

24th ASIAN CONGRESS ON OCCUPATIONAL HEALTH 2026 (ACOH 2026)

PRE-CONGRESS WORKSHOP

ARTIFICIAL INTELLIGENCE (AI) IN OCCUPATIONAL MEDICINE

Date: 5 August 2026

Time: 2:00 PM – 6:30 PM

Speaker: DR HANIZAH MOHD YUSOFF

1. Introduction

Artificial Intelligence (AI) is increasingly transforming occupational health practice through predictive analytics, decision-support systems, automation of data analysis, and enhanced workplace risk management. This workshop provides structured exposure to AI fundamentals, practical applications in occupational medicine, and governance considerations for safe implementation.

2. Course Objectives

1. Explain key concepts of Artificial Intelligence and machine learning.
2. Identify practical applications of AI in occupational medicine.
3. Analyse benefits and limitations of AI-driven decision support systems.
4. Apply AI tools in case-based occupational health scenarios.
5. Discuss ethical, governance, and regulatory considerations in AI implementation.

3. Course Content Outline

Module 1: Fundamentals of Artificial Intelligence

- Definition of AI and machine learning
- Types of AI models
- Supervised vs unsupervised learning
- Data requirements and quality considerations
- AI in healthcare overview

Module 2: Applications of AI in Occupational Medicine

- Predictive risk modelling for workplace injuries
- AI in health surveillance systems
- Decision-support tools in fitness-for-work assessment
- Data analytics for occupational disease trends
- Automation in report generation

Module 3: Practical Demonstration & Case Application

- Demonstration of AI-based analytical tools

- Interpreting AI-generated outputs
- Case-based scenario analysis
- Risk analysis using AI insights

Module 4: Hands-On Group Exercise

- Group-based AI case simulation
- Identifying workplace risks using AI tools
- Group presentation and peer discussion

Module 5: Ethics, Governance & Regulatory Considerations

- Ethical principles in AI use
- Data privacy and confidentiality
- Bias and algorithm transparency
- Regulatory considerations in healthcare AI
- Responsible AI implementation in occupational health