

## 2024-2025 Bahar Dönemi ENG499

Şube No (Group No)	Akademisyen (Lecturer)	Proje Adı (Project Name)	Proje Bölümü (Project Department)	Projeyi Alabilecek Öğrencilerin Bölümleri (Departments of students Who will register for the project)
2	DOÇ.DR. HÜSEYİN YAĞLI	Off-grid smart green city design considering energy, building and food sustainability	Mech. Eng.	Mech. Eng. Electrical and Electronics Eng. Civil eng. Food Eng.
3	PROF.DR. EMRAH ÖZAHİ	A System Restructuring Study by Using Lean Manufacturing Principles to Increase Production Efficiency by Reducing Waste Energy.	Mech. Eng.	Mech. Eng. Industrial Eng.
6	PROF.DR. NECİP FAZIL YILMAZ	innovative smart works on additive manufacturing: case studies on metals, polymers, machine learning, image processing, material characterization and coating materials	Mech. Eng.	Mech. Eng. Electrical and Electronics Eng. Met. And Mat. Eng. Textile Eng.
7	PROF.DR. SADETTİN KAPUCU	PROJECT 1- Design a device that reduces tremors. Users of wearable shaking reduction devices experience less trembling by internally creating forces that cancel out or lessen the amount of trembling they experience. The gadget can be fastened to the leg, arm, wrist, or ankle. The apparatus might consist of several housings that are able to be joined in a flexible manner. Every component of the housing has a weight that can be translated along the proximity and distal proximity axes as well as the neutral point between the two. A biasing mechanism restores the mass to the neutral position after imposing a force with a component along the axis (for further details, refer to the WO 2018/044381 patent). It is necessary to design and construct a wearable tremor reduction device (different from the one outlined in WO 2018/044381) in order to accomplish a comparable task in order to address such a problem. (This project may require some purchases in order to construct a prototype. This should be made clear to anyone who are willing to research this project.)  It is required from the ENG 499 group of students (2 from mechanical Eng. and 2 student from electrical and electronics Eng.) to work on an open-ended multidisciplinary design problem and finish at the end of semester by presenting	Mech. Eng.	Mech. Eng. Electrical and Electronics Eng.
9	PROF.DR. SADETTİN KAPUCU	PROJECT 3- Management of Yarn Free Ends in Bobbins and Development of a Mechatronic Solution Carpet yarns are typically wound onto bobbins in a cylindrical form to prepare them for subsequent processes or handling stages. Each yarn bobbin, therefore, becomes an individual unit that can be managed separately during handling, storage, transportation, and distribution. These operations can be carried out either manually or with the aid of automated machinery. During the process of winding yarn onto a bobbin, one end of the yarn (the first end) is fixed to the central axis of the bobbin, while the other end (the second end) remains on the radial or circumferential surface of the formed bobbin. The first end, located centrally, is perfectly secured by the multiple layers of wound yarn that encase it. However, this is not the case for the second end, which remains exposed on the outer surface of the bobbin after winding. During handling and transport, the exposed second end of the yarn often becomes detached from the rest of the bobbin, potentially unraveling to a length equivalent to at least part of the total wound yarn. This issue is particularly prevalent when the yarn's texture is smooth, as the surface turns of the bobbin provide limited adhesion. Apart from the unwinding issue, the presence of a loose yarn end poses safety risks in production, processing, or management environments. To prevent potential hazards associated with free yarn ends, it is common practice to manually secure the second end by tucking it between two adjacent layers of the circumferential surface, forming a type of easily releasable knot.	Mech. Eng.	Mech. Eng. Electrical and Electronics Eng.
10	DOÇ.DR. FUAT YILMAZ	Make Fingerprint Door Lock "Creating a fingerprint door lock involves integrating biometric scanning technology with a locking mechanism to secure access to a door. Example: <a href="https://www.youtube.com/watch?v=gpXuEghz1zc">https://www.youtube.com/watch?v=gpXuEghz1zc</a> "	Mech. Eng.	Mech. Eng. Electrical and Electronics Eng.
16	DR.ÖĞR.ÜYESİ ALİ KILIÇ	Exploration and Application of Next-Generation Additive Manufacturing and 3D Printing Techniques	Mech. Eng.	Mech. Eng. Electrical and Electronics Eng. Industrial Eng.
36	Prof.Dr. Mustafa BAYRAM	Food Consumption Trends	Food Eng.	Food Eng., Industrial Eng., Computer Eng., Mechanical Eng. Software Eng., Economics, Social Sciences Departments, Gastronomy Department.
46	Prof.Dr. Bülent GÖNÜL	A study on consciousness and reality	Eng. Physics	Üniversitemizin Tüm Birimleri
47	Doç. Dr. R.Güler YILDIRIM	Eng. Applications of Excel	Eng. Physics	Electrical and Electronics Eng. Mechanical Eng. Optic and Acoustic Eng. Eng. Physics
51	Prof. Dr. Okan Özer	Thermodynamic- Based Simulation of Akkuyu Nuclear Power Plant	Eng. Physics	Eng. Physics Mechanical Eng. Optic and Acoustic Eng. Electrical and Electronics Eng.
60	Prof. Dr. Abdulkadir Çevik	Artificial Intelligence Applications in Eng.	Civil Eng.	Civil Eng. Mechanical Eng., Electrical Eng., Industrial Eng.
63	Prof. Dr. Esra Mete Güneyisi	Design of a steel transmission tower based on safety, efficiency and sustainability	Civil Eng.	Civil Eng. Electrical and Electronics Eng., Mechanical Eng., Industrial Eng.
64	Prof. Dr. Hamza Güllü	Post-Eartquake Damage Evaluation of Buildings	Civil Eng.	Civil Eng. Mechanical Eng., Electrical Eng.

67	Prof. Dr. Mustafa Özakça	Design of the future house (Energy efficient, Water efficient, Social responsibility and innovative design)	Civil Eng.	Civil Eng., Mechanical Eng., Electrical Eng., Industrial Eng., Architecture, Students from departments other than those listed can take part in the project with the project advisor's approval.
71	Doç. Dr. Mehmet Eren Gülşan	Design of a reinforced concrete factory by the consideration of both energy savings and vibration resistance	Civil Eng.	Civil Eng., Mechanical Eng., Electrical and Electronics Eng.
74	Prof.Dr.Serap U.SEÇKİNER	Planning building anddistrict energy systems considering simulate districts with heating and cooling networks,renewable energies, hydrogen technologies, heat pumps and seasonal storages	Industrial Eng.	Mechanical Eng., Industrial Eng.
76	Doç. Dr. Süleyman Mete	Mathematical Model for Disassembly Line Balancing Problem	Industrial Eng.	Industrial Eng., Mechanical Eng.
77	Dr. Öğretim Üyesi Pınar KOCABEY ÇİFTÇİ	Increase the understanding of the terms "circular economy" and "symbiotic relationship", their importance and potential opportunities for the industry	Industrial Eng.	Mechanical Eng., Industrial Eng.
85	<b>Doç. Dr. Mehmet Erdem İNCE</b>	The use of JUMP® statistical software package in Eng. data analyses.	Textile Eng.	All Eng. departments