

**2020-2021 EĞİTİM-ÖĞRETİM YILI BAHAR**  
**YARIYILI PROJE KONULARI**

**Prof. Dr. Beşir ŞAHİN**

- BŞ-1 Design of radial fan (Fluid Machinery dersini almış bir öğrenci)
- BŞ-2 Design of radial water pump (Fluid Machinery dersini almış Bir kişi)
- BŞ-3 Design of diffuser augmented wind turbine (Fluid Machinery ve Fluent derslerini almış Bir kişi)
- BŞ-4 Numerical analysis of heat exchangers using Fluent Package program (Fluent derslerini dersini almış üç öğrenci)
- BŞ-5 Absorption cooling system design using waste heat (Bir öğrenci)
- BŞ-8 Numerical analysis of bluff bodies (Car, fans, pumps etc, Fluent derslerini almış iki kişi)

**Prof. Dr. Vebil YILDIRIM**

- VY-1 Bending analysis of sandwich beams
- VY-2 Bending analysis of shafts with coats

**Prof. Dr. Kadir AYDIN**

- KA-1) Design and Manufacture of an Automatic Battery Welding Machine.
- KA-2) Design and Manufacture of an Automatic Battery Sorting Machine.
- KA-3) Design and Manufacture of a 6 Axis Industrial Robot.
- KA-4) Design and Manufacture of an Automatic Vapour Smoothing Machine.
- KA-5) Design and Analysis of a Li-Ion Battery Pack.
- KA-6) Design of a 5D Printer.
- KA-7) Design of a Metal 3D Printer.

**Prof. Dr. Naki TÜTÜNCÜ**

- NT-1 Use of Polymers and Polymer Composites in Mechanical Engineering Applications
- NT-2 Mechanics and Mechanical Properties of Biomaterials

**Prof. Dr. Melih Bayramoğlu**

- MB-1. Mold Design for Sand Casting

**Prof. Dr. Necdet GEREN**

- NG-1 Automated pneumatic packaging machine Design
- NG-2 Automated pneumatic filling machine Design
- NG-3 Automated pneumatic pressing and punching machine Design
- NG-4 Energy storage spring designs

**Prof. Dr. Abdulkadir EKŞİ**

- AE-1 Pressure Vessel Design and Analysis With SolidWorks software
- AE-2 Design Calculation of a Working Die
- AE-3 Sheet Metal Die Design
- AE-4 Plastic Injection Mold Design for Food Container.
- AE-5 Design and analysis of a Working Die.

### **Prof. Dr. Orhan BÜYÜKALACA**

- OBA-1 Effect of rotation speed on the performance of solid desiccant wheel.
- OBA-2 Effect of face velocity of process air on the performance of solid desiccant wheel.
- OBA-3 Effect of face velocity of regeneration air on the performance of solid desiccant wheel.
- OBA-4 Effect of temperature of process air on the performance of solid desiccant wheel.
- OBA-5 Effect of temperature of regeneration air on the performance of solid desiccant wheel.
- OBA-6 Effect of humidity ratio of process air on the performance of solid desiccant wheel.
- OBA-7 Effect of humidity ratio of regeneration air on the performance of solid desiccant wheel.

### **Prof. Dr. Hüseyin AKILLI**

- HA-1. Water supply systems in buildings
- HA-2. Design and optimization of wind turbine
- HA-3. Pipe networks design
- HA-4. Design of coal stove
- HA-5. Wind tunnel design

### **Prof. Dr. Hakan YAVUZ**

PLEASE NOTE:

Each of the below Project is for two students. Please have at least a friend for the PROJECT TEAM to work together, unless you think you can manage yourself alone.

- HY1) Drawing bot using Arduino Uno
- HY2) 3 axis force measurement
- HY3) CoreXY pen plotter
- HY4) Asmograf Pen Plotter
- HY5) EEZYxy DRAW BOT
- HY6) R-Draw BOT
- HY7) CNC Engraving BOT
- HY8) Miniature 3 Axis CNC Milling
- HY9) Mini PCB Drill
- HY10) Miniature OpenScan - 3D Scanner

### **Dr.Öğr.Üyesi Durmuş Ali BİRCAN**

- DAB-1 Design of a Smart Wheelchair for ALS patients
- DAB-2 Welding Simulations of Aluminum Alloy Joints by FEA
- DAB-3 Fatigue Analysis using ANSYS Workbench
- DAB-4 Design of Al-Jazari's Elephant Water Clock
- DAB-5 Green material selection for sustainability
- DAB-6 Industry 4.0 and future technologies

### **Dr.Öğr.Üyesi M. İteriş SARIGEÇİLİ**

- MİS-1. Design of a Robot
- MİS-2.Kinematic and Dynamic Analysis of Mechanisms
- MİS-3.Applications in Automatic Control

### **Dr.Öğr.Üyesi Gökçürk Memduh ÖZKAN**

- GMÖ-1 CFD analysis of low Reynolds number airfoils for Mars Exploration\*
- GMÖ-2 Aerodynamic enhancement of a garbage truck using Computational Fluid Dynamics\*
- GMÖ-3 Research project on the effect of highway source air pollution to human health and ecosystem: Calculation of pollutant load and design for possible reduction methods.

*\*The students must have been succeeded in the CFD course (MES421) for marked projects.*