.

THE APPRENTICE SIGNATURE

APPRENTICE SIGNATURE

Signature and complete stamp

THE SUPERVISOR SIGNATURE

SUPERVISOR SIGNATURE

Signature

14. Personal Accident Insurance

ARMECS Bridging Programme’s trainees are required to purchase their own Personal Accident Insurance that needs to be effective during their training period from any insurance companies that is recognized by Brunei Darussalam. Trainees are required to send their insurance details after purchase via email to misc.construction@mod.gov.bn.