

# ERCAN DÜZGÜN



## Mechanical Engineer

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Military Service: Completed (31.07.2012, As Sub-lieutenant; Team Commander)  
Driving Licence: B

## Education

### PhD Degree

09.2015-Still

### Uludağ University

Graduate School of Natural and Applied Science/ Department of Mechanical Engineering/  
Machine Theory and Dynamics Discipline

### Master of Science

09.2012-08.2015

### Uludağ University

Graduate School of Natural and Applied Science/ Department of Mechanical Engineering/  
Master Thesis: Design and Analysis of a Proportional Solenoid For Electro-Pneumatic Brake  
Valve of Heavy Vehicles

### Bachelor's Degree

09.2006-02.2011

### Eskişehir Osmangazi University

Faculty of Engineering, Department of Mechanical Engineering  
Bachelor's thesis: Researching Composite Materials Used in Automotive and Aerospace Ind.  
(Production Methods, Types, Usage Area, Advantages-Disadvantages)

## Working Experience

2015 - Still

**Uludağ University, Mechanical Engineering Dep.**  
**Teaching & Research Assistant** (Discipline of Machine Theory and Dynamics, Control)  
Research area: modelling and control of 6DOF industrial robotic arm

2014 - 2015

**Orakçı Machinery Industry and Trade Limited Company**  
**Research & Development Engineer**  
Designing and manufacturing new prototype products for Orakçı company(Waste Management Equipments:  
Hydraulic Pressing Trash Compactors), following up with the industrial property rights (patents) for new products.

2012 - 2014

**Karbonsan Pressure Vessels & Trading Co.**  
**Design Engineer**  
Calculations with the cryogenic pressure vessels (thickness, stress yield, pressure calculations etc.)  
Computer aided design; both 2D and 3D. Creating the projects before manufacturing with all aspects.

2012 - 2012

**Kurvalf Makine A.Ş.**  
**Design Engineer** 3D design for the ball valve components, 2D technical drawings, following

2010 (3 months)

**Ljubljana University Mechanical Engineering Department, Laboratory for Pumps, Compressors, Fans and  
Technical Acoustics, Ljubljana/Slovenia**  
Designing a centrifugal pump(calculations for the impeller and 2D dimensioning, 3D designing)  
Making a 3D model in Solidworks, Simulating and testing for flowing in Floworks, cavitation examinations, CFD  
analysis, reporting the results. Supervisor: Prof.Dr. Mirko Cudina

## Competences

Analysis Tools(MSC Adams, ANSYS Structural Analysis, ANSOFT/ANSYS Maxwell Electromagnetic Analysis)  
Computer Aided Design Programmes (Autocad 2D, Autodesk Inventor, Solidworks)  
Programming (Fortran 95, MATLAB), modelling (Simulink), ROS (Robot Operating System)  
PLC Programming  
Familiar with DAQ cards (have experience at NI6221), Familiar with Arduino projects  
Web designing tools (Dreamweaver, Photoshop, Basic HTML Coding)  
Linux(Ubuntu), LaTeX

## Publications

1. **Sefkat, G.,Düzgün, E., Yüksel, İ., Topçu, E., 2016.** The Design of a Proportional Solenoid Actuator and Investigation of The Static Characteristics., 2016 Automatic Control National Assembly, 29 September - 01 October 2016, Eskişehir/Turkey