



KHENTAWAS, FARRUKHNAGAR, GURGAON, HR

Department: IT, CSIT and ECS

Academic Session: 2017-18 (Jan-June 2018)

Lesson Plan for the Semester started w.e.f 08.01.2018

Subject with code: SATELLITE COMMUNICATION (EC-812-F)

Name of Faculty with designation : NEHA VERMA, ASSISTANT PROFESSOR

Month	Date & Day	Sem-Class	Unit	Topic/Chapter covered	Academic activity	Test / assignment
January	08.01.2018 Monday	VIII-ECS	1	Evolution & growth of communication satellite	.....	Assignment of 02 Ques. given
January	09.01.2018 Tuesday	VIII-ECS	1	Synchronous satellite, Satellite frequency allocation & Band spectrum		Assignment of 02 Ques. given
January	10.01.2018 Wednesday	VIII-ECS	1	Advantages of satellite communication, Active & Passive satellite and Modem & Codec		Assignment of 02 Ques. given
January	15.01.2018 Monday	VIII-ECS	1	Applications of satellite communication and Introduction to satellite link		Assignment of 02 Ques. given
January	16.01.2018 Tuesday	VIII-ECS	1	General link design equations, System noise temperature, C/N & G/T ratio		Assignment of 02 Ques. given
January	17.01.2018 Wednesday	VIII-ECS	1	Atmospheric & Ionospheric effects on link design, Complete link design, Earth station parameters		Assignment of 02 Ques. given
January	23.01.2018 Tuesday	VIII-ECS	1	Discussion on Important Questions and Queries of UNIT 1.		REVISION
January	24.01.2018 Wednesday	VIII-ECS	2	Introduction of ANALOG SATELLITE COMMUNICATION and Baseband analog(Voice) signal, FDM techniques		Assignment of 02 Ques. given
January	29.01.2018 Monday	VIII-ECS	2	S/N & C/N ratio in frequency modulation in satellite link, S/N ratio in FM with multiplexed telephone signal in satellite link		Assignment of 02 Ques. given
February	05.02.2018 Monday	VIII-ECS	2	Single channel per carrier(SCPC) systems, Companded single sideband (CSSB) systems, Analog FM/FDM TV satellite link		Assignment of 02 Ques. given

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February	06.02.2018 Tuesday	VIII-ECS	2	Intermodulation products & their effects in FM/FDM systems, Energy disposal in FM/FDM systems		Assignment of 02 Ques. given
February	07.02.2018 Wednesday	VIII-ECS	2	Advantages of digital communication, Elements of digital satellite communication systems, Digital baseband signals		Assignment of 02 Ques. given
February	19.02.2018 Monday	VIII-ECS	2	Digital modulation techniques, Satellite digital link design, Time Division Multiplexing		Assignment of 02 Ques. given
February	20.02.2018 Tuesday	VIII-ECS	3	Introduction to Multiple access techniques, TDMA, TDMA-Frame structure, TDMA Burst structure		Assignment of 02 Ques. given
February	21.02.2018 Wednesday	VIII-ECS	3	TDMA-Frame efficiency, TDMA-superframe, TDMA-Frame acquisition & Synchronization		Assignment of 02 Ques. given
February	26.02.2018 Monday	VIII-ECS	3	TDMA compared to FDMA, TDMA Burst Time Plan		Assignment of 02 Ques. given
February	27.02.2018 Tuesday	VIII-ECS	3	Beam Hopping(Transponder Hopping) TDMA		Assignment of 02 Ques. given
February	28.02.2018 Wednesday	VIII-ECS	3	Multiple Beam ( Satellite switched) TDMA satellite system, CDMA & hybrid access techniques		Assignment of 02 Ques. given
March	05.03.2018 Monday	VIII-ECS	3	Introduction of Synchronous orbit, Orbital parameters,		Assignment of 02 Ques. given
March	06.03.2018 Tuesday	VIII-ECS	3	Satellite location with respect to earth, Look angles		Assignment of 02 Ques. given
March	07.03.2018 Wednesday	VIII-ECS	3	Earth coverage & slant range, Eclipse effect		Assignment of 02 Ques. given
March	12.03.2018 Monday	VIII-ECS	3	Satellite placement in geostationary orbit		Assignment of 02 Ques. given
March	13.03.2018 Tuesday	VIII-ECS	3	station keeping, Satellite stabilization		Assignment of 02 Ques. given
March	14.03.2018 Wednesday	VIII-ECS	3	Discussion on Important Questions and Queries of UNIT 3.		REVISION
March	26.03.2018 Monday	VIII-ECS	4	BDS, INMARSAT, INTELSAT, VSAT(data broadband satellite)		Assignment of 02 Ques. given
March	27.03.2018 Tuesday	VIII-ECS	4	MSAT( Mobile Satellite Communication technique), Sarsat( Search & Rescue satellite) & LEOs (Lower earth orbit satellite)		Assignment of 02 Ques. given

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March	28.03.2018 Wednesday	VIII-ECS	4	Satellite communication with respect to Fiber Optic Communication		Assignment of 02 Ques. given
April	02.04.2018 Monday	VIII-ECS	4	LANDSAT, Defense satellite.		Assignment of 02 Ques. given
April	03.04.2018 Tuesday	VIII-ECS	4	Introduction to laser satellite comm.		Assignment of 02 Ques. given
April	04.04.2018 Wednesday	VIII-ECS	4	Link analysis, Optical satellite link transmitter		Assignment of 02 Ques. given
April	09.04.2018 Monday	VIII-ECS	4	Optical satellite link receiver, Satellite Beam Acquisition,		Assignment of 02 Ques. given
April	10.04.2018 Tuesday	VIII-ECS	4	Tracking & Positioning, Deep Space Optical Communication Link		Assignment of 02 Ques. given
April	11.04.2018 Wednesday	VIII-ECS	4	Discussion on Important Questions and Queries of UNIT 4		REVISION
April	25.04.2018 Wednesday	VIII-ECS	All	Discussion on Important Questions and Queries.		REVISION