

Prof. Melike Nikbay

Personal Information

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International Researcher IDs

ORCID: 0000-0002-0857-2834

Publons / Web Of Science ResearcherID: J-6102-2015

ScopusID: 6507240272

Yoksis Researcher ID: 41938

Biography

Dr. Melike Nikbay received her B.S. and M.S degrees in Mechanical Engineering from Bogazici University in Istanbul, M.S. degree in Aerospace Engineering Sciences from University of Colorado at Boulder, and Ph.D. degree in Aerospace Engineering Sciences from University of Colorado at Boulder in 2002.

Dr. Melike Nikbay joined Istanbul Technical University as an Assistant Professor in 2004, and

has been a full Professor of Aerospace Engineering since 2017.

Dr. Melike Nikbay taught 23 different courses in undergraduate and graduate level. She is the co-author of 70 research articles which include journal papers, conference papers and book chapters.

Since 2008, Dr.Melike Nikbay has been assigned in NATO Science and Technology Organization, Applied Vehicle Panel and is currently chair of Technical Committee of Mechanical Systems, Structures and Materials.Dr.Nikbay spent one year of sabbatical at Multidisciplinary Science and Technology Center at US Air Force Research Laboratory in Wright Patterson Air Force Base in Dayton/Ohio working on Aeroelasticity. Next, she was invited and joined National Institute of Aerospace in Hampton/Virginia as senior research engineer and worked at NASA Langley Research Center for the Commercial Supersonic Technology Project.Her current primary research focus is in Multidisciplinary Analysis and Optimization, Aeroelasticity and Aeroelastic Optimization, Fluid-Structure Interaction, Sonic Boom Minimization, Sensitivity Analysis with Direct and Adjoint Methods, Reliability Based Design Optimization, Stochastic Optimization and Uncertainty Quantification.She received the Associate Fellow Award of American Aeronautics and Astronautics in 2017 and Young Contributor Award from NATO Science and Technology Organization in 2017.

Education Information

Doctorate, University of Colorado at Boulder, Aerospace Engineering Sciences Department, United States Of America
1998 - 2002

Postgraduate, University of Colorado at Boulder, Aerospace Engineering Sciences Department, United States Of America
1998 - 1999

Postgraduate, Bogazici University, Institute Of Science, Makine Mühendisliği (YI) (Tezli), Turkey 1996 - 1998

Undergraduate, Bogazici University, Faculty Of Engineering, Makina Mühendisliği Bölümü, Turkey 1991 - 1996

Foreign Languages

German, B1 Intermediate

French, B1 Intermediate

English

Dissertations

Doctorate, Coupled Sensitivity Analysis by Discrete-Analytical Direct and Adjoint Methods with Applications to Aeroelastic Optimization and Sonic Boom Minimization, University Of Colorado At Boulder, Aerospace Engineering Sciences Department, 2002

Postgraduate, The Heat Transfer Characteristics of Finned Tube Coil Heat Exchangers, Boğaziçi Üniversitesi, Mühendislik Fakültesi, Makina Muh, 1998

Research Areas

Industrial Engineering, Optimization Theory and Methods, Multiobjective Optimization, Nonlinear Programming, Aeronautical and Space Engineering, Aeronautical Engineering, Flight Sciences, Structural Technologies, Aerodynamics, Aeroelasticity, Design Techniques, Vehicle Dynamics and Modeling, Deformation, Stress, Vibration and Noise Analysis, Engineering and Technology

Academic Titles / Tasks

Professor, Istanbul Technical University, Uçak Ve Uzay Bilimleri Fakültesi, Uzay Mühendisliği Bölümü, 2017 - Continues
Professor, Isik University, Faculty Of Engineering, Makine Muhendisligi, 2011 - 2017

Associate Professor, Istanbul Technical University, Uçak Ve Uzay Bilimleri Fakültesi, Uzay Mühendisliği Bölümü, 2011 - 2017

Associate Professor, Isik University, Faculty Of Engineering, Makine Muhendisligi, 2011 - 2017

Assistant Professor, Istanbul Technical University, Uçak Ve Uzay Bilimleri Fakültesi, Uzay Mühendisliği Bölümü, 2004 - 2011

Lecturer PhD, Istanbul Technical University, Uçak Ve Uzay Bilimleri Fakültesi, 2003 - 2004

Research Assistant, University of Colorado at Boulder, Muhendislik Fakultesi, Ucak Ve Uzay Muhendisligi Bilimleri, 1998 - 2002

Academic and Administrative Experience

Head of Department, Istanbul Technical University, Fen Bilimleri Enstitüsü, Savunma Teknolojileri Anabilim Dalı, 2016 - 2020

İstanbul Teknik Üniversitesi, Uçak Ve Uzay Bilimleri Fakültesi, 2014 - 2014

İstanbul Teknik Üniversitesi, Uluslararası Teknik Deneyime Yönelik Öğrenci Değişim Birliği Türkiye Merkezi, 2011 - 2012

İstanbul Teknik Üniversitesi, Uçak Ve Uzay Bilimleri Fakültesi, Uzay Mühendisliği Bölümü, 2004 - 2010

İstanbul Teknik Üniversitesi, Uçak Ve Uzay Bilimleri Fakültesi, Uzay Mühendisliği Bölümü, 2004 - 2005

Courses

ME265 Fundamentals of Thermal Sciences, Undergraduate, 2016 - 2017

UUM546E Reliability Analysis in Aerospace Engineering, Postgraduate, 2016 - 2017

UZB362E: Compressible Aerodynamics, Undergraduate, 2016 - 2017

MUK204E: Strength of Materials 2, Undergraduate, 2016 - 2017

ME 362 Heat Transfer, Undergraduate, 2016 - 2017

MAT271E Probability and Statistics, Undergraduate, 2016 - 2017, 2013 - 2014

Supported Projects

Nikbay M., Gören Ö., Project Supported by Higher Education Institutions, Askeri Deniz ve Hava Araçlarının Stokastik Tasarım Optimizasyonu, 2018 - 2020

Nikbay M., Project Supported by Higher Education Institutions, S4T SUPERSONİK UÇAK KANADININ AEROELASTİK ANALİZLERİNDE BELİRSİZLİK ÖLÇÜMÜNÜN UYGULANMASI, 2015 - 2018

Nikbay M., Project Supported by Higher Education Institutions, Hırenas Kanadının Düşük ve Yüksek Reynolds Sayılarında Daimi ve Daimi Olmayan Aeroelastik Hesaplamaları, 2013 - 2018

Nikbay M., Project Supported by Higher Education Institutions, Bir Uçak Kanadının Analitik Yaklaşım ile Tabanlı Aeroelastik Optimizasyonu, 2012 - 2018

Nikbay M., Project Supported by Higher Education Institutions, KOMPOZİT BİR UÇAK KANADININ GÜVENİLİRLİK TABANLI AEROELASTİK OPTİMİZASYONU, 2010 - 2018

Nikbay M., Project Supported by Higher Education Institutions, Identification of Structural and Aeroelastic Properties of a Computational arw-2 Wing Model for Aeroelastic Optimization Applications, 2009 - 2018

Nikbay M., Project Supported by Higher Education Institutions, Aeroelastik Sistemlerin Paralel Ortamda Analizi ve Optimizasyonu İçin Çok Disiplinli Yazılımların Bağlaşımı, 2008 - 2018

Nikbay M., Project Supported by Higher Education Institutions, NATO-RTO AVT-203 Aeroelastik Öngörü Çalıştayı için Hesaplamalı Aeroelastisite Araştırmaları, 2012 - 2014

Memberships / Tasks in Scientific Organizations

Mekanik Sistemler, Yapılar ve Malzemeler Teknik Komitesi, Chairman, 2016 - Continues

Metrics

Publication: 60

Citation (WoS): 36

Citation (Scopus): 71

H-Index (WoS): 2

H-Index (Scopus): 4

Non Academic Experience

MİLLÎ SAVUNMA BAKANLIĞI

NIA, located at NASA Langley Arastırma Merkezi

Air Force Research Laboratory/ Wright Patterson Air Force Base/USA

Kalekalip A.S. Savunma ve Havacılık Bölümü

Arcelik A.S. ARGE Merkezi