

HALF DAY WORKSHOP ON **AI IN ACTION: BUILD A HANDWRITTEN DIGIT CLASSIFIER FOR INCLUSIVE ENGINEERING LEARNING**

DATE: 12 SEPTEMBER 2026, SATURDAY
TIME : 9.00 AM - 1.00 PM
VENUE: C & S ROOM, 2ND FLOOR, WISMA IEM



Ir. Dr. Lim Lam Ghai

BEM Approved CPD Hours : 4
Ref. No. : IEM26/HQ/305/W

TO REGISTER,
PLEASE SCAN HERE



REGISTRATION FEE'S (subject to 8% SST)

	ONLINE FEE (Log-in for registration & payment: www.myiem.org.my/member/login.aspx)	NORMAL FEE (By Email : Payment by cash, credit card, bank-in, Quotation & Invoice)
IEM Student Members	100.00	150.00
IEM Graduate Members	180.00	230.00
IEM Corporate Members	300.00	350.00
Non-IEM Members (Non of the Above)	500.00	550.00

SYNOPSIS

This hands-on workshop introduces participants to the fundamentals of deep learning through the development of a handwritten digit classification system using the widely adopted MNIST dataset. While open to all learners, it is intentionally designed to be inclusive and supportive of women engineering learners, fostering confidence and engagement in AI and machine learning. Participants will explore the complete deep learning workflow, from data preparation and visualization to model design, training, and evaluation.

The workshop will cover:

- Understanding and exploring the MNIST handwritten digit dataset.
- Designing a Multi-Layer Perceptron (MLP) neural network architecture.
- Applying regularization techniques to improve model generalization.
- Configuring optimizers and key training hyperparameters.
- Training model and interpreting learning and loss curves.
- Evaluating model performance on unseen test data.
- Understanding common challenges and best practices in deep learning model development.

By the end of the workshop, participants will have gained practical experience in building, training, and evaluating a deep learning model, providing a solid foundation for further exploration of artificial intelligence applications.

PROGRAMME

Time	Description
8:40am - 9:00am	Registration
9:00am - 10:30am	Session 1: Understanding and exploring the MNIST handwritten digit dataset. Session 2: Designing a Multi-Layer Perceptron (MLP) neural network architecture. Session 3: Applying regularization techniques to improve model generalization.
10:30am - 10:45am	Morning Tea Break
10:45am - 12.45pm	Session 4: Configuring optimizers and key training hyperparameters. Session 5: Training model and interpreting learning and loss curves. Session 6: Evaluating model performance on unseen test data. Session 7: Understanding common challenges and best practices in deep learning model development.
12.45 pm - 1.15 pm	Q&A
1:15pm	Closure & Lunch

SPEAKER'S BIODATA

Ir. Dr. Lim Lam Ghai received the Bachelor of Engineering (B.Eng.), Master of Science (M.Sc.), and Doctor of Philosophy (Ph.D.) degrees in Electrical and Electronic Engineering from Universiti Teknologi PETRONAS, Malaysia, in 2014, 2017, and 2021, respectively. He is currently a Lecturer at Monash University Malaysia. His research interests span machine learning, artificial intelligence, neuroimaging, and precision agriculture, with a particular focus on developing data-driven solutions for engineering applications.

REGISTRATION FORM

Half Day Workshop on
AI in Action: Build a Handwritten Digit Classifier for Inclusive Engineering Learning
Date: 12 September 2026

No	Name (s)	M'Ship Number	IC No.	Fee (RM)
			SUB TOTAL	
			ADD SST @8%	
			TOTAL PAYABLE	

PAYMENT INFORMATION:
Account Name : THE INSTITUTION OF ENGINEERS, MALAYSIA
Account Number : 232-303-911-0
Bank Name : UNITED OVERSEAS BANK (UOB)
Bank Address : NO 2-6, JALAN TENGAH, 46200 PETALING JAYA, SELANGOR
Swift Code : UOVBMK1025
☐ **Email Address for Receiving Remittance Advise : suriani@iem.org.my / finance@iem.org.my**

Name _____ Designation: _____

 Address: _____

Tel No: _____ Email: _____

 Signature & Stamp

 Date

 Kindly email the registration form to suriani@iem.org.my
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IEM reserves the right to postpone, reschedule, allocate or cancel the event. Full refund if cancellation is received in writing more than 7 days before start date of the event. No cancellation will be accepted prior to the date of the event. However, replacement or substitute may be made at any time with prior notification and substitute will be charged according to membership status.

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