

**Dr. FARUK KILIÇ**  
LECTURER



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### Education Information

Doctorate 2013 16 / Mar / 2017	<b>GAZI UNIVERSITY</b> SCIENCE INSTITUTE / ENERGY SYSTEMS ENGINEERING (DR)  Thesis title: EFFECTS OF FLUIDES WITH NANO SIZE OF METAL OXIDE IN SOLAR COLLECTORS ON PERFORMANCE (2017) Supervisor: (ADNAN SÖZEN)
Master 2007 25 / Feb / 2009	<b>KARABÜK UNIVERSITY</b> INSTITUTE OF SCIENCE / MACHINE EDUCATION (YL) (WITH THESIS)  Thesis name: Production and testing of spiral savonius turbines (2009) Thesis Advisor: (MEHMET ÖZKAYMAK)
License 1998 17 / Jan / 2003	<b>GAZI UNIVERSITY</b> MACHINE DEPARTMENT

### Tasks

**Lecturer (2009-2017)** : GAZİ UNIVERSITY / DEPARTMENT OF MACHINERY  
AND METAL TECHNOLOGIES / MACHINE PR.)

**Lecturer Dr.(2017- )** : GAZİ UNIVERSITY / DEPARTMENT OF MACHINERY  
AND METAL TECHNOLOGIES / MACHINE PR.)

### Tasks in Projects

\* Energy and environment development model for Turkey Project Code 2010 01 41,  
TUBITAK PROJECT, researchers, 27/03/2010 - 27/03/2012

\* Effect of different refrigerants with diffusion absorption and mini coolers on performance Project Code 41 2012 04, TÜBİTAK PROJECT, Researcher,, 17/05/2012 - 17/11/2013

\* Design and manufacture of a laboratory-type test device to determine the thermal conductivity of liquids and gases Project Code 07 2013 07, Scientific research project supported by Higher Education Institutions, Researcher,, 06/09/2013 - 12/02/2016

\* Determination of franchis turbine design parameters for river type hydroelectric power plants, Scientific research project supported by Higher Education Institutions, Researcher, 17/03/2011 - 17/03/2013

## **Administrative Duties**

### **Program Chairman**

(2017-2018) GAZİ UNIVERSITY / VOCATIONAL SCHOOL OF TECHNICAL SCIENCES

## **Works**

### **Articles published in international refereed journals:**

\* (2019). Faruk KILIÇ. Determination of Kinetics of Drying Grated and Sliced Red Radish (*Raphanus sativus*) and Energy Analysis. **Journal of Polytechnic**. (Early view) .

\* ÖZDEN SEMİH, KILIÇ FARUK Performance evaluation of GSA, SOS, ABC and ANN lgorithms on linear and quadratic modeling of eggplant drying kinetic. **Food Science and Technology**, Doi:<http://dx.doi.org/10.1590/fst.12719> (Publication No: 5995827)

\* KILIÇ FARUK (2019). Effect of External Insulation on Drying Time and Energy Consumption in Food Drying Oven. Gazi University Journal of Science and Technology Part C: Design and Technology, 7 (3), 604-613., Doi: 10.29109 / gujsc.570387 (Publication No: 5418143)

\* GÖKTAŞ MUSTAFA, KILIÇ FARUK (2019). Analysis of Air Flow Around the Savonius Wind Turbine Using the Calculable Fluid Dynamics Method. **Journal of Polytechnic**, 22, 11-17., Doi: 10.2339 / polytechnic.417753 (Publication No: 5418228)

\* KILIÇ FARUK, GÖKTAŞ MUSTAFA (2018). Numerical Analysis of Savonius Wind Turbine (Double and Triple) Wing Circumference Flow. Süleyman Demirel University Journal of the Institute of Science, 22 (3), 1256-1261., Doi: 10.19113 / sdufenbed.501728 (Publication No: 5418299)

\* KILIÇ FARUK, MENLİK TAYFUN, SÖZEN ADNAN (2018). Effect of titanium dioxide / water nanofluid use on thermal performance of the flat plate solar collector. **SOLAR ENERGY**, 164, 101-108., Doi: 10.1016 / j.solener.2018.02.002 (Publication No: 4596898)

\* SÖZEN ADNAN, MENLİK TAYFUN, GÜRÜ METİN, IRMAK A F, KILIÇ FARUK, AKTAŞ MUSTAFA (2016). Utilization of Fly Ash Nanofluids in Two phase Closed Thermosyphon for Enhancing Heat Transfer. **EXPERIMENTAL HEAT TRANSFER**, 29 (3), 337-354., Doi: 10.1080 / 08916152.2014.976724 (Publication No: 1354444)

\* SÖZEN ADNAN, MENLİK TAYFUN, GÜRÜ METİN, BORAN KURTULUŞ, KILIÇ FARUK, AKTAŞ MUSTAFA, Çakır M (2016). A comparative investigation on the effect of fly ash and alumina nanofluids on the thermal performance of two phase closed thermo syphon heat pipes. **Applied Thermal Engineering**, 96, 330-337., Doi: 10.1016 / j.applthermaleng.2015.11.038 (Publication No: 1665677)

\* VARIYENLİ HALİL İBRAHİM, ÖZDEMİR MUSTAFA BAHADIR, ÖZKAYA MUSA GALIP, KILIÇ FARUK, Kaçmaz halit (2015). COMPARISON OF FLAT AND ENCLOSURE SURFACE DRYING OVEN PERFORMS. **JOURNAL OF GAZI ENGINEERING SCIENCES**, 1 (2), 305-324. (Publication No: 1665805)

\* VARIYENLİ HALİL İBRAHİM, ÖZDEMİR MUSTAFA BAHADIR, KAÇMAZ HALİT, KILIÇ FARUK (2014). Experimental Investigation of Design Manufacturing and Performance of Different Types of Solar Cooker. **Gazi University Journal of Science and Technology Part: C**, 2 (4), 333-342. (Publication No: 1561916)

### **Papers presented at international scientific meetings and published in proceedings:**

\* KILIÇ FARUK, KÖSE ALİ (2017). ARDUINO BASED HUMIDITY SENSITIVE FAN CONTROL DESIGN FOR FRUIT-VEGETABLE DRYING MACHINES. 1st International Turkish World Engineering and Science Congress, 176-180. (Full Text Paper / Oral Presentation) (Publication No: 3772761)

\* KILIÇ FARUK, GÖKTAŞ MUSTAFA (2017). NUMERICAL ANALYSIS OF TWO AND THREE BLADES SAVONIUS WIND TURBINESIC AND NUMERICAL ANALYSIS OF THREE WING SAVONIUS WIND TURBINES. 2nd International Conference on Material Science and Technology in Cappadocia (IMSTEC'17), October 11-13, 2017, Nevsehir, Turkey (Full Text Paper / Oral Presentation) (Publication No: 3853911)

\* KILIÇ FARUK, GÖKTAŞ MUSTAFA (2017). ANALYSIS OF THE AIRFLOW AROUND THE SAVONIUS WIND TURBINE USING COMPUTABLE FLUID DYNAMICS METHOD SAVONIUS ANALYSIS OF THE AIR FLOW IN THE WIND TURBINE DYNAMIC METHOD. 2nd International Conference on Material Science and Technology in Cappadocia (IMSTEC'17) (Full Text Paper / Oral Presentation) (Publication No: 3853748)

\* MENLİK TAYFUN, KILIÇ FARUK, SÖZEN ADNAN (2017). THE EFFECT OF USING TITANIUM DIOXIDE-WATER NANO FLUID ON THERMAL PERFORMANCE IN FLAT SURFACE SOLAR COLLECTORS. IDEFIS 2017 II. International Defense Industry

Symposium (Full Text Paper / Oral Presentation) (Publication No: 3571394)

\* MENLIK TAYFUN, KILIÇ FARUK, SÖZEN ADNAN (2017). The Effect of Titanium Dioxide-Water Nanofluid on Thermal Performance in Plane Surface Solar Collectors. II. International Defense Industry Symposium (Full Text Paper / Oral Presentation) (Publication No: 3854889)

\* MENLIK TAYFUN, SÖZEN ADNAN, KILIÇ FARUK, KARACA DOĞUKAN (2017). Optimization of Parameters Affecting the Performance of Heat Pipes. II. International Defense Industry Symposium, 1088-1109. (Full Text Paper / Oral Presentation) (Publication No: 3571389)

\* MENLIK TAYFUN, SÖZEN ADNAN, KILIÇ FARUK (2017). Optimization of Parameters Affecting the Performance of Heat Pipes. 2nd International Defense Industry Symposium (Full Text Paper / Oral Presentation) (Publication No: 3854026)

\* KILIÇ FARUK, SÖZEN ADNAN, MENLİK TAYFUN (2016). 1st International Mediterranean Science and Engineering Congress IMSEC 2016. (IMSEC 2016), 237-241. (Full Text Paper / Oral Presentation) (Publication No: 3117232)

\* ÖZDEMİR MUSTAFA BAHADIR, KILIÇ FARUK (2016). Thermo-economic Analysis of Different Types of Collectors. 1st International Mediterranean Science and Engineering Congress (IMSEC 2016) (Full Text Paper / Oral Presentation) (Publication No: 3116928)

\* KILIÇ FARUK, MENLIK TAYFUN, SÖZEN ADNAN, GÜRÜ TEXT (2015). A Novel Nanofluid Research Application of Fly Ash Nanofluids in a Two Phase Closed Thermosyphon Heat Pipe. 7. International Powder Metallurgy Conference & Exhibition (Full Text Paper / Oral Presentation) (Publication No: 1354467)

### **Articles published in national refereed journals:**

\* KILIÇ FARUK, ÇAY YUSUF (2011). Spiral Savonius Turbine Manufacturing and Experimental Investigation. Journal of Mechanical Technologies Electronics, 8 (1), 79-85. (Control No: 1354473)

### **Art and design events:**

\* National, Exhibitions / Exhibitions organized by Public Institutions /, 28.04.2017-28.12.2017, yenimahalle science festival, yenimahalle ragıp tüzün park, (No: 166127)

## **Design:**

\* ARDUINO BASED MOISTURE RESPONSE FAN CONTROL DESIGN FOR FRUIT-VEGETABLE DRYING MACHINES, Faruk Kılıç, ali köse, Scientific Design, Drying is an important part of food processing processes. In our country, there has been an increase in the production of conventional dryers in recent years. In this study, a system that measures the temperature and humidity values of the air coming out of the drying cabinet in the drying devices using Arduino, which is one of the new generation processors, and adjusts the fan speed depending on the humidity value. As a result, a modular system that is open to development has been installed and the problem of scorching and not being able to dry homogeneously has been improved depending on the drying rate observed in vegetable-fruit drying systems. In our country, there has been an increase in the production of conventional dryers in recent years. In this study, a system that measures the temperature and humidity values of the air coming out of the drying cabinet in the drying devices using Arduino, which is one of the new generation processors, and adjusts the fan speed depending on the humidity value. As a result, a modular system that is open to development has been installed and the problem of scorching and not being able to dry homogeneously has been improved depending on the drying rate observed in vegetable-fruit drying systems., 07.12.2017 -10.12.2017