

Department of Mechanical Engineering
<ME-409> Final Year Design Project
Project List



F/SOP/FYDP 02/03/00

Batch: 2020

Semester: Fall 2023

S.No	Project Title	Student Name		Supervisor/Co-Supervisor	Industry
1	Modification in existing Drogue for Air Refueling of Multiple Aerial Platforms	1	ME-20045 Izhan	Dr. Tariq Jamil / Dr. Usman Allauddin	Pakistan Airforce
		2	ME-20194 Furqan		
		3	ME-20144 Hasnain		
		4	ME-20204 Syed Abdullah Ali		
2	Development of a Digital Twin Framework for Turbomachinery	1	ME-20180 Muhammad Shaneel	Dr. Haider Ali / Dr. Syed Ahmad Raza	ASHOMCo- Saudi Aramco Co-Generation Plant
		2	ME-20213 Muhammad Hamza Khan		
		3	ME-20211 Muhammad Hamza Farooq		
		4	ME-20215 Muhammad Hamza Khan		
3	Feasibility study for possibility of use of Aeroengine as ground jet propulsion unit.	1	ME-20162 Usama Ur Rehman	Dr. Syed Muhammad Asad Akhter	Pakistan Airforce
		2	ME-20148 Muhammad Faizan		
		3	ME-20132 Syed Asjad Zaman Farooqui		
		4	ME-20157 Muhamamad Arfeen Khan		
4	Development of an Internet of Things (IoT)-based system for Indoor Air Quality and Energy Management of HVAC System	1	ME-20074 Mubbashir Malick	Dr. Haider Ali / Mr. Syed Umair Hassan	ASHRAE Funded
		2	ME-20073 Muhammad Mubashir		
		3	ME-20304 Absar Shakeel		
		4	ME-20054 Arqum Khan		
5	Machine Vision-Enabled Autonomous Fire Detection Vehicle	1	ME-20175 Syed Muhammad Haris	Dr. Haider Ali / Mr. Syed Umair Hassan	ASHOMCo- Saudi Aramco Co-Generation Plant
		2	ME-20196 Muhammad Mairaj Naseem		
		3	ME-20198 Muhammad Zul Norain		
		4	ME-20178 Zaem		
6	Multi-objective Optimization of	1	ME-20033 Muhammad Sameer	Dr. Syed Ahmad Raza	Mr. Hassaan Ahmed, Deputy
		2	ME-20029 Muhammad Hammad Ali Shaikh		

Department of Mechanical Engineering
<ME-409> Final Year Design Project
Project List



F/SOP/FYDP 02/03/00

	Solar Thermal Energy Systems	3	ME-20017	Muhammad Hammad Ghouri		Chief Engineer (Production), Pakistan Petroleum Limited (PPL)
		4	ME-20024	Hussain Haideri		
7	Energy and Cost Analysis for conversion of Existing Diesel to Electric Vehicle Trucks for Mining Operations	1	ME-20185	Abdul Rauf	Mr. Osama Anis	Engro
		2	ME-20174	Ateeb Ahmed Khan		
		3	ME-20193	Syed Muhammad Ukasha		
		4	ME-20187	Muhammad Ahmed		
8	Development of Scheme /Process flow for development of O ring	1	ME-20137	Muhammad Haris	Dr. Tariq Jamil / Mr. Osama Anis	Pakistan Airforce
		2	ME-20145	Rehan Hyder		
		3	ME-20138	Abdul Haseeb Nasar		
		4	ME-20199	Abdul Rafey		
9	Design optimization and Development of Flywheel Energy Storage System (FESS)	1	ME-20098	Muhammad Usman Tariq	Prof. Dr. Mubashir Ali Siddiqui/ Mr. Osama Anis	Company Sponsored
		2	ME-20099	Khawaja Muhammad Muzammil		
		3	ME-20126	Maaz		
		4	ME-20130	Imad Khan Maroofi		
10	Techno-Economic Analysis of an Advanced Carbon Capture Device for Climate Mitigation in Pakistan	1	ME-20068	Saqib Shams	Dr. Haider Ali / Mr. Duraid Uddin	N/A
		2	ME-20075	Nomaan Akhtar		
		3	ME-20302	Muhammad Ali Karim		
		4	ME-20087	Muhammad Umair Naem		
11	Performance Enhancement of Photovoltaic Modules Using Nano-enhanced Phase Change Materials for Sustainable Energy Applications	1	ME-20001	Maliha Nadeem	Dr. Haider Ali / Dr. Syed Muhammad Asad Akhter	KFUPM
		2	ME-20004	Syeda Areesha		
		3	ME-20005	Imrozia Sarwar		
		4	ME-20141	Muhammad Taha Moazzam		
12	Integrated Design and Analysis of HVAC Systems for Industrial Building: A	1	ME-20095	Abdullah Rehan	Mr. Hammad Baig /	(Waqas Ashraf Manager Sales)
		2	ME-20108	Muhammad Mubashir Saleem Siddique		

Department of Mechanical Engineering
<ME-409> Final Year Design Project
Project List



F/SOP/FYDP 02/03/00

	Comprehensive approach towards Cooling Load Calculation, Chiller Selection and Equipment Design	3	ME-20109	Hassan Saleem	Dr. Muhammad Uzair	Smart Climate Solutions Pvt Ltd.
		4	ME-20240	Syed Muzammil Bin Shahabuddin		
13	Development of the Drone / Robot for Building Glass Wall Cleaning	1	ME-20030	Umar Iqbal	Mr. Imran Sikandar / Dr. Shehroze Tahir Khan	FPCL
		2	ME-20027	Manazir UIHaque		
		3	ME-20008	Mujahid Bis Saif		
		4	ME-20026	Husnain Mustafa Ansari		
14	Textile Waste as Biomass Fuel for Boiler for Steam Generation and comparison of Calorific Value of different Alternative Fuels	1	ME-20046	Sharjeel Ahmed Shakeel	Mr. Saqib Sharif / Mr. Abdul Mujeeb	Artistic Milliner (Pvt) Ltd Unit # 2
		2	ME-20055	Muhammad Uzair Shireen		
		3	ME-20051	Khizer Towheed		
		4	ME-20039	Irtifa Hussain		
15	Machine Learning Augmented Computational Fluid Dynamics	1	ME-20182	Hamza Mohiuddin Siddiqui	Dr. Syed Ahmad Raza / Mr. Syed Umair Hassan	N/A
		2	ME-20181	Hamza Ali Khan		
		3	ME-20173	Muhammad Saad Khan		
		4	ME-20172	Shajie Mustafa		
16	Development of Engineering Package and Hydraulic Analysis for Transportation of White Oil Product from PSO terminal 1 to 2 in Karachi	1	ME-20065	Sabeer Khan	Prof. Dr. Mubashir Ali Siddiqui / Mr. Anique Azam	PSO
		2	ME-20034	Syed Owais Azeem Ali		
		3	ME-20038	Umm E Rubab		
		4	ME-20060	Rehan Ahmed		
17	Design, Development and Testing of Drone Aerial Extravaganzas	1	ME-20177	Muhammad Yashfan	Dr. Tariq Jamil / Dr. Shehroze Tahir Khan	Dr. Muhammad Khurram (NCAI)
		2	ME-20184	Mirza Jawad Baig		
		3	ME-20176	Syed Muhammad Hamza Ali		
		4	ME-20179	Muhammad Hammad Iqbal		
18	Designing of Conveyor for Bitumen Drum Decanting Plant at National Refinery Limited	1	ME-20121	Muhammad Junaid Ahmed	Mr Saqib Sharif / Mr. Shaukat Ali Sheikh	Muhammad Hammad (Manager Engg) National Refinery Limited
		2	ME-20301	Saad Ahmed Qureshi		
		3	ME-20310	Hassan Shahid		
		4	ME-20097	Mubashir Ansari		

Department of Mechanical Engineering
<ME-409> Final Year Design Project
Project List



F/SOP/FYDP 02/03/00

19	Material Characterization for development of Perovskite Material and Production of PV Cell using Perovskite Material.	1	ME-20305	Muhammad Hashir	Dr. Muhammad Ehtesham ul Haque	N/A
		2	ME-20308	Muhammad Ahfaz Farooqui		
		3	ME-20307	Syed Muhammad Raza		
		4	ME-20195	Muhammad Ibrahim		
20	Design of a Waste Heat Recovery System from Industrial Internal Combustion Engine	1	ME-20171	Abdul Waris	Dr. Mumtaz Hussain Qureshi / Mr. Abdul Samad Khan	Mr. Mubashir Waseem, Indigo Textile Pvt Ltd
		2	ME-20152	Zaheer ud din		
		3	ME-20146	Muhammad Shariq		
		4	ME-20149	Muhammad Haris		
21	Design of HVAC System for a multistory building with Energy Analysis and BIM (ME&P)	1	ME-20203	Muhammad Saad	Dr. Muhammad Ehtesham ul Haque	N/A
		2	ME-20205	Shaher Yar		
		3	ME-20209	Naimat ullah		
		4	ME-20201	Faizan Ashfaq		
22	Design of Net Zero Energy Buildings for Mitigating the Effects of Climate Change	1	ME-20161	Ahsan Imran Rana	Prof. Dr. Mubashir Ali Siddiqui / Ms. Bushra Fatima	Footprint Canada; KMNR Engineering (Pvt.) Limited
		2	ME-20163	Syed Muhammad Yahya Kazmi		
		3	ME-20159	Muhammad Ahmed Inamdar		
		4	ME-20147	Muhammad Taha		
23	Techno-Economic assessment of Hydrogen production from renewable sources	1	ME-20035	Abdul Basit Shah	Dr. Muhammad Uzair Yousuf / Mr. Zain Shahid	N/A
		2	ME-20062	Rafay Tasleem Mallick		
		3	ME-20063	Muhammad Aniq Khan		
		4	ME-20059	Shayan Mahmood		
24	Aerodynamics Analysis of Small Horizontal Axis Wind Turbine Blades by Using 2D and 3D CFD Modelling	1	ME-20036	Sheikh Ali Ahmed	Dr. Muhammad Ehtesham ul Haque	N/A
		2	ME-20028	Muhammad Umer Azhar		
		3	ME-20032	Muhammad Haseeb Khan		
		4	ME-20189	Armughan Kashif		
25	Design and Feasibility Analysis for	1	ME-20135	Areeb Rizwan	Dr. Muhammad Shakaib /	Dr. Irfan
		2	ME-20143	Hassan Ali		

Department of Mechanical Engineering
<ME-409> Final Year Design Project
Project List



F/SOP/FYDP 02/03/00

	Collection of Metallic Dust with fumes and Waste gases from Electric Arc Furnace	3	ME-20002	Wania Basharat	Ms. Ifrah Asif	Mubeen (Peoples Steel Mill)
		4	ME-20006	Maria Jamal		
26	Design and Structural Analysis of Pre-Engineered shade	1	ME-20129	Muhammad Tarique	Dr. Tariq Jamil	Fida Husein & Associates
		2	ME-20124	Muhammad Ebaad		
		3	ME-20117	Khalid Bin Wali		
		4	ME-20249	Shah Faisal Hameed		
27	Develop a compact Solar-Powered Refrigeration system for storing essential medicines and vaccines for remote clinics	1	ME-20136	Muhammad Umar	Dr. Muhammad Uzair Yousuf	N/A
		2	ME-20155	Shujat Ali		
		3	ME-20156	Abeez Ullah Khan		
		4	ME-20150	Muhammad Hassan Ali		
28	Synthesis and Characterization of Bio Piezoelectric Thin Films	1	ME-20160	Muhammad Arham	Dr. Syed Murtuza Mehdi / Mr. Abdul Qadir	N/A
		2	ME-20134	Muhammad Shaheer Hussain		
		3	ME-20169	Abdul Hanan		
		4	ME-20142	Syed Muhammad Talal Haider		
29	Experimental Study of Geothermal Air Conditioner /Heat Pump	1	ME-20151	Zarrar Abdul Sattar	Dr. Syed Aun Ali Rizvi / Mr. Muhammad Muzammil Ejaz	N/A
		2	ME-20311	Shayan Saeed		
		3	ME-20164	Zaryab Shafqat		
		4	ME-20140	Syed Muhammad Zarrar		
30	Study and Design of Alternate Transportation Solutions of Finished Goods	1	ME-20183	Diyal Behzad Mirza	Mr. Saeed Ahmed / Mr. Duraid Uddin	(Mr. Daniyal Alam Manager - Manager Vehicle Quality) Atlas Honda Ltd.
		2	ME-20186	Bilal		
		3	ME-20212	Muhammad Ashar Amir Khokhar		
		4	ME-20206	Muhammad Rahim Zafar		
31	Improving Thermal efficiency of Heat Storage unit by using fins of	1	ME-20040	Areeba	Dr. Muhammad Uzair / Mr. Atif Shehzad	N/A
		2	ME-20088	Syed Muhammad Jawwad Ali		
		3	ME-20070	Haris Sohail		

Department of Mechanical Engineering
<ME-409> Final Year Design Project
Project List



F/SOP/FYDP 02/03/00

	high thermal conductivity materials	4	ME-20082	Muhammad Shees Adil		
32	Sustainable Utilization and Evaluation of Thar Coal Combustion Fly Ash at EPTL Plant	1 2 3 4	ME-20119 ME-20123 ME-20115 ME-20197	Syed Mubashir Ahmad Muhammad Owais Qamar Muhammad Atif Malik Muhammad Faizan	Prof. Dr. Mubashir Ali Siddiqui / Mr. Mirza Hammad Baig	Engro
33	Simulation of a Solar Driven Thermal Desalination Plant	1 2 3 4	ME-20222 ME-20223 ME-20218 -	Mustajaab Ahmed Abdurrahman Absar Owais Ali Khan -	Prof Dr. Muhammad Shakaib / Mr. Anique Azam	N/A
34	Cost analysis of of steam generation by using Bio mass as an alternative fuel for the Boiler and running 5 MW Steam Turbine.	1 2 3 4	ME-20053 ME-20066 ME-20048 ME-20061	Muhammad Mustafa Ahsan Syed Anas Kamran Muhammad Ehsan Afzal Muhammad	Mr. Saqib Sharif / Mr. Abdul Mujeeb	Artistic Milliner (Pvt) Ltd Unit # 2
35	Improving the performance of the Diffusion Absorption Refrigerating system using Artificial Intelligence	1 2 3 4	ME-20217 ME-20225 ME-20235 ME-20226	Syed Mehmood Ali M. Wajid Fuzail Sohail Ahmed Raza Khan	Dr. Muhammad Uzair / Dr. Noman Uddin Yousuf	N/A
36	Design and Fabrication of a Motor Bike Test Bench for Analysis of Durability of Engine and Transmission Parts	1 2 3 4	ME-20309 ME-20207 ME-20192 ME-20202	Maryam Naseem Syed Mohammad Mohsin Hafiz Muhammad Rameez Syed Umer Hasan	Ms. Erum Khan / Mr. Osama Anis	Mr. Ahsan Khan A-ONE TECHNIQUES (Pvt) LTD.
37	Heat Transfer performance investigation of Double Pipe Counter Flow Heat Exchanger with Nanofluids flow in Pipe	1 2 3 4	ME-20220 ME-20232 ME-20236 ME-20238	S M Umer Arif Siddiqui Muhammad Saad Obaidullah Hassan Mushtaq	Mr. Adeel Ahmed Khan	N/A
38	Energy-Economic-environmental	1	ME-20128	Ammar Asif	Mr. Talha Bin Nadeem	Mr. Ammar Akhtar-

Department of Mechanical Engineering
<ME-409> Final Year Design Project
Project List



F/SOP/FYDP 02/03/00

	(3E) analysis of solar PV distributed energy system for administration building of K-Electric Korangi Town Gas Turbine Power Station	2	ME-20125	Abdul Rafay		uz-Zaman Manager Maintenance Dept Korangi Town Gas Turbine Power Station K-Electric
		3	ME-20118	Rao Muhammad Sohaib		
		4	ME-20101	Ibtehaj Temuri		
39	Design and Performance Analysis of Passive Solar Still	1	ME-20058	Muhammad Saeed Un Nabi	Prof Dr. Muhammad Shakaib / Mr. Muhammad Anus	N/A
		2	ME-20042	Hiba Rao		
		3	ME-20306	Maha Imam		
		4	ME-20050	Muhammad Hassaan		
40	Design and Fabrication of Unmanned Surface Vehicle	1	ME-20208	Muhammad Ahmed Khan	Mr. Syed Umair Hassan	Dr. Bilal Ahmed Siddiqui WOOT TECH
		2	ME-20188	Hamza Muhammad Shareef		
		3	ME-20210	Hannan Ahmed Siddiqui		
		4	ME-20190	Muhammad Hassan Ahmed Lodhi		
41	Design an Air Conditioning and Ventilation system for Populous Facility	1	ME-20031	Somanullah Khan	Mr. Arshad Siddiqui	N/A
		2	ME-20016	Muhammad Ateeb		
		3	ME-20023	Shahmir Iftikhar		
		4	ME-20022	Umair Hussain Khan		
42	Designing of 6000 Tons Hydrocarbon (Petrol and Diesel) Storage Tanks with Loading and Unloading System as per regulatory rules of Pakistan	1	ME-20257	Muhammad Saad Khan	Dr. Kashif Noor / Dr. Shehroze Tahir Khan	Engr. M. Alim- ur-Rehman Global (PMC) (Pvt) Ltd.
		2	ME-20247	Usama Anees		
		3	ME-20242	Syed Qambar Abbas Jaffri		
		4	ME-20246	Moiz Sohail		
43	Development of Parametric Models to predict Global Solar Radiation	1	ME-20094	Abdul Ahad	Dr. Muhammad Uzair Yousuf	N/A
		2	ME-20091	Muhammad Mursal		
		3	ME-20096	Muhammad Fazeel Aqeel Ahmed		
		4	ME-20102	Muhammad Yasir		
44	Integrating HVAC, Fire and Plumbing Systems for Optimal	1	ME-20110	Muhammad Umar Khan	Mr. Arshad Siddiqui /	Mohsin-Ul-Haq, Project Manager
		2	ME-20116	Arqam Ahmed Hashmi		

Department of Mechanical Engineering
<ME-409> Final Year Design Project
Project List



F/SOP/FYDP 02/03/00

	Efficiency and Sustainability	3	ME-20120	Umer Nadeem Abdullah	Ms. Ifrah Asif	(WE MECH Engineers)
		4	ME-20165	Ibrahim		
45	Enhancement in thermal performance of Double Pipe Heat Exchanger by utilizing Nano particles	1	ME-20244	Junaid Iqbal	Dr. Muhammad Uzair / Mr. Atif Shehzad	N/A
		2	ME-20241	Behroz Ali Nazmi		
		3	ME-20250	Syed Zuhair Ali		
		4	ME-20227	Abeer Ahmed Khan		
46	Designing of Heating System for Bitumen Drum Decanting Plant	1	ME-20224	Saad Bin Arshad	Mr Saqib Sharif / Prof. Dr Muhammad Shakaib	Muhammad Hammad (Manager Engg) NRL
		2	ME-20237	Muhammad Hadi Kaleem		
		3	ME-20233	Shayan Wasi		
		4	ME-20239	Osama Shaukat Khan		
47	Performance investigation of Solar Thermal Energy Storage Technologies for the Solar Thermal System.	1	ME-20122	Syed Shazil Ali	Dr. Syed Aun Ali Rizvi	N/A
		2	ME-20127	Raahim Ahmed khan		
		3	ME-20100	Abdul Nafay Waseem		
		4	ME-20105	Muhammad Anas Rehman		
48	Testing, Optimization, and Installation of Twin Turbo Jet Engine.	1	ME-20253	Naveed Aslam	Mr. Muhammad Muzammil Ejaz	N/A
		2	ME-20248	Abdullah Hasni		
		3	ME-20228	Hafiz Syed Mubashir		
		4	ME-20234	Abdul Saboor Khan		
49	Design Fabrication and implementation of compact low cost AGV for tyre dolly movement from sub assy area to main line (tyre installation).	1	ME-20076	Syed Abdullah Ashraf	Mr. Mirza Hammad Baig	
		2	ME-20089	Muhammad Sohaib Mumtaz		
		3	ME-20166	Muhammad Schaheer Raza		
		4				
50	Design, Fabrication and Experimental Investigation on Thermal Performance of Solar Parabolic Dish	1	ME-20303	Muzammil	Dr. Muhammad Uzair / Mr. Shehzaib Yousuf Khan	
		2	ME-20077	Babar Ali		
		3	ME-20069	Muhammad Bilal		
		4	ME-20243	Ashar Zafar		

Department of Mechanical Engineering
<ME-409> Final Year Design Project
Project List



F/SOP/FYDP 02/03/00

51	Designing and Development of Extruder for Producing 3D Printer Filament	1	ME-20319	Syed Sarosh Arif	Dr. Tariq Jamil	
		2	ME-20316	Muhammad Fahad Afzal		
		3	ME-20104	Ali Jahangir		
		4	ME-20313	Ahmed Jawad Awan		
52	Techno-Economic Analysis for Nuclear Desalination (Co-generation) Plant by identification and utilization of Waste Heat from Nuclear Power Plants	1	ME-20081	Muhammad Farzan Khan	Dr. Muhammad Shakaib / Ms. Ifrah Asif	
		2	ME-20044	Laiba Ahmed		
		3	ME-20057	Abdullah Khalil		
		4	ME-19193	Omar Hameed Khan		
53	Modelling and Optimization of Tire Mold using CAE.	1	ME-20064	Hamza Ahmed Jamali	Dr. Muhammad Ehtesham ul Haque	
		2	ME-20072	Raahim Rehan		
		3	ME-20047	Muhammad Danial		
		4	ME-20049	Sameed Sarfraz		
54	Evaluation of the effectiveness of Antioxidant treatments on the Lipid Oxidation of Lubricating Oil.	1	ME-20168	Hammad Elahi	Dr. Syed Aun Ali Rizvi	
		2	ME-20167	Muhammad Mehdi Hani		
		3	ME-20131	Muhammad Haris Ahmed		
		4	ME-19317	Mr. Muhammad Akhtar		
55	Energy & Exergy Analysis of Refrigeration Systems	1	ME-20037	Hania Siddiqui	Mr. Adeel Ahmed Khan	
		2	ME-20071	Ezan		
		3	ME-20090	Muhammad Muneeb Mazhar		
		4	-	-		
56	Design and Development of a solar PV Panel to fulfill the power requirement of a Library Building	1	ME-20052	Roshan Ul Haq	Dr. Muhammad Ehtesham ul Haque	
		2	ME-20158	Taha Iqbal		
		3	ME-20041	Hooria Qadri Attari		
		4	ME-20216	Saqib Gill		
57	Designing and Fabrication of Autonomous Aerial Vehicle (AAV) for Surveillance of Agricultural	1	ME-20079	Faraz Ali	Ms. Erum Khan / Mr. Umaid Ghouri	
		2	ME-20043	Muhammad Afnan Luni		
		3	ME-20021	M.Muhtasham Tayyab Ghauri		

Department of Mechanical Engineering
<ME-409> Final Year Design Project
Project List



F/SOP/FYDP 02/03/00

	Land	4	ME-20078	Sabir Ullah Jan		
58	Design of a Mobile Crane for Mechanical Workshops	1	ME-20317	Sarem Sajjad Gillani	Ms. Erum Khan	
		2	ME-20252	Hamza Ahmed		
		3	ME-20229	Muhammad Abdullah Atif		
		4	ME-20245	M Huzaifa Ali		

FYDP Coordinator _____

FYDP Review Committee Head _____

Chairperson _____