



Department of Mechanical Engineering
Final Year Design Projects (Session 2022)



Sr. #	Final Year Design Project Title	Supervisor	Neutral Examiner	Registration Number	Students Name	Industrial Partner
1	Design and Development of Vacuum Gloves Box	Prof. Dr. Riffat Asim Pasha	Dr. Abid Hussain	22-ME-20	Muhammad Saad Baig	National Center of Physics (NCP) NINFAST
				22-ME-40	Mughees Amjad	
				22-ME-72	Muhammad Usman	
				22-ME-100	Muhammad Abdullah	
2	Design and Development of Vacuum Oil Dehydration Plant	Prof. Dr. Riffat Asim Pasha	Dr. Mubashir Gulzar	22-ME-42	Asad Ullah	National Center of Physics (NCP) NINFAST
				22-ME-63	Muhammad Salman	
				22-ME-95	Syed Faiz UI Hassan	
				22-ME-177	Muhammad Hannan Ahmad	
3	Investigation of Mechanical Characterization of Aluminum Graphene Nano-Composite	Prof. Dr. Riffat Asim Pasha	Dr. Amar UI Hassan Khawaja	22-ME-13	Muzamil Hussain	National Center for Non-Destructive Testing (NCNDT)
				22-ME-25	Ahsan Sharif	
				22-ME-29	Hafiz Muhammad Faizan	
				22-ME-33	Abdul Rehman	
4	Design and Development of Cooling Mechanism, Flanges and Hinges for Vacuum Furnace	Prof. Dr. Riffat Asim Pasha	Dr. Azhar Hussain	22-ME-12	Muhammad Usman	National Center of Physics (NCP) NINFAST
				22-ME-77	Wasif Rauf	
				22-ME-92	Saad Hassan	
				22-ME-172	Maaz Ahmed	
5	Detection and Characterization of Natural Defects in Welded Steel Plates and Forgings	Prof. Dr. Riffat Asim Pasha	Dr. Amar UI Hassan Khawaja	22-ME-23	Abdul Rehman	National Center for Non-Destructive Testing (NCNDT)
				22-ME-35	Afras Ahmad Saffi	
				22-ME-128	Bibi Shazia	
				22-ME-167	Muhammad Kamran Shoukat	
6	Investigation of Structural Response in Multiple Types of Solid Propellant Grain Geometries: A Parametric	Prof. Dr. Riffat Asim Pasha	Dr. Aneela Wakeel	22-ME-28	Muhammad Sumaid Naseem	
				22-ME-55	Bukht Ali	
				22-ME-76	Hafiz Muhammad Abdullah	
				22-ME-168	Muhammad Ali Ammar	
7	Piezocatalytic Conversion of Wastewater into Green Energy	Dr. Shahid Mehmood	Dr. Aneela Wakeel	22-ME-41	Shehryar Nadeem	
				22-ME-117	Ali Hasnain	
8	Design and Fabrication of Small Scale Hanging Platform	Dr. Shahid Mehmood	Dr. Azhar Hussain	22-ME-59	Muhammad Ali Ammar	
				22-ME-64	Muhammad Shahmeer Arshad	
				22-ME-68	Abdullah Rashid	
				22-ME-164	Sharjeel Raza	
9	Design and Simulation of Five Speed Gear Box	Dr. Shahid Mehmood	Engr. Abdul Mobeen	22-ME-105	Ahmad Faraz	
				22-ME-155	Hamza Malik	
				22-ME-189	Faizan Javed	
10	Investigation of Electric Discharge Machining Parameters on Bio Materials for Orthopedic Implantation	Dr. Shahid Mehmood	Engr. Muhammad Noman	22-ME-01	Ashiq Ali	
				22-ME-17	Zahid Abbas	
				22-ME-89	Rayyan Qaiser	
				22-ME-133	Ali Hassan Khan	

11	AI Driven Statistical Evaluation of Oil Degradation	Dr. Shahid Mehmood	Dr. Mubashir Gulzar	22-ME-24	Muhammad Khan	
				22-ME-30	Afaq Haider	
				22-ME-50	Hafiz Ahsan Mahmood	
				22-ME-74	Abdullah Abrar	
12	Physiochemical Analysis of Different Engine Oils	Dr. Shahid Mehmood	Dr. Muhammad Sajjad Sabir	22-ME-37	Aamir Waqas	
				22-ME-80	Amer Amman Kayani	
				22-ME-124	Ibtisam Haider	
				22-ME-144	Qaiser Abbas	
13	Lubricant Analysis of Diesel Fuled Engine	Dr. Mubashir Gulzar	Dr. Muhammad Usman	22-ME-67	Muhammad Umar Inayatullah	
				22-ME-96	Muzammil Ali	
				22-ME-147	Shamsullah	
14	Tribological Analysis of Degraded Engine Oil	Dr. Mubashir Gulzar	Dr. Shahid Mehmood	22-ME-69	Ahmed Hussain	
				22-ME-108	Faiez Khan	
				22-ME-129	Abdul Haseeb	
				22-ME-162	Umer Farooq	
15	Experimental Study of Modified Oil Filter Compatibility to SI Engine	Dr. Mubashir Gulzar	Engr. Abdul Mobeen	22-ME-31	Ayesha Shahbaz	
				22-ME-88	Iqra Muzaffar	
				22-ME-178	Zaib Ali	
16	Modofication of Engine Oil Filter to Control Acidity	Dr. Mubashir Gulzar	Dr. Abid Hussain	22-ME-61	Saqib Ali Chand	
				22-ME-65	Muhammad Bilal	
				22-ME-169	Haroon Abdullah	
				22-ME-181	Hashim Fawad	
17	Performance of Gasoline Engine at Different Loading Conditions using Dynamometer	Dr. Mubashir Gulzar	Dr. Azhar Hussain	22-ME-53	Waqas Hassan	
				22-ME-57	Muhammad Rizwan	
				22-ME-73	Muhammad Haseeb kayani	
				22-ME-97	Affaq Ahmed	
18	Influence of Tool Geometry on Surface Finish and Thickness Distribution in Incremental Forming	Dr. Rana Atta-ur-Rehman	Dr. Shahid Mehmood	22-ME-04	Muhammad Qasim Ali	
				22-ME-08	Muhammad Abdul Qayyum	
				22-ME-52	Khizer Aftab	
				22-ME-136	Abdullah	
19	Solar Powered Green Hydrogen Generation and Blending with LPG for Enhanced Fuel Efficiency	Dr. Abid Hussain	Dr. Najam Ul Hassan Shah	22-ME-14	Sarfraz Ali Jafar	
				22-ME-94	Muhammad Zayan	
				22-ME-154	Muhammad Tanveer	
				22-ME-158	Saqib Ali Awan	
20	Bio-inspired Hybrid Composite side-impact Beam for EV Battery Protection: FEA Simulation and Experimental validation	Dr. Abid Hussain	Dr. Muhammad Usman	22-ME-07	Areeba Fatima	
				22-ME-62	Pakeeza Imtiaz Janjua	
				22-ME-06	Mohhad Rehman	
				22-ME-109	Hafiz Sanaullah	
21	Analysis of an Economizer Based Heat Recovery System	Dr. Abid Hussain	Engr. Abdul Mobeen	22-ME-163	Muhammad Shoaib Tariq	
				22-ME-179	Ali Raza	
				22R-21-ME-171	Muhammad Fahad	
22	Thermal Management of Data Center By Single Phase Immersion Cooling	Dr. Abid Hussain	Dr. Javed Akhter	22-ME-46	Hamid Ali	
				22-ME-84	Zeeshan Ahmed	
				22-ME-156	Abdul Haseeb	
				22-ME-185	Ahmad Ullah	
23	Design and Fabrication of PCM Based Solar Dryer	Dr. Abid Hussain	Dr. Rana Atta ur Rehman	22-ME-137	Jaffar Tayyar	
				22-ME-141	Hamza Ahmad	
				22-ME-149	Muhammad Shahzad	
				22-ME-190	Muhammad Mahzoorah Imran	

24	Design and Development of 3D Printed Aerospace Parts	Dr. Aneela Wakeel	Dr. Ammar UI Hassan Khawaja	22-ME-54	Ali Hamza	
				22-ME-98	Ubaid ur Rehman	
				22-ME-134	Mujtaba Ahmed	
				22-ME-198	Mhammad Usman	
25	Design and Simulation of a Low Cost Counter Drone Framework	Dr. Azhar Hussain	Dr. Muhammad Sajjad Sabir	22-ME-93	Muhammad Abdullah umer	
				22-ME-148	Haider Alam Abbasi	
				22-ME-160	Muhammad Asim Sarfraz	
				22-ME-114	Abdullah Yousaf	
26	Solar powered Water Purification System	Dr. Azhar Hussain	Dr. Aneela Wakeel	22-ME-170	Muhammad Ibrahim	
				22-ME-180	Zulqarnain Hassan	
				22-ME-183	Shah Nawaz	
				22-ME-191	Muhammad Kashif	
27	Design of a Smart Ergonomic EV Bike	Dr. Azhar Hussain	Dr. Najam UI Hassan Shah	22-ME-143	Syed Muhammad Waleed Yousaf	
				22-ME-187	Muhammad Usman	
				22-ME-131	Ahtisham Ali	
				22-ME-159	Meesam Abbas	
28	Sensor Fusion Based Surveillance System for Real Time Tracking and Tragetting, to Protect the Farms, from Animals	Dr. Azhar Hussain	Dr. Muhammad Sajjad Sabir	22-ME-39	Muhammad Abaid Ur Rehman	
				22-ME-45	Muhammad Atiq ur Rehman	
				22-ME-111	Muhammad Anas Butt	
				22-ME-123	Saad Hussain	
29	Design of Spring at Low and High Velocity Impact	Dr. Azhar Hussain	Dr. Shahid Mehmood	22-ME-18	Abdul haseeb	
				22-ME-70	Mehmoob Ahmad	
				22-ME-90	Ali Imran	
				22-ME-115	Ali Shahryar	
30	Design and Filament Extrusion for Metallic 3D Printing	Dr. Muhammad Sajjad Sabir	Engr. Muhammad Sumair	22-ME-106	Muhammad Hattam Khan	
				22-ME-166	Abu Bakar Abbasi	
				22-ME-182	Muhammad Ahmed	
				22-ME-194	Abu Bakar Nisar	
31	Design Analysis and Simulation of Spiral Groove Air Bearings	Dr. Muhammad Sajjad Sabir	Dr. Mubashir Gulzar	22-ME-48	Pakeeza Kamran	
				22-ME-125	Uzair Amjad	
				22-ME-153	Mustafa Hassan	
				22-ME-157	Muhammad Rehan Faisal	
32	Multi-Physics Modelling for Performance Analysis of Optical, Electrical, and Thermal Behaviour of Building Integrated Bifacial PV Modelues	Dr. Najam UI Hassan Shah	Dr. Muhammad Usman	22-ME-139	Muhammad Salman	
				22-ME-195	Muhammad Ahmed Bin Afzal	
				22-ME-152	Muhammad Naflan	
				22-ME-78	Muhammad Jafar	
33	Design and Fabrication of Innovative Reverbarorty Furnace	Dr. Najam UI Hassan Shah	Dr. Azhar Hussain	22-ME-05	Dilawar Ali	
				22-ME-21	Muhammad Haseeb	
				22-ME-66	Muhammad Sohail	
				22-ME-145	Asad Ali	
34	Developmet and Optimization of integrated Solar PVT Heat Pump System for Heating, Cooling and Power Generation Through Ground Energy Source	Dr. Muhammad Usman	Dr. Abid Hussain	22-ME-22	Muhammad Hassan Khan	National Energy Efficiency and Conservation Authority (NEECA)
				22-ME-38	Muhammad Taha Tariq	
				22-ME-102	Hannan Amir	
				22-ME-110	Anas Sanaghar	
35	Design and Development of Solar-Assisted Integrated Air Conditioning and Dealination System	Dr. Muhammad Usman	Dr. Javed Akhter	22-ME-11	Muhammad Hassan	
				22-ME-10	Muhammad Shoaib	
				22-ME-27	Mudassar Abbas	
				22-ME-91	Aftab Mumtaz	

36	Development and Experimental Analysis of Solar Desiccant Heat and Mass Exchanger for Air Cooling under Real Operating Conditions	Dr. Muhammad Usman	Dr. Najam UI Hassan Shah	22-ME-19	Kamran Khattak	
				22-ME-16	Muhammad Talha Habib	
				22-ME-116	Hanzala Bin Afzal	
				22-ME-184	Abdul Rafey	
37	Prameteric Optimization of 3D Printing	Dr. Amar UI Hassan Khawaja	Dr. Azhar Hussain	22-ME-36	Muhammad Rahim Aslam	
				22-ME-82	Saad Hussain	
				22-ME-130	Muhammad Junaid Rashid	
				22-ME-146	Abdul Rehman	
38	Prametric Optimization of CNC Machining	Dr. Amar UI Hassan Khawaja	Engr. Muhammad Noman	22-ME-47	Muhammad Abdullah	
				22-ME-71	Muhammad Abdullah	
				22-ME-75	Umair Haneef	
				22-ME-127	Muhammad Zaki Sajid	
39	Experimental Investigation of Acousting Emission During Material Testing	Dr. Amar UI Hassan Khawaja	Dr. Aneela Wakeel	22-ME-44	Muaz Ahmed Siddiqui	
				22-ME-118	Taha Ayub	
				22-ME-122	Muhammad Rafay	
				22-ME-142	Mirza Ehtisham UI Haq Tahir	
40	Experimental Investigation and Parametric Optimization of Wire Arc Additive Manufacturing	Dr. Amar UI Hassan Khawaja	Dr. Shahid Mehmood	22-ME-15	Tajammal Abbas	
				22-ME-99	Muhammad Hassan	
				22-ME-103	Muhammad Hamza	
				22-ME-196	Muhammad Soban Khan	
41	A Hybrid FEA-RSM Approach for Multi-Response Optimization in AISI 1018 Arc Welding	Engr. Muhammad Sumair	Dr. Amar UI Hassan Khawaja	22-ME-49	Taha Nawaz	
				22-ME-51	Jawad Ahmad	
				22-ME-85	Ghalib Hussain	
				22-ME-173	Muhammad Mehak Ali	
42	Experimental Investigation and Parametric Optimization of Slective Laser Sintering	Engr. Muhammad Sumair	Dr. Amar UI Hassan Khawaja	22-ME-79	Hassan Raza	
				22-ME-83	Syed Muhammad Ali Haider	
				22-ME-119	Muhammad Abdullah	
				22-ME-171	Muhammad Hafeez ur Rehman	
43	Comparative Analysis of Fluid Flow Through Porous Versus Non-Porour Domains using CFD	Engr. Muhammad Sumair	Engr. Muhammad Ebrahim Khalid	22-ME-32	Hadia Tasadduq	
				22-ME-58	Manahil Zahra	
				22-ME-107	Maleeha Khaliq	
				22-ME-199	Aysha Siddiqa	
44	Design of IoT Enabled Composting Unit for Original Waste Management	Engr. Muhammad Sumair	Engr. Muhammad Ebrahim Khalid	22-ME-81	Pir Muhammad Abdullah	
				22-ME-101	Abdul Ahad	
				22-ME-113	Mehboob ul Hassan	
				22-ME-161	Sarim Ali	
45	Design and Dvelopment of Gravity Separator for Platinum Group Metals	Engr. Muhammad Noman	Dr. Azhar Hussain	22-ME-126	Tahir Mumtaz	
				22-ME-138	Asim Haleem	
				22-ME-174	Mubasher Ahmed	
				22-ME-186	Ahad Raza	
46	Design and Fabrication of a Hybrid Dust Collector with Scrubber and IoT Based Emission Monitoring for Chimney Applications	Engr. Muhammad Noman	Dr. Muhammad Usman	22-ME-56	Muhammad Hassan Altaf	
				22-ME-86	Muhammad Hmmd	
				22-ME-26	Hamza Liaqat	
				22-ME-192	Fhad Hassan	