

ENG 499 ÖĞRENCİ KAYIT İŞLEMLERİ

Mühendislik Fakültesi 4. Sınıfta kayıt yaptıracak öğrencilerin kayıt işlemlerinde izlemesi gereken adımlar aşağıda anlatılmıştır:

1. Dekanlık ve Bölümlerin web sayfalarında ilan edilen ENG 499 proje listesinden almak istediğiniz projenin şube numarasını belirleyin.
2. Proliz kayıt sisteminde ENG 499 dersini seçerek açılan şube listesinden almak istediğiniz şube numarasını seçin.
3. Şube numarasının doğru seçildiğinden emin olun.
4. Kaydınızı tamamlayın.
5. Şubenin açılabilmesi için en az 2 farklı bölüm öğrencilerinin şubeye kayıt yapmış olması gerekmektedir.
6. Kayıt sonrasında şubeye kayıt olan öğrencilerin hepsinin aynı bölümden olması durumunda o şube kapanır.
7. Add-drop tarihlerinde kayıt yaptığınız şube kapanmışsa, açılan şubelerden seçim yaparak tekrar kayıt yapın.

2024-2025 FALL SEMESTER ENG 499 MULTI DISCIPLINARY PROJECT LIST

| 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) |
|--------------------|--|--|-----------------------------------|---|
| 1 | PROF.DR. SADETTİN KAPUCU | 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 engineering and 2 student from electrical and electronics engineering) to work on an open-ended multidisciplinary design problem and finish at the end of semester by presenting a physical prototype and a formal report. | Mech. Eng. | Mech. Eng. Electrical and Electronics Eng. |
| 2 | PROF.DR. SADETTİN KAPUCU | Design a polypropylene fibers bundle chopper Use of micro synthetic or macro synthetic fiber based reinforcement materials in composite structures is known in the industry. Such materials can be introduced into cement mixtures at reinforced concrete production. The present project is about a method for cutting into cylindrical form of a synthetic fiber based reinforcement material comprising packaging of the reinforcement material in a packaging material which is dispersible in water for use in concrete mixtures. The water-soluble wrapped polypropylene fibers bundle (a mainly circular cross-section having a mean diameter of D) should be chopped in form of cylinder (discontinuous bundles having certain lengths of L) with a length per diameter (L/D) ratio within the range between 0.25 and 5, or between 1.5 and 3. To satisfy this requirement ; • propose chop off mechanism types (it is required find possible alternatives), • evaluate which is the best method, • design the selected mechanism in all aspect (size, dimension, shape, material, etc) • design driver for your system (flywheel, motor/actuator). It is required from the ENG 499 group of students (2 from mechanical engineering and 2 student from electrical and electronics engineering) to work on an open-ended multidisciplinary design problem and finish at the end of semester by presenting a detailed formal report. | Mech. Eng. | Mech. Eng. Electrical and Electronics Eng. |
| 3 | PROF.DR.A. İHSAN KUTLAR PROF.DR. NİHAT YILDIRIM | Design and construction of a prototype load cell based on strain gage technology | Mech. Eng. | Mech. Eng. Electrical and Electronics Eng. |
| 4 | PROF.DR.A. İHSAN KUTLAR PROF.DR. NİHAT YILDIRIM | Development of a defect detection system based on AI coding | Mech. Eng. | Mech. Eng. Electrical and Electronics Eng. Industrial Eng. Engineering Physics |
| 5 | DR.ÖĞR. ÜYESİ ALI KILIÇ | Conceptual and Architectural Design of Autonomous Warehouse Robots | Mech. Eng. | Mech. Eng. Electrical and Electronics Eng. Industrial Eng. |
| 6 | PROF.DR. Ö. YAVUZ BOZKURT | Filament dryer storage box for 3D printers This project covers the construction of a 5-axis 3D printer. The necessary parts will be given by the supervisor. | Mech. Eng. | Mech. Eng. Electrical and Electronics Eng. Metallurgical and Materials Eng. |
| 7 | DOÇ.DR. FUAT YILMAZ | Design and construction of a Bladeless Vortex Hydro Turbine Departments | Mech. Eng. | Mech. Eng. Electrical and Electronics Eng. |
| 8 | DOÇ.DR. FUAT YILMAZ | Fingerprint Sensor System Production for Different Purposes Departments | Mech. Eng. | Mech. Eng. Electrical and Electronics Eng. |
| 9 | DR. ÖĞR. ÜYESİ SADIK OLGUNER | Defect detection on material surface with image processing | Mech. Eng. | Mech. Eng. Electrical and Electronics Eng. Industrial Eng. |

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| 10 | DR. ÖGR. ÜYESİ SADIK OLGUNER | Ultrasonic welding of polypropylene nonwoven fabric composites | Mech. Eng. | Mech. Eng. Textile Engineering Metallurgical and Materials Eng. |
| 11 | PROF.DR. AHMET ERKLİĞ | Design and Fabrication of Hand Operated Injection Molding Machine | Mech. Eng. | Mech. Eng. Textile Engineering Metallurgical and Materials Eng. Electrical and Electronics Eng. Engineering Physics |
| 12 | PROF.DR. AHMET ERKLİĞ | carbon dot synthesis from pistachio shell and usage | Mech. Eng. | Mech. Eng. Food Eng. |
| 13 | PROF.DR. A. TOLGA BOZDANA | Titanium Dioxide: Properties and Uses in Industrial Applications | Mech. Eng. | Mech.Eng. Food Eng. |
| 14 | DR.ÖGR.ÜYESİ M. ERKAN KÜTÜK | Design, Manufacturing and Control of a 2 DOF Planar Parallel Manipulator | Mech. Eng. | Mech.Eng. Electrical and Electronics Eng. |
| 15 | DOÇ.DR. HÜSEYİN YAĞLI | Off-grid smart green city design considering energy, building and food sustainability | Mech. Eng. | Mech. Eng. Civil eng. Food Eng. Electrical and Electronics Eng. |
| 16 | PROF.DR. NECİP FAZİL 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. Textile Engineering Metallurgical and Materials Eng. Electrical and Electronics Eng. |

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| 17 | 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. |
| 18 | Prof. Dr. Ergun Erçelebi | Development of a Smart Agriculture Robot | Electrical and Electronics Eng. | Electrical and Electronics Eng. Mech. Eng. Electrical and Electronics Eng. |
| 19 | Prof. Dr. Ergun Erçelebi | Design and Implementation of a Renewable Energy System | Electrical and Electronics Eng. | Mech. Eng. |
| 20 | Prof. Dr. Ergun Erçelebi | Development of Smart Building Management System | Electrical and Electronics Eng. | Electrical and Electronics Eng. Civil Eng. |
| 21 | Prof. Dr. Ergun Erçelebi | Development of Food Processing and Packaging Automation | Electrical and Electronics Eng. | Electrical and Electronics Eng. Food Eng. |
| 22 | 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. | Electrical and Electronics Eng. Mech. Eng. |
| 23 | Prof. Dr. Arif NACAROĞLU | Design and construction of the voice follower. | Electrical and Electronics Eng. | Electrical and Electronics Eng. Mech. Eng. |
| 24 | Prof. Dr. A. Mete VURAL | Design and Implementation of an Electric Crane | Electrical and Electronics Eng. | Electrical and Electronics Eng. Mech. Eng. |
| 25 | Dr. Öğr. Üyesi Musa Bute | Design of solid granule pumping machine | Electrical and Electronics Eng. | Electrical and Electronics Eng. Mech. Eng. |
| 26 | Prof. Dr. Nuran Doğru | Remote controlled smart trolley | Electrical and Electronics Eng. | Electrical and Electronics Eng. Mech. Eng. |
| 27 | Dr. Öğr. Üyesi Ali Osman Arslan | PV Panel Cleaner. | Electrical and Electronics Eng. | Electrical and Electronics Eng. Mech. Eng. |
| 28 | Doç. Dr. Serkan ÖZBAY | Investigating the conductivity of stretchable fabrics for different bending levels | Electrical and Electronics Eng. | Electrical and Electronics Eng. Textile Engineering |
| 29 | Prof. Dr. Sema Kayhan | Development of Student Attendance System Based on Fingerprint Biometrics | Electrical and Electronics Eng. | Electrical and Electronics Eng. Industrial Eng. |
| 30 | Doç.Dr. Taner İnce | Hand Motion Controlled Robotic Vehicle | Electrical and Electronics Eng. | Electrical and Electronics Eng. Mech. Eng. |
| 31 | Dr. Öğr. Üyesi Mahmut AYKAÇ | Smart Transmission | Electrical and Electronics Eng. | Electrical and Electronics Eng. Mech. Eng. |
| 32 | Prof. Dr. Uğur Cem Hasar | Olive Oil Characterization by Microwave Signal | Electrical and Electronics Eng. | Electrical and Electronics Eng. Food Eng. |
| 33 | Dr. Öğr. Üyesi SEVDİ KAÇMAZ | Smart Food Storage and Monitoring System | Electrical and Electronics Eng. | Electrical and Electronics Eng. Food Eng. |
| 34 | Prof. Dr. Medeni MASKAN | Use of ultrasound in detection of maturity level of fruits and vegetables. | Food Eng. | Food Eng. Engineering Physics Optic and AC Eng. Industrial Eng. |
| 35 | Prof. Dr. Fahrettin GÖĞÜŞ | Color measurement of solid food materials | Food Eng. | Food Eng. Optic and AC Eng. |
| 36 | Prof. Dr. A. Coşkun DALGIÇ | Process simulation in food industry | Food Eng. | Food Eng. Industrial Eng. Mech. Eng. |
| 37 | Prof. Dr. Sevim KAYA | Evaluation of consumer preferences about dairy and dairy products | Food Eng. | Food Eng. Industrial Eng. Mech. Eng. |
| 38 | Prof. Dr. Emine ERÇELEBİ | Application of industrial engineering techniques for cost reduction in frozen foods | Food Eng. | Food Eng. Industrial Eng. |
| 39 | Prof. Dr. Sibel FADİLOĞLU | Design of electrophoresis instrumental system for protein purification | Food Eng. | Food Eng. Mech. Eng. Electrical and Electronics Eng. |
| 40 | Prof. Dr. Hüseyin BOZKURT | Mathematical modelling of experimental data | Food Eng. | Food Eng. Industrial Eng. Electrical and Electronics Eng. |
| 41 | Prof. Dr. Mustafa BAYRAM | Food Consumption Trends | Food Eng. | Food Eng. Industrial Eng. Computer Eng. Mech. Eng. Software Eng. Economics, Social Sciences Departments, Gastronomy Department, |

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| 42 | Prof.Dr. Çiğdem AYKAÇ | Research on historical foods | Food Eng. | Food Eng. History Gastronomy Department, |
| 43 | Prof. Dr. Esra İBANOĞLU | Exploring Polymorphic structures in chocolate on the production line | Food Eng. | Food Eng. Optic and Ac. Eng |
| 44 | Prof. Dr. Ahmet KAYA | Design of enzyme/oxygen indicator. | Food Eng. | Food Eng. Engineering Physics Optic and Ac. Eng |
| 45 | Dr.Öğr.Üyesi Hasene KESKİN ÇAVDAR | Design of automated titration system for determination of enzyme activity | Food Eng. | Food Eng. Mech. Eng. Electrical and Electronics Eng. |
| 46 | Dr. Öğr. Üyesi Fatih BALCI | Elektrospinning ile Gıda Atıklarından Biyoplastik Lf Üretimi ve Tekstil Uygulamaları | Food Eng. | Food Eng. Textile Engineering Engineering Physics |
| 47 | Prof.Dr.Bülent GÖNÜL | Quantum Philosophy of Life | Engineering Physics | Mech. Eng. Electrical and Electronics Eng. |
| 48 | Doç. Dr. R.Güler YILDIRIM | Engineering Applications of Excel | Engineering Physics | Engineering Physics Electrical and Electronics Eng. Civil eng. |
| 49 | Prof.Dr.Ömer F. Bakkaloğlu | Design of solar cell | Engineering Physics | Engineering Physics Mech. Eng. Electrical and Electronics Eng. |
| 50 | Assist. Prof. Dr. Mehmet KOÇAK | Wireless Transmission of Electricity | Engineering Physics | Engineering Physics Electrical and Electronics Eng. Optic and Ac. Eng |
| 51 | Dr. Öğr. Üyesi Serap Çelik | Efficiency calculations of half-cut solar panels under shaded conditions | Engineering Physics | Engineering Physics Optic and Ac. Eng Electrical and Electronics Eng. |
| 52 | Prof. Dr. Okan Özer | A Case Study: Thermodynamic-based Simulation of Akkuyu Nuclear Power Plant | Engineering Physics | Engineering Physics Mech. Eng. Electrical and Electronics Eng. Industrial Eng. |
| 53 | Prof. Dr.Beşire GÖNÜL | An investigation of band gap tuning in semiconductors for photonic devices | Engineering Physics | Engineering Physics Optic and Ac. Eng Metallurgical and Materials Eng. |
| 54 | Prof.Dr.Eser OLGAR | Design and construction of absorptive acoustic panels | Engineering Physics | Engineering Physics Optic and Ac. Eng Civil eng. Mech. Eng. Architecture |

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| 55 | Prof.Dr.A.Necmeddin YAZICI | Investigation of luminaire and road properties on uniform lighting in road examples. | Engineering Physics | Engineering Physics Optic and Ac. Eng. Electrical and Electronics Eng. |
| 56 | Prof. Dr. Hüseyin TOKTAMIŞ | Investigation energy accumulation in samples taken from the foundations of collapsed buildings after the 6 February Kahramanmaraş earthquake. | Engineering Physics | Engineering Physics Civil eng. Industrial Eng. |
| 57 | Prof.Dr.E.Vural KAFADAR | Applications of thermal imaging camera | Engineering Physics | Engineering Physics Optic and Ac. Eng. Electrical and Electronics Eng. |
| 58 | Prof.Dr.Hayriye TÜTÜNCÜLER | Investigation of dye sensitized solar cells | Engineering Physics | Engineering Physics Electrical and Electronics Eng. Food Eng. |
| 59 | Prof.Dr.Ayda BEDALL | Prototype automatic glass-plastic bottle sorter for a recycling plant. | Engineering Physics | Engineering Physics Electrical and Electronics Eng. |
| 60 | Doç.Dr.Mustafa YILMAZ | Water harvesting from moisture in the air by 3D mesh nets. | Engineering Physics | Engineering Physics Optic and Ac. Eng. Mech. Eng. |
| 61 | Prof.Dr.Ramazan KOÇ | Paper and Water based battery design | Engineering Physics | Engineering Physics Optic and Ac. Eng. Electrical and Electronics Eng. Food Eng. Chemistry department |
| 62 | Prof. Dr. Nihat Atmaca | Design of Structural System, Mechanical Installation and Electrical System of Reinforced Concrete Buildings | Civil eng. | Civil eng. Mech. Eng. Mech. Eng. |
| 63 | Prof. Dr. Abdulkadir Çevik | Artificial Intelligence Applications in Engineering | Civil eng. | Civil eng. Mech. Eng. Electrical and Electronics Eng. Industrial Eng. |
| 64 | Prof. Dr. Esra Mete Güneysi | Design of a steel transmission tower based on safety, efficiency and sustainability | Civil eng. | Civil eng. Electrical and Electronics Eng. Mech. Eng. Industrial Eng. |
| 65 | 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. Mech. Eng. Electrical and Electronics Eng. |
| 66 | Prof. Dr. Mehmet İshak Yüce | Design and optimization of renewable energy sources and investigation of structural integrity | Civil eng. | Civil eng. Mech. Eng. Electrical and Electronics Eng. |
| 67 | Prof.Dr. Mustafa Özakça | Design of the future house (Energy efficient, Water efficient, Social responsibility and innovative design) | Civil eng. | Civil eng. Electrical and Electronics Eng. Mech. Eng. Industrial Eng. Architecture Students from departments other than those listed can take part |
| 68 | Prof. Dr. Hamza Güllü | Post-Earthquake Damage Evaluation of Buildings | Civil eng. | Civil eng. Mech. Eng. Electrical and Electronics Eng. |
| 69 | Prof. Dr. Talha Ekmekyapar | Design of an Industrial Steel Building with Sprinkler Fire Extinguishing System | Civil eng. | Civil eng. Mech. Eng. |
| 70 | Dr.Öğr. Üyesi Esra Eylem Karataş | Design of ecological and sustainable buildings | Civil eng. | Civil eng. Mech. Eng. Electrical and Electronics Eng. Architecture |
| 71 | Prof.Dr.Mustafa Günel | Flood Prediction and Disaster Risk Analysis using GIS | Civil eng. | Civil eng. Mech. Eng. |
| 72 | Dr. Öğr. Üyesi Ayşe Yeter GÜNAL | Flood Prediction and Disaster Risk Analysis using Artificial Intelligence | Civil eng. | Civil eng. Mech. Eng. |
| 73 | Doç. Dr. Mehmet Tolga GÖĞÜŞ | Design of extensometer for tensile testing of metals | Civil eng. | Civil eng. Mech. Eng. |
| 74 | Prof Dr Ali Fırat ÇABALAR | Sustainable materials for road pavement designs | Civil eng. | Civil eng. Metallurgical and Materials Eng. |
| 75 | Prof. Dr. Nilidem Tayşi | Optimum design and cost analysis of electrical transmission towers | Civil eng. | Civil eng. Mech. Eng. Electrical and Electronics Eng. Industrial Eng. |
| 76 | Prof. Dr. Aytaç Güven | Design of Efficient and Passive Buildings | Civil eng. | Civil eng. Mech. Eng. Electrical and Electronics Eng. Industrial Eng. |
| 77 | Prof.Dr.Serap U SEÇKİNER | Planning building and district energy systems considering simulate districts with heating and cooling networks, renewable energies, hydrogen technologies, heat pumps and seasonal storages | Industrial Eng. | Industrial Eng. Mech. Eng. |

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| 78 | Prof. Dr. Eren ÖZCEYLAN | Green Supplier Selection and Evaluation | Industrial Eng. | Industrial Eng. Food Eng. |
| 79 | Doç. Dr. Süleyman METE | Supply Chain Optimization and Data Analytics | Industrial Eng. | Industrial Eng. Mech. Eng. |
| 80 | Dr. Öğretim Üyesi Pınar KOCABEY ÇİFTÇİ | Investigation of circular economy and symbiotic relationship opportunities to increase the sustainability of the industry | Industrial Eng. | Industrial Eng. Mech. Eng. |
| 81 | Dr. Öğretim Üyesi Yunus EROĞLU | Wind Farm Layout Optimization using Heuristics | Industrial Eng. | Industrial Eng. Electrical and Electronics Eng. Mech. Eng. |
| 82 | Prof. Dr. Mehmet Topalbekiroğlu | Preparation of software for stepper motors for use in textile machines | Textile Engineering | Textile Engineering Mech. Eng. Electrical and Electronics Eng. |
| 83 | Prof. Dr. Cem Güneşoğlu | Web based testing laboratory search portal | Textile Engineering | Textile Engineering Electrical and Electronics Eng. Computer Engineering |
| 84 | Prof. Dr. Halil İbrahim Çelik | Design and production of conductive knitted fabric | Textile Engineering | Textile Engineering Electrical and Electronics Eng. |
| 85 | Prof. Dr. Hatice Kübra Kaynak | Investigation of conductive yarn production | Textile Engineering | Textile Engineering Metallurgical and Materials Eng. |
| 86 | Prof. Dr. Züleyha Değirmenci | Designing of thermoregulated textile structures | Textile Engineering | Textile Engineering Electrical and Electronics Eng. |
| 87 | 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 applied). | Textile Engineering | Textile Engineering Metallurgical and Materials Eng. Mech. Eng. Civil eng. Engineering Physics Industrial Eng. |
| 88 | Doç. Dr. Mehmet Erdem İNCE | The use of JUMP® statistical software package in engineering data analyses. | Textile Engineering | Textile Engineering All engineering departments |
| 89 | Doç. Dr. Halil İbrahim İÇOĞLU | Production and characterization of electrospun ceramic nanofibers | Textile Engineering | Textile Engineering Metallurgical and Materials Eng. |
| 90 | Dr. Öğr. Üyesi Hatice İbili | Production of functional textile surfaces | Textile Engineering | Textile Engineering Food Eng. |
| 91 | Doç. Dr. Abdulaziz KAYA | Design Of A Pilot Water Treatment Plant For The Removal Of Anionic Dyes From Textile Wastewater With The Use Of Cationic Adsorbent Materials | Metallurgical and Materials Eng. | Metallurgical and Materials Eng. Mech. Eng. Industrial Eng. Textile Engineering |
| 92 | Doç. Dr. Abdulkabbar YAVUZ | Fabrication of Flexible Electrode for Water Purification | Metallurgical and Materials Eng. | Metallurgical and Materials Eng. Textile Engineering Food Eng. |
| 93 | Doç. Dr. Derya KAPUSUZ YAVUZ | Design and cost analysis of a dental restorative production plant based on QCD principles | Metallurgical and Materials Eng. | Metallurgical and Materials Eng. Mech. Eng. Industrial Eng. |
| 94 | Doç. Dr. Mikail Aslan | Nanoclay reinforced Al-Cu composites | Metallurgical and Materials Eng. | Metallurgical and Materials Eng. Mech. Eng. Industrial Eng. |
| 95 | Doç. Dr. Mustafa Güven GÖK | Designing an automation system for Jominy-end quench testing machine | Metallurgical and Materials Eng. | Metallurgical and Materials Eng. Mech. Eng. Industrial Eng. |