Workers who are exposed to extreme heat or work in hot environments may be at risk of heat stress. Exposure to extreme heat can result in occupational illnesses and injuries. Heat stress can result in heat stroke, heat exhaustion, heat cramps, or heat rashes. Heat can also increase the risk of injuries in workers as it may result in sweaty palms, fogged-up safety glasses, and dizziness. Burns may also occur as a result of accidental contact with hot surfaces or steam. Workers at risk of heat stress include outdoor workers and workers in hot environments such as firefighters, bakery workers, farmers, construction workers, miners, boiler room workers, factory workers, and others. Workers at greater risk of heat stress include those who are 65 years of age or older, are overweight, have heart disease or high blood pressure, or take medications that may be affected by extreme heat. Prevention of heat stress in workers is important. Employers should provide training to workers so they understand what heat stress is, how it affects their health and safety, and how it can be prevented.

Course Content
This guideline may be cited as the Guidelines on Heat Stress Management at Workplace

Heat stress can increase stress and fatigue which can lead to serious health conditions for workers working in hot environments and may increase workplace accidents (DOSH 2016).

Findings from enforcement activities and heat stress assessment at various workplaces showed that many workplaces in Malaysia involving machineries or processes of extreme temperatures are at significant risk however, low awareness among employers and employees on exposure to heat stress is common and need to be addressed.

Therefore, this course provides guidance on how to recognize, estimate, prevent and treat heat stress at work. It also serves as a guide to employers in avoiding discomfort from hot environment at work.

Risk assessment and risk control will be elaborated in this training program based on guideline on heat stress estimation using wet bulb globe temperature (WBGT).

This training is meant to be used by employers having hot environment and activities at work.

The training will be based on the newly launched of DOSH’s Guidelines on Heat Stress Management at Workplace 2016 in which all employers are requested to adopt and adapt this guideline as a source of reference in managing heat stress at workplace and to fulfill one of the general duties under the Occupational Safety and Health Act 1994 and the Factories and Machinery Act 1967.

Day 1
1) Overview of heat and heat related diseases
2) Introduction: Scope and Legal Requirements
3) Assessment and Measurement of Heat Stress:
   a) Assessment of Heat Stress
   b) Method of Measurement and Parameters
   c) The Measurement of Heat Stress
   d) Position of Measuring Equipment
   e) Measurement Parameters
4) Assessment and Measurement of Heat Stress:
   a) Sampling Duration
   b) Sampling Methods
   c) Environmental Measurements
   d) Wet Bulb Globe Temperature Index
   e) Modification Factors of Clothing
   f) The Employees Metabolic Rate

Day 2
5) Risk Evaluation
   a) Heat Stress Evaluation and Control
   b) Acclimatisation
6) Practical Session with WBGT Equipment
7) Data evaluation and Analysis

Enclosed is the registration form for your further action. The duly completed registration form should be submitted to FMM Negeri Sembilan Branch latest by January 11, 2018 (Thursday). For further details, kindly contact, Mr Arif / Ms Niza of the FMM NS Branch secretariat at Tel No: 06 - 603 1626 /1616 or Fax No: 06-603 1628 or Email at: mohd_arif@fmm.org.my or akmalina@fmm.org.my
# FMM NS SEMINAR ON

**GUIDELINES ON HEAT STRESS MANAGEMENT**

## Trainer Profile

Associate Professor Dr. Shamsul Bahri an Industrial Hygiene/Occupational Ergonomic lecturer in Environmental & Occupational Health, UPM. He had supervised a total of 70 undergraduate students and 15 postgraduate students with 7 PhD students and had completed many research projects sponsored by The Ministry of Science and Innovation and Ministry of Higher Education with the total grant of RM1.8 million and RM 2.4 million of Government and Private Consultation grant. This includes research in industrial ergonomics including intervention of ergonomics injuries among commercial vehicle drivers, improvement of school ergonomics and ergonomics intervention in agriculture especially related to oil palm industries. Besides publishing peer reviewed publications, he had consulted DOSH and various industries in occupational safety and health issues including noise exposure, audiometry, indoor air quality, epidemiological study on musculoskeletal disorders and developing the Malaysian Occupational Safety and Health Profile in 2008 and 2016. He is also DOSH Guideline On ERA Technical Committee Members.

## Who Should Attend


## Payment

Cheque made payable to **Federation of Malaysian Manufacturers**.

All registration together with the payment should be made before the event date. Certificate will only be issued upon full payment.

- **Malayan Banking Berhad A/C No**: 505176510151
- **FMM’S GST Registration No**: 001714290688

## Refund Policy

Cancellation must be in writing to FMM seven (7) days before the programme; otherwise there will be no refund. However, replacement is allowed at no additional cost. FMM reserves the right to cancel or reschedule the programme.

## Participation Fee

**(fees inclusive of 6% GST)**

- **Members**: RM 990.00 per pax
- **Non-Members**: RM 1113.00 per pax

5% Discount for Group Registration of three (3) or more participants from the same company.

## Closing Date

January 11, 2018

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<td>FMM Negeri Sembilan Branch Fax : 06-603 1628</td>
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**Payment:**

Full payment of RM_________ will be made via 

- [ ] Cheque/bank draft
- [ ] Direct bank-in

Please Tick (/) 

- [ ] FMM Member
- [ ] NON– Member

Submitted By:

Name : __________________________________________ Designation : ____________________________

Company : ____________________________________________________________

Address : ________________________________________________________________

Tel : __________________________ Fax : __________________________

Email : __________________________________________

Company Stamp