

Department of Electrical Engineering
EE-401 Final Year Design Project
Project List



F/SOP FYDP/02/00

Batch 2019

Semester Fall 2022

S.no.	Project title	Student name	Supervisor/co-supervisor	Industrial advisor
1	Design of a network jitter regulator for advance tele-robotic systems.	1 19094 Syed waleed ahmed 2 19093 Kazim rizvi 3 19095 Syed hussain raza zaidi 4 19117 S M Amanullah	Dr. Riaz Uddin	Humayun Naveed Khan HHRCM lab NCRA NEDUET
2	Design of hybrid dynamic wireless electric vehicle charging network using serial-serial compensation method	1 19205 Abdul mohi khan 2 19204 Taimoor hayder 3 19202 Junaid saeed 4 19200 Muhammad saud khan	Engr. Arjumand Samad	
3	Data drive approach for parameters estimation of distribution system using deep neural network	1 19043 Sharjeel ahmed 2 19138 Muddasar mehmoood 3 19140 Hassan ali syed 4 19176 Ijlal akhtar	Engr. Shariq Sheikh	
4	Asset health monitoring model and visualization	1 19006 Aliza altaf 2 19015 Bisma mustafa 3 19018 Syeda zaufyshan shakeeb 4 19019 Ifrah saiffe	Dr. Umbrin Sultana	Engr Maham Siddiqui Assistant Manager KE
5	Monitoring and controlling of relay for power system protection using NODE MCU	1 19111 Hadiya iftikhar siddiqui 2 19098 Muneeza riaz 3 19020 Syed asad ijtaba rizvi 4 19327 Muhammad talal ashraf	Miss Hafsa Wahid	
6	Design of calculator for adequate sizing of battery energy storage system and algorithm for its charging and discharging.	1 19134 Syed moavia zahoor 2 19118 Muhammad faizan ahmed 3 19129 Muhammad yasir iqbal 4 19096 Aeman waseem	Engr. Najia Naveed	Naseer Ahmed Sr. Engineer

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7	Modeling and optimization of electric vehicle charging station powered by green hydrogen	1 19100 Wania salahuddin 2 19110 Fatima shakir 3 19108 Kashaf nizam 4 19090 Syed mubashir hussain	Dr. Umbrin Sultana	
8	Prognostic analysis of distribution transformer	1 19128 Humza maqbool 2 19017 Ramsha waseem 3 19044 Syed muhammad ali jafri	Pro. Dr. Saad Ahmed Qazi	Dr. Majida Kazmi
9	To design and implement a floating solar pv system	1 19042 Muhammad shaheer shahid 2 19041 Muhammad mishraz hussain 3 19028 Faraz ahmed 4 19022 Abdul wahab	Dr. M. Mohsin Aman	
10	State of Charge (SoC) and State of health (SoH) estimation of Lithium ion battery using UNSCENTED Kalman filter.	1 19193 Tooba siraj 2 19189 Nargis 3 19190 Aafia saeed 4 19191 Nashrah pervez	Dr. Hammad Uddin	
11	Design a power quality monitoring system (PQMS) based on EN50160	1 19123 Abdullah 2 19166 Balach iqbal 3 19029 Aftab ali 4 19161 Ifra sohail	Dr. Raja Masood Larik	Ahsan Bin Zahid Engineer Sales Jubilee Corporation
12	Optimal pricing scheme and allocation of an EVCS with dynamic load in radial distribution system	1 19132 Muhammad wasif 2 19115 Muhammad junaid 3 19127 Umer mehmoed 4 19114 Syed anas imam	Dr. Abdurrahman Javid Shaikh	
13	Power Outage Detection and localization model on low voltage distribution network.	1 19046 Muhammad bilal 2 19309 Ali asghar 3 19072 Muhammad haris 4 19213 Muhammad hamza irshad	Engr. Ayesha Khan	Muffadal Ali

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14	Design of dynamic wireless electric vehicle charging system using compensation network for improved efficiency	1	19079	Muhammad hammad khalil	Dr. Umbrin sultana	
		2	19066	Ghulam mustafa adamjee		
		3	19069	Muhammad arbab ahmed khan		
		4	19082	Muhammad hamza zakir		
15	Design and development of cpap/bi-pap respiratory assistive device	1	19192	Ushna javed	Dr. Riaz uddin	Humayun Naveed Khan HHRCM lab NCRA NEDUET
		2	19210	Muhammad haris		
		3	19216	Muhammad hamza tahir		
		4	19220	Muhammad talha		
16	Design of a new online condition monitoring technique of surge arresters.	1	19014	Syeda sakina haider	Dr. Abdullah Muneer	
		2	19012	Umme aaiman		
		3	19016	Hania ahmed		
		4	19010	Syeda khansa shakeel		
17	Designing of renewable hybrid mix of wind & solar energy for steel industry.	1	19101	Hamna afaque	Dr. M. Mohsin aman	Abubakar Ismail
		2	19097	Izma shaikh		
		3	19099	Mahnoor rao		
		4	19103	Wajiha fatima		
18	Fault localization in three phase 11kv power transmission system using Deep neural network	1	19037	Syed abdullah zaidi	Dr. M. Mohsin aman	Ahmed Ashraf Research Assistant PV testing Lab
		2	19036	Mohammad ahmed khan		
		3	19031	Muhammad usama		
		4	19179	Muhammad ahsan khalid		
19	Design development and performance analysis of sun tracking algorithm for single-axis solar tracking system without sensors	1	19141	Musheer hassan khan	Dr. M. Mohsin Aman	
		2	19186	Aamna syeda		
		3	19229	Muhammad shahzain khan suri		
		4	19237	Muhammad usman farooqui		
20	Design of an on-grid solar system with hybrid capabilities using zero export device.	1	19169	Ahmed affan farooqui	Iqbal Azeem	
		2	19168	Abdul wadood		
		3	19177	Muhammad hammad ali		
		4	19231	Muhammad suenan alam		

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21	Development of interactive GUI for transmission system loss estimation using Artificial intelligence	1 19076 2 19060 3 19054 4 19075	Shahmeer khan Anushah nasi Yumnah fatima khan Muhammad nouman	Engr. Shariq Sheikh	
22	Smart social interaction robot for a commercial enterprise	1 19167 2 19253 3 19147 4 19153	Wajahat ullah Syed basim ahmed kazmi Iqra asif siddiqui Anusha javed	Dr. Riaz Uddin	Syed Murtaza Hassan Kazmi
23	Plant leaf disease detection using transfer learning-based deep ensemble neural network	1 19223 2 19227 3 19251 4 19225	Ehtisham khan Abdul rahman memon Sheikh Talal Ahmed Umer faraz	Muhammad Omar	
24	Smart Underground cable fault detection system	1 19131 2 19175 3 19234 4 19232	Muhammad ashar shah temuri Muhammad sharib nadeem Shozab haider Syed hassan majid	Engr. Najia Naveed	
25	Implementation of a Gait control algorithm for a Quadrupe Robot	1 19317 2 19201 3 19323 4 19319	Nabeel majeed Azhar jawaid Muhammad saad arshad Muhammad ahsan aamir	Dr. Riaz Uddin	Humayun Naveed Khan HHRCM lab NCRA NEDUET
26	Design and implementation of edge-computing based nilm system for residential consumers using combinatorial optimization (co) technique.	1 19233 2 19306 3 19255 4 19315	Muhammad adeel Hareem arshad Noveera baloch Fatima azhar	Muhammad Hassan ul Haq	
27	Formulating various Neural network models for photovoltaic fault detection and performance comparison.	1 19050 2 19062 3 19045 4 19068	Huda majeed Tehreem khan Abdul qadir ashraf Khuzaima sajid	Dr. Raja Masood Larik	Abu Bakr Ismail, Lead Manager, Power & Energy Projects

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28	Modified ABC algorithm.to Optimally place UPFs controllers for transmission efficiency enhancement	1	19163	Muzamil	Dr. Abdul Gani Abro		
		2	19222	Aneel kumar			
		3	19258	Amna			
		4	19252	Faraz ullah			
29	Controller of a 3-phase permanent magnet synchronous motor for an electric vehicle drivetrain	1	19021	Syed masroor ul haq	Dr. Syed quadir hussain quadri	Ali Rehan Sharif Jr. Hardware Engineer Dream Big Semi conductor Old CIS	
		2	19033	Mohammad umer hassan			
		3	19039	Inayat ali			
30	Implementation of a stada based self-driving cnn model on a remote controlled car	1	19236	Mohid hussain abbasi	Muhammad Omar		
		2	19230	Zain afzal			
		3	19235	Hafsah anjum			
		4	19302	Fizza anwar			
31	Design and implementation of an open-source phasor measurement unit(pmu) and phasor data concentrator (pdc) for academic and research Applications	1	19074	Syed muhammad minhaj naqvi	Muhammad hassan ul haq		
		2	19084	Daniyal ahmed farooqui			
		3	19070	Mohammad ashhad asif			
		4	19071	Mustufa siddiqui			
32	Deep learning techniques for wind power forecasting	1	19135	Syed hassan ali rizvi	Dr mirza muhammad ali baig		
		2	19137	Zeeshan arif			
		3	19165	Muhammad ameer qureshi			
		4	19171	Atharullah khan bangash			
33	An investigation into transformer based deep learning model for non- intrusive load monitoring (nilm)	1	19158	Aleema saleem	Dr. Mirza muhammad ali baig		
		2	19142	Ayesha kainat			
		3	19056	Nimrah			
		4	19049	Sualeha siddiqui			
34	Designing a universal controller to monitor the different battery management systems using iot gateway	1	19083	Syed ali abbas naqi	Dr. Umbrin sultana	S M hassan Askari R&D Engineer Tech Department	
		2	19078	Taha bin feroz			
		3	19085	Syed faizan hassan zaidi			
		4	19089	Kumail abbas			
35		1	19187	Ayesha ijaz	Engr. Ayesha Khan	Ms.Najia Naveed	

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	Voltage collapse prediction using Artificial Neural Network (ANN)	2	19146	Atiqa asif		
		3	19155	Ayesha urooj		
		4	19151	Taskeen junaid khan		
36	Design and implementation of three phase current source inverter with optimum voltage controlled technique	1	19212	Syed numair mubarak	Engr. Nabeel Fayyaz	Engr Hassan Ul Haq
		2	19203	Muhammad tehseen		
		3	19215	Abdul moiz qureshi		
		4	19217	Faraz neaz		
37	High impedance fault detection using convolution neural network in distribution system	1	19059	Zainab ayub khan	Dr. Beenish Sultana	Mr Kashif Iqbal Head Distribution Projects KE
		2	19048	Marium sarwar		
		3	19055	Wajiha raza		
		4	19061	Samia nasir		
38	Substation designing of 14 mw for hospital building-1 at indus hospital karachi.	1	19314	Israr ali jatoi	Engr. Shariq Sheikh	Mr.Haris Zahid
		2	19308	Fajr shariq		
		3	19312	Manum fatima		
		4	19244	Syed muhammad raza zaidi		
39	Modelling of a hybrid PV system for Grid stabilization	1	19032	Abubakar siddique	Dr.Abdullah Munir	Mr.Numair Nadeem, FFC, Instrumentation Dept.
		2	19027	Ayaz riaz		
		3	19024	Ayan saleem		
		4	19316	Jawad kk		
40	Home energy monitoring system using non-intrusive load monitoring technique	1	19009	Laiba javed	Dr. Umbrin sultana	Moiz Ahmed Product develop Engineer Consultant
		2	19038	Muhammad abubakar siddique		
		3	19040	Umair ahmed		
		4	19251	Sheikh talal ahmed		
41	Designing and fabrication of E-Axle motor for 2 wheeler and 4 wheeler electric vehicle.	1	19120	Abdul rauf hussaini	Dr. M. MohsinAman	Dr.Usman Allauddin, Associate Prof. ME Dept, NED
		2	19126	Muhammad hamza mujahid		
		3	19130	Muhammad anus khan		
		4	19124	Syed muhammad huzaifa		
42		1	19005	Syeda gul e zehra		

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	Design of a cost optimization algorithm for electrical substations based on ieee standard 80-2013	2	19013	Bushra laraib	Dr. Abdurrahman javid shaikh	
		3	19003	Sana moin		
		4	19008	Rabia ahmed		
43	Integration of hybrid supercapacitors and lithium ion phosphate battery in battery management system	1	19026	Umaid iqbal	Muhammad Uzair Khan	
		2	19023	Muhammad umer		
		3	19035	Yawar ali		
		4	19034	Jawad khan		
44	Hardware implementation and remote monitoring of solar charging station for Electric vehicle	1	19149	Rumela	Dr. Raja Masood Larik	Sir Abu Bakr ismail Lead manager Power & Energy Projects
		2	19157	Dure sameen		
		3	19199	Sara khan		
		4	19030	Faraz ahmed		
45	Dynamic model acceptance test on single machine infinite bus (smib)	1	19198	Asfa iqbal	Dr. Beenish Sultana	Hemant Parkash Sr. Power system consultant Siemens
		2	19185	Maryam hasan		
		3	19188	Hafsa anum		
		4	19197	Fiza altaf		
46	Modeling & Forecasting of Energy Demands of various sectors of Karachi, Rawalpindi and Islamabad using Leap Software using leap software.	1	19063	Noor ul ain jawed	Dr. M. Mohsin Aman	Engr Hafsa Wahid, EED, NED
		2	19053	Ayesha inam		
		3	19058	Wadia siraj		
		4	19144	Ayesha masood		
47	Revamping of electrical and control system of hot abrasive cut-off machine	1	19254	Mohammad shayan	Dr. Riaz Uddin	
		2	19250	Syed wali hasan		
		3	19242	Syed hassan ahmed		
		4	19241	Abdul wali		
48	MPPT based UPS inverter	1	19073	Musawar hussain	Dr. M. Mohsin Aman	Dr.Rizwan Aslam Butt
		2	19081	Ahsan samdani khan		
		3	19064	Shoaib ali rajpar		
		4	19087	Istinsar-ul-mohamen		
49		1	19245	Taha abdullah	Dr. M. Mohsin aman	

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	Double array solar panel automatic cleaning controller using iot modules	2	19301	Fizza shaikh		
		3	19246	Ayan javed		
		4	19228	Shaheer		
50	Novel cascaded seven level inverter with embedded voltage boosting for renewable energy applications.	1	19122	Mohammed talha khan	Engr. Hafsa Wahid	Abdul Rafay
		2	19113	Abdul rehman		
		3	19318	Muhammad shehryar		
		4	191321	Abdul wali		
51	Optimal design of HT and LT (primary and secondary) distribution network using CymeDist	1	19184	Shaheerah tahreem	Dr. Raja Masood Larik	Ghazanfar Rizvi Manager Network Planning
		2	19194	Aiman kamran khan		
		3	19195	Syeda hadiqa hashmi		
		4	19196	Inshal zia		
52	Analyze the best optimized solar solution from fixed tilted vs single axis tracking with lcoe for amreli steel ltd	1	19208	Syed ahmer imam	Dr. Krishan Lal Khatri	Abubakar Ismail
		2	19211	Osaid aqeel		
		3	19219	Arslan ahmed		
		4	19209	Osama usmani		
53	Vulnerability assessment of e2e based asr models by generating adversarial examples	1	19139	Hammad ali khan	Dr. Muhammad Javed	
		2	19136	Ali aman		
		3	19154	Syeda rujab hussani		
		4	19170	Moeed alam		
54	Design of a three phase standalone multi level inverter topology.	1	19104	Areeba abid	Muhammad Hammad uddin	
		2	19107	Ayesha urooj		
		3	19102	Mahma rauf siddiqui		
		4	19106	Usra inam		
55	To simulate electrical power system of a utility, load flow, shortcircuit, and arc flash of each associated component of a complete feeder.	1	19249	Ahmed bilal rizvi	Dr. Raja Masood Larik	Ghazanfar Rizvi Manager Network Planning
		2	19226	Syed rameez hasan		
		3	19247	Abdul baseer khan		
		4	19239	Muhammad bilal khan		
56		1	19311	Muhammad ismail	Dr. Abdullah Muneer	

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	To design a portable energy analyzer for the measurement of harmonics currents and line losses.	2	19310	Sahaab ali		
		3	19218	Hashir imran		
		4	19303	Taimoor maqbool		
57	Digitization of anemometer and wind vane for pakistan meteorological department	1	19240	Muhammad ali awan	Dr. Raja Masood Larik	
		2	19224	Muhammad jawad		
		3	19207	Daniyal shah		
		4	19214	Daud arif		
58	Control of Inverted Pendulum using Deep Reinforcement Learning	1	19148	Aleeshbah tehreem	Dr. Mirza Ali Baig	
		2	19159	Aliha arfeen		
		3	19145	Maryam naushad		
		4	19057	Shumaila iqbal		
59	Design and implementation of current control voltage source inverter	1	19307	Zain arshad	Engr. Nabeel Fayyaz	Muhammad Hassan Assistant Professor Electrical Dept
		2	19304	Muhammad musab		
		3	19305	Muhammad faraz		
		4	19313	Altamash		
60	Designing a battery energy storage system (BESS) Industrial grade simulator for different industrial applications	1	19067	Syed Abeer Ali	Dr. Umbrin Sultana	Moiz Ahmed Product developer Energy
		2	19086	Syed muhammad Bazil Aftab		
		3	19077	Muhammad Sami Arshad		
		4	19051	Ayesha Siddiqui		
61	Electrification of HB1 (hospital building1) at 400v of indus hospital karachi using IEC standards .	1	19143	Manal siddiqui	Dr. M. Mohsin Aman	Sir Haris Zahid
		2	19152	Syeda ayesha hashmi		
		3	19150	Rida kamal		
		4	19156	Sidra waheed pirzada		
62	Design and implementation of edge-computing based nilm system for residential consumers using k-means clustering technique.	1	19011	Rida tahir	Muhammad Hassan ul haq	
		2	19001	Marium mahmood		
		3	19002	Aiman amjad ali		
		4	19007	Omaima atif		
63		1	19112	Muhammad imadullah farooqui		

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	Design and development of a thermoelectric generator for domestic applications	2	19121	Mirza hassaan baig	Dr. Abdurrahman Javid Shaikh	
		3	19133	Muhammad maaz uddin		
		4	19105	Ayesha anwar		
64	Techno-economic Feasibility analysis of Hybrid system for the Electrification of Rural Area in Pakistan using HOMER Pro and MATLAB/Simulink.	1	19248	Muhammad hamza alam	Engr. Hafsah Wahid	
		2	19238	Kashaf ali		
		3	18017	M. Ahmed Khan		
65	Design and development of battery powered, fuel less and carbon footprint free 1kw electric generator.	1	19174	Muhammad motassim billah	Dr. Abdullah Munir	
		2	19178	Zahir hussain tunio		
		3	19324	Kashan ahmed		
		4	19243	Abdul basit		