

Prof. MUSTAFA TOLGA BALTA

Personal Information

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International Researcher IDs

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Education Information

Doctorate, Ege University, Fen Bilimleri Enstitüsü, Termodinamik (Dr), Turkey 2007 - 2010

Postgraduate, Nigde Omer Halisdemir University, Fen Bilimleri Enstitüsü, Makine Mühendisliği (YI) (Tezli), Turkey 2002 - 2005

Undergraduate, Nigde Omer Halisdemir University, Aksaray Mühendislik Fakültesi, Makine Mühendisliği Pr., Turkey 1997 - 2002

Dissertations

Doctorate, Jeotermal esaslı hidrojen üretim sistemlerinin ekserji ve eksergoekonomik analizi, Ege University, Fen Bilimleri Enstitüsü, Termodinamik (Dr), 2010

Postgraduate, Jeotermal kaynaklı ısı pompasının mevcut hidronik sistemlere entegrasyonu, Nigde Omer Halisdemir University, Fen Bilimleri Enstitüsü, Makine Mühendisliği (YI) (Tezli), 2005

Academic Titles / Tasks

Professor, Usak University, Mühendislik Fakültesi, Makine Mühendisliği Bölümü, 2019 - Continues

Associate Professor, Necmettin Erbakan University, Mühendislik Ve Mimarlık Fakültesi, Makine Mühendisliği Bölümü, 2018 - 2019

Associate Professor, Aksaray University, Mühendislik Fakültesi, Makine Mühendisliği Bölümü, 2014 - 2018

Assistant Professor, Aksaray University, Mühendislik Fakültesi, Makine Mühendisliği Bölümü, 2011 - 2014

Research Assistant, Ege University, Mühendislik Fakültesi, Makine Mühendisliği Bölümü, 2009 - 2010

Research Assistant, Ontario Canada Üniversitesi, Faculty Of Engineering And Applied Science, Mechanical Engineering, 2008 - 2009

Research Assistant, Ege University, Mühendislik Fakültesi, Makine Mühendisliği Bölümü, 2007 - 2008

Research Assistant, Aksaray University, Mühendislik Fakültesi, Makine Mühendisliği Bölümü, 2003 - 2007

Academic and Administrative Experience

Usak University, 2020 - Continues

Usak University, 2022 - 2023

Usak University, 2022 - 2023

Aksaray University, 2015 - 2016

Aksaray University, 2011 - 2012

Courses

Isı Transferleri, Undergraduate, 2018 - 2019

Mühendislik Termodinamiği, Undergraduate, 2018 - 2019

TERMODİNAMİK I, Undergraduate, 2015 - 2016, 2014 - 2015, 2013 - 2014

EKSERJİ ANALİZİ, Postgraduate, 2015 - 2016, 2014 - 2015, 2013 - 2014, 2012 - 2013

ISI POMPALARI VE UYGULAMALARI, Postgraduate, 2015 - 2016, 2014 - 2015, 2013 - 2014, 2012 - 2013

SANAYİDE ENERJİ YÖNETİMİ I, Undergraduate, 2015 - 2016, 2014 - 2015, 2013 - 2014, 2012 - 2013

Mühendislik Etiği, Undergraduate, 2014 - 2015

Düşük Ekserjili Isıtma ve Soğutma Sistemleri, Postgraduate, 2013 - 2014, 2012 - 2013

Isıl Sistemlerin Ekserji Yöntemiyle Analizi, Postgraduate, 2013 - 2014, 2012 - 2013

Uygulamalı Termodinamik , Undergraduate, 2013 - 2014

Sanayide Enerji Yönetimi II, Undergraduate, 2013 - 2014, 2012 - 2013

ISI TRANSFERİ I, Undergraduate, 2012 - 2013, 2011 - 2012

Isı Transferi II, Undergraduate, 2012 - 2013, 2011 - 2012

Advising Theses

MUSTAFA TOLGA B., Hidrojen üretiminde vanadyum klor termokimyasal çevriminin enerji ve ekserji analizi, Postgraduate, M.ZAHİT(Student), 2021

MUSTAFA TOLGA B., Yenilenebilir enerji tabanlı termoelektrik güç üretimi ve sistemin performansının değerlendirilmesi, Postgraduate, İ.CERAN(Student), 2016

MUSTAFA TOLGA B., Kurutma prosesinde kurutma hava hız ve sıcaklığının ekserji verimine etkisi, Postgraduate, M.ÖZDEŞ(Student), 2013

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Development of a sustainable hydrogen city concept and initial hydrogen city projects**
BALTA M. Ö., BALTA M. T.
Energy Policy, vol.166, 2022 (SCI-Expanded)
- II. **Dynamic thermo-ecological cost assessment and performance analyses of a multi generation system**
Ünal C., Açikkalp E., BALTA M. T., Hepbasli A.
International Journal of Hydrogen Energy, vol.46, no.40, pp.21198-21211, 2021 (SCI-Expanded)
- III. **Thermodynamic performance assessment of boron based thermochemical water splitting cycle for renewable hydrogen production**
BALTA M. T.
International Journal of Hydrogen Energy, vol.45, no.60, pp.34579-34586, 2020 (SCI-Expanded)

Books & Book Chapters

- I. **Thermodynamic Analysis of Geothermally Driven High-Temperature Steam Electrolysis System for Hydrogen Production**
BALTA M. T., dinçer i., HEPBAŞLI A.
in: Progress in Exergy Energy and the Environment, Dincer Ibrahim, Midilli Adnani Küçük Haydar, Editor, Springer, pp.157-167, 2014
- II. **Environmental Impact Assessment of Building Energy Systems**
BALTA M. T., dinçer i., HEPBAŞLI A.
in: Causes Impacts and Solutions to Global Warming, Dincer Ibrahim, Colpan Can Ozgur, KADIOĞLU Fethi, Editor,

Springer, pp.1077-1089, 2013

III. Exergy Analysis of Food Drying Processes

ÇOLAK GÜNEŞ N., BALTA M. T., İÇİER F., KUZGUNKAYA E., HEPBAŞLI A., ERBAY Z.

in: GLOBAL WARMING ENGINEERING SOLUTIONS, , Editor, Springer, London, pp.267-280, 2009

Refereed Congress / Symposium Publications in Proceedings

- I. **A METHODOLOGY FOR THERMODYNAMIC PERFORMANCE COMPARISON OF THE CROP PRODUCTION**
BALTA M. T.
TUBA World Conference on Energy Science and Technology (TUBA WCEST-2021), Turkey, 08 August 2021, pp.267-268
- II. **Hydrogen Powered Cities: A Perspective on Urban Planning**
BALTA M. Ö., BALTA M. T.
5th International Hydrogen Technologies Congress, Niğde, Turkey, 26 - 28 May 2021, pp.327-329
- III. **PERFORMANCE ASSESSMENT OF VANADIUM CHLORINE THERMOCHEMICAL CYCLE**
KELEŞ M. Z., BALTA M. T.
5th International Hydrogen Technologies Congress, Niğde, Turkey, 26 May 2021, pp.306-308
- IV. **Performance Assessment of Boron Thermochemical Cycle for Hydrogen Production**
BALTA M. T.
4th International Hydrogen Technologies Congress, Edirne, Turkey, 20 - 23 June 2019, pp.511-515
- V. **Environmental Impact Assessment of Electricity Production in Turkey**
YILMAZ F., SELBAŞ R., ÖZGÜR A. E., BALTA M. T.
Global Conference on Global Warming 2015, Atina, Greece, 24 - 27 May 2015
- VI. **THERMODYNAMIC PERFORMANCE ASSESSMENT OF SOLAR DRIVEN INTEGRATED HTSE FOR SUSTAINABLE HYRDOGEN PRODUCTION**
BALTA M. T., dinçer İ., HEPBAŞLI A.
International Conference On Hydrogen Production 2015, Oshawa, Canada, 3 - 06 May 2015, pp.823-837
- VII. **COMPARATIVE ASSESSMENT OF VARIOUS CHLORINE FAMILY CYCLES FOR HYDROGEN PRODUCTION**
BALTA M. T., dinçer İ., HEPBAŞLI A.
International Conference On Hydrogen Production 2015, Oshawa, Canada, 3 - 06 May 2015, pp.890-898

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