UNIVERSITI TEKNOLOGI MARA

FACULTY OF CIVIL ENGINEERING

INDUSTRIAL TRAINING REPORT

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(2017253108)

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OGOS 2020

TRAINEE'S DECLARATION

I declares that the works in this industrial training report was accordance to the guidelines which mean the rules and regulations of Universiti Teknologi Mara (UiTM). With the help of lecturers, organization and other references, I had completed and carried out this report from my own work. This industrial training report was made only for this course and never been submitted it to other institutions.

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FACULTY : FACULTY OF CIVIL ENGINEERING

TITLE : INDUSTRIAL TRAINING REPORT

ABSTRACT

This industrial training report consists of four (4) chapters which are introduction, training attended, technical report and conclusion. For chapter 1, it was consists of introduction, background of the company, organizational structure, nature of the business, products, market strength and conclusion. In addition, there were introduction, exposure level and conclusion in chapter 2 and it was a weekly summary based on a logbook. In chapter 3, this part was explained about introduction such as nature of work & management, problem encountered & how overcome it, experience gained and the conclusion. For the last one, chapter 4 consists of introduction, lesson learned during industrial training, knowledge gained, suitability of organization and limitations & recommendations. Technically, trainee need to undergo four months of industrial training in order to complete this diploma in civil engineering. This training should be starting from 24 February 2020 until 24 June 2020 but there has been movement control order due to Corona Virus Disease then this training was extended until 5 August 2020. In completing this diploma, the trainee need to select any organization and it was Jabatan Kerja Raya (JKR) Daerah Kuala Kangsar, Perak. Actually, JKR Perak was divided into districts, branches and units such as JKR Daerah Muallim, JKR Cawangan Kejuruteraan Mekanikal and Unit Pangkalan Tentera Laut DiRaja Malaysia (TLDM). During this industrial training, the trainee got an opportunity to know more deeply how to manage work in this JKR and automatically more knowledge can be gained by the trainee. By saying these, industrial training will be the best way to prepare for all trainees before starting a permanent job when they were exposed to the real working environment.

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Assalamualaikum w.b.t.

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Last but not least, I would like to thank to my beloved parents that always giving their support to me from behind. Thank you for keep praying for my success without stop. However, I do not forget also for all the ideas and advice given by my friends. Without their helps, I will not be able to do my industrial training report well.

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CHAPTER 1 : INTRODUCTION

1.1 INTRODUCTION

The industrial training is a compulsory for all students in finishing and completing their studies. It is very essential subject offered by Universiti Teknologi Mara (UiTM) in order to improve the students skills and increasing their self-confidence to deal with other people. In addition, all of rules and regulations of company need to be followed by students when they had agreed to start a training with them. By saying this, each student's self-discipline will also improve when they exposed to real work environment during industrial training.

Technically, the existence of industrial training in every faculty will give an opportunity for all students to apply existing skills in their respective fields such as technology use skills and time management. This shows that the objective of implementing this industrial training to students is to ensure that they are able to handle all tasks as well as possible. Generally, the objectives of industrial training can be listed as follows

i. Introduce student to environment and culture of work place

This industrial training will practice themselves in a real way of working in order to manage a task given by staff. In campus, the students only involved with people they know especially classmates and lecturers but they need to cooperate with everyone when starting a job at any company. These will make a lot differences on how to handle a job or project with outsiders. All of students need to adapt themselves with these situations.

ii. Cultivate student to work in team work

Typically, each company will hire several industry trainees to train them with real works at office. So, a team work was very important in handling a few project or tasks given to these industrial trainees in order to submit it within a period given. They need to work together for completing their tasks.

1.2 BACKGROUND OF THE COMPANY

Jabatan Kerja Raya Perak is the largest government technical agency in Perak Darul Ridzuan. It was established in 1878 and led by Mr.P.Doyle, he was a British citizen. At that time, JKR Headquarters was located in Taiping. In addition, Mr.P.Doyle administered only three districts, namely JKR Larut District, JKR Durian Sebatang and JKR Kuala Kangsar District. After the Second World War, JKR Perak Headquarters moved from Taiping to Ipoh, the capital of Perak Darul Ridzuan. Ipoh is located in the north of Kuala Lumpur, the capital of Malaysia. Then, administration of JKR Perak was separated into districts, branches and units. In JKR Kuala Kangsar, six departments were divided which are Highway Department, Building Department, Quantity Surveyor Department, Mechanical Department, Electrical Department and Maintenance Department. They will have their own speciality with interesting tasks and different functions. The main objectives of the establishment of JKR Kuala Kangsar are as follows :-

As the main consultant to the Malaysian Government, the objective of Public Work Department (PWD) is to:

- Deliver projects that meet the quality, time and cost that have been set.

After the Second World War, headquarters of JKR Perak moved from Taiping to Ipoh, the capital of Perak Darul Ridzuan. Ipoh city is located in the north of Kuala Lumpur, the capital of Malaysia. Normally, the journey from Kuala Lumpur to Ipoh takes about two hours. Moreover, JKR districts in Perak consist of :-

1) JKR Batang Padang
2) JKR Hilir Perak
3) JKR Manjung
4) JKR Perak Tengah
5) JKR Kinta
6) JKR Kuala Kangsar
7) JKR Hulu Perak
8) JKR Kerian
9) JKR Larut, Matang & Selama

10) JKR Muallim
11) JKR Bagan Datuk
12) JKR Kampar

All of administrations in JKR Perak either districts, branches or units are under the responsibility of headquarters in Ipoh city. As example, every project need to be approved by headquarters first before they starting to do any progress. In addition, JKR Perak also has their own logo like other departments and it has an implicit meaning.

Figure 1.0

Description

1. The black curved lines at the bottom symbolize water work while reflecting JKR as a dynamic organization.
2. The thick black arch lines symbolize the work of the bridge and also describe JKR which basically carried out all engineering work.
3. The black straight line above it represents the road work that is the responsibility of JKR to build and maintain it.
4. Fourteen black lines symbolize building work as well as reflect the number of states in Malaysia including Federal Territory.

Colour

1. Yellow represents the maturity of the JKR as the longest established organization and shows the most mature image in achieving its objectives.
2. Black represents the strength or unity as a feature among the branches in the handling of projects.
3. Grey represents the humility in service among employees at JKR.

Figure 2.0

Figure 3.0

1.4 NATURE OF THE BUSINESS

- Assets
- Projects
- Services

1.5 PRODUCTS

i. Projek Menaiktaraf Jalan Kuala Kangsar-Manong (A03)

This widen project constructs a road with flexible pavement and four bridges with suitable size in order to give a comfort to road users. The selected main contractor to carry out this project was Syarikat Pembinaan Caj Maju Sdn Bhd and they have been given time to complete it in 2021. Based on the observation, every bridge constructed in this project had been used a spun pile to cater the loads on it. In constructing a road, the thickness of roadbase, binder course and wearing course was 450mm, 75mm and 50mm after completing the process of compaction. So, the voids in soil will decrease then the road will be able to cater more loads.

ii. Projek Pembinaan dan Menaiktaraf Jambatan di Sungai Menora di Laluan A164 (Sayong-Tanjung Belanja)

Based on the project title, it is clearly shows that the existing bridge will be upgraded to new bridge with bigger size. This project was handling by Kembang Abadi Sdn Bhd and they had started it from February 2020 until now (still on going). It was also choose a spun pile than square pile for both abutments due to the weaknesses of square pile. Technically, the loads in square pile will not be spread and it is easily broken than spun pile. Spun pile was able to withstand all high loads and spread it to all surface areas.

1.6 MARKET STRENGTH

Vision

Become a world-class service provider and center of excellence in asset management, project management and engineering for the development of national infrastructure based on creative and innovative human capital as well as high technology.

Mission

JKR Mission is to contribute to national development by;

1. Helping our customers to realize the basic information and deliver services through cooperation as strategic partners.
2. Standardization of processes and our system to provide consistent outcomes.
3. Provides asset management services and effective and innovative projects.
4. Strengthen existing engineering competence.
5. Developing human capital and new competencies.
6. Stresses integrity in delivering the service.
7. Radiate a harmonious relationship with the public.
8. Preserving the environment in service delivery.

1.7 CONCLUSION

To conclude it, a new information from the real working environment can be gained during this industrial training. Since starting this training, trainee able to adapt to the way management of JKRKK either how to perform tasks or working hours in this office. So, it will help to make the trainee be more discipline and punctual when doing any tasks.

CHAPTER 2 : TRAINING ATTENDED

2.1 INTRODUCTION

Normally, every faculty will provide a logbook to all students who will start their industrial training. Logbook was one of necessity for industrial training and it was very important for students in order to update their daily tasks. They can include pictures that are relevant to their tasks in this book. Every week, company supervisors should put down their signatures after checking the completed task sheets. The main purpose of using this logbook was to identify any work performed by the students and get to know the level of creativity of each student. Then, each student need to summarize every task on this logbook by week for four months of this industrial training. The following is a summary of work in JKRKK.

2.2 EXPOSURE LEVEL

Table 1.0

WEEKLY	ACTIVITIES
WEEK 1 (24/02/2020-28/02/2020)	➢ At 8.00 am, I have reported myself as industrial trainee at JKRKK and the staff had put me to highway department. ➢ My supervisor was introduced me with a few forms which have been used in JKRKK such as document control procedures and site diary. ➢ Site visit at Projek Menaiktaraf Jalan Kuala Kangsar-Manong. The supervisor has teach me on how to check the numbers of reinforcement. ➢ Classifying a results of lab tests which required in construction such as CBR Test and Environmental Quality
WEEK 2 (02/03/2020-06/03/2020)	➢ Updating a meeting minute for Projek Menaiktaraf Jalan Kuala Kangsar-Manong then automatically get to classify the work progress based on S-curve (physical & cost)

WEEK 4 (16/03/2020-17/03/2020)	➢ Get to know what is interlocking brick in construction industry. This brick was made by mixing soil, sand and cement then it was compressed by machine. ➢ Find out a mixture of cold premix and the main functions. It was ideal to repair the surface of asphalt such as potholes. Cold premix was a combination of : 1. Unheated gravel 2. Special formulated emulsified asphalt 3. Additive
(18/03/2020-14/04/2020)	➢ Movement Control Order due to Corona Virus Disease
WEEK 5 (15/04/2020-21/04/2020)	➢ Getting know a few types of light sources and find a way to get a comfort in building. These light sources were : 1. Natural lighting 2. Artificial lighting ➢ Find out the effects of overexposure of ultraviolet(UV) and infrared(IR). These will make a worse effect to human such as skin cancer. ➢ Get to differentiate pro and con between natural and artificial lighting to users. ➢ Propose an idea to make less in using artificial lighting in daily life.
WEEK 6 (22/04/2020-28/04/2020)	➢ Get to know on a few techniques to construct a building either using industrialized building system (IBS) or conventional method. ➢ Classifying a few advantages of using these method in construction in order to control the total cost. ➢ Find out a simple way to less the dependency of foreign workers. IBS method will help this problem when it used a machinery. ➢ Can determine whether IBS or conventional method are better used in construction.

WEEK 7 (29/04/2020-06/05/2020)	➢ Get to know the main difference between AC cable and DC cable. 1. AC cable : carry current through the outer surface 2. DC cable : carry current through the cross section of the conductor. ➢ Can determine a simple way to control the amount of power loss by decreasing the resistant in electric current. ➢ Find out a role of high voltage direct current (HVDC) transmission for long distance transmission. ➢ Can identify the dangers of using AC cable for users due to its way to carry a current. 1. Can cause severe muscular 2. Stimulate sweating then lowers the skin resistance
WEEK 8 (07/05/2020-14/05/2020)	➢ Get to identify a few substances found in the soil. 1. Organic matter 2. Liquid 3. Gases 4. Living organism 5. Minerals ➢ Can determine a way to increase the shear strength of soil by biological, physical or chemical soil stabilization. ➢ Find out a technique to remove excessive water from soil then minimizing the settlement. 1. Using drainage system 2. A compaction of soil ➢ Be able to choose a suitable stabilization method of soil based on the problem itself.

WEEK 9 (15/05/2020-21/05/2020)	➢ Classifying three types of distribution board in electricity supply system. 1. Main distribution board (MDB) 2. Sub distribution board (SDB) 3. Final distribution board (FDB) ➢ Get to know on how single phase wiring had been working and use only for small appliances. The voltage provided was very limited and it was 230Volt. ➢ Can determine three main units in this wiring. 1. Miniature circuit breaker (MCB) 2. Single pole MCB (SP MCB) 3. Double pole MCB (DP MCB) ➢ Be able to draw a schematic diagram of single phase house. It will show the graphic symbols, electric connections and function of circuit.
WEEK 10 (22/05/2020-01/06/2020)	➢ Find out a simple tips to save more time when doing wiring works by just referring a schematic diagram. ➢ Planning then producing a video on how to draw a schematic diagram of single phase house. ➢ Be able to classify a few wiring considerations before starting the works. They were listed as below : 1. Conductors 2. Wire types 3. Wire size 4. Wire insulation 5. Wire color code ➢ Get to know on how to do a lightning protection. Bonding can help this problem when it can reduce the risks of electric shocks.

WEEK 11 (02/06/2020-08/06/2020)	➢ Find out a few types of barriers which had been used in construction. 1. Roadside barriers 2. Median barriers 3. Parapet 4. Plastic barriers ➢ Be able to determine level of service (LOS) based on traffic volume. As example, LOS A was free flow and LOS E was unstable flow. ➢ Getting know on types of roads which mean state road and federal road. The front symbols for both roads were different. 1. State road : A164 2. Federal road : FT001 ➢ Joining a supervisor to investigate the cause of flash flood when there is a complaint by other villagers.
WEEK 12 (09/06/2020-15/06/2020)	➢ Preparing a full meeting minute 19 for Projek Menaiktaraf Jalan Kuala Kangsar-Manong. ➢ Be able to identify the different types of curbs which can be used at road. 1. Straight curbs 2. Mower curbs 3. Rolling curbs 4. Integral curbs 5. Sloped curbs ➢ Site visit at Sungai Kenas (Projek Menaiktaraf Jalan Kuala Kangsar-Manong) and Ladang Veerasamy, Mukim Pulau Kamiri. - Sungai Kenas : workers were making stone pitching - Ladang Veerasamy : analyze traffic condition ➢ Site visit at Sungai Kenas in order to measure the temperature and thickness of premix. The thickness of

	binder course should be 75mm.
WEEK 13 (16/06/2020-22/06/2020)	➢ Joining a supervisor with the contractors to audit the whole condition for Projek Membina Jambatan Menyeberangi Sungai Perak antara Kampung Seberang Manong ke Pekan Manong. This project was still in DLP, so the contractors responsible to repair any defects which are detected. ➢ Site visit at Sungai Kenas in order to do the regular tasks which mean measured the temperature and thickness of wearing course. ➢ Get to know a new road building technique which is geocells. It will improve the strength of weak soil and arrest settlement. ➢ Site visit at Kampung Jerlun (Projek Menaiktaraf Jalan Kuala Kangsar-Manong) to measure the thickness of roadbase. It should be 450mm based on drawing.
WEEK 14 (23/06/2020-29/06/2020)	➢ Site visit at Sungai Kenas for monitoring the process of road markings and handrails installation. The width of road marking must not less than 120mm. ➢ Find out the difference between pier and abutment of bridge. - Abutment : located at the ends of the bridge - Pier : construct between two abutments ➢ Site visit at Sungai Kenas in order to monitor the workers for installing the signboards. The signs need to tilt 5°. ➢ Joining a few staff to manage the opening of Jambatan Sungai Kenas with EXCO Infrastructure and Director of Syarikat Pembinaan Caj Maju Sdn Bhd. ➢ Making a Certificate of Partial Occupation (CPO) after completing the opening process of Jambatan Sungai Kenas.

WEEK 15 (30/06/2020-06/07/2020)	➢ Making a form of Non-Conformance Product (NCP) for Projek Menaiktaraf Jalan Kuala Kangsar-Manong. ➢ Site visit at Kampung Jerlun for monitoring a CBR Test. This test was really required for roadbase before laying a premix. ➢ Analyzing every questions that had been answered by road users in form of Customer Satisfaction Index (CSI). ➢ Monitoring a tensile test at laboratory with a staff and consultant. 1. Tensile strength : must not less than 500MPa 2. Elongation of steel : exceed 12% ➢ Site visit at Projek Pembinaan dan Menaiktaraf Jambatan di Sungai Menora di Laluan A164. MLT Test was conducted and the total load applied was 85 tonne.
WEEK 16 (07/07/2020-13/07/2020)	➢ Site visit at Sungai Jerlun for controlling the process of concreting a deck slab of bridge. ➢ Site visit at Kampung Jerlun 1. Monitoring the workers for spraying a prime coat (SS-1K). 2. Measuring the temperature and thickness of binder course. ➢ Find out common failure at expansion joints such as cracks, spalled and partly detached. ➢ Get to identify few types of road markings. 1. Solid lines 2. Wide lines 3. Double lines 4. Slap lines 5. Dual colour lines 6. Diagonal lines

WEEK 17 (14/07/2020-20/07/2020)	➢ Site visit at Projek Selenggara Jalan Kampung Kuala Dal. 1. Monitoring milling works with 50mm thickness. 2. Measuring the temperature of crumb rubber. 3. Monitoring the workers for replacing the grinders at milling machine. ➢ Able to identify a simple way to achieve potholes-free roads by suing fiber-reinforced asphalt mixture. ➢ Find out the differences of rolling pattern between asphalt concrete and crumb rubber premix. (2 for tandem & 8 for tyre compactor) - Asphalt concrete : 2,2,8,2 - Crumb rubber : 2,8,2 ➢ Starting a teleconference with faculty supervisor and company supervisor.
WEEK 18 (21/07/2020-27/07/2020)	➢ Find out a few different classes of road which are expressway, highway, primary road, arterial, secondary road, collectors, minor road and local street. ➢ Get to know which lamps have been used for street lighting. These were included high pressure sodium vapour (HPSV) and low pressure sodium vapour (LPSV). ➢ Site visit at Projek Selenggara Jalan Kampung Padang Ampang. 1. Monitoring a road marking test by using a retroreflectometer. ➢ Be able to identify a way to prevent road accidents by clearing debris or fluid with automatic self-cleaning road.

WEEK 19 (28/07/2020-05/08/2020)	➢ Site visit at certain federal road 1. Checking the condition of roads which have been listed on a form of Anggaran Penyenggaraan Jalan (APJ). ➢ Be able to identify the difference between plinth beam and tie beam. ➢ Can differentiate types of welding joints according to its shape. ➢ Find out the reasons of sea sand cannot be used in building construction. ➢ Get to know different types of traffic control methods which are speed bump, speed hump and speed table.

2.3 CONCLUSION

As conclusion, these activities during industrial training can make the trainee be more creative on how to handle if there is any problem with the tasks given by supervisor. By doing this exposure level, the trainee was able to produce a complete report based on specific format from UiTM.

CHAPTER 3 : TECHNICAL REPORT

3.1 INTRODUCTION

i. California Bearing Ratio (CBR) Test

Generally, every construction was really need a strong soil layer in order to make any structure be more stable and the long term will increase too. If there is any settlement of soil due to its weakness, the structures tend to be collapsed or cracks. Therefore, analysis of soils was really important before starts to construct the structures. For road construction, the structure should be strong and able to cater the loads especially from big vehicles. So, a California Bearing Ratio (CBR) Test was useful and suitable to get the shear strength and this test was conducted to a roadbase layer which mean crusher run layer.

Nowadays, CBR Test was not strange anymore in construction industry especially in road construction. This test was need a few equipment, then a load will be applied in order to record the penetration value for every 25kN. All of equipment used in this CBR Test were listed as below :-

Equipment

- ✓ Proving ring
- ✓ Penetration piston
- ✓ Surcharge weight
- ✓ Speed jack
- ✓ Datum bar
- ✓ Dial gauge
- ✓ Gauge holder
- ✓ Embed rod
- ✓ Holder set
- ✓ Plunger

Figure 5.0

The results of this test was used with the curves and in order to determine the thickness of pavement and its component layers. **Attachment 2** has showed the overall result of CBR Test at Kampung Jerlun (Projek Menaiktaraf Jalan Kuala Kangsar-Manong). This test is the most widely used method for the design of flexible pavement. A simple procedure of CBR Test are as follows :-

Procedure

1. Firstly, attach the speed jack below a lorry with a crusher run.
2. Attach the extension rod to speed jack. Then, attach the proving ring to extension rod.
3. Set the gauge holder with the penetration piston.
4. Apply penetration piston and plunger to the ground.
5. Then, set the dial gauge to its holder.
6. Place the holder set to the embed rod.
7. Then set datum bar with set holder to get the reading.
8. Hammer the embed rod into the ground and adjust the datum bar accordingly.
9. Reset the dial gauge to '0' reading. Then apply the load. Record the value of penetration for every 25kN.

3.2 PROBLEM ENCOUNTERED AND HOW OVERCOME IT

The difficulties to obtain the CBR value especially when doing this test at site, the equipment was became loose. When it was loose, the equipment will unstable and move slightly. So, the readings of penetration were inaccurate and the workers need to set up the equipment again. They will attach a rod more deeper in the ground in order to ensure it will static there.

CBR value will be a bit different if this test was conducted during bad weather such as rain. The result of CBR value when testing on wet crusher run will not achieved the required standard. Therefore, this test should be conducted when the crusher run was fully dry.

3.3 EXPERIENCE GAINED

During this industrial training in highway department at JKRKK, a useful knowledge have been gained by trainee. As example, a few information for a CBR Test has been obtained when the chance for working at site was grabbed by the trainee itself.

Figure 6.0

Technically, this test conducted in accordance with JKR standard and the CBR value must not less than 80%. Then, a new work progress can be updated which mean the workers can proceed with premix works. Based on the observation, a six wheeled lorry (6 tonne) has been used to act as a load for completing the CBR Test. When the load had been applied and continuing increase, the reading of penetration will increase too. Hence, it will show a linear graph between force and penetration of plunger.

3.4 CONCLUSION

Generally, a trainee did not expect a lot of experience could be gained either through office work or site work. But, during this industrial training at JKRKK, a trainee got the chances to work with other staff with different skills and experiences. Moreover, the trainee also has applied most of knowledge gained in campus that is taught by lecturers. It is shows that the trainee was able to relate it with a few tasks during industrial training.

4.2 LESSONS LEARNED

Industrial training is a medium for the trainee to be exposed to the true nature of the job. It is good for students who do not have working experience to learn about the working environment. There has various type of lessons learned by trainee during industrial training.

During industrial training, trainee be more punctual because working environment is totally different compare when study at faculty.This is because the trainee feel more responsible for the job. In addition, the trainee carries the image of the university and family, therefore the trainee should show a positive attitude during this industrial training. Trainee always try to arrive at JKRKK at least 15 minutes earlier so that trainee have time to prepare mentally and physically before start working. This is a lesson learned by trainee during the industrial training. Punctuality makes trainee more confident and dependable.

Other than that, I have gained another skill during this industrial training which is teamwork. The trainee also carry out the duties responsibly and able to complete the tasks given on time. Therefore, teamwork and responsibility are values that trainee applied during industrial training.

4.3 KNOWLEDGE GAINED

During my internship training at JKR Kuala Kangsar. I have gained a lot of knowledge about the highway department. The Faculty of Civil Engineering has produced a good outline of courses that are useful for the working environment. For example, the knowledge that I have is about coring test. Although I have not learn about it yet in my diploma course, but I consider it as a new things for me and I enjoy studying about it. Sometimes, even though we did not learn about it but want to know it in details, we will try our best to know about it. For example, we will get some source from Internet or books. This will become a good experienced for us to go trough.

Next, another knowledge that I have gained is about the CBR Test (California Bearing Ratio Test). This is also a new thing for me even though I have learned about it in the Basic Soil Mechanics course. The percentage of CBR value that satisfied JKR specifications must not less than 80%. I have learned many things while understand and analysis the test.

To conclude all the experience gained from this industrial training, every single moment that I have spend at JKR Kuala Kangsar is a valuable time to learn. Knowledge gained at the faculty is adequate to make the trainee quickly adapt with working environment.

4.4 SUITABILITY OF ORGANIZATION

- Where in some cases private companies are needed together with public sector companies to generate strategic growth for the community. The suitability of Government Companies becomes more necessary in giving all the powers stripped by private companies.
- Whenever the private sector companies lack the financial arrangement and the objectives are not fulfilled. In this case, the private sector needs to work with government companies to create synergic effects for growth and expansion.

4.5 LIMITATION AND RECOMMENDATIONS

As a practical student, I am obligated to point out issues that could affect the performance level in JKR Kuala Kangsar. These issues not to disclose the secret of the department's and will not affect the department's reputation in negative side. From 24/2/2020 to 5/8/2020 is not enough to cover every single issues in detail and it does not reflect the overall annual job performances. Therefore, it is important for readers to note that what has been written here is solely based on my observation.

I had encountered with a few limitation during this industrial training. Firstly, it was about the working space. This issue was raised because JKR Kuala Kangsar did not provide a personal table to do our work. Two student need to share one square desk table as our working place. This situation makes us felt a bit difficult for us to do our own work. But , I think this was not a big problem because at the same time, we can make ourselves closed each other.

Next, from the trainee observation, the office has not installed CCTV at any area. The CCTV only installed at office corridors. It will be more better if there are CCTV installed inside the office to monitor staff's activities. The benefits of using CCTV are can increase internal security and also monitor staffs behaviour.

Lastly, I am sincerely recommending JKR Kuala Kangsar to provide different site visitation, lesson classes and assignment so that practical student will be more expose with their course. It was mainly aim to enhance the student imagination towards on how particular thing that relate to their course. During the industrial training, I was having hard time to understand some methods or ways that we used to solve certain issues. So , in order to make myself clear, I had to observe and analysis to understand certain issues. With that, I recommended JKRKK to give more reading material so that the trainee can learn and understand about it more clearly.

APPENDICES

Attachment 1







INSITU CBR TEST

CBR

Project Name	PROJEK MENAIKTARAF JALAN KUALA KANGSAR - MANONG (AO3),FASA 2, KUALA KANGSAR,PERAK DARUL RIDZUAN		
Location/Source	CH 300 - CH 750	Job ref no	CMJ/CBR/AO3/20/
		Borehole/Pit no	NA
Sample Description	ROADBASE	Test No	2
		Sample No	2
Test Method	BS 1377 : Part9 1990 4.3	Date Tested	2/7/2020

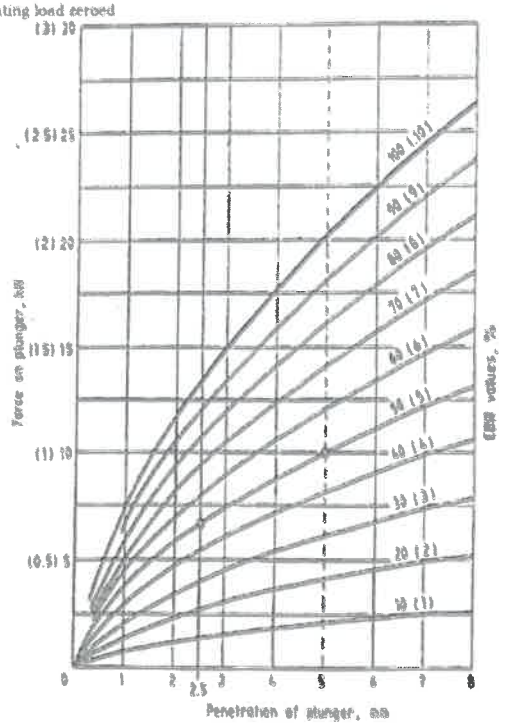
Note: Test applicable only when maximum particle size beneath plugger does not exceed 20mm

Area of annulus of disc used	250	mm2	Proving Ring, F	0.03226	kN/Div.
Mass of surcharge	9	kg	Sample moisture Content	8.2	%

RECORDINGS

NOTE. Penetration and force readings after seating load zeroed

Penetration Of Plugger	Force On Plugger	
mm	Load	kN
0.25	40	1.29
0.50	90	2.90
0.75	100	3.23
1.00	115	3.71
1.25	125	4.03
1.50	145	4.68
1.75	180	5.81
2.00	205	6.61
2.25	240	7.74
2.50	270	8.71
2.75	320	10.32
3.00	420	13.55
3.25	440	0.00
3.50	450	14.52
3.75	475	15.32
4.00	530	17.10
4.25	565	18.23
4.50	595	19.19
4.75	620	20.00
5.00	655	20.00
5.25		
5.50		
5.75		
6.00		
6.25		
6.50		
6.75		
7.00		
7.25		
7.50		



RESULTS

Penetration	Force	Standard Force	CBR
mm	kN	kN	%
2.5	8.71	13.2	65.99
5	20.00	20.0	100.01

Insitu CBR Value : 83.00 %

INSITU CBR TEST

Prepared By

MOHAMAD ABDUL LAB TECHNICIAN

Witness By

AMIR NORDIN BIN ABBAS
Pembantu Kanan Jalan
JKR Kuala Kangsar

JKR	CMJ SDN. BHD.	INSITU CBR TEST	CBR

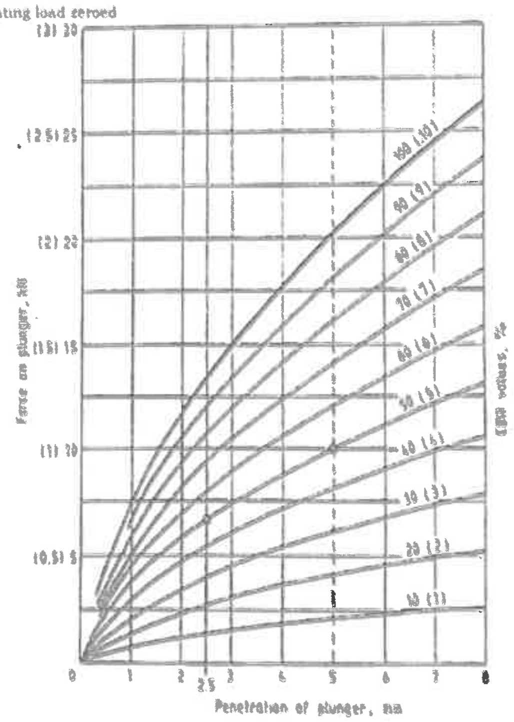
Project Name	PROJEK MENAIKTARAF JALAN KUALA KANGSAR - MANONG (A03),FASA 2, KUALA KANGSAR,PERAK DARUL RIDZUAN		
Location/Source	CH 300 - CH 750	Job ref. no	CMJ/CBR/A03/20
		Borehole/Pit no.	NA
Sample Description	ROADBASE	Test No	3
		Sample No	3
Test Method	BS 1377 Part9 1990 4 3	Date Tested	2/7/2020

Note Test applicable only when maximum particle size beneath plugger does not exceed 20mm

Area of annulus of disc used	250	mm2	Proving Ring, F	0.03226	kN/Div
Mass of surcharge	9	kg	Sample moisture Content	8.2	%

RECORDINGS
NOTE. Penetration and force readings after seating load zeroed

Penetration Of Plugger	Force On Plugger	
mm	Load	kN
0.25	35	1.13
0.50	70	2.26
0.75	96	3.10
1.00	125	4.03
1.25	148	4.77
1.50	179	5.77
1.75	205	6.61
2.00	256	8.26
2.25	275	8.87
2.50	315	10.16
2.75	320	10.32
3.00	360	11.61
3.25	395	0.00
3.50	415	13.39
3.75	460	14.84
4.00	505	16.29
4.25	590	19.03
4.50	650	20.97
4.75	720	23.23
5.00	755	23.23
5.25		
5.50		
5.75		
6.00		
6.25		
6.50		
6.75		
7.00		
7.25		
7.50		



RESULTS

Penetration	Force	Standard Force	CBR
mm	kN	kN	%
2.5	10.16	13.2	76.98
5	23.23	20.0	116.14

Insitu CBR Value : 96.56 %

INSITU CBR TEST	Prepared By MAHAWAD ABBAS Lab Technician	Witness By AMIR NORDIN BIN ABBAS Penolong Jurutera J36 JKR Kuala Kangsar

INSITU CBR TEST

CBR

Project Name	PROJEK MENAIKTARAF JALAN KUALA KANGSAR - MANONG (A03),FASA 2, KUALA KANGSAR,PERAK DARUL RIDZUAN

Location/Source	CH 300 - CH 750	Job ref. no.	CMJ/CBR/A03/20
		Borehole/Pit no.	NA
Sample Description	ROADBASE	Test No.	4
		Sample No	4
Test Method	BS 1377 Part9 1990 4 3	Date Tested	2/7/2020

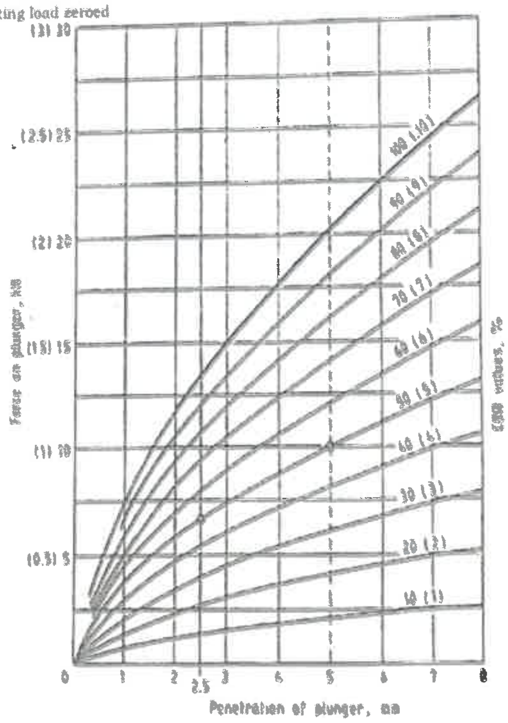
Note. Test applicable only when maximum particle size beneath plugger does not exceed 20mm

Area of annulus of disc used	250	mm2	Proving Ring, F	0.03226	kN/Div.
Mass of surcharge	8	kg	Sample moisture Content	8 2	%

RECORDINGS

NOTE. Penetration and force readings after seating load zeroed

Penetration Of Plugger	Force On Plugger	
mm	Load	kN
0.25	70	2.26
0.50	110	3.55
0.75	130	4.19
1.00	150	4.84
1.25	180	5.81
1.50	210	6.77
1.75	240	7.74
2.00	270	8.71
2.25	295	9.52
2.50	320	10.32
2.75	340	10.97
3.00	360	11.61
3.25	380	0.00
3.30	415	13.39
3.75	430	13.87
4.00	495	15.97
4.25	530	17.10
4.50	570	18.39
4.75	650	20.97
5.00	710	20.97
5.25		
5.50		
5.75		
6.00		
6.25		
6.50		
6.75		
7.00		
7.25		
7.50		



RESULTS

Penetration	Force	Standard Force	CBR
mm	kN	kN	%
2.5	10.32	13.2	78.21
5	20.97	20.0	104.85

Insitu CBR Value : 91.53 %

INSITU CBR TEST	Prepared By Hammad Ahm... Lab. Technician	Witness By AMIR NORDIN BIN AUSAN Penolong Jurutera J26 JKR Kuala Kangsar

Fakulti Kejuruteraan Awam
Faculty of Civil Engineering
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Fax: 607-3818141

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CAWANGAN JOHOR
Kampus Pasir Gudang, 81750 Masai, Johor.
Tel: 607- 3818000 Fax: 607- 3818141

UiTM.FKA.LI-02

Surat Kami : 100-UiTMKPG(FKA14/3/4)
Tarikh : 23 Oktober 2019

Ketua Sumber Manusia,
Jabatan Kerja Raya (JKR),
Daerah Kuala Kangsar,
Jalan Raja Chulan,
33000 Kuala Kangsar,
Perak

Tuan,

PERMOHONAN PENEMPATAN LATIHAN INDUSTRI BAGI PROGRAM DIPLOMA KEJURUTERAAN AWAM (EC110)

Nama:	: Nur Aqilah Binti Latif
No. Kad Pengenalan:	: 990103-08-6122
No. Pelajar UiTM	: 2017253108
Program	: EC110
Semester	: 5

2. Saya dengan ini mengesahkan bahawa butir-butir peribadi dan akademik di atas adalah seorang pelajar di Fakulti Kejuruteraan Awam, UiTM , Pasir Gudang.

3. Sukacitanya jika pihak Tuan dapat menerima pelajar tersebut untuk menjalani Latihan Industri untuk tempoh **TUJUH BELAS (17)** minggu bermula pada 24 Februari 2020 sehingga 21 Jun 2020 sebagai pra-syarat untuk lulus. Sebagai makluman, pelajar dilindungi oleh insurans sepanjang tempoh latihan.

4. Jika Tuan bersetuju untuk penempatan pelajar ini, saya memohon jasa baik pihak Tuan untuk memaklumkan kepada pihak saya dengan melengkapkan "Borang Pengesahan Penerimaan" (lampiran UiTM.FKA.LI-04) dalam tempoh **DUA (2)** minggu daripada tarikh surat ini. Jika tidak ada sebarang maklum balas daripada pihak Tuan, permohonan ini dianggap **TIDAK BERJAYA**.

5. Latihan industri yang akan dijalankan selama 17 minggu adalah sangat pendek, tetapi ia sangat bermakna untuk membantu Universiti dalam menghasilkan bakat jurutera yang berdedikasi, cekap dan berdaya saing selepas tamat pengajian.

6. Fakulti Kejuruteraan Awam UiTM Kampus Pasir Gudang amat menghargai kerjasama pihak Tuan dalam semua hal yang berkaitan dengan latihan industri pelajar Fakulti Kejuruteraan Awam UiTM Kampus Pasir Gudang.
Terima kasih.

Yang benar,

MOHD FIRDAUS B. MOHD AKHBAR
KOORDINATOR LATIHAN INDUSTRI
FAKULTI KEJURUTERAAN AWAM
KAMPUS PASIR GUDANG

KOOR. LI FKA UiTM PG

s.k 1) Ketua Pusat Pengajian Kejuruteraan Awam, UiTM Pasir Gudang

RESUME

PERSONAL DETAILS

Name	: Nur Aqilah Binti Latif
Identification No.	: 990103-08-6122
Date of Birth	: 3 January 1999
Place of Birth	: Hospital Kuala Kangsar
Age	: 20 years
Sex	: Female
Marital Status	: Single
Race	: Malay
Religion	: Islam
Citizenship	: Malaysia
Postal Address	: No 516, Kampung Sungai Akar, 33600 Enggor, Perak
Mobile Phone No.	: 011-36138242
Email	: nuraqilahlatif99@gmail.com

EDUCATIONAL BACKGROUND

Year / Period	Institution	Level	Achievement / Award
2014	SMK SIMPANG BELURU, 33600 ENGGOR, PERAK	PENTAKSIRAN TINGKATAN TIGA (PT3)	4A, 2B, 2C, 2D, 1E
2016	SMK SIMPANG BELURU, 33600 ENGGOR, PERAK	SIJIL PELAJARAN MALAYSIA (SPM)	3A, 4B, 2C

EXTRA-CURRICULAR ACTIVITIES

Year / Period	Programme / Activity	Location	Participation
2014	KUIZ BAHASA ARAB MAJLIS IHTIFAL SEKOLAH-SEKOLAH (MISS)	SMK AGAMA KERIAN, SEMANGGOL, PERAK	PARTICIPANT
2016	FIT MALAYSIA	DATARAN PAVILION, JALAN TUN RAZAK, KUALA KANGSAR, PERAK	PARTICIPANT

SKILLS

Language Skills :

Language	Written	Speaking
BAHASA MALAYSIA	★★★★★	★★★★★
BAHASA INGGERIS	★★★★☆	★★★☆☆

Computer Literacy :

MICROSOFT OFFICE	★★★★☆
INTERNET EXPLORER	★★★★★

Other Skills :

SKILLS

No.	Description
1)	Can give a good teamwork
2)	Good in time management
3)	Can solve problems within the time given
4)	Can obey the instructions and regulations

ACADEMIC REFEREES

1. Name : Siti Nur Aishah Binti Mohd Noor
   Designation : Academic advisor
   Organisation : Uitm Cawangan Johor, Kampus Pasir Gudang
   Tel. No. : 012-3279148
   Email : aishah@johor.uitm.edu.my

2. Name : Mohd Firdaus Bin Mohd Akhbar
   Designation : Industry training coordinator
   Organisation : Uitm Cawangan Johor, Kampus Pasir Gudang
   Tel. No. : 013-2994660
   Email : firdaus2092@johor.uitm.edu.my

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Kampus Pasir Gudang, 81750 Masai, Johor.
Te: 607– 3818000 Fax: 607- 3818141

UiTM.FKA.LI-04

Rujukan Kami : 100-UiTMKPG(FKA14/3/4)
Tarikh :

Koordinator Latihan Industri
Fakulti Kejuruteraan Awam
UiTM Johor Kampus Pasir Gudang,
Jalan Purnama 81750 Masai Johor.
(u/p: MOHD FIRDAUS B. MOHD AKHBAR
(firdausakhbar@gmail.com / firdaus2092@johor.uitm.edu.my)
Fax: 07-3818141

PENGESAHAN PENERIMAAN PELAJAR EC110 UNTUK LATIHAN INDUSTRI TAHUN .....

Merujuk kepada surat/faks Tuan yang bertarikh ..... adalah disahkan pihak kami ***menerima** / ~~**tidak menerima**~~ pelajar Tuan bernama NUR AQILAH BT LATIF dan nombor pelajar 2017253108 untuk menjalani latihan industri mulai 24/02/2020 hingga 24/06/2020 **(17 minggu)** di organisasi /syarikat kami.

Butiran Latihan:

Tarikh melaporkan : 24/02/2020
Masa melaporkan : 8.00 pagi
Alamat melaporkan / ditempatkan : PEJABAT JURUTERA DAERAH (JKR)
KUALA KANGSAR, 33000 KUALA KANGSAR,
PERAK

Kami juga bersedia untuk menyediakan kemudahan berikut**:

	Ada	Tiada
1. Penginapan		/
2. Pengangkutan		/
3. Makanan dan minuman		/
4. Elaun bulanan		/

5. Kemudahan lain (sila nyatakan jika ada): .....

Sekian, terima kasih.

Yang benar,

SHUBASHINI NAIR A/P KUNYONGNI NAIR, PPI
Ketua Pembantu Tadbir N26
Jabatan Kerja Raya
Daerah Kuala Kangsar

.....
(NAMA DAN COP ORGANISASI/SYARIKAT)

Sila faks / emailkan kembali surat ini kepada Fakulti Kejuruteraan Awam, UiTM Pasir Gudang selewat-lewatnya 2 minggu dari tarikh surat permohonan ini.
* Potong mana tidak berkenaan.
**sila tandakan (√) bagi yang berkaitan

Fakulti Kejuruteraan Awam
Faculty of Civil Engineering
Tel : 607-3818309 / 8339 / 8328
Fax: 607-3818141

UNIVERSITI TEKNOLOGI MARA
CAWANGAN JOHOR
Kampus Pasir Gudang, 81750 Masai, Johor.
Te 607-3818000 Fax: 607-3818141

UNIVERSITI TEKNOLOGI MARA

UiTM.FKA.LI-05

Our Reference: 100-UiTMKPG(FKA14/3/4)
Date:

To:
Industry Training Coordinator,
Faculty of Civil Engineering
Universiti Teknologi MARA
Cawangan Johor Kampus Pasir Gudang
Jalan Purnama 81750 Masai Johor

Dear Sir / Madam

INDUSTRIAL TRAINING REPORT DUTY VERIFICATION
SESSION FEB-JUNE 2020

The above matter is referred.

Please be informed that the following students has reported for Industrial Training to our company / organization on 24/02/2020 (completed by the company/ organization) as stated.

STUDENT NAME	: NUR AQILAH BT LATIF
STUDENT NO.	: 2017253108
ID NO.	: 990103-08-6122
PROGRAMME	: DIPLOMA CIVIL ENGINEERING
SEMESTER	: 6
REPORT DATE	: 24/02/2020
INDUSTRIAL TRAINING ADDRESS	: PEJABAT JURUTERA DAERAH (JKR) KUALA KANGSAR, 33000 KUALA KANGSAR, PERAK
DURATION / PERIOD	: 4 MONTHS

Thank you.

Yours sincerely,

.....
(Signature and Company /Organization Stamp)

SHUBASHINI NAIR A/P KUNYONGNI NAIR, PPI
Ketua Pembantu Tadbir N26
Jabatan Kerja Raya
Daerah Kuala Kangsar

Fakulti Kejuruteraan Awam
Faculty of Civil Engineering
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Kampus Pasir Gudang, 81750 Masai, Johor.
Tel: 607 - 3818000 Fax: 607- 3818141

UNIVERSITI TEKNOLOGI MARA

UiTM.FKA.LI-06

CURRENT LOCATION INFORMATION FORM

(Borang Maklumat Penempatan Semasa)

A) STUDENT INFORMATION *(Maklumat Pelajar)*

Name *(Nama)* : NUR AQILAH BT LATIF

UiTM No. *(No. UiTM)* : 2017253108

Programme *(program)* : DIPLOMA CIVIL ENGINEERING

ID No. *(No. k/p)* : 990103-08-6122

Session *(sesi)* : FEB-JUNE 2020

Semester *(Semester)* : 6

Address *(alamat)* : NO 516, KAMPUNG SUNGAI AKAR, 33600 ENGGOR, PERAK

Phone *(Telefon)* : 0

Mobile No *(No. h/p)* : 011-36138242

Email *(emel)* : nuraqilahlatif99@gmail.com

B) ORGANIZATION INFORMATION *(Maklumat organisasi)*

Name *(Nama)* : PEJABAT JURUTERA DAERAH (JKR) KUALA KANGSAR

Address *(alamat)* : PEJABAT JURUTERA DAERAH (JKR) KUALA KANGSAR, 33000 KUALA KANGSAR, PERAK

Contact Person *(Pegawai yang boleh dihubungi)* :

Designation *(Jawatan)* : SUBASHINI NAIR A/P KUNYONGNI NAIR, PPT
Ketua Pembantu Tadbir N26
Jabatan Kerja Raya
Daerah Kuala Kangsar

Phone *(Telefon)* :

Mobile No *(No. h/p)* :

Fax No. *(No. Fax)* :

Email *(emel)* :

24/02/2020

Signature *(Tandatangan)*

Date *(tarikh)*

* Kindly mail this form to the Faculty of Civil Engineering, UiTM Pasir Gudang via fax/post/email within a week to:

Industry Training Coordinator,
Faculty of Civil Engineering
Universiti Teknologi MARA
Cawangan Johor Kampus Pasir Gudang
Jalan Purnama 81750 Masai Johor

Office use:	Checked by:		Approved by:	

(u / p. Mohd Firdaus bin Mohd Akhbar, fax to: 607-3818141 or email: firdausakhbar@gmail.com)

UNIVERSITI TEKNOLOGI MARA

PROGRESS ASSESSMENT FOR INDUSTRIAL TRAINING
(Report Evaluation Form)

Student Information			
Name		UiTM No.	
Programme		ID No.	
Session		Semester	
Date of Commencement		Date of Completion	
Organization Information			
Organization			
Name of Supervisor			
Designation			
Faculty Supervisor Information			
Name			

No.	Criteria	CO2-PO3	CO5-PO12
1.	Abstract	/5	
2.	Introduction		/5
3.	Report content	/5	
4.	Conclusion and Recommendation for Industrial Training		/5
CO-PO MARKS		/10	/10

Signature & Official Stamp
(Faculty Supervisor)

Date

10%

No.	Criteria	5 (Excellent)	4 (Good)	3 (Satisfactory)	2 (Average)	1 (Weak)
1.	**Abstract** (CO2-PO3) Summary of; • Training that has been undertaken • Lesson learnt from the training.	Training and lesson learnt are described clearly	Training and lesson learnt are described with substantial clarity	Training and lesson learnt are described satisfactorily	Training and lesson learnt are described with minimal clarity	Fail to describe training and lesson learnt
2.	**Introduction** (CO5-PO12) • Background of Organization • Scope of Work Covered • Report Organization.	Clear description of content	The content is described with clear substantially	The content is described with moderate clarity	The content is described with minimal clarity	Fail to describe the content
3.	**Report content** (CO2-PO3) • Tasks carried out • Problems encountered • Problem solving Approach • Lesson learnt	All elements are clearly described	Tasks, problems encountered and problem solving approach are clearly described but lesson learnt is missing	Tasks and problems encountered are clearly described but problem solving approach is not clearly described	Tasks are clearly described but problems encountered is not clearly described	Tasks are not clearly described
4.	**Conclusion and Recommendation for Industrial Training** (CO5-PO12) • Conclude the findings of Industrial Training • Evaluations on outcomes of training & suitability of the placement.	Able to conclude &evaluate the training outcomes & placement clearly	Able to conclude & evaluate the training outcomes & placement with substantial clarity	Able to conclude and evaluate the training outcomes & placement with moderate clarity	Able to conclude &evaluate the training outcomes & placement with minimal clarity	No conclusion on the achievement of training & provide no evaluations on both training outcomes & placement

Percentage from Progress Report = Total Marks Earned From Progress Report X 10%
20
= ..... %

UNIVERSITI TEKNOLOGI MARA

PROGRESS ASSESSMENT FOR INDUSTRIAL TRAINING
(Logbook Evaluation Form)

Student Information			
Name		UiTM No.	
Programme		ID No.	
Session		Semester	
Date of Commencement		Date of Completion	
Organization Information			
Organization			
Name of Supervisor			
Designation			
Faculty Supervisor Information			
Name			

No.	Criteria	CO2-PO3	CO5-PO12
1.	Writing Skill		/5
2.	Quality of work		/5
3.	Technical content	/5	
4.	Allocate problems & analysis	/5	
CO-PO MARKS		/10	/10

Signature & Official Stamp
(Faculty Supervisor)

Date

10%

No.	Criteria	5 (Excellent)	4 (Good)	3 (Satisfactory)	2 (Average)	1 (Weak)
1.	Writing skill. (CO5-PO12)	Excellent sentence-level grammar, concise and appropriate use of vocabulary and engineering terms.	Good sentence-level grammar, concise and appropriate use of vocabulary and engineering terms.	Satisfactory sentence-level grammar, moderate of concise and appropriate vocabulary and engineering terms.	Average sentence-level grammar, poor of concise and appropriate vocabulary and engineering terms.	Weak sentence-level grammar, not concise and inappropriate use of vocabulary and engineering terms.
2.	Quality of work (task assigned). (CO5-PO12)	Accomplish the tasks with no correction	Accomplish the tasks with minor correction and followed the standard	Accomplish the task with minor correction and not followed the standard	Able to accomplish part of the tasks with major correction and not followed the standard	Fail to accomplish tasks assigned
3.	Content at least 80% engineering technical with additional technical specification (drawing, design calculation, picture and safety awareness). (CO2-PO3)	All elements are clearly stated with evidence.	Engineering and technical specification are described but some details are missing	Engineering and technical specification are described but major details are missing	Engineering content is described but technical specification is not clearly described	Engineering content is not clearly described
4.	Allocate problems & analysis to formulation & solution to real-life. (CO2-PO3)	Able to allocate problems & analysis related to real-life and clearly described	Able to allocate problems & analysis related to real-life but minor description are missing	Able to allocate problems & analysis related to real-life but major description are missing	Able to allocate problems & analysis related to real-life but not clearly described	Unable to allocate problems & analysis related to real-life.

Percentage from Progress Report = $\frac{\text{Total Marks Earned From Progress Report}}{20}$ X 10%

= ..... %

UNIVERSITI TEKNOLOGI MARA

PROGRESS ASSESSMENT FOR INDUSTRIAL TRAINING
(Industrial Supervisor Evaluation Form)

Student Information			
Name		UiTM No.	
Programme		ID No.	
Session		Semester	
Date of Commencement		Date of Completion	
Organization Information			
Organization			
Name of Supervisor			
Designation			
Faculty Supervisor Information			
Name			

No.	Criteria	CO3-PO4	CO1-PO5	CO6-PO8	CO4-PO10
1.	Punctuality and Attitude			/5	
2.	Communication Ability				/5
3.	Safety ethics			/5	
4.	Cooperation				/5
5.	Conduct/use the standard method	/5			
6.	Scope of work and relate to theoretical knowledge	/5			
7.	Application of knowledge/appropiate technique		/5		
8.	Technology Literacy		/5		
9.	Skill and competency level	/5			
CO-PO MARKS		/15	/10	/10	/10

Signature & Official Stamp
(Industrial Supervisor)

Date

50%

No.	Criteria	5 (Excellent)	4 (Good)	3 (Satisfactory)	2 (Average)	1 (Weak)
7.	Application of knowledge/appropiate technique. (CO1-PO5)	Excellent demonstration of theoretical knowledge /appropiate technique at work place	Able to apply substantial amount of theoretical knowledge/appropriate technique at work place	Able to apply acceptable amount of theoretical knowledge/appropriate technique at work place	Able to apply minimal theoretical knowledge/appropriate technique at work place	Unable to apply theoretical knowledge /appropriate technique at work place
8.	Technology Literacy. (CO1-PO5)	Excellent in defined the upmost/latest technology recently used for civil engineering construction	Very good in defined the upmost/latest technology recently used for civil engineering construction	Good in defined the upmost/latest technology recently used for civil engineering construction	Moderate in defined the upmost/latest technology recently used for civil engineering construction	Poor in defined the upmost/latest technology recently used for civil engineering construction
9.	Skill and competency level. (CO3-PO4)	Excellent in perform hands-on tasks, usage of tool and equipment, adopt a variety of technology and skills.	Very good in perform hands-on tasks, usage of tool and equipment, adopt a variety of technology and skills.	Good in perform hands-on tasks, usage of tool and equipment, adopt a variety of technology and skills.	Moderate in perform hands-on tasks, usage of tool and equipment, adopt a variety of technology and skills.	Poor in perform hands-on tasks, usage of tool and equipment, adopt a variety of technology and skills.

Percentage from Progress Report = Total Marks Earned From Progress Report X 50%
45
= ..... %

No.	Criteria	5 (Excellent)	4 (Good)	3 (Satisfactory)	2 (Average)	1 (Weak)
1.	Punctuality and Attitude. (CO6-PO8)	Punctual with outstanding adherence to rules and regulations	Punctual with good adherence to rules and regulations	Punctual with satisfactory adherence to rules and regulations	Moderate punctuality with minimal adherence to rules and regulations	Poor punctuality and unable to adhere to rules and regulations
2.	Communication Ability. (CO6-PO8)	Able to communicate and discuss effectively with co-workers and supervisor	Able to communicate and discuss with co-workers and supervisor	Able to communicate and discuss satisfactorily with co-workers and supervisor	Poor communication and discussion with co-workers and supervisor	Unable to communicate with co-workers and supervisor
3.	Safety ethics. (CO4-PO10)	Always adhere to safety requirements	Adhere to safety requirements most of the time	Adhere to safety requirements satisfactorily	Minimal adherence to safety requirements	Unable to adhere To safety requirements
4.	Cooperation. (CO4-PO10)	Very proactive in giving co-operation	Always give full co-operation when required	Always give satisfied co-operation	Give less co-operation	Fail to show any cooperation at all
5.	Ability to conduct/use the standard method. (CO3-PO4)	Able to conduct/use the standard method without supervisions in order to solve tasks given	Able to conduct/use the standard method with minimum supervisions in order to solve tasks given	Able to conduct/use the standard method with supervisions in order to solve tasks given	Able to conduct/use the standard method with substantial supervision in order to solve tasks given	Unable to conduct/use the standard method despite with supervision in order to solve tasks given
6.	Ability to explain scope of work and relate to theoretical knowledge. (CO3-PO4)	Well-explained the scope of work and able to relate to theoretical knowledge	Substantial explanation on the scope of work and able to relate to theoretical knowledge	Acceptable explanation on the scope of work with minimal relationship to theoretical knowledge	Minimal explanation on the scope of work with minimal relationship to theoretical knowledge	Unable to explain the scope of work and fail to relate to theoretical knowledge

UNIVERSITI TEKNOLOGI MARA

PROGRESS ASSESSMENT FOR INDUSTRIAL TRAINING
(Faculty Supervisor Evaluation Form)

Student Information			
Name		UiTM No.	
Programme		ID No.	
Session		Semester	
Date of Commencement		Date of Completion	
Organization Information			
Organization			
Name of Supervisor			
Designation			
Faculty Supervisor Information			
Name			

No.	Criteria	CO3-PO4	CO1-PO5	CO6-PO8	CO4-PO10
1.	Punctuality and Attitude			/5	
2.	Communication Ability				/5
3.	Safety ethics			/5	
4.	Cooperation				/5
5.	Conduct/use the standard method	/5			
6.	Scope of work and relate to theoretical knowledge	/5			
7.	Application of knowledge/appropiate technique		/5		
8.	Technology Literacy		/5		
9.	Skill and competency level	/5			
CO-PO MARKS		/15	/10	/10	/10

Signature & Official Stamp
(Faculty Supervisor)

Date

20%

UNIVERSITI TEKNOLOGI MARA

No.	Criteria	5 (Excellent)	4 (Good)	3 (Satisfactory)	2 (Average)	1 (Weak)
1.	Punctuality and Attitude. (CO6-PO8)	Punctual with outstanding adherence to rules and regulations	Punctual with good adherence to rules and regulations	Punctual with satisfactory adherence to rules and regulations	Moderate punctuality with minimal adherence to rules and regulations	Poor punctuality and unable to adhere to rules and regulations
2.	Communication Ability. (CO6-PO8)	Able to communicate and discuss effectively with co-workers and supervisor	Able to communicate and discuss with co-workers and supervisor	Able to communicate and discuss satisfactorily with co-workers and supervisor	Poor communication and discussion with co-workers and supervisor	Unable to communicate with co-workers and supervisor
3.	Safety ethics. (CO4-PO10)	Always adhere to safety requirements	Adhere to safety requirements most of the time	Adhere to safety requirements satisfactorily	Minimal adherence to safety requirements	Unable to adhere To safety requirements
4.	Cooperation. (CO4-PO10)	Very proactive in giving co-operation	Always give full co-operation when required	Always give satisfied co-operation	Give less co-operation	Fail to show any cooperation at all
5.	Ability to conduct/use the standard method. (CO3-PO4)	Able to conduct/use the standard method without supervisions in order to solve tasks given	Able to conduct/use the standard method with minimum supervisions in order to solve tasks given	Able to conduct/use the standard method with supervisions in order to solve tasks given	Able to conduct/use the standard method with substantial supervision in order to solve tasks given	Unable to conduct/use the standard method despite with supervision in order to solve tasks given
6.	Ability to explain scope of work and relate to theoretical knowledge. (CO3-PO4)	Well-explained the scope of work and able to relate to theoretical knowledge	Substantial explanation on the scope of work and able to relate to theoretical knowledge	Acceptable explanation on the scope of work with minimal relationship to theoretical knowledge	Minimal explanation on the scope of work with minimal relationship to theoretical knowledge	Unable to explain the scope of work and fail to relate to theoretical knowledge

No.	Criteria	5 (Excellent)	4 (Good)	3 (Satisfactory)	2 (Average)	1 (Weak)
7.	Application of knowledge/appropiate technique. (CO1-PO5)	Excellent demonstration of theoretical knowledge /appropiate technique at work place	Able to apply substantial amount of theoretical knowledge/appropriate technique at work place	Able to apply acceptable amount of theoretical knowledge/appropriate technique at work place	Able to apply minimal theoretical knowledge/appropriate technique at work place	Unable to apply theoretical knowledge /appropriate technique at work place
8.	Technology Literacy. (CO1-PO5)	Excellent in defined the upmost/latest technology recently used for civil engineering construction	Very good in defined the upmost/latest technology recently used for civil engineering construction	Good in defined the upmost/latest technology recently used for civil engineering construction	Moderate in defined the upmost/latest technology recently used for civil engineering construction	Poor in defined the upmost/latest technology recently used for civil engineering construction
9.	Skill and competency level. (CO3-PO4)	Excellent in perform hands-on tasks, usage of tool and equipment, adopt a variety of technology and skills.	Very good in perform hands-on tasks, usage of tool and equipment, adopt a variety of technology and skills.	Good in perform hands-on tasks, usage of tool and equipment, adopt a variety of technology and skills.	Moderate in perform hands-on tasks, usage of tool and equipment, adopt a variety of technology and skills.	Poor in perform hands-on tasks, usage of tool and equipment, adopt a variety of technology and skills.

Percentage from Progress Report = Total Marks Earned From Progress Report X 20%
45
= ..... %

UNIVERSITI TEKNOLOGI MARA

PROGRESS ASSESSMENT FOR INDUSTRIAL TRAINING
(Colloquium Evaluation Form)

Student Information			
Name		UiTM No.	
Programme		ID No.	
Session		Semester	
Date of Commencement		Date of Completion	
Organization Information			
Organization			
Name of Supervisor			
Designation			
Faculty Supervisor Information			
Name			

No.	Criteria	CO4-PO10	CO5-PO12
1.	Presentation skill	/5	
2.	Organization background and its activity		/5
3.	Scope of work		/5
4.	Q&A session		/5
CO-PO MARKS		/5	/15

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Signature & Official Stamp
(Faculty Supervisor)

.....

Date

10%

No.	Criteria	5 (Excellent)	4 (Good)	3 (Satisfactory)	2 (Average)	1 (Weak)
2.	Presentation skill. (CO4-PO10)	Able to express and present very fluently and very convincing.	Able to express and present fluently and convincing.	Able to express and present quite fluently and quite convincing.	Able to express and present clearly but with minimum fluently.	Unable to express and present clearly and lack of fluency.
3.	Organization background and its activity. (CO5-PO12)	Well-explained on background and workplace activity	Substantial explanation on background and workplace activity	Acceptable explanation on background and workplace activity	Able to explain background and workplace activity with minimal clarity	Unable to explain background and workplace activity
4.	Ability to explain scope of work and relate to theoretical knowledge. (CO5-PO12)	Well-explained the scope of work and able to relate to theoretical knowledge	Substantial explanation on the scope of work and able to relate to theoretical knowledge	Acceptable explanation on the scope of work with minimal relationship to theoretical knowledge	Minimal explanation on the scope of work with minimal relationship to theoretical knowledge	Unable to explain the scope of work and fail to relate to theoretical knowledge
4	Subject knowledge during Q&A session. (CO5-PO12)	Student excellently demonstrates full knowledge by answering all class questions with explanations and elaborations related to industrial training that have been undertaken.	Student demonstrates a good knowledge and some of questions can be answered with explanations and elaborations related to industrial training that have been undertaken.	Student able to demonstrate knowledge and answering questions with little explanations and elaborations related to industrial training that have been undertaken.	Student able to demonstrate knowledge and answering questions with lack/inaccurate of explanations and elaborations related to industrial training that have been undertaken.	Student unable to demonstrate knowledge and answering questions with poor/ inaccurate explanations and elaborations related to industrial training that have been undertaken.

Percentage from Progress Report = Total Marks Earned From Progress Report X 10%
20
= ..... %