UNIVERSITI MALAYA

MAKLUMAT KURSUS UNTUK SEMESTER/PENGGAL SEMASA
COURSE INFORMATION FOR CURRENT SEMESTER/TERM

Sesi Akademik *Academic Session*	2020/2021
Semester/Penggal *Semester/Term*	2
Kod Kursus *Course Code*	KIE3007
Tajuk Kursus *Course Title*	Pemprosesan Isyarat Digit *Digital Signal Processing*
Bahasa Pengantar *Medium of Instruction*	Bahasa Inggeris *English*
Rujukan Utama *Main Reference*	1. Alan V. Oppenheim & Ronald W. Schafer, "*Discrete Time Signal & Systems*" Prentice Hall, 2013. 2. Proakis and Manolakis, "*Digital Signal Processing: Principles, Algorithm and Applications*", Pearson, 2006.
Strategi Pembelajaran *Learning Strategies*	Kuliah dan Tutorial *Lectures and Tutorials*
Masa Pembelajaran Pelajar *Student Learning Time*	Bersemuka / *Face to face* : 45 jam/*hours* Tidak Bersemuka / *Non Face to face*: 0 jam/*hour* Masa Persediaan Pelajar / *Student Preparation Time*: 75 jam/*hours*
Kemahiran Boleh Pindah Transferable Skills	*Use of programming software such as MATLAB in digital signal processing*
Pensyarah / *Lecturer* Bilik / *Room* Telefon/e-mel *Telephone/e-mail*	Prof. Hamzah Arof Tingkat 1, Mercu Kejuruteraan, Fakulti Kejuruteraan 03 – 7967 4456 / ahamzah@um.edu.my
Sesi Kuliah / *Lecture Session:* Hari/Masa / *Day/Time* Tempat / *Venue*	Rujuk kepada myum.um.edu.my. *Refer to* myum.um.edu.my.
Sesi Tutorial/Amali: *Tutorial/Practical Session:* Hari/Masa / *Day/Time* Tempat / *Venue*	Tiada *No*
Perincian Pemberatan Penilaian *Detail of Assessment Weightage*	Penilaian Berterusan / *Continuous Assessment* : 40% Peperiksaan Akhir / *Final Examination* : 60%

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Jadual Pengajaran / *Teaching Schedule*

Minggu *Week*	Topik & Aktiviti *Topic & Activities*	Rujukan *References*
1	*Continuous time and discrete time frequency transform (CTFT & DTFT), spectrum analysis*	*Ref. list, lecture note*
2	*Discrete time system*	*Ref. list, lecture note*
3	*Sampling, reduction and interpolation* *Persampelan , pengurangan dan interpolasi.*	*Ref. list, lecture note*
4	*Z-transform*	*Ref. list, lecture note*
5	*Discrete Fourier Transform (DFT) and Fast Fourier Transform (FFT) algorithm*	*Ref. list, lecture note*
6	*Digital Filter Design*	*Ref. list, lecture note*
7	*Random signal filter*	*Ref. list, lecture note*
8	*Distribution estimation and correlation function*	*Ref. list, lecture note*
9	*Speech processing, speech modeling and its characteristics*	*Ref. list, lecture note*
10	*Short time Fourier transform and its synthesis.*	*Ref. list, lecture note*
11	*Linear coding estimation*	*Ref. list, lecture note*
12	*Image processing, 2-D signal and system.*	*Ref. list, lecture note*
13	*Image coding, image reconstruction*	*Ref. list, lecture note*
14	*Filter and image transform.*	*Ref. list, lecture note*