2023-2024 FALL SEMESTER ENG 499 MULTI DISCIPLINARY PROJECT LIST			
Şube No (Group No)	**Akademisyen (Lecturer)**	**Proje Adı (Project Name)**	**Projeyi AlabilecekÖğrencilerin Bölümleri (Departments of students Who will register for the project)**
1	Prof. Dr.ÖMER EYERCİOĞLU	Re-construction of an abrasive flow machine and experimental studies	Mech. Eng. Electrical and Electronics Eng. Industrial Eng.
2	Prof. Dr.ÖMER EYERCİOĞLU	Modelling of Abrasive Finishing Processes Using Artificial Intelligence Techniques	Mech. Eng. Industrial Eng.
3	Prof. Dr.ÖMER EYERCİOĞLU	Rapid Tool Manufacturing Using 3D Printing (Additive Manufacturing)	Mech. Eng. Electrical and Electronics Eng. Industrial Eng.
4	Dr.Öğr.Üyesi N. FURKAN DOĞAN	Görüntü işleme yöntemiyle yer değiştirme ve deformasyon analizi	Mech. Eng. Electrical and Electronics Eng.
5	Prof. Dr. EMRAH ÖZAHİ	A System Restructuring Study by Using Lean Manufacturing Principles to Increase Production Efficiency by Reducing Waste Energy.	Mech. Eng. Industrial Eng.
6	Dr.Öğr.Üyesi M. ERKAN KÜTÜK	Manufacturing and Control of a 2 DOF Press Mechanism Prototype	Mech. Eng. Electrical and Electronics Eng.
7	Dr.Öğr.Üyesi SADIK OLGUNER	A detailed investigation on polymer additives for nonwoven fabric production	Mech. Eng. Textile Eng. Metallurgical and Materials Eng.
8	Dr.Öğr.Üyesi SADIK OLGUNER	Experimental investigation of process parameters in friction welding	Mech. Eng. Metallurgical and Materials Eng.
9	DR.ÖĞR.ÜYESİ HAKAN ÇANDAR	Microstructural examination of welded zone in friction welding process	Mech. Eng. Metallurgical and Materials Eng.
10	DR.ÖĞR.ÜYESİ HAKAN ÇANDAR	Conversion of mechanical tension test setup into electro-mechanical system	Mech. Eng. Electrical and Electronics Eng.

11	Prof.Dr. SADETTİN KAPUCU	Design a tremor reduction device.A wearable device for reducing trembling reduces it by internally producing forces that cancel or decrease the magnitude of trembling experienced by a person who wears it. The device may be worn on a wrist, arm, ankle, or leg. The device may be composed of multiple housings, which can be flexibly connected. Each housing member has a weight that is translatable along the axes of proximity and distal proximity, and the neutral position between proximity and distal proximity. Following the imposition of a force having a component along the axis, a biasing means returns the mass to the neutral position (see WO 2018/044381 patent for more information). To solve such a problem, it is required to design and build a wearable tremor reduction device (not the same device as described in WO 2018/044381) to do a similar job. (This project may require the purchase of some things to build a prototype. Those who are willing to study this project should be aware of this.)	Mech. Eng. Electrical and Electronics Eng.
12	Doç.Dr. Hüseyin YAĞLI	Off-grid smart green city design considering energy, building and food sustainability	Mech. Eng. Electrical and Electronics Eng. Civil Eng. Food Eng.
13	Prof.Dr. Nihat YILDIRIM Prof.Dr. A. İhsan KUTLAR	Design and contruction of a prototype load cell based on strain gage technology	Mech. Eng. Electrical and Electronics Eng.

14	Prof.Dr. Nihat YILDIRIM Prof.Dr. A. İhsan KUTLAR	Development of a defect detection system based on AI coding	Mech. Eng.
			Electrical and Electronics Eng.
			Engineering Physics
15	DOÇ.DR. FUAT YILMAZ	Design and construction of a Vortex Bladeless Wind Generator Model	Mech. Eng.
			Electrical and Electronics Eng.
16	DOÇ.DR. FUAT YILMAZ	Investigation of Applications on Energy flexibility of Phase change material integrated building	Mech. Eng.
			Civil Eng.

17	PROF.DR. Ö. YAVUZ BOZKURT	Project 1 – Design and production of brushless DC electric motor with 3D printer This project includes the design and production of a brushless DC electric motor that can be produced using a 3D printer. First of all, the necessary design studies will be carried out for the brushless DC motor that will be the project output, and this design will be produced with the help of a 3D printer. After production, function tests will be carried out and all work will be completed by preparing a technical report. The stakeholders sought for this project are the students of Mechanical Engineering and Electrical-Electronics Engineering departments.	Mech. Eng. Electrical and Electronics Eng.
18	PROF.DR. Ö. YAVUZ BOZKURT	Project 2 – Desktop Tensile Testing Machine The aim of this project is mainly to develop a desktop-scale tensile testing machine. Within the scope of the project, weekly meetings will be essential in the project, which includes first the design of the system to be developed, and then production and testing activities. The stakeholders sought for this project are students from the Department of Mechanical Engineering and Electrical and Electronics Engineering.	Mech. Eng. Electrical and Electronics Eng.
19	DR. ÖĞR. ÜYESİ ALİ KILIÇ	Conceptual and Architectural Design of Autonomous Warehouse Robots	Mech. Eng. Electrical and Electronics Eng. Industrial Eng.
20	PROF.DR. AHMET ERKLİĞ	Production of electric quadricycle	Mech. Eng. Electrical and Electronics Eng. Metallurgical and Materials Eng.
21	PROF.DR. AHMET ERKLİĞ	Indoor dehumidifier design and manufacturing	Mech. Eng. Electrical and Electronics Eng. Metallurgical and Materials Eng.

22	PROF.DR. AHMET ERKLİĞ	Recycling of polymer composites	Mech. Eng. Metallurgical and Materials Eng.
23	PROF.DR. M. SAİT SÖYLEMEZ	Temperature measurement with Arduino	Mech. Eng. Electrical and Electronics Eng. Engineering Physics
24	PROF.DR. A. TOLGA BOZDANA	Industrial Revolutions: Road to Industry 5.0	Mech. Eng. Industrial Eng.
25	DOÇ.DR. ABDULLAH AKPOLAT	An investigation about production and usage areas of Polytetrafluoroethylene (PTFE).	Mech. Eng. Metallurgical and Materials Eng.
26	PROF.DR. M. YAŞAR GÜNDOĞDU	Blood circulation	Mech. Eng. Engineering Physics
27	PROF.DR. ADEM ATMACA	Akıllı ve Sürdürülebilir Şehirleşme için Dijital İkiz ve IoT Teknolojileri Entegrasyonu	Mech. Eng. Electrical and Electronics Eng. Civil Eng.
28	DOÇ.DR. N. KARA TOĞUN	Internet Based Smart Irrigation and Remote Monitoring System	Mech. Eng. Electrical and Electronics Eng.
29	DOÇ.DR. N. KARA TOĞUN	Generation of electricity from water using rack and pinion mechanism	Mech. Eng. Electrical and Electronics Eng.
30	Prof. Dr. Ergun Erçelebi	To design a rotary-wing drone for monitoring the construction site, recording progress, creating maps, and even inspecting the quality of the structure.	Electrical and Electronics Eng. Mech. Eng. Civil Eng.
31	Prof. Dr. Ergun Erçelebi	The development of Near Infrared Spectroscopy for the analysis of chemical components in food.	Electrical and Electronics Eng. Food Eng.

32	Prof. Dr. Ergun Erçelebi	Determination of the iron density in construction concrete using ultrasonic signals.	Electrical and Electronics Eng. Civil Eng.
33	Prof.Dr.Arif Nacaroğlu	Balanced Stick	Electrical and Electronics Eng. Mech. Eng.
34	Prof.Dr.Arif Nacaroğlu	Balanced Plate	Electrical and Electronics Eng. Mech. Eng.
35	Prof.Dr.Nuran Doğru	Remote controlled smart shopping trolley	Electrical and Electronics Eng. Mech. Eng.
36	Prof. Dr. Gölge Ögücü Yetkin	Cleaning robot	Electrical and Electronics Eng. Mech. Eng.
37	Prof. Dr. Uğur Cem Hasar	Structural Health Monitoring Using Non-Destructive Microwave Techniques	Electrical and Electronics Eng. Civil Eng.
38	Prof. Dr. Sema Kayhan	Development of Student Attendance System Based on Fingerprint Biometrics	Electrical and Electronics Eng. Industrial Eng.
39	Prof..Dr. A. Mete VURAL	Design and Implementation of an Electric Crane	Electrical and Electronics Eng. Mech. Eng.
40	Doç.Dr. Tolgay Kara	Sensor-free Mobile Robot with Visual Feedback: The project involves design, construction and testing of a mobile robot equipped with a camera. Motion control with obstacle avoidance and object detection functions should be performed via visual feedback.	Electrical and Electronics Eng. Mech. Eng.
41	Doç.Dr. Taner İnce	Hand Motion Controlled Robotic Arm	Electrical and Electronics Eng. Mech. Eng.
42	Doç.Dr. Taner İnce	Hand Motion Controlled Robotic Vehicle	Electrical and Electronics Eng. Engineering Physics

43	Dr. Öğr. Üyesi Musa Bute	Design of solid granule pumping machine	Electrical and Electronics Eng. Mech. Eng.
44	Dr. Öğr. Üyesi Serkan ÖZBAY	Investigating the conductivity of stretchable fabrics for different bending levels	Electrical and Electronics Eng. Textile Eng.
45	Dr. Öğr. Üyesi Ali Osman ARSLAN	Magnetic Levitation Systems	Electrical and Electronics Eng. Mech. Eng. Civil Eng.
46	Dr. Öğr. Üyesi Mahmut AYKAÇ	Smart Transmission	Electrical and Electronics Eng. Mech. Eng.
47	Dr. Öğr. Üyesi Mehmet DEMİR	A property design of a rescue boat with a remote controller	Electrical and Electronics Eng. Mech. Eng.
48	Dr.Öğr. Üyesi Nurdal Watsuji	Pick, sort and place robot	Electrical and Electronics Eng. Mech. Eng.
49	Prof. Dr.Medeni MASKAN	Use of ultrasound in detection of maturity level of fruits and vegetables.	Food Eng. Engineering Physics Optic and Ac. Eng.
50	Prof. Dr. Hüseyin BOZKURT	Mathematical modelling of experimental data	Food Eng Industrial Eng. Electrical and Electronics Eng.
51	Prof. Dr. Fahrettin GÖĞÜŞ	Design of solar dryer for fruits and vegetables	Food Eng Mech. Eng.
52	Prof. Dr. Esra İBANOĞLU	Detection of trans fatty acids in cooked ready to eat foods	Food Eng Optic and Ac. Eng. Electrical and Electronics Eng.
53	Prof.Dr. Şenol İBANOĞLU	Design of a machinary to measure omega 3 and omega 6 levels in vegetable oils using spectropsopy.	Food Eng Optic and Ac. Eng. Engineering Physics
54	Prof. Dr. Sibel FADILOĞLU	Design of electrophoresis instrumental system for protein purification	Food Eng Mech. Eng. Electrical and Electronics Eng.

55	Prof.Dr. Mustafa BAYRAM	In-door and out-door food consumption price index	Food Eng., Mech. Eng., Computer Eng.,Industrial Eng. Software Eng., Economics, Social Sciences Departments, Gastronomy Department,
56	Prof. Dr. Sevim KAYA	Design of a new food packaging system	Food Eng Mech. Eng. Industrial Eng.
57	Prof. Dr. Emine ERÇELEBİ	Optimization of a solid state fermentation process	Food Eng Industrial Eng.
58	Prof.Dr. Çiğdem AYKAÇ	Research on historical foods	Food Eng History Gastronomy
59	Prof.Dr. A. Coşkun DALGIÇ	Process simulation in food industry	Food Eng Industrial Eng. Mech. Eng.
60	Prof. Dr. Ahmet KAYA	Design of Pistahio Paste Grinder	Food Mech. Mech. Eng.
61	Dr. Öğr.Üyesi Hasene KESKİN ÇAVDAR	Design of automated titration system for determination of enzyme activity	Food Eng Mech. Eng. Industrial Eng.
62	Dr. Öğr. Üyesi Fatih BALCI	Determining students' level of awareness on green deal, sustainability and circular economy	Food Eng Mech. Eng. Industrial Eng.
63	Prof.Dr.Bülent GÖNÜL	'Sizce hangisi doğru ?Evrenle aynı yaştamıyız yoksa olduğumuz yaşta mı?''	Engineering Physics All Deparments
64	Doç. Dr. R.Güler YILDIRIM	Engineering Applications of Excel	Engineering Physics Electrical and Electronics Eng. Mech. Eng. Civil Eng. Industrial Eng. Textile Eng. Metallurgical and Materials Eng.
65	Prof.Dr.Ömer F. Bakkaloğlu	Design of solar cell	Engineering Physics Mech. Eng. Electrical and Electronics Eng.

66	Assist. Prof. Dr. Mehmet KOÇAK	Wireless Transmission of Electricity	Engineering Physics
			Electrical and Electronics Eng.
			Optic and Ac. Eng.
67	Dr. Öğr. Üyesi Serap Çelik	Efficiency calculations of half-cut solar panels under shaded conditions	Engineering Physics
			Optic and Ac. Eng.
			Electrical and Electronics Eng.
68	Prof. Dr. Okan Özer	Applications of Monte Carlo Method (MCM) in Reactor Safety&Security Systems	Engineering Physics
			Mech. Eng.
			Electrical and Electronics Eng.
69	Prof. Dr.Beşire GÖNÜL	An investigtion of band gap tuning in seminconductors for photonic devices	Engineering Physics
			Optic and Ac. Eng.
			Metallurgical and Materials Eng.
70	Prof.Dr.Ahmet BİNGÜL	Bidirectional optical communication	Engineering Physics
			Optic and Ac. Eng
			Engineering Physics
			Mech. Eng.
			Electrical and Electronics Eng.
71	Prof.Dr.Eser OLĞAR	Design and construction of absorptive acoustic panels	Engineering Physics
			Optic and Ac. Eng.
			Civil Eng.
			Mech. Eng.
			Architecture
72	Prof.Dr.A.Necmeddin YAZICI	Investigation of luminaire and road properties on uniform lighting in road examples.	Engineering Physics
			Optic and Ac. Eng
			Electrical and Electronics Eng.
73	Prof. Dr. Hüseyin TOKTAMIŞ	The most common composite materials and their application areas	Engineering Physics
			Mech. Eng.
			Industrial Eng.
			Civil Eng.
74	Prof.Dr.E.Vural KAFADAR	Ultrasonic Computer Tomography	Engineering Physics
			Optic and Ac. Eng
			Electrical and Electronics Eng.
75	Prof.Dr.Hayriye TÜTÜNCÜLER	Investigation of dye sensitized solar celles	Engineering Physics
			Electrical and Electronics Eng.
			Food Eng.
76	Prof.Dr.Ayda BEDALL	Prototype automatic glass-plastic bottle sorter for a recycling plant.	Engineering Physics
			Electrical and Electronics Eng.

77	Doç.Dr.Mustafa YILMAZ	Water harvesting from moisture in the air by 3D mesh nets.	Engineering Physics Optic and Ac. Eng Mech. Eng.
78	Prof.Dr.Ramazan KOÇ	Paper and Water based battery design	Engineering Physics Optic and Ac. Eng. Electrical and Electronics Eng. Food Eng Chemistry department
79	Prof. Dr. Nihat Atmaca	Design of Structural System, Mechanical Installation and Electrical System of Reinforced Concrete Buildings	Civil Eng. Mech. Eng. Electrical and Electronics Eng.
80	Prof. Dr. Abdulkadir Çevik	Artificial Intelligence Applications in Engineering	Civil Eng. Mech. Eng. Electrical and Electronics Eng. Industrial Eng.
81	Prof. Dr. Esra Mete Güneyisi	Design of a steel transmission tower based on safety, efficiency and sustainability	Civil Eng. Electrical and Electronics Eng. Mech. Eng. Industrial Eng.
82	Doç. Dr. Mehmet Eren Gülşan	Design of a reinforced concrete factory by the consideration of both energy savings and vibration resistance	Civil Eng. Mech. Eng. Electrical and Electronics Eng.
83	Prof. Dr. Mehmet İshak Yüce	Design and optimization of renewable energy sources and investigation of structural integrity	Civil Eng. Mech. Eng. Electrical and Electronics Eng.
84	Prof.Dr. Mustafa Özakça	Design of the future house (Energy efficient, Water efficient, Social responsibility and innovative design)	Civil Eng. Mech. Eng. Electrical and Electronics Eng. Industrial Eng. Architecture Students from departments other than those listed can take part in the project with the project advisor's approval.
85	Prof. Dr. Hamza Güllü	Post-Eartquake Damage Evaluation of Buildings	Civil Eng. Mech. Eng. Electrical and Electronics Eng.

86	Doç. Dr. Talha Ekmekyapar	Design of an Industrial Steel Building with Sprinkler Fire Extinguishing Sytem	Civil Eng. Mech. Eng.
87	Dr.Öğr.Üyesi Esra Eylem Karataş	Design of ecological and sustaniable buildings	Civil Eng. Mech. Eng. Electrical and Electronics Eng. Architecture
88	Prof.Dr.Mustafa Günal	Flood Prediction and Disaster Risk Analysis using GIS	Civil Eng. Mech. Eng.
89	Dr. Öğr. Üyesi Ayşe Yeter GÜNAL	Flood Prediction and Disaster Risk Analysis using Artificial Intelligance	Civil Eng. Mech. Eng.
90	Doç. Dr. Mehmet Tolga GÖĞÜŞ	Design of extensometer for tensile testing of metals	Civil Eng. Mech. Eng.
91	Prof Dr Ali Fırat ÇABALAR	Sustainable materials for road pavement designs	Civil Eng. Metallurgical and Materials Eng.
92	Prof. Dr. Nildem Tayşi	Optimum design and cost analysis of electrical transmission towers	Civil Eng. Mech. Eng. Electrical and Electronics Eng. Industrial Eng.
93	Prof. Dr. Aytaç Güven	Design of Efficient and Passive Buildings	Civil Eng. Mech. Eng. Electrical and Electronics Eng. Industrial Eng.
94	Prof.Dr.Serap U.SEÇKİNER	Work load balancing in scheduling problems	Industrial Eng. Mech. Eng.
95	Doç.Dr. Zeynep D. U. DURMUŞOĞLU	Simulation of different queing systems in a manufacturing or service organization where there are parellel resources.	Industrial Eng Mech. Eng.

96	Doç.Dr. Alptekin DURMUŞOĞLU	A system restructuring study by using lean manufacturing principles to increase manufacturing efficiency	Industrial Eng Mech. Eng.
97	Doç.Dr.SÜLEYMAN METE	Integrated disassembly line balancing with sustainability considerations.	Industrial Eng Mech. Eng.
98	Prof. Dr. Eren ÖZCEYLAN	Afet Yönetimi Kapsamında Toplanma Alanı Yer Seçimi	Industrial Eng Civil Eng
99	Dr. Öğretim Üyesi Pınar KOCABEY ÇİFTÇİ	Investigation of circular economy and symbiotic relationship opportunities to increase the sustainability of the industry	Industrial Eng. Mech. Eng.
100	Prof. Dr. Mehmet Topalbekiroğlu	Design of shedding mechanism for hand-made woven carpet production	Textile Eng. Mech. Eng. Electrical and Electronics Eng.
101	Prof. Dr. Cem Güneşoğlu	Web based testing laboratory search portal	Textile Eng. Electrical and Electronics Eng. Computer Eng.
102	Prof. Dr. Hatice Kübra Kaynak	Investigation of conductive yarn production	Textile Eng. Metallurgical and Materials Eng.
103	Doç. Dr. Halil İbrahim Çelik	Textile Based Piezoelectric Sensor	Textile Eng. Electrical and Electronics Eng.
104	Doç. Dr. Züleyha Değirmenci	Designing of thermoregulated textile structures	Textile Eng. Electrical and Electronics Eng.
105	Doç. Dr. Mehmet Erdem İNCE	The design and the production of green composite material from linen yarn weft-knitted reinforcement fabric and pine resin matrix (TÜBİTAK 2209 supported).	Textile Eng. Metallurgical and Materials Eng. Mech. Eng. Civil Eng. Engineering Physics Industrial Eng.

106	Doç. Dr. Mehmet Erdem İNCE	The use of JUMP® statistical software package in engineering data analyses	Textile Eng. All Deparments
107	Dr. Öğr. Üyesi Hatice İbili	Functional Surfaces	Textile Eng. Food Eng.
108	Doç.Dr. Abdulaziz KAYA	Analysis of Global Sustainable Polymers Market Size	Metallurgical and Materials Eng. Textile Eng. Chemistry
109	Doç.Dr. Mustafa Guven Gok	Enhancing mechanical properties of 3D printed PLA-based materials	Metallurgical and Materials Eng. Industrial Eng. Mech. Eng.
110	Doç. Dr. Mikail Aslan	Nanoclay reinforced magnesium composites	Metallurgical and Materials Eng. Engineering Physics
111	Doç.Dr. Halil İbrahim İÇOĞLU	Production of glass fiber reinforced polyester composites	Metallurgical and Materials Eng. Textile Eng.
112	Doç.Dr. Abdulcabbar YAVUZ	Fabrication of flexible electrode for water purification	Metallurgical and Materials Eng. Textile Eng. Food Eng.
113	Dr. Öğr. Üyesi Azmi Mert Çelik	Synthesis and characterization of Aluminum Borate powders	Metallurgical and Materials Eng. Civil Engineering Industrial Eng.