



Academic-UG Section
DELHI TECHNOLOGICAL UNIVERSITY

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105(444)/DTU/Acad-UG/2018-19/8393-401

Dated: 20/7/20

NOTIFICATION

Subject: Introduction of new Departmental Elective Course (DEC).

The academic council in its 23rd meeting held on 15.05.2020 has approved the introduction of following Departmental Elective Course (DEC) and this course may be offered by the Department of Electronics & Communication Engineering from AY 2020-21.

Subject Code: EC 334 Course Title: Electronic System Design

Syllabus:

Unit	Content	Contact hours
1	Power Supply design for Embedded projects: Power Diodes, Step Down circuits, power MOSFETs, control circuit design, Power Supply Circuits for 5V, 12V, 24V and +12V and -12V Dual Power Supply.	8
2	Communication protocols with hardware : Asynchronous communication protocols, U(S)ART, CAN, LIN, Network Topologies, RS 232, RS 485, Simplex and Duplex, hardware Implementation	10
3	Serial controlled Motor driver electronic design and coding: H bridge design with PWM, Using the Serial Plug, Scripting with Python for serial commands, Use of microcontrollers for serial code datasheet.	8
4	Sensors Design: Temperature Sensor, Ultrasonic Sensor, IMU sensor Design, Sensor Fusion, Circuit Designing, Hardware implementation with embedded systems	8
5.	Project Design Hardware and software design for a motor driver for a general purpose actuator with Radio Frequency control through any available modulation technique and circuit realization.	8

S.No.	Name of Books / Authors/ Publishers	
1.	Electronic devices and circuit theory by Robert L. Boylestad and Louis Nashelsky, Eight Edition. Prentice Hall (Pearson Education Inc.)	2002
2.	Electronics for Embedded Systems by Bindal, Ahmet, Springer	2017
3.	Multi Sensor fusion and integration for intelligent systems by Lee Suk-han (Editor), HanseokKo (Editor), Hernsoo Hahn (Editor), Springer	2010
4.	Data sheets from Analog Devices, Texas Instruments etc. for various sensors.	-



(Prof. Madhusudan Singh)
Dean Academic (UG)

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Copy to:-

1. PS to the V.C. for kind information to the Hon'ble Vice Chancellor.
2. Registrar, DTU.
3. All Deans
4. All HoD
5. Controller of Examinations
6. Mr. Piyush Vaish :- for information and necessary action please.
7. Head (CC): With the request to upload the same on Academic (UG) portal of DTU Website.
8. Notice Board.
9. Guard File.


(Prof. Rajeshwari Pandey)
Associate Dean Academic (UG)

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