Fourth year student projects

(Fall Semester)

2023- 2024

#	Project Name	Department	Student's Name	Supervisor Name
1	Modelling and Simulation of induction generator using MATLAB/Simulink program	Power and Machine	Ubaidah Ammar Asim Ahmed Laith Abdul Hafez Ahmed Diaa Al-Din Ali	Dr. Saad Inad Muhammad
2	Study and representation of the factors affecting the power in wind stations	Power and Machine	Jassem Mohammed Jaafar Mohammed Basel Habib Mustafa Nashwan Mohammed	Dr. Mohamed Ahmed Ali
3	Electrical Vehicle battery charging control using photovoltaic system	Power and Machine	Omar Fahmi Hussein Rabee' 'Abdul Jabbar Abdullah Aws Sulwan Salem	M.Sc. Karam Khairullah Mohammed
4	Design and analysis of three phase inverter	Power and Machine	Hassan Ali Qasim Qahtan Mahmoud Hamad Ali Hussein Mohammed Saleh	Dr. Silwan Samir Sabry Al Nuaimi
5	Design of maximum power point trackers (MPPT) for solar photovoltaic system	Power and Machine	Istabraq Sabbar Hashim Amina Salem Mohammed Jawahir Hazem Mohammed	Dr. Omar Sharaf AL-Deen Yehy M.Sc. Ali Abbawi Muhammad
6	Improve the performances of single-phase induction motor using an optimum value of starting and running capacitors	Power and Machine	Fares Mizahim Salem Diyari Abbas Abdullah Hatem Fares	Dr. Omar Sharaf AL-Deen Yehy M.Sc. Raghad Adib
7	Design smart thermostatic water mixer tap using microcontroller for solar heaters	Power and Machine	Abu Bakr Najah Anwar Haibat Jassem Mohammed Ahmed Saad Isaa	M.Sc. Marwan Ahmed Abdel Hamid
8	Differential relay and reverse power relay for synchronous generator protection	Power and Machine	Khalid Jamal Farhan Haitham Ahmed Saleh Zain Al-Abidin Hussein Al-Yas	M.Sc. Nagham Hikmat Aziz
9			Omar Ali Hussein	Dr. Omar Mustafa Ali

			Yousef Jumah Taha	
	Monitor Human Vital Signs Based on IoT Technology Using MQTT Protocol	Electronic and communications	Qasim Mohammed Rafe'	
10	Analysis and design Lora WAN network using OMNET	Electronic and communications	Mohammed Fares Rida	Dr. Firas Sami Haseeb M.Sc. Yazin Sobhi Sheet
			Abdul Rahman Manaf Kanaan	
			Diaa Al-Din Awad Khalaf	
11	Design and comparison of multiple approach Wi-Fi based indoor positioning system	Electronic and communications	Sireen Salah	M.Sc. Ali Hadi Saeed
			Rayaam Essam	
12	Design of a communication system using fiber optic	Electronic and communications	Mohammed Ahmed Mohammed	Dr. Farhad Ezzedine Mahmoud
			Raghdah Dhargham Zaki	
			Tabarak Haitham Ahmed	
13	Study and modeling of the regenerative braking system in electrical and hybrid cars	Power and Machine	Abdullah Fathi Hussein	M.Sc. Ahmed Bassam Aziz
			Mohammed Fathi Majid	
			Naba'a Ghazwan	
14	Control methods used on the operation of static synchronous compensator in electrical power system	Power and Machine	Ibrahim Hussein Hassan	M.Sc. Maha Abdul Rahman Abdul Majeed
			Mohammed Hassan Hamza	
			Mahmoud Salem Mahmoud	
15	VoIP Server	Electronic and communications	Mustafa Jabbar 'Abdul Jalil	Dr. Azam Adnan Muhammed
			Abdullah Mohammed Rida	
			Diaa Sameer Taha	
16	Analysis and design of communication network using GNU software	Electronic and communications	Hawah Mohammed Shukr	Dr. Firas Sami Haseeb
			Zubaida Khaled Mahmoud	
			Ilaaf Sami Salman	
17	Smart Traffic Control Using Li Fi Technology	Electronic and communications	Salam Hameed 'Abd	M.Sc. Noor Thamer Mohamed
			Farsan Faisal Murad	
			Abdullah Jasim Mahmood	
18	Study & analysis of Inrush current of 3 phase transformer-based MATLAB	Power and Machine	Noor Abdul Amir Mohammed	Dr. Mohammed Ali Al-Rawi
			Basma Mufaq Yunus	
			Mohammed Ramadan Khazir	
19	Design and Analysis of the Electrical Drive System for an Electric Motorcycle	Power and Machine	Ahmed Mufaq Ibrahim	Dr. Yasser Muhammad Yunus
			Khalid Taha Zaher	
			Ahmed Maisar Abdul Karim	
20	Design an automatic board to operate and insert the generator to supply the loads	Power and Machine	Abdul Malik Adel Abdul Qadir	Dr. Mohamed Ahmed Ali
			Mustafa Dawood Suleiman	
			Safian Khaled Ghazi	

21	**Analysis of a communication network performance based on WiMAX system using OPNET**	**Electronic and communications**	**Mohammed Ismail Abdullah**	**Dr. Firas Sami Haseeb**
			Halaa Waleed Ibrahim	
			Shaima'a Rafe' Jassem	
22	**Design of the folded dipole antenna for implantable applications**	**Electronic and communications**	**Hashim Ali 'Abdul Mohsen**	**Dr. Shamil Hamza Hussein Al-Najjar**
			Hussein Mustafa Hussein	
			Mohammed Ali Asghar	
23	**Measuring the frequency and phase difference of electrical signals using a microcontroller**	**Electronic and communications**	**Faiz Ahmed Mahjoub**	**Dr. Saad Wasmi Osman**
			Youssef Saad Hamidi	
			Yasin Khaled Waleed	
24	**Study, analysis and design effects of matching network style on RF power amplifier**	**Electronic and communications**	**Salam Hassan Khayun**	**M.Sc. Mohammed Idrees Dawod**
			Omar Ali Toman	
25	**Design and implementation of a system to detect and isolate short circuits and determine the location of the fault using Arduino**	**Power and Machine**	**Saja Wael 'Ali**	**M.Sc. Abdulhakeem Nabeel Yahya**
			Daham Atiya	
			Ali Khaled	
26	**Modeling and Simulation of LLC Resonant Converters for Electric Vehicle (EV) Charger applications**	**Power and Machine**	**Ali Mahfouz Fathi**	**M.Sc. Marwan Hussein Mohammed**
			Mohammed Ragheed Hamed	
27	**Vehicle Monitoring using Arduino**	**Electronic and communications**	**Abdullah Ameen Yanar Abdullah**	**Dr. Farhad Ezzedine Mahmoud M.Sc. Ali Hadi Saeed**
			Ameen Radwan Younis	
			Ahmed Waleed Taymour	
28	**Dual axis solar tracking system**	**Power and Machine**	**Abdullah Abdul Rahman Ahmed**	**Dr. Azam Adnan Muhammed**
			Othman Mahmoud Aswad	
			Ibrahim Othman Mahmoud	
29	**Study of central heating and water heating systems using solar energy**	**Power and Machine**	**Amina Salim Muhammed/ 2**	**Dr. Saad Inad Muhammad**
			Tiba Sadam	
			Diyari Abbas/2	
30	**Control and monitor the level of oil in petroleum tanks using Arduin technology**	**Power and Machine**	**Ahmed Khaled Ramadan**	**Dr. Mohammed Obaid Mustafa**
			Aswan Ismail	
			Ibrahim Al-Ma'mun Abdul Hadi	
31	**Designing an Automated Irrigation System for one of the gardens of the Electronics Engineering College**	**Power and Machine**	**Mustafa Sabah**	**Dr. Wael Hashem Hamdoun**
			Yousef Nashwan	
			Aisha Nashwan	
32	**Designing and Implementing of a smart Cane for the Blind**	**Power and Machine**	**Salem Dawood Salem**	**Dr. Mohammed Obaid Mustafa**
			Hassan Ahmed Hassan	
			Zahraa Rashid Tawfiq	
33			**Issa Sabah**	

	Designing and Implementing of a Device for Packaging Food	**Power and Machine**	**Saad Faza'**	**Dr. Mohammed Obaid Mustafa**
			Zaid Hamza Fakhri	
34	**Design of fire warning and distinguish system using modern techniques**	**Power and Machine**	**Yousef Boulus Toma**	**Dr. Riyad Zaki Sabri Younes**
			Ruwad Rasam Zorah	
			Khalil Ziad Nafi'	
35	**Design and simulation of a long, high-voltage AC transmission line**	**Power and Machine**	**Ragheb Shamil Hafez**	**Dr. Daoud Najm Saleh**
			Abdullah Fathi Abdullah	
			Abdul Ghafour Akhmad Fathi	
36	**Design of advanced control system for houses using microprocessors**	**Power and Machine**	**Munib 'Adnan Hussein**	**Dr. Hassan Adnan Mohammed**
			Ahmed Abdulwahab Mohammed	
			Ahmed Ali Mahmoud	
37	**Design and implementation of a charging station for electric vehicles on external roads**	**Electronic and communications**	**Ibrahim 'Abdul Qahar Ibrahim**	**M.Sc. Fawaz Yassin Abdullah** **Dr. Muhammad Tariq Yassin**
			Nora Mohammed Fouad	
			Hammam Nemat Najm Al-Din	
38	**Design of a laboratory board for programmed logic controllers**	**Electronic and communications**	**Mohammed Abdul Razaq Abdullah**	**M.Sc. Fawaz Yassin Abdullah**
			Israa Hashim Mohammed	
			Sara 'Adel Younis	
39	**Total Harmonics distortion (THD) reduction for electrical vehicle charging stations**	**Power and Machine**	**Haya Ahmed Maisar**	**Dr. Shaker Mahmoud Khudair**
			Sara Jamal Suleiman	
40	**Distributed Generation Units to improvement of power system performance**	**Power and Machine**	**Mustafa Khairy Mustafa**	**Dr. Saraa Ismail Khalil**
			Youssef Dhafir Ismail	
			Duhaa Ahmed	
41	**Biometric-Enhanced Smart Key Card Door Lock System**	**Electronic and communications**	**Omar Mohammed Elias**	**Dr. Farhad Ezzedine Mahmoud**
42	**Three phase inverter characteristics improvement by triple harmonic injection**	**Power and Machine**	**Mouaid Najat**	**Dr. Muhammad Natiq Abdul Qadir**
43	**Design a solar energy system to achieve self-sufficiency from electrical energy**	**Power and Machine**	**Muhammed Sabah**	**M.Sc. Ahmed Bassam Aziz**
44	**Design of an isolated DC-DC convertor (Dual Active Bridge)**	**Power and Machine**	**Mustafa Taha Jasim**	**Dr. Salwan Samir**
			Younis Waleed Abdullah	
			Rami Hasan Taha	

Fourth year student projects

(spring semester)

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#	Project Name	Department	Student's Name	Supervisor Name
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2	Study and representation of the factors affecting the power in wind stations	Power and Machine	Jasim Mohammed Jaafar Mohammed Basel Habib Mustafa Nashwan Mohammed	Dr. Mohamed Ahmed Ali
3	Study and analysis of a standalone electric vehicle charging station supplied by photovoltaic system	Power and Machine	Omar Fahmi Hussein Rabee' 'Abdul Jabbar Abdullah Aws Sulwan Salem	M.Sc. Karam Khairullah Mohammed
4	Design and analysis of three phase inverter _Part II	Power and Machine	Hassan Ali Qasim Qahtan Mahmoud Hamad Ali Hussein Mohammed Saleh	Dr. Silwan Samir Sabry Al Nuaimi
5	Simulation of electrical distribution network feeders using MATLAB	Power and Machine	Istabraq Sabbar Hashim Jawahir Hazem Mohammed	Dr. Yousif Mohammed Younis
6	Controlling the charging / discharging of the solar system batteries	Power and Machine	Faris Mizahim Salem Abdullah Hatem Fares	M.Sc. Raghad Adib
7	Implementation of an electronic circuits for the water mixer taps	Power and Machine	Abu Bakr Najah Anwar Haibat Jassem Mohammed Ahmed Saad Isaa	M.Sc. Marwan Ahmed Abdel Hamid
8	Differential relay and reverse power relay for synchronous generator protection _Part II	Power and Machine	Khalid Jamal Farhan Haitham Ahmed Saleh Zain Al-Abidin Hussein Al-Yas	M.Sc. Nagham Hikmat Aziz
9			Omar Ali Hussein	Dr. Omar Mustafa Ali

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			Zubaida Khaled Mahmoud	
			Ilaaf Sami Salman	
17	تصميم منظومة ذكية للكشف عن الحرائق وتسرب الغازات ومعالجتها	Electronic and communications	Abdullah Jasim Mahmood	M.Sc. Noor Thamer Mohamed
18	Study & analysis of Inrush current of 3 phase transformer-based MATLAB _Part II	Power and Machine	Noor Abdul Amir Mohammed	Dr. Mohammed Ali Al-Rawi
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30	Designing an automatic control circuit to control the operation of submersible pump for a whale used in farm irrigation operations	Power and Machine	Mustafa Sabah Yousef Nashwan Aisha Nashwan	Dr. Wael Hashem Hamdoun
31	Designing and Implementing of a smart Cane for the Blind _part II	Power and Machine	Salem Dawood Salem Hassan Ahmed Hassan Zahraa Rashid Tawfiq	Dr. Mohammed Obaid Mustafa
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			Abdullah Fathi Abdullah	
			Abdul Ghafour Akhmad Fathi	
35	A Practical Design of a Modern Homes using a microntroller	Power and Machine	Munib 'Adnan Hussein	Dr. Hassan Adnan Mohammed
			Ahmed Abdulwahab Mohammed	
			Ahmed Ali Mahmoud	
36	Design and implementation of a charging station for electric vehicles on external roads _Part II	Electronic and communications	Ibrahim 'Abdul Qahar Ibrahim	Dr. Muhammad Tariq Yassin M.Sc. Fawaz Yassin Abdullah
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