

Department of Mechanical Engineering
 <ME-409> 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	Industry	Logo
1	Modeling, Simulation and Detailed Understanding of refueling System for Air to Air Refueling	ME-19083	Muhammad Huzaifa Owais	Dr. Tariq Jamil / Prof. Dr. Muhammad Shakaib	Pakistan Airforce Mr. Ehsan Squadron Leader	
		ME-19075	Muhammad Ali			
		ME-19171	Syed Anas Nisar			
		ME-19069	Muhammad Nasir Abdullah			
2	Coal Power Plant with Enhanced Ramping Capabilities Coupled with Various Energy Storage Systems	ME-19078	Ibrahim Pervez	Dr. Mubashir Ali Siddiqui	Engro Energy Mr Faisal Iqbal Siddique GM	
		ME-19050	Muhammad Shahbaz			
		ME-19051	Muhammad Hammad Ansari			
		ME-19067	Syez Zubair Akhter			
3	Design and Modification of Pulveriser and Mills for Utilization of Indigenous Thar Lignite in Imported-Coal Fired Power Plants	ME-19062	Asad Javed	Mr. Mirza Hammad Baig	Engro Energy Mr. Nabeel Khalid DM Projects	
		ME-19060	Muhammad Farman			
		ME-19079	Syed Usama Ali			
		ME-19062	Muhammad Hassan Abbas			
4	Design of Waste Heat Recovery Boiler on Gas Engine / Gas Turbine for Producing Super-Heated Steam for Steam Turbine	ME-19034	Masood Ahmed	Dr. Mubashir Ali Siddiqui / Mr. Mirza Hammad Baig	Razzaq Associates Mr Waseem Saeed Operations Manager	
		ME-19038	Muhammad Adnan			
		ME-19014	Owais Jameel			
		ME-19026	Aftab Ahmed			
5	Modeling and Simulation of Cockpit Avionics Mounts and its Optimization Using DOE Approach in ANSYS for	ME-19040	Muhammad Alqamah	Dr. Mubashir Ali Siddiqui / Dr. Tariq Jamil	Pakistan Airforce Mr. Ehsan Squadron Leader	
		ME-19039	Mubashir Ahmed			
		ME-19035	Areeb Bin Azhar			

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	Air-Crash Worthiness	ME-19044	Muhammad Shoib Mushtaq		
6	Development of Small-Scale Solar Desalination System	ME-19150	Anus Ahmed	Dr. Haider Ali	n/a
		ME-19136	Abdul Wahab Anwar		
		ME-19157	Nihal Ahmed		
		ME-19170	Muhammad Junaid Javeed		
		ME-19165	Muhammad Huzaifa		
7	Multi-scale Modeling and Simulation of Sub Micro Channel Flow for the Cooling of Microprocessors Containing Nanoparticle Induced Refrigerants	ME-19177	Ghulam Fareed	Dr. Tariq Jamil	n/a
		ME-19138	Hamiz Salahuddin		
		ME-19146	Muhammad Hateem Arif		
		ME-19092	Muhammad Rabi Uddin		
8	Particle velocimetry using a machine learning approach for flow channels in process industries	ME-19132	Syed Haris Uddin	Dr. Mumtaz Hussain Qureshi / Dr. Uzair Yousuf	n/a
		ME-19112	Abdullah Masood		
		ME-19100	Muhammad Wajih Uddin		
		ME-19041	Muhammad Nadeem Hashmi		
9	To design Storage Tank for Paraxylene (PX) Transfer from Port Qasim to Plant Site	ME-19010	Muhammad Hasnain Khokhar	Mr Shaukat Ali Sheikh	
		ME-19028	Muhammad Hamza Saleem		
		ME-19019	Syed Naquish Hussain Shah		
		ME-19074	Abdul Wahab		
10	Renewable Energy System Designing and Plant Optimization	ME-19047	Noor Ul Huda	Dr. M. Ehtesham ul Haque/ Mr. Ahsan Ahmed	
		ME-19063	Syed Hammad Ali		
		ME-19073	Muhammad Shafae Qureshi		
		ME-19077	Monis Anees		
11	Techno-Economic Analysis of Renewable Energy Sources in comparison with Hydrocarbon Exploration	ME-19081	Mohammad Huzaifa khan	Dr. Syed Ahmad Raza / Dr. Haider Ali	
		ME-19076	Muhammad Ayan Ahmed		
		ME-19066	Syed Muhammad Sameer Raza		
		ME-19033	Muhammad Mubashir Alam		
12	Design and Fabrication of Multipurpose Mechanical Test Rig for	ME-19042	Hamza bin Zahid	Mr. Osama Anis	
		ME-19013	Faizan Ali		

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	Electric Vehicles	ME-19007	Muhammad Asim Khan		
13	Thermal and Mechanical Design of 5 Ton Biomass Boiler using ASME Codes	ME-19006	Abdul Rafay Siddiqui	Dr. Mubashir Ali Siddiqui/ Mr. Mirza Hammad Baig	 Razzaq Associates Mr Waseem Saeed Operations Manager
		ME-19305	Midha Qavi		
		ME-19011	Muhammad Moiz Nadeem		
		ME-19025	Moaaaz Ahmed Ansari		
14	Design of HVAC System for a multistory building with energy analysis and BIM (ME&P)	ME-19093	Abdullah Tariq	Dr. M. Ehtesham ul Haque	SEM Mr Saad Israr Mechanical Design Engineer
		ME-19125	Muhammad Daniyal Ishtiaq		
		ME-19091	Muhammad Jawad		
		ME-19130	Zain ul Abideen		
15	Design of 360 Degree Rotating Fire Protection System	ME-19089	Muhammad Mazher	Mr. Muhammad Azam / Mr. Zain Shahid	n/a
		ME-19118	Umer Bin Masood		
		ME-19116	Muhammad Zulqarnain Shoaib		
		ME-19098	Muhammad Shayan		
16	Static Aero-elastic Analysis of High Aspect ratio composite wing based on Numerical Methods	ME-19301	Sarosh Mahboob	Dr. Tariq Jamil	n/a
		ME-19308	Muhammad Hassan Khan		
		ME-19306	Syed Hammad Khalid		
		ME-19302	Muhammad Asim		
17	Design and Feasibility Study of a Cooling Water System for Refinery Units.	ME-19015	Syed Adil Ali	Dr-Ing Usman Allauddin	 Cnergyico Pk Limited Mr. Ikramullah Shah
		ME-19022	Shoaib Shoukat		
		ME-19005	Syeda Hijab-e-Fatima Rizvi		
		ME-19031	Zuhair-ul-Rehman Arain		
18	Design of Steel Structure Gantry for filling of Tank Lorry with Allied Pipeline Works	ME-19045	Tayyaba Rahim	Dr. Mubashir Ali Siddiqui / Mr. Talha Bin Nadeem	 Pakistan State Oil Mr Faisal Chishti Senior Manager Projects
		ME-19087	Muhammad Taha Irfan		
		ME-19070	Ubaid ur Rehman		
		ME-19186	Huzaifa Hussain Qureshi		
19	Analysis of Performance and Emissions of a Diesel Engine	ME-19226	Zaki Ahmed	Prof. Dr. Muhammad Shakaiib	Dr. Mehmood Ali (Environment)
		ME-19227	Talha Ahmed		

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	Powered by Fish Waste Bio-diesel	ME-19240	Huzaifa Iftikhar		Engg Dept) , Nutrifuels	
		ME-19242	Muhammad Absar Ahmed			
20	Thermo-Economic Analysis of Parabolic Trough Solar Collectors Driven Industrial Process Heating System for Textile Industries in Pakistan	ME-19046	Anoosha Arif	Dr. Muhammad Uzair	Energy Future Consultancy Ms. Rabia Zulfiqar	
		ME-19085	Muhammad Maaz			
		ME-19071	Daniyal Kaleem			
		ME-19064	Muhammad Abbas			
21	Techno-economic assessment of a hybrid renewable energy system	ME-19231	Osama Mahfooz	Dr. Uzair Yousuf	n/a	
		ME-19219	Muhammad Hamza Malik			
		ME-19223	Muhammad Rafay Naeem			
		ME-19221	Muhammad Abeer Khan			
22	Mechanical Characterization of PVDF Thin Films on Polymer Substrate	ME-19003	Arisha Zafar	Dr. Murtaza Mehdi	n/a	
		ME-19004	Zahra Ashfaq			
		ME-19110	Syed Mujtaba Hasan Kazmi			
		ME-19154	Syed Umair Anwer			
23	Environment based wear testing of additively manufactured surfaces	ME-19137	Muhammad Shayan Siddiqui	Dr. Muhammad Muzammil	n/a	
		ME-19175	Muhammad Zeeshan Ahmed			
		ME-19303	Muhammad Ahmed Raza			
		ME-19143	Ibad Ur Rahman Baig			
24	Energy, Exergy, Economic and Environmental (4E) analyses for a 660 MW Coal Power Plant	ME-19248	Arhum Ahmed	Dr Uzair Yousuf / Dr. Mubashir Ali Siddiqui	KEPCO Mr Ahsan Alam Incharge Operations	
		ME-19131	Syed Areeb Ahmed			
		ME-19176	Ameer Hamza			
		ME-19225	Huzefa Bin Aqeel			
25	Design and Development of a Device to Recover Maximum Energy from Flash Steam Currently being vented from Exhaust of Feed Tanks and Condensate Header Exhaust	ME-19054	Syed Mubashir Ahsan	Dr. M. Ehtesham ul Haque	Feroze 1888 Mr Syed Osama Ali.	
		ME-19048	Lamia Masroor			
		ME-19053	Muhammad Yasaa Khan			
		ME-19065	Hamiz Ali Siddiqui			
26	Development of photovoltaic (PV)	ME-19158	Muhammad Suleman Saeed	Dr. Haider Ali / Mr. Syed	n/a	

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	panel cleaning mechanism	ME-19139 ME-19103 ME-19102	Muhammad Danish Khan Abdul Rafay Haider Khan Muhammad Ahmad Khan	Umair Hassan		
27	Design and Optimization for Revamping of Powder Paint Plant for Switch gear Production Design and Development of Multi degree Freedom Robotic Arm for Paint Shop	ME-19049 ME-19055 ME-19080 ME-19056	Waasay Ali Khan Abdul Wahab Khan Mohammad Aqib Tahseen Muneeb Abid	Dr. Mubashir Ali Siddiqui / Mr. Osama Anis	Siemens Mr. Daniyal Khan	SIEMENS
28	Experimental Optimization of Condensate Yield on a Solar-powered Atmospheric Water Generator (AWG) for Sustainable Portable Water Supply	ME-19088 ME-19197 ME-19173 ME-19153	Majid Munir Arsalan Ahmed Kolachi Asad Yousafzai Abdullah Aslam	Dr. Mubashir Ali Siddiqui / Mr. Anique Azam	Higher Education Commission	
29	Design of Fire Fighting System for Installation in accordance with NFPA and OGRA Codes / Standards	ME-19134 ME-19166 ME-19133 ME-19319	Muhammad Yameen Anas Ahmed Ansari Muhammad Usman Sami Khan Muhammad Hassan Siddique	Dr. Mubashir Ali Siddiqui / Mr. Arshad Siddiqui	Pakistan State Oil Mr Faisal Chishti Senior Manager Projects	
30	Performance Evaluation of Portable Solar Photovoltaic (PSPV) System	ME-19124 ME-19114 ME-19095 ME-19115	Zeeshan Chaudry Muhammad Talha Nasir Taha Ahmed Khan Muhammad Rafay Khursheed	Mr. Ahsan Ahmed	n/a	
31	Design and Development of a Flywheel Storage System (including Bearing Design, Rotor Design, Casing/Structure Design, and Motor Selection)	ME-19094 ME-19113 ME-19090 ME-19121	Al Aqmar Abbas Ali Khubaib Ahmed Hanzala Baqai Muhammad Mustafa Khan	Dr. Mubashir Ali Siddiqui / Mr. Osama Anis / Mr. Muhammad Umar Khan	n/a	
32	Energy Audit of Steam System and Thermal Oil Heater System for a Textile Industry Boiler	ME-19108 ME-19105 ME-19104	Muhammad Yousuf Khan Syed Amar Mushtaq Ammar Ahmed Siddiqui	Dr. Mubashir Ali Siddiqui/ Mr. Saqib Sharif	Razzaq Associates Mr Waseem	

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		ME-19120	Tariq Khan	Saeed Operations Manager	
33	Experimental Investigation of Solar Thermal Desalination Unit	ME-19161	Muhammad Khizar Arif	Prof. Dr. Muhammad Shakaib	n/a
		ME-19159	Owais Uddin		
		ME-19169	Muhammad Uddin		
		ME-19147	Shahzaib Sajid		
34	Development of Thermoelectric Generator (TEG) based waste heat recovery systems for various applications	ME-19099	Shahzaib Goya	Dr. Syed Ahmad Raza / Dr. Haider Ali	n/a
		ME-19107	Ebad-Ur-Rahman Khan		
		ME-19119	Ayan Yousuf		
		ME-19111	Abdul Moiz Jamil		
35	Reliability Improvement and Asset Management of CNC Machines for Switch gear Production	ME-19234	Abdul Raziq	Mr. Umaid Ghouri	Siemens Mr. Syed Waheeduddin
		ME-19237	Syed Muhammad Yawar Rizvi		
		ME-19229	Hamza Ahmed		
		ME-19224	Muhammad Usman		
36	Structural and Vibrational Analysis of a dumpster truck chassis	ME-19230	Faakhir Adil	Mr. Imran Sikander	n/a
		ME-19245	Ali Jami		
		ME-19235	Syed Muhammed Wajahat Hussain Rizvi		
		ME-19239	Hafiz Muhammad Shijaan Ali		
37	Feasibility of using supercritical CO ₂ cycle for a 660 MW Coal Power Plant	ME-19183	Muhammad Shariq Shamsi	Dr. Mubashir Ali Siddiqui / Mr. Asad Akhter	KEPCO
		ME-19220	Faizan Zafar Siddiqui		
		ME-19200	Shahzaib Naseeb		
		ME-19208	Osama Ahmed		
38	Reliability based Condition Monitoring of a Critical Equipment of Cement Plant	ME-19215	Shaharyar Ali Khan	Dr. Kashif Noor	Power Cement
		ME-19185	Muhammad Ahmed		
		ME-19082	Muhammad Zeeshan		
		ME-19192	Ali Hyder		
39	Development of a Hybrid Dual Fired	ME-19213	Muhammad Aashir Aleem	Mr. Shoukat Ali Sheikh /	Industrial &

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	Absorption chiller for reduced Carbon Footprint	ME-19212 ME-19317 ME-19211	Mir Muhammad Umar Farooq Muhammad Akhtar Haseeb Ehsan	Mr. Anique Azam	Mechanical Engineers (Pvt) Ltd Mr Sajjad Ghani Mr Sajid Abbas	
40	Thermal performance parameters estimation of parabolic trough collector system by using artificial neural network.	ME-19178 ME-19204 ME-19202 ME-19217	Shahzeb Farooq Muhammad Shahzaib Waseem Talha Zahid Haseeb Khan	Mr. Syed Aun Ali Rizvi	n/a	
41	The characterization and Mother-Physical property investigations of SiO ₂ /R-600 Nano-Refrigerants	ME-19179 ME-19198 ME-19214 ME-19196	Muhammad Bilal Jamil Junaid Ahmed Osama Abdul Majid Abdul Wahid	Dr. M. Ehtesham ul Haque	n/a	
42	Design of a Hybrid Powered (Solar PV and Electric) Shuttle for reducing Carbon Footprint	ME-19096 ME-19097 ME-19117 ME-19126	Muhammad Daniyal Khan Asim Ramzan Faraz Amir Irfan Samad	Mr. Ahsan Ahmed	AKUH Mr. Ali Abidi	 The Aga Khan University Hospital
43	Utilization of Sawdust Ash (Carpentry Waste) as supplements of cements in concrete and study its Mechanical Properties.	ME-19304 ME-19164 ME-19140 ME-19149	Muhammad Ashar Abdul Arham Khan Muhammad Usman Muhammad Ubair Hussain	Ms. Ifrah Asif	n/a	
44	Design of Green Buildings Integrating Net Zero Energy Concept	ME-19027 ME-19086 ME-19068 ME-19057	Sulaiman Khalid Khuzaima Baqai Muhammad Owais Ishfaq Ahmed	Ms. Bushra Fatima	Footprint Canada; KMNR Engineering (Pvt.) Limited (Mr Shaheen Asif)	
45	Design A Conventional HVAC System For A Shopping Mall In	ME-19163 ME-19174	Muhammad Umar Saqib Shah Afridi	Mr. Duraid Uddin / Ms. Bushra Fatima	MB ASSOCIATE	

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	Comparison With Green Building Design.	ME-19084 ME-19168	Hammad Hussain Hamza Iftiqar	Mr. Burair Raza Director	
46	Prospects of Photovoltaic (PV) Application in Unregulated Building Rooftops in Karachi, Pakistan	ME-19182 ME-19216 ME-19203 ME-19206	Muhammad Ibtisam Nasih Abdul Rafay Aun Abbas Majoka Syed Ali Turab	Mr. Ahsan Ahmed	n/a
47	To Design a Thermal Desalination System for a Textile Industry	ME-19058 ME-19037 ME-19017 ME-19058	Moiz Khan Abdullah Abdul Majid Arsalan Kareem Aqib Rehman	Prof. Dr. Muhammad Shakaib/Mr. Saqib Sharif	Artistic Milliners Mr. Affan
48	Implementation of Lean Six Sigma Manufacturing tools on shocks and struts plant	ME-19187 ME-19184 ME-19218 ME-19205	Syed Yashal Ahmed Nasr Haider Qari Muhammad Hassan Nafees Syed Muhammad Huzaifa	Ms. Ifrah Asif	Agriautos Limited Mr. Muhammad Sumair, Deputy General Manager
49	To Design and Integrate Nano-Technology to foster advance anaerobic digestion process for the development of Org-Nano Fertilizer and Biogas	ME-19036 ME-19181 ME-19016 ME-19029	Fida ur Rehman Muhammad Hussain Asif Osama Sattar Asfand yar	Dr. Muhammad Uzair	Dr. Muhammad Azeem (Assistant Professor, KU) , Dr. Asad Ali Zaidi (Chairman Mechanical Engg Dept, HMU)
50	Design and Fabrication of Emergency braking system in Four-Wheeler	ME-19194 ME-19191 ME-19195	Hamza Ejaz Ahmed Abdullah Nouman Mustafa	Mr. Muhammad Azam / Mr. Imran Sikander	n/a
51	Design of Inlet Air Cooling System for Turbine using ASTM Standards	ME-19152 ME-19145 ME-19018 ME-19155	Syed Anas Ahmed Syed Sohaib Hassan Rabee Ajiaz Muhammad Abdullah Khan	Mr. Mirza Hammad Baig	K. Electric Limited Mr Mashood Ahmed Deputy Manager
52	Develop a forecasting model for wind	ME-19141	Syed Ubaid Ur Rehman	Dr. Kashif Noor /	Orient Energy

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	power mill using Matlab / Python	ME-19151 ME-19144 ME-19320	Ghous Raza Khan Hammad Raza Rizvi Muhammad Owais Siddiqui	Dr. Uzair Yousuf	Systems. Pvt. Ltd Mr. Sajjad Naseem	
53	Design and Fabrication of Water Wheel Coupled with Wind Mill	ME-19236 ME-19222 ME-19228 ME-19233	Maaz ur Rehman Muhammad Arslan Akbar Ahmed Affan Tariq Lutfi Muneeb			
		ME-19256 ME-19257 ME-19254 ME-19252	Adaish Lal Hanifullah Talha Aslam Sajjad Ahmed	Mr. Syed Umair Hassan	n/a	
		ME-19307 ME-19002 ME-19001 ME-19250	Muhammad Daniyal Shahid Areeba Kamil Khan Dua Sami Owais Arshad			
		ME-19318 ME-19312 ME-18005 ME-19315	Ali Jahangir Muhammad Talha Qazi Muhammad Fayyaz Syed Abdullah			
55	Design and Analysis (Stress, Thrust and Energy) of Utility Piping System for Spinning Operation	ME-19008 ME-19023 ME:19024 ME-19012	Saad Tufail Aqib Hussain Usama Bin Tayyab Masood Ahmed	Mr. Arshad Siddiqui / Ms. Ifrah Asif	Lucky Textile Mr. Muhammad Nabeel Khalid	
		ME-19249 ME-19232 ME-19238 ME-19241	Muhammad Amir Shaikh Rehan Ali Muhammad Shehzad Awais Ali			
		ME-19109	Ali Akbar			
57	Design a Mechanical and Plumbing System For A High-Rise Building	ME.19024	Mr. Duraid Uddin	MB ASSOCIATE (Mr Muhammad Bilal Director)		
		ME-19012				
		ME-19008				
		ME-19023				
58	Design and Energy Analysis of the Mechanically Structured Solar Powered EV Charging Stations.	ME-19249 ME-19232 ME-19238 ME-19241	Mr. Talha Bin Nadeem	n/a		
		ME-19109	Ms. Ifrah Asif			
59	Mechanical Characterization of					

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	blending Thermoplastics with Organic Materials	ME-19030 ME-19106 ME-19101	Abdul Rauf Ahmed Arif Danish Ali Khan			
60	Investigation of Heat Transfer enhancement and flow structures in a novel threaded nozzle Impinging Jets	ME-19043	Muhammad Omer Ali Siddiqui	Dr. - Ing. Usman Allauddin	n/a	
		ME-19207	Muhammad Usman Ali Siddiqui			
		ME-19311	Muhammad			
61	Analysis (Structural and Thermal) and Parametric Optimization of Bus bars and Cable Compartment of Switch gears	ME-19251	Jitesh Kumar	Dr. Mubashir Ali Siddiqui / Mr. Osama Anis	Siemens Mr. Suleman Rias	
		ME-19243	Talha Saleem			
		ME-19180	Abdul Wahab			
		ME-19246	Abdul Qadeer			
62	Performance Analysis of a Membrane Desalination Plant in a Textile Industry	ME-19122	Ali Hammad	Mr. Saqib Sharif / Prof. Dr. Muhammad Shakaib	Artistic Milliner	
		ME-19127	Asad Raza			
		ME-19128	Shaharyar Tahir			
		ME-19129	Saad Hafeez			
63	Energy generation forecasting of rooftop Photovoltaic (PV) system based on real-time data	ME-19210	Syed Talha Qamar	Mr. Talha Bin Nadeem	n/a	
		ME-19201	Muhammad Adeel Siddiqui			
		ME-19188	Hyder Ali			
		ME-19309	Hasan Muneeb Khan			
64	Experimental and Numerical study of Double Pipe Heat Ex-changer with different Fins configuration	ME-19135	Syed Anas Ahmed	Dr. Muahmmad Uzair	n/a	
		ME-19156	Syed Zaryab Zaidi			
		ME-19123	M. Yahya Aziz			
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