

**KING FAHD UNIVERSITY OF PETROLEUM & MINERALS****DEPARTMENT OF ELECTRICAL ENGINEERING****EE 411****LIST OF CAPSTONE PROJECTS****071**

#	Project Title	Pre-requisites	Advisor(s)
1	Control of a DC Motor Drive: Design and Implementation	EE 360 and EE 380	Dr. A. H. A. Rahim & Dr. M. Abido
2	Design of ferrite based patch antenna	EE 340	Sheikh Sharif Iqbal and Dr Gondal
3	Investigation of 13.8 Kv Underground Cable Failure caused by overload & Temperature Rise at the Area of Al-Jubail	EE 360 or EE 463, or 465	Dr. M. H. Shwehdi
4	Design and Implementation of Short Message Service (SMS) Generation Module for the Monitoring System of Remote Installation Sites	Knowledge of PC interfacing, abd Java, Visual Basic	Dr. Maan Kousa / Ahmar Shafi
5	Development of an Advanced system for the detection of defects in materials	Expertise in Matlab	Dr. Ahmed Yamani
6	Ultrasonic Inspection of Pipelines		Dr. Ahmed Yamani
7	Design of a User-friendly Interface to detect Defects found in pipelines	MATLAB. Visual Basic will be a + for students	Dr. Ahmed Yamani

8	The Development of an Iris Recognition System	Good background in using MATLAB, good background in basic signal analysis, preferred background in image processing	Dr. M. Deriche, Dr. A. Zidouri
9	Voice Scrambling System	EE 370 and EE 303	Dr. Alakhdhar
10	Design of Cassy Lab DC motor speed control system	EE380	Dr. Chokri Belhaj Ahmed
11	Brushless DC Motor		Dr. Essam E. Hassan
12	Design of a Wireless Sensor Network for Monitoring Applications	EE370 and EE303	Dr. Salam Zummo, Mr. Ahmad AbuHussain and Mr. Ahmer Shafi and Mr. Ajmal Khan
13	DTMF Remote controller for smart homes	EE 303 & EE 200	Dr. Samir Al-Ghadhban & Dr. Yahya Al-Harhi
14	Design of A grid Connected Wind Farm		Dr. Ibrahim El-Amin Mr. Shafique Rahman (RI) & Mr. Firoz Ahmed (RI)
15	Snooper Phone Room Listening Device	EE303	Dr. Alaa El-Din Hussein
16	Generation of required phase shifts for a 10 GHz phased antenna array with beam scan of +- 60 degrees from broad side direction		Mahmoud M. Dawoud and Dr. Sheikh S. Iqbal

17	Design of ferrite based phase shifter	EE 340	Sheikh Sharif Iqbal, Dr Gondal
18	Investigation of Commercial Microwave Ovens Radiation		Dr. Ali Muqaibel & Mr. Umar Johar
19	Design of Materials Mixing System Using Microcontroller	EE-303, EE-390	Dr. Husain Al-Zaher & Mr. Ahmad Abul-Hussain
20	On the Design of a 1000 MVA, 132 / 13.8 kV Power Substation		Dr. Zakariya Al-Hamouz
21	Wireless Broadband Access System Assigned to Dr. Samir		Dr. Samir Al-Ghadhban
22	Pattern recognition in ARAMCO plants		Dr. M. Deriche
23	Securing Industrial Wireless Networks Assigned		Dr. Asrar Sheikh
24	Development of a Seismic Analysis Tool Using MATLAB	Good background in using MATLAB and good background in basic signal analysis	Dr Wail A. Mousa and Dr. Tareq Al-Naffouri