



Sesi Akademik <i>Academic Session</i>	2020/2021
Semester/Penggal <i>Semester/Term</i>	2
Kod Kursus <i>Course Code</i>	KIE2008
Tajuk Kursus <i>Course Title</i>	Sistem Komunikasi <i>Communications Systems</i>
Bahasa Pengantar <i>Medium of Instruction</i>	Bahasa Inggeris <i>English</i>
Rujukan Utama <i>Main Reference</i>	<ol style="list-style-type: none">1. John G. Proakis, Masoud Salehi, "Fundamental of Communication Systems", 2nd Ed, Prentice Hall, 2014.2. Upena Dalal, "Wireless Communications", 4th Ed, Oxford University Press, 2009.3. Roy Blake, "Wireless Communication Technology", 1st Ed, Delmar Cengage Learning, 20014. Joseph C. Palais, "Fiber Optic Communications", 5th Ed, Prentice Hall, 20045. William Stallings, "Data and Computer Communications", 10th Ed, Prentice Hall, 2014.
Strategi Pembelajaran <i>Learning Strategies</i>	Kuliah dan Tutorial <i>Lectures and Tutorials</i>
Masa Pembelajaran Pelajar <i>Student Learning Time</i>	Bersemuka / <i>Face to face</i> : 45 jam/hours Tidak Bersemuka / <i>Non Face to face</i> : 0 jam/hour Masa Persediaan Pelajar / <i>Student Preparation Time</i> : 75 jam/hours
Kemahiran Boleh Pindah <i>Transferable Skills</i>	Problem Solving Skills, Analytical Skills
Pensyarah / <i>Lecturer</i>	Dr. Marizan Mubin / Dr. Effariza Hanafi / Prof. Dr. Hamzah Arof
Bilik / <i>Room</i>	Tingkat 2, Mercu Kejuruteraan, Fakulti Kejuruteraan
Telefon/e-mel <i>Telephone/e-mail</i>	03-79675260 / 03-79674456 / 03-79672651 marizan@um.edu.my / effarizahanafi@um.edu.my / ahamzah@um.edu.my
Sesi Kuliah / <i>Lecture Session</i> :	Rujuk kepada myum.um.edu.my.
Hari/Masa / <i>Day/Time</i>	<i>Refer to myum.um.edu.my.</i>
Tempat / <i>Venue</i>	
Sesi Tutorial/Amali: <i>Tutorial/Practical Session</i> :	Rujuk kepada myum.um.edu.my.
Hari/Masa / <i>Day/Time</i>	<i>Refer to myum.um.edu.my.</i>
Tempat / <i>Venue</i>	
Perincian Pemberatan Penilaian <i>Detail of Assessment Weightage</i>	Penilaian Berterusan / <i>Continuous Assessment</i> : 40% Peperiksaan Akhir / <i>Final Examination</i> : 60%



Jadual Pengajaran / Teaching Schedule

Minggu Week	Topik & Aktiviti Topic & Activities	Rujukan References
1	Pengenalan kepada sistem komunikasi. <i>Introduction to communication systems.</i>	<i>Ref [1], lecture note</i>
2	Pemodulatan amplitud. <i>Amplitude modulation</i>	<i>Ref [1], lecture note</i>
3	Pemodulatan sudut <i>Angle modulation</i>	<i>Ref [1], lecture note</i>
4	Kesan hingar ke atas system komunikasi analog <i>Effect of noise on analog communication systems</i>	<i>Ref [1], lecture note</i>
5	Penukaran analog kepada digit <i>Analog to digital conversion</i>	<i>Ref [1], lecture note</i>
6	Teori maklumat: Pemodelan punca maklumat, teori pengkodan punca, algoritma pengkodan punca <i>Information theory: Modeling information sources, source coding theorem, source coding algorithm</i>	<i>Ref [1], lecture note</i>
7	Teori maklumat: Pemodelan saluran komunikasi, muatan saluran <i>Information theory: Modeling of communication channels, channel capacity</i>	<i>Ref [1], lecture note</i>
8	Asas-asas komunikasi tanpa wayar dan aplikasi sistem tanpa wayar. <i>Basics of wireless communications and applications of wireless systems</i>	<i>Ref [2], lecture note</i>
9	Perambatan gelombang radio dan pelunturan pelbagai arah. <i>Radio wave propagation and multipath fading</i>	<i>Ref [3], lecture note</i>
10	Antena pemancar dan penerima <i>Transmitter and receiver antennas</i>	<i>Ref [3], lecture note</i>
11	Ruang bebas dan sistem komunikasi gentian optik. <i>Free-space and fiber optical communication systems</i>	<i>Ref [4], lecture note</i>
12	Pemancar optik, penerima optik, dan saluran optik. <i>Optical transmitters, optical receivers, and optical channels</i>	<i>Ref [4], lecture note</i>
13	Pengenalan kepada komunikasi data. <i>Introduction to data communications</i>	<i>Ref [5], lecture note</i>
14	Pensuisan paket, pengkodan talian, Pemultipleksan dan akses pelbagai. <i>Packet switching, line coding, Multiplexing and Multiple Access</i>	<i>Ref [5], lecture note</i>