

# ONLINE SHORT COURSE ON **DATA AND COMPUTER COMMUNICATIONS**

**Online Platform** \_\_\_\_\_  
BLACKBOARD COLLABORATE ULTRA

 **20-22 OCTOBER 2020**

## **SYNOPSIS**

Data communications allow autonomous computers to exchange information through a network. The elements of the network are the computers themselves, the protocols that govern the communication and the transmission medium. This course gives an overview of TCP/IP and other related protocols as most computers today connect through the Internet. A top-down approach is taken where the application layer is covered first. The course covers the network layer which serves as an intermediary between the transport layer and the data link layer.

The next half of the course provides the means to detect and possibly correct errors that may occur in the physical layer. Finally, the course covers the physical layer which consists of the electronic circuits which transmit raw bits rather than logical data packets over a physical data link. Changes in technologies occur rapidly here. Short-range Bluetooth piconets, medium-range wireless 802.11 local area networks (WLANs) and wire-area 4G/5G wireless cellular networks will be covered.

## **LEARNING OUTCOMES**

At the end of this course, the participants will be able to:

1. Acquire the advance knowledge data and computer communication.
2. Provide an overview of advance data and computer communication and its basic components.
3. Understand of present day application and future development.

**UTMSPACE** ESTD 1982

IN-HOUSE Courses can be designed in accordance with organizational requirements.

 **Centre for Professional Development,  
UTMSPACE Johor Bahru**  
 **07-5318044/ 019-7700446 (Ms. Nurul Ain)**  
 **07-5205725**  
 **nurulain@utmspace.edu.my**



**Register here:** <https://bit.ly/2SBd7tM>



## **PREREQUISITE**

Minimum SPM holder with 5 years experience in the related fields

## **COURSE CONTENTS**

- Data communications, data networking, and the Internet
- Layered architecture
- Transport Services Provided by the Internet
- Transport-layer services
- Multiplexing and demultiplexing
- UDP and TCP protocols
- Congestion control
- Circuit switching and packet switching
- IPv4, IPv6 forwarding and addressing
- Services provided by link layer
- Error detection and correction
- Multiple access protocols
- Local area networks (wired and wireless)
- Multimedia networking
- Networking for sensor integration - ASTERIX protocol from Eurocontrol



## **FACILITATOR**



**ASSOC. PROF. MUHAMMAD MUN'IM BIN AHMAD ZABIDI** received his double Bachelor's of Science degrees in Computer Engineering and Electrical Engineering from the University of Missouri-Columbia, USA, in 1985 and Master's of Science in Computer Engineering from the University of Bridgeport,

Connecticut, USA, in 1988. He was the Deputy Director of Academic Computing at the Center for Information and Communications Technology (CICT), UTM from 2005-2008. He teaches digital systems design, embedded systems and software engineering. His research work is mainly on artificial intelligence, digital signal processing and Internet-of-Things.

# REGISTRATION FORM

To confirm your registration, please complete this form including payment.

YES! Please register the following participant(s) for this course

I am interested but unable to attend. Please put me on your mailing list

Please tick (/) where applicable

Course Name : **ONLINE SHORT COURSE ON DATA AND COMPUTER COMMUNICATIONS**

Date : **20-22 October 2020**

Fee : **RM400.00** per pax  
Inclusive of notes and e-certificate

## \*DETAILS OF PARTICIPANT ATTENDING THE COURSE :

No.	Name of Participant	Mobile No.	Email	Fee (RM)

(Please attach a separate list if necessary)

\*UTMSPACE respects the privacy of its customers with regards to personal data. For further details, please visit: [www.utmspace.edu.my/pdpa](http://www.utmspace.edu.my/pdpa)

Total

SPONSORSHIP :  Self-Sponsored

Company-Sponsored

## INDIVIDUAL / COMPANY DETAILS (for issuance of invoice) :

Organisation : \_\_\_\_\_

Address : \_\_\_\_\_

Contact Person : \_\_\_\_\_

Co. Reg. No\* : \_\_\_\_\_  
\*If applicable

Tel No. : \_\_\_\_\_

Designation : \_\_\_\_\_

Fax No. : \_\_\_\_\_

Email : \_\_\_\_\_

Cancellations received in writing 30 days prior to the programme are eligible for a refund, subject to a 15% cancellation fee. Cancellations received less than 14 days from the date of the programme are not eligible for a refund. However, substitute attendees are welcome. Please note that the speakers and topics are confirmed at the time of printing. However, circumstances beyond the control of the organisers may necessitate substitutions or cancellations of speakers and/or topics. As such UTMSPACE reserves the right to alter or modify the advertised speakers and/or topics.

Authorised Signature\* : \_\_\_\_\_

Date : \_\_\_\_\_

Name : \_\_\_\_\_

Designation : \_\_\_\_\_

\* Head of Department / Approving Manager

Company Stamp

## MODE OF PAYMENT

### A. Cheque or Bank Draft

Cheque No. / Bank Draft No. : \_\_\_\_\_

Bank/ Branch : \_\_\_\_\_

All crossed cheque / bank draft should be made payable to Account Name : UTMSPACE  
Account Number : 8601518228 | Bank Name : CIMB Islamic Bank Berhad | Branch : UTM Skudai, Johor

### B. Telegraphic Transfer / Local Order

Transaction Date : \_\_\_\_\_

Reference Number : \_\_\_\_\_

| Terms & Conditions Apply |

## FOR FURTHER INFORMATION, PLEASE CONTACT:

Centre for Professional Development, School of Professional and Continuing Education (UTMSPACE), Universiti Teknologi Malaysia,  
No. 34 - 50, Jalan Kebudayaan 1, Taman Universiti, 81300 Skudai, Johor  
Tel : (607) 531 8044/ 019-770 0446 | Fax : (607) 520 5725 | Website : [www.utmspace.edu.my](http://www.utmspace.edu.my)  
E-mail : [nurulain@utmspace.edu.my](mailto:nurulain@utmspace.edu.my) Contact Person : Ms. NURULAIN