



# **Data-Driven Learning Of Process Dynamics**

Training Programme  
by  
Faculty of Engineering  
Multimedia University

## Overview

This course provides an overview of data-driven learning techniques aimed at identifying the dynamics of a process, drawing power from both classical system identification and modern machine learning.

## Objectives

1. To introduce the basics of data-driven learning.
2. To introduce the best practices in terms of modelling and input excitation selection.

## Target Audience

Academics and industrial practitioners in systems and control.

## Prerequisite

Basic knowledge of system dynamics. Prior experience with MATLAB or the open source Octave software will be an added advantage but is not a prerequisite.

## Training Methodology

Online lectures.

## Course Duration

1 day (4 hours).

## Content/Outline

Introduction to data-driven learning  
Models of dynamic processes  
Identifying system dynamics through data  
Design of experiment through input excitation  
Application examples

## Course Instructor

### Dr. Tan Ai Hui

Dr. Tan Ai Hui obtained B.Eng. in Electronics and Ph.D. degrees from the University of Warwick, UK, in 1999 and 2002, respectively. She is currently an Associate Professor at the Faculty of Engineering, Multimedia University. She was a consultant to Agilent Technologies from 2012–2013. She is author of the book *Industrial Process Identification: Perturbation Signal Design and Applications*, published by Springer in 2019. She is a member of the International Federation of Automatic Control Technical Committee on Modelling, Identification and Signal Processing since December 2005. She was a recipient of IEE Institution Prize 1999. She is also a Chartered Engineer registered with the Engineering Council, UK and a Professional Engineer registered with the Board of Engineers Malaysia.

## Administrative Details

### Programme Logistics

Duration: 1 day

Dates, registration deadline and registration form:

Please refer to: <https://www.mmu.edu.my/foe/short-courses/>



### Your Investment

Condition		Price per Pax
Regular Fee	Students / MMU Alumni	RM250
	Public	RM400
	Public (Group >5 pax)	RM300
	IEM/IEEE Members	RM300
Early Bird Fee	Students / MMU Alumni	RM150
	Public	RM300
	Public (Group >5 pax)	N/A
	IEM/IEEE Members	RM200

### Method of Payment

Please refer to the next page.

Type of Payment	Method	Details
Local Transaction / Payment within Malaysia	Online Payment with JomPay	<ul style="list-style-type: none"> <li>To get started, login to any preferred internet banking.</li> <li>Look for JomPay to begin the payment process.</li> <li>Enter Ref 1 &amp; Ref 2.</li> </ul> <div data-bbox="884 506 1358 577" style="border: 1px solid black; padding: 5px;">  <p><b>Billor Code :</b> 22202  <b>Ref-1 :</b> &lt;Participant IC/Passport&gt;  <b>Ref-2 :</b> Event Name*</p> </div> <p><b>JomPAY</b> online at Internet and Mobile Banking with your Current, Savings or Credit Card account</p> <p>*Ref. 2: FOEDataDriven</p>
		<ul style="list-style-type: none"> <li>To get started, go to <b>MMU website</b> (<a href="https://www.mmu.edu.my/">https://www.mmu.edu.my/</a>) &gt; <b>Admission &gt; Financial Info &gt; Payment Channel &gt; Non Student</b> ;</li> </ul> <div data-bbox="874 875 1374 1016" style="border: 1px solid gray; padding: 5px;"> <p><b>E-Payment</b>          To begin the payment process, please click Student or Non Students</p> <p>  </p> <p><b>Student   Non-Student</b></p> </div> <p>or scan the QR code below to begin the process:</p> <div data-bbox="975 1111 1233 1420" style="text-align: center;">  <p><b>SCAN ME</b></p> </div> <ul style="list-style-type: none"> <li>Choose Category: <b>Public Training</b></li> <li>Workshop Name</li> <li>Choose Your Participant Type:             <ul style="list-style-type: none"> <li>✓ <b>STUDEN</b> (MMU, IEEE, IEM, Other Higher Learning Institution )</li> <li>✓ <b>PUBLIC</b></li> <li>✓ <b>GROUP</b> ( Group &gt; 5 Pax )</li> <li>✓ <b>IEEE/M</b> (IEEE/IEM Members)</li> </ul> </li> </ul>

Type of Payment	Method	Details
International Payment / Payment outside Malaysia	Online payment with Flywire  	<ul style="list-style-type: none"> <li>To get started, go to <a href="http://mmulanding.flywire.com">mmulanding.flywire.com</a>; or scan the QR code to begin the payment process:</li> </ul> <div style="text-align: center;">  </div> <ul style="list-style-type: none"> <li>Choose Conference for Non-students related</li> </ul>

**Note:**

Please submit the proof of payment to organizer for clearance updating purposes within 2 working days.

**Refund and Cancellation**

Any refunds will be processed in 60 days. Should there be any cancellation, it may be due to the organizer not getting the minimum participants or the participant failing to attend the workshop due to unavoidable reason.

**Disclaimer**

Faculty of Engineering, Multimedia University reserves the right to change the instructors, date and to vary/cancel the programme should unavoidable circumstances arise. All effort will be taken to inform participants of the changes. Upon submission of the registration form, you are deemed to have read and accepted the terms.

**Enquiries**

Dr. Zubaida Yusoff: [zubaida@mmu.edu.my](mailto:zubaida@mmu.edu.my)

Ms. Sherry Dalilla Abd. Rahim: [dalilla.rahim@mmu.edu.my](mailto:dalilla.rahim@mmu.edu.my)