



Occupational Safety, & Environment (OSHE)

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TRAINER:ASSOC.PROF.SR.DR.MOHD SAIDIN MISNAN

PLACE:FACULTY OF SCIENCE

TIME & DATE:13 DECEMBER 2019 | 4 - 6:30 PM

HIRARC Form



BORANG HIRARC (HIRARC FORM)

Fakulti/Jabatan/Unit/Makmal/Bengkel:	FAKULTI ALAM BINA UKUR	Disediakan Oleh: (Nama, Jawatan)	
Prosess Kerja /Lokasi/Blok:	BLOK C06, C20, M46, PSZ	Tarikh Disediakan:	
Disediakan Oleh: (Nama, Tandatangan)	DIVIYA ARUMUGAM	Tarikh Disemak:	
Tarikh Disahkan:		Tarikh Semakan Semula:	

1. Pengenalpasti				2. Analisis Risiko				3. Kawalan Risiko	
Bil.	Aktiviti Kerja	Hazard	Yang Boleh Mengakibatkan/Kesan	Kawalan Risiko (sedia ada)	Kebarangkalian (A)	Keterukan (B)	Tahap Risiko (AxB)	Langkah Kawalan Yang Disarankan	Orang Bertanggungjawab (Tarikh Tamat/Status)
1	Loosely closed manhole lid	Risk of falling down	Serious injury	-	4	3		Fasten the lid properly	School management
2	Uncovered electrical point	Electrical shock	Serious injury	-	4	4		Cover electrical point	School management
3	Exposed cement mixture	Chemical exposure	Chemical poisoning	-	3	3		Store chemicals seperately	School management
4	Exposed used aerosol cans	Chemical exposure	Chemical poisoning	-	3	3		Store chemicals seperately	School management
5	Still water	Aedes breeding	Dengue fever	-	3	3/4		Drain still water ponds	School management
6	Dangerous wildlife	Attacked by animals	Injury	-	2	2		Do not feed wild animals	School management
7	Overflowed trash	Bad smell	Stress	-	4	1		Take trash out regularly	School management
8	Psychosocial stress	Management pressure	Stress	-	5	2		Proper stress relieving activities	School management
9	Carrying heavy objects	Bad posture	Back pain	-	4	3		Use proper carrying technique	School management
10	Student sitting down	Bad posture	Back pain	-	4	3		Use proper sitting posture	School management

Skala Kemungkinan/Kebarangkalian

5-Paling Mungkin (Setiap Jam)
 4-Mungkin (Setiap Hari)
 3-Dapat Dijagka (Setiap Minggu)
 2-Jarang Sekali (Setiap Bulan)
 1-Tidak Mungkin (Setahun Sekali)

Skala Keterukan/Ketenatan

5-Malapetaka
 4-Kematian
 3-Serius (MC lebih 3 hari/Hilang Upaya Kekal)
 2-Minor (MC kurang 3 hari/Kecederaan Tidak Kekal)
 1-Lelasan Kecil,Leban,Luka Ringan,Kecedaraan Ringan

Langkah Kawalan (Hierarki Kawalan)

1-Penghapusan
 2-Penggantian
 3-Kawalan Kejuruteraan
 4-Kawalan Pengurusan
 5-Peralatan Perlindungan Diri

Tahap Risiko

1-4 - Rendah (Low)
 5-12 -Sederhana (Medium)
 15-25 -Tinggi(High)



Physical Hazard

Physical hazards include exposure to slips, trips, falls, electricity, noise, vibration, radiation, heat, cold and fire.

Loosely Closed Manhole Lid

LOCATION: C20 Ground Floor

There is a loosely fitted manhole lid on a busy walkway which poses a dangerous physical hazard.



Pengenalpasti		Hazard		Analisis Risiko				Kawalan	
Bil.	Aktiviti Kerja	Hazad	Yang Boleh Mengakibatkan/Kesan	Kawalan Risiko (sedia ada)	Kebarangkalian (A)	Keterukan (B)	Tahap Risiko (AxB)	Langkah Kawalan Yang Disarankan	Risiko Orang Bertanggungjawab (Tarikh Tamat/Status)
1	Loosely closed manhole lid	Risk of falling down	Serious injury	-	4	3		Fasten the lid properly	School management

Uncovered Electrical Point

LOCATION: Center of Environmental sustainability and water security

There is a uncovered high voltage electrical light pole with exposed wires near a busy bus stop in front of M46. This poses a serious physical risk.



Bil.	Pengenalpasti Aktiviti Kerja	Hazard Hazad	Yang Boleh Mengakibatkan/Kesan	Analisis Risiko				Kawalan Risiko	
				Kawalan Risiko (sedia ada)	Kebarangkalian (A)	Keterangan (B)	Tahap Risiko (AxB)	Langkah Kawalan Yang Disarankan	Orang Bertanggungjawab (Tarikh Tamat/Status)
1	Uncovered electrical point	Electrical shock	Serious injury	-	4	4		Cover electrical point	School management



Chemical Hazard

A chemical hazard is a type of occupational hazard caused by exposure to chemicals in the workplace. Exposure to chemicals in the workplace can cause acute or long-term detrimental health effects.

Exposed Cement Mixture

LOCATION: C20 Ground floor stairs

Bag of cement which is exposed to air. This may cause fumes to be carried by moving air which can cause students and staff to inhale alkaline compounds and cause chemical poisoning.



Pengenalpasti		Hazard		Analisis Risiko			Kawalan		Risiko
Bil.	Aktiviti Kerja	Hazad	Yang Boleh Mengakibatkan/Kesan	Kawalan Risiko (sedia ada)	Kebarangkalian (A)	Keterangan (B)	Tahap Risiko (AxB)	Langkah Kawalan Yang Disarankan	Orang Bertanggungjawab (Tarikh Tamat/Status)
1	Exposed cement mixture	Chemical exposure	Chemical poisoning	-	3	3		Store chemicals seperately	School management

Exposed Used Aerosol Cans

LOCATION: Makmal Kimia Analisis
2 Ground Floor

There are a few used aerosol cans which are misplaced and exposed. This is a chemical hazard to students and staff.



Bil.	Pengenalpasti Aktiviti Kerja	Hazard Hazad	Yang Boleh Mengakibatkan/Kesan	Kawalan Risiko (sedia ada)	Analisis Kebarangkalian (A)	Risiko Keterangan (B)	Tahap Risiko (AxB)	Kawalan Langkah Kawalan Yang Disarankan	Risiko Orang Bertanggungjawab (Tarikh Tamat/Status)
1	Exposed used aerosol cans	Chemical exposure	Chemical poisoning	-	3	3		Store chemicals seperately	School management



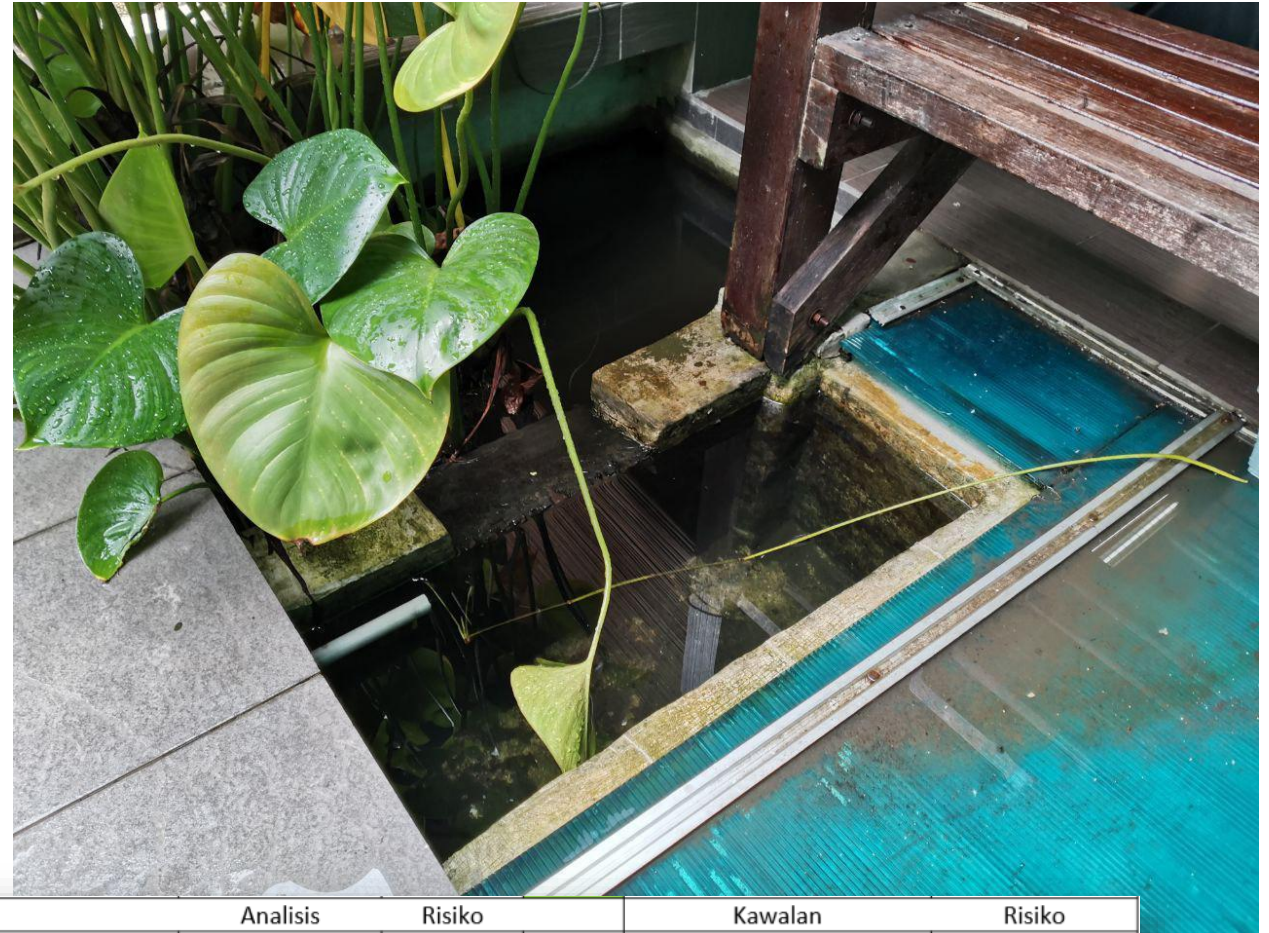
Biological Hazard

A biological hazard, or biohazard, is a biological substance that poses a threat to the health of living organisms, primarily humans. This could include a sample of a microorganism, virus or toxin (from a biological source) that can affect human health.

Still Water

LOCATION: C19 Ground Floor

Body of still water which promotes Aedes breeding and the spread of Dengue fever.



Bil.	Pengenalpasti Aktiviti Kerja	Hazard Hazad	Yang Boleh Mengakibatkan/Kesan	Analisis Risiko				Kawalan	Risiko
				Kawalan Risiko (sedia ada)	Kebarangkalian (A)	Keterukan (B)	Tahap Risiko (AxB)	Langkah Kawalan Yang Disarankan	Orang Bertanggungjawab (Tarikh Tamat/Status)
1	Still water	Aedes breeding	Dengue fever	-	3	3/4		Drain still water ponds	School management

Dangerous Wild Life

LOCATION: KTDI N28a

Monkeys roaming the walkway posing a biological threat to students and staff.



Pengenalpasti		Hazard		Analisis Risiko			Kawalan		Risiko
Bil.	Aktiviti Kerja	Hazad	Yang Boleh Mengakibatkan/Kesan	Kawalan Risiko (sedia ada)	Kebarangkalian (A)	Keterukan (B)	Tahap Risiko (AxB)	Langkah Kawalan Yang Disarankan	Orang Bertanggungjawab (Tarikh Tamat/Status)
1	Dangerous wildlife	Attacked by animals	Injury	-	2	2		Do not feed wild animals	School management



Psychosocial Hazard

A **psychosocial hazard** or work stressor is any occupational **hazard** that affects the **psychological** and physical well-being of workers, including their ability to participate in a work environment among other people.

Overflown Trash

LOCATION: Infront of C19

Overflown trash near praying grounds causing bad smell and stress among students and staff.

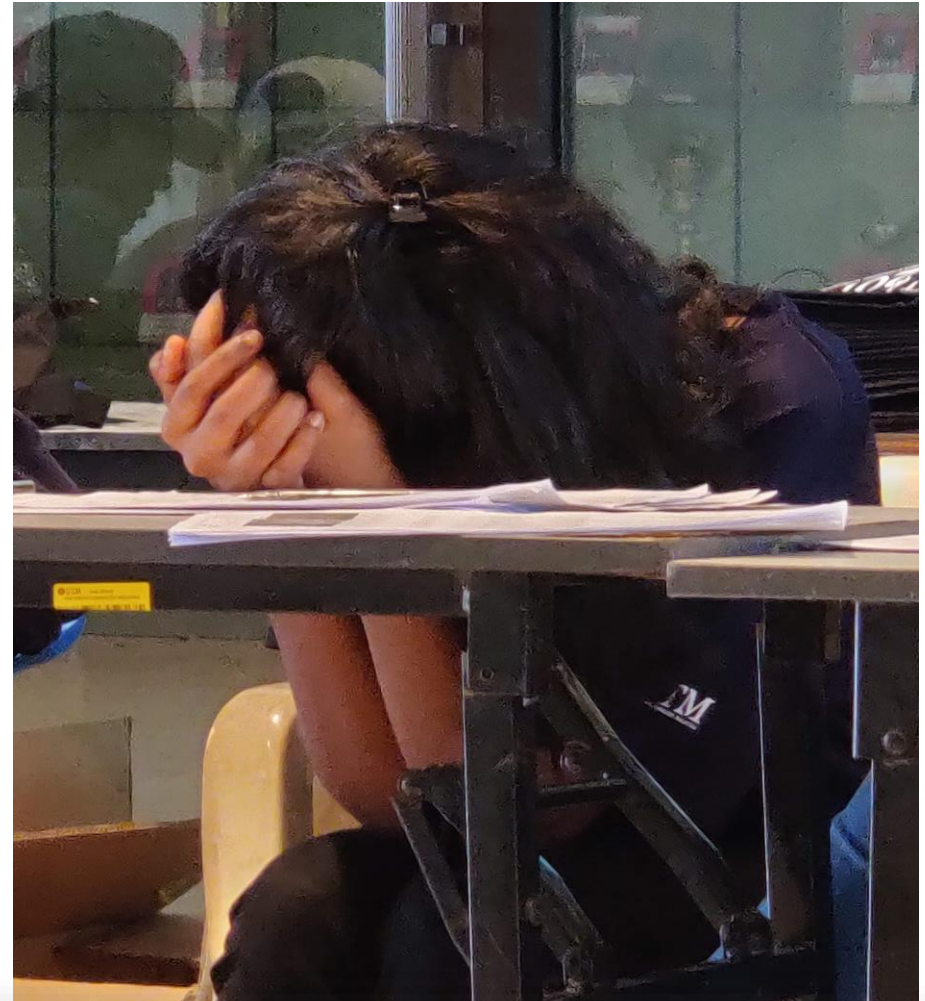


Bil.	Pengenalpasti Aktiviti Kerja	Hazard Hazad	Yang Boleh Mengakibatkan/Kesan	Analisis Risiko				Kawalan	Risiko Orang Bertanggungjawab (Tarikh Tamat/Status)
				Kawalan Risiko (sedia ada)	Kebarangkalian (A)	Keterukan (B)	Tahap Risiko (AxB)	Langkah Kawalan Yang Disarankan	
1	Overflown trash	Bad smell	Stress	-	4	1		Take trash out regularly	School management

Psychosocial Stress

LOCATION: PSZ

Event management team undergoing intense stress. This is a psychosocial hazard faced by many.



Bil.	Pengenalpasti Aktiviti Kerja	Hazard Hazad	Yang Boleh Mengakibatkan/Kesan	Analisis Risiko				Kawalan	Risiko
				Kawalan Risiko (sedia ada)	Kebarangkalian (A)	Keterukan (B)	Tahap Risiko (AxB)	Langkah Kawalan Yang Disarankan	Orang Bertanggungjawab (Tarikh Tamat/Status)
1	Psychosocial stress	Management pressure	Stress	-	5	2		Proper stress relieving activities	School management



Ergonomic Hazard

An ergonomic hazard is a physical factor within the environment that harms the musculoskeletal system. Ergonomic hazards include themes such as repetitive movement, manual handling, workplace/job/task design, uncomfortable workstation height and poor body positioning.

Carrying Heavy Objects

LOCATION: M46

Workers using bad posture technique to carry heavy pieces of log. This is a ergonomic hazard.



Bil.	Pengenalpasti Aktiviti Kerja	Hazard Hazad	Yang Boleh Mengakibatkan/Kesan	Analisis Risiko			Tahap Risiko (AxB)	Kawalan Langkah Kawalan Yang Disarankan	Risiko Orang Bertanggungjawab (Tarikh Tamat/Status)
				Kawalan Risiko (sedia ada)	Kebarangkalian (A)	Keterukan (B)			
1	Carrying heavy objects	Bad posture	Back pain	-	4	3		Use proper carrying technique	School management

Bad Sitting Posture

LOCATION: PSZ

Student using bad sitting posture to sit down. This is a ergonomic hazard.



Pengenalpasti		Hazard		Analisis Risiko				Kawalan	
Bil.	Aktiviti Kerja	Hazad	Yang Boleh Mengakibatkan/Kesan	Kawalan Risiko (sedia ada)	Kebarangkalian (A)	Keterukan (B)	Tahap Risiko (AxB)	Langkah Kawalan Yang Disarankan	Risiko Orang Bertanggungjawab (Tarikh Tamat/Status)
1	Student sitting down	Bad posture	Back pain	-	4	3		Use proper sitting posture	School management

Your best quote that reflects your approach... “It’s one small step for man, one giant leap for mankind.”

- NEIL ARMSTRONG