

Prof. AHMET CİHAT BAYTAŞ

Personal Information

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International Researcher IDs

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Publons / Web Of Science ResearcherID: EMQ-2502-2022

ScopusID: 6701368771

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Education Information

Doctorate, Istanbul Technical University, Nükleer Enerji Enstitüsü, Nükleer Enerji (Dr), Turkey 1985 - 1989

Postgraduate, Bogazici University, Fen-Edebiyat Fakültesi, Nükleer Mühendislik Bölümü, Turkey 1982 - 1984

Undergraduate, İstanbul Devlet Mühendislik Ve Mimarlık Akademisi, İstanbul Devlet Mühendislik Ve Mimarlık Akademisi, Makine Mühendisliği Pr., Turkey 1975 - 1981

Foreign Languages

English, B2 Upper Intermediate

Dissertations

Doctorate, Altkanal analizinde saptrılmış akış debisinin aksenal taşınım hızı için yeni bir yaklaşım, Istanbul Technical University, Nükleer Enerji Enstitüsü, Nükleer Enerji (Dr), 1989

Research Areas

Natural Sciences, Engineering and Technology

Academic Titles / Tasks

Professor, Istanbul Gelisim University, FACULTY OF ENGINEERING AND ARCHITECTURE, AERONAUTICAL ENGINEERING, 2021 - Continues

Professor, Istanbul Technical University, Uçak Ve Uzay Bilimleri, 2002 - 2021

Associate Professor, Istanbul Technical University, Nükleer Enerji Enstitüsü, 1996 - 2002

Assistant Professor, Istanbul Technical University, Nükleer Enerji Enstitüsü, 1990 - 1996

Research Assistant, Istanbul Technical University, Nükleer Enerji Enstitüsü, 1985 - 1990

Academic and Administrative Experience

Head of Department, Istanbul Gelisim University, FACULTY OF ENGINEERING AND ARCHITECTURE, AERONAUTICAL ENGINEERING, 2023 - Continues
Istanbul Technical University, 1999 - 2002

Courses

Statik, Undergraduate, 2023 - 2024
Termodinamik, Undergraduate, 2022 - 2023
Uçaklarda Buzlanma, Postgraduate, 2022 - 2023
Taşınım ile Isı geçişi, Postgraduate, 2022 - 2023
ISI GEÇİŞİ, Undergraduate, 2015 - 2016, 2014 - 2015
HAVA UZAY SİSTEMLERİNDE TAŞINIM OLAYLARI, Doctorate, 2015 - 2016, 2014 - 2015

Advising Theses

AHMET CİHAT B., Numerical simulation of aircraft icing with an adaptive thermodynamic model considering ice accretion, Doctorate, H.SIYAHİ(Student), 2022
AHMET CİHAT B., Kanat profili üzerinde oluşan buzun iki boyutta matematiksel modellenmesi ve sayısal çözümü, Postgraduate, R.DÖKME(Student), 2019
AHMET CİHAT B., Uçak gövdesinde yalıtım malzemesinin taşınım ile ısı geçişine etkisi, Postgraduate, O.ÇİÇEK(Student), 2018
AHMET CİHAT B., Karmaşık geometriler için eğrisel koordinatlarda sonlu hacimler yöntemi ile korunum denklemlerinin iki boyutlu çözülmesi, Postgraduate, T.ŞENER(Student), 2018
AHMET CİHAT B., Numerical investigation and thermal analysis of solar cavity receiver, Postgraduate, S.BİLMEZ(Student), 2018
AHMET CİHAT B., Düşey bir gözenekli kanalda yanmanın sayısal incelenmesi, Postgraduate, T.ERGEN(Student), 2016

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Entropy generation minimization of hybrid nanofluid mixed convection flow in lid-driven square enclosure with heat-generating porous layer on inner walls**
Çiçek O., Baytaş A. F., BAYTAŞ A. C.
International Journal of Numerical Methods for Heat and Fluid Flow, vol.34, no.2, pp.629-665, 2024 (SCI-Expanded)
- II. **Effect of natural convection hybrid nanofluid flow on the migration and deposition of MWCNT-Fe₃O₄ in a square enclosure**
Çiçek O., Sheremet M. A., BAYTAŞ A. C.
International Journal of Thermal Sciences, vol.190, 2023 (SCI-Expanded)
- III. **A numerical investigation of the particle behaviors and entropy generation in mixed convection inside a vented enclosure**
Çiçek O., Baytaş A. C.
International Journal of Thermal Sciences, vol.185, 2023 (SCI-Expanded)
- IV. **An adaptive approach for modelling ice accretion on aircraft**
Siyahi H., BAYTAŞ A. C.
Progress in Computational Fluid Dynamics, vol.23, no.4, pp.213-230, 2023 (SCI-Expanded)
- V. **Local thermal non-equilibrium conjugate forced convection and entropy generation in an aircraft cabin with air channel partially filled porous insulation**
Çiçek O., BAYTAŞ A. C.

Aircraft Engineering and Aerospace Technology, vol.94, no.2, pp.210-225, 2022 (SCI-Expanded)

- VI. **Nanofluid jet impingement heating of a cooled surface with a constant heat flux in the presence of porous layer**
Çiçek O., BAYTAŞ A. C.
International Journal of Numerical Methods for Heat and Fluid Flow, vol.32, no.2, pp.825-849, 2022 (SCI-Expanded)
- VII. **NUMERICAL INVESTIGATION OF NON-PREMIXED COMBUSTION INSIDE A THREE LAYERED POROUS BURNER WITH FLAMELET MODEL ÜÇ KATMANLI GÖZENEKLİ YAKICIDA ÖN KARIŞIMSIZ YANMANIN FLAMELET MODELİ İLE SAYISAL İNCELENMESİ**
Ergen T., Şener T., Tunçer O., BAYTAŞ A. C.
Isi Bilimi Ve Teknigi Dergisi/ Journal of Thermal Science and Technology, vol.41, no.1, pp.63-75, 2021 (SCI-Expanded)
- VIII. **Conjugate forced convection in a semi-cylindrical cavity with entropy generation**
Çiçek O., BAYTAŞ A. C.
International Journal of Numerical Methods for Heat and Fluid Flow, vol.22, no.7, pp.3879-3902, 2020 (SCI-Expanded)
- IX. **Entropy generation of mixed convection of SWCNT-water nanofluid filled an annulus with a rotating cylinder and porous lining under LTNE**
Çiçek O., Baytaş A. F., BAYTAŞ A. C.
International Journal of Numerical Methods for Heat and Fluid Flow, vol.31, no.5, pp.1588-1617, 2020 (SCI-Expanded)
- X. **Non-equilibrium natural convection in a differentially-heated nanofluid cavity partially filled with a porous medium**
Sheremet M. A., Pop I., BAYTAŞ A. C.
International Journal of Numerical Methods for Heat and Fluid Flow, vol.29, no.8, pp.2524-2544, 2019 (SCI-Expanded)
- XI. **Experimental study of foam layout effects on NO emission inside a porous burner with three porous media layers**
Şener T., BAYTAŞ A. C.
Indian Journal of Chemical Technology, vol.26, no.3, pp.258-260, 2019 (SCI-Expanded)
- XII. **Thermal Non-equilibrium Natural Convection in a Square Enclosure with Heat-Generating Porous Layer on Inner Walls**
Baytaş A. F., BAYTAŞ A. C.
Transport in Porous Media, vol.120, no.1, pp.167-182, 2017 (SCI-Expanded)
- XIII. **Numerical investigation of a 5 kW porous medium burner with an integrated heat exchanger**
Ergen T., Tunçer O., BAYTAŞ A. C.
Isi Bilimi Ve Teknigi Dergisi/ Journal of Thermal Science and Technology, vol.36, no.2, pp.61-68, 2016 (SCI-Expanded)
- XIV. **Preliminary investigation of a swirl stabilized premixed combustor**
Tunçer O., Kaynaroglu B., Karakaya M. C., Kahraman S., Çetiner Yıldırım N. L. O., BAYTAŞ A. C.
Fuel, vol.115, pp.870-874, 2014 (SCI-Expanded)
- XV. **Analytical determination of the permeability for slow flow past periodic arrays of cylinders with different cross sections**
BAYTAŞ A. C., Erdem D., Acar H., Çetiner Yıldırım N. L. O., Başci H.
Journal of Porous Media, vol.15, no.11, pp.1009-1018, 2012 (SCI-Expanded)
- XVI. **Minimum entropy generation for laminar boundary layer flow over a permeable plate**
Réveillère A., BAYTAŞ A. C.
International Journal of Exergy, vol.7, no.2, pp.164-177, 2010 (SCI-Expanded)
- XVII. **Double diffusive natural convection in an enclosure filled with a step type porous layer: Non-Darcy flow**
BAYTAŞ A. C., Baytaş A. F., Ingham D., Pop I.

- International Journal of Thermal Sciences, vol.48, no.4, pp.665-673, 2009 (SCI-Expanded)
- XVIII. **Thermal stresses due to conjugate oscillatory free convection in an enclosure**
Türkmen H. S., BAYTAŞ A. C.
Energy Conversion and Management, vol.49, no.12, pp.3439-3446, 2008 (SCI-Expanded)
- XIX. **Free convection in a wavy cavity filled with heat-generating porous media**
Mısırlıoğlu A., BAYTAŞ A. C., Pop I.
Journal of Porous Media, vol.9, no.3, pp.207-222, 2006 (SCI-Expanded)
- XX. **Natural convection inside an inclined wavy enclosure filled with a porous medium**
Mısırlıoğlu A., BAYTAŞ A. C., Pop I.
Transport in Porous Media, vol.64, no.2, pp.229-246, 2006 (SCI-Expanded)
- XXI. **Free convection in a wavy cavity filled with a porous medium**
Mısırlıoğlu A., BAYTAŞ A. C., Pop I.
International Journal of Heat and Mass Transfer, vol.48, no.9, pp.1840-1850, 2005 (SCI-Expanded)
- XXII. **Numerical analysis of buoyant flow in a hemispherical enclosure at high Rayleigh numbers**
Liaqat A., BAYTAŞ A. C.
Heat and Mass Transfer/Waerme- und Stoffuebertragung, vol.40, no.1-2, pp.99-104, 2003 (SCI-Expanded)
- XXIII. **Thermal non-equilibrium natural convection in a square enclosure filled with a heat-generating solid phase, non-Darcy porous medium**
BAYTAŞ A. C.
International Journal of Energy Research, vol.27, no.10, pp.975-988, 2003 (SCI-Expanded)
- XXIV. **Free convection in a square porous cavity using a thermal nonequilibrium model**
BAYTAŞ A. C., Pop I.
International Journal of Thermal Sciences, vol.41, no.9, pp.861-870, 2002 (SCI-Expanded)
- XXV. **Free convection in spherical annular sectors filled with a porous medium**
BAYTAŞ A. C., Grosan T., Pop I.
Transport in Porous Media, vol.49, no.2, pp.191-207, 2002 (SCI-Expanded)
- XXVI. **Numerical comparison of conjugate and non-conjugate natural convection for internally heated semi-circular pools**
Liaqat A., BAYTAŞ A. C.
International Journal of Heat and Fluid Flow, vol.22, no.6, pp.650-656, 2001 (SCI-Expanded)
- XXVII. **Cooling of molten core material within a pressurised water reactor vessel lower head: Interaction of surface radiation and wall conduction with free convection**
Liaqat A., BAYTAŞ A. C.
International Journal of Engineering Science, vol.39, no.18, pp.2089-2102, 2001 (SCI-Expanded)
- XXVIII. **Characteristics of conjugate free convection in a corium pool formed during a severe reactor accident**
Liaqat A., BAYTAŞ A. C.
International Journal of Engineering Science, vol.39, no.12, pp.1351-1360, 2001 (SCI-Expanded)
- XXIX. **Conjugate natural convection in a square enclosure containing volumetric sources**
Liaqat A., BAYTAŞ A. C.
International Journal of Heat and Mass Transfer, vol.44, no.17, pp.3273-3280, 2001 (SCI-Expanded)
- XXX. **Natural convection in a trapezoidal enclosure filled with a porous medium**
BAYTAŞ A. C., Pop I.
International Journal of Engineering Science, vol.39, no.2, pp.125-134, 2001 (SCI-Expanded)
- XXXI. **Conjugate natural convection in a square porous cavity**
BAYTAŞ A. C., Liaqat A., Grosan T., Pop I.
Heat and Mass Transfer/Waerme- und Stoffuebertragung, vol.37, no.4-5, pp.467-473, 2001 (SCI-Expanded)
- XXXII. **Heat transfer characteristics of internally heated liquid pools at high Rayleigh numbers**
Liaqat A., BAYTAŞ A. C.
Heat and Mass Transfer/Waerme- und Stoffuebertragung, vol.36, no.5, pp.401-405, 2000 (SCI-Expanded)
- XXXIII. **Free convection in oblique enclosures filled with a porous medium**

BAYTAŞ A. C., Pop I.

International Journal of Heat and Mass Transfer, vol.42, no.6, pp.1047-1057, 1999 (SCI-Expanded)

XXXIV. **Optimization in an inclined enclosure for minimum entropy generation in natural convection**

BAYTAŞ A. C.

Journal of Non-Equilibrium Thermodynamics, vol.22, no.2, pp.145-155, 1997 (SCI-Expanded)

Articles Published in Other Journals

I. **Buoyancy-driven flow in an enclosure containing time periodic internal sources**

BAYTAŞ A. C.

Heat and Mass Transfer/Waerme- und Stoffuebertragung, vol.31, no.3, pp.113-119, 1996 (Scopus)

II. **Comparison of prediction and Tapucu experimental data for determination of the axial velocity in the gap region**

BAYTAŞ A. C.

Nuclear Technology, vol.90, no.3, pp.417-425, 1990 (Scopus)

Books & Book Chapters

I. **TAŞINIM İLE ISI GEÇİŞİ**

BAYTAŞ A. C.

Nobel akademik yayıncılık eğitim danışmanlık tic. ltd. şti, İstanbul, 2015

II. **ENTROPY GENERATION IN POROUS MEDIA**

BAYTAŞ A. C., BAYTAŞ A. F.

in: TRANSPORT PHENOMENA IN POROUS MEDIA VOL III, D.B. INGHAM VE İ. POP, Editor, ELSEVIER, Amsterdam, pp.201-226, 2005

Refereed Congress / Symposium Publications in Proceedings

I. **Numerical investigation on Non Premixed Combustion Inside a Three Layered Porous Burner with Flamelet Model, 4th International conference on computational and experimental science and engineering (ICCESEN-2017)**

ERGEN T., SENER T., TUNÇER O., BAYTAŞ A. C.

International conference on computational and experimental science and engineering, Antalya, Turkey, 4 - 08 October 2017

II. **Experimental study a porous burner with three porous layers, 4th International conference on computational and experimental science and engineering (ICCESEN-2017) 4-8 October 2017, Antalya -Turkiye.**

Sener T., BAYTAŞ A. C.

4th International conference on computational and experimental science and engineering, Antalya, Turkey, 4 - 08 October 2017

III. **Numerical Investigation of Non-Premixed Combustion Inside a Three Layered Porous Burner With Flamelet Model**

ERGEN T., ŞENER T., TUNÇER O., BAYTAŞ A. C.

ICCESEN 2017 - 4TH INTERNATIONAL CONFERENCE ON COMPUTATIONAL AND EXPERIMENTAL SCIENCE AND ENGINEERING, Antalya, Turkey, 4 - 08 October 2017

IV. **Muhittin Celep, Yusuf Ata, A. Cihat Baytaş, Numerical study on one dimensional pyrolyzing thermal protection systems, 10th Mediterranean Combustion Symposium, Naples, Italy, 17-21, 2017.**

BAYTAŞ A. C., Ata Y., Celep M.

10th Mediterranean Combustion Symposium, Naples, Italy, 17 - 21 July 2017

- V. **Effect of radiation on the solutions of Sandia Flame D with the flamelet model**
Serkan M., TUNÇER O., BAYTAŞ A. C.
8th International Symposium on Turbulence, Heat and Mass Transfer, 15 - 18 September 2015
- VI. **Eect of Radiation on the Solutions of SANDIAFlame D with the Flamelet Model**
SERKAN M., TUNÇER O., BAYTAŞ A. C.
8thANKARA INTERNATIONAL AEROSPACE CONFERENCE AIAC-2015-00010-12 September 2015 - METU, Ankara
TURKEY, Ankara, Turkey, 10 - 12 September 2015
- VII. **DÜŞEY BİR GÖZENEKLİ KANALDA YANMAMNIN ISIL DENGESİZ MODEL İLE SAYISAL OLARAK İNCELENMESİ**
ERGEN T., TUNÇER O., BAYTAŞ A. C.
ULIBTK'15 20. Ulusal Isı Bilimi ve Tekniği Kongresi02-5 Eylül 2015, BALIKESİR, Balıkesir, Turkey, 2 - 05 September 2015
- VIII. **SANDIA D ALEV SİMÜLASYONUNDA RADYASYON ETKİSİNİN FLAMELET MODELİ KULLANILARAK İNCELENMESİ**
MENĞİ S., TUNÇER O., BAYTAŞ A. C.
ULIBTK'15 20. Ulusal Isı Bilimi ve Tekniği Kongresi02-5 Eylül 2015, BALIKESİR, Balıkesir, Turkey, 2 - 05 September 2015
- IX. **Numerical and experimental investigation of a porous medium burner**
Ata Y., BAYTAŞ A. C.
International Symposium on Convective Heat and Mass Transfer, CONV 2014, Kusadasi, Turkey, 8 - 13 June 2014, pp.1163-1174
- X. **Numerical investigation of a 5 kw power porous medium burner**
Ergen T., Tunçer O., BAYTAŞ A. C.
International Symposium on Convective Heat and Mass Transfer, CONV 2014, Kusadasi, Turkey, 8 - 13 June 2014, pp.1077-1088
- XI. **A numerical study of combined natural and Marangoni convection in a square cavity**
Çiçek K., BAYTAŞ A. C.
8th International Navigational Symposium on Marine Navigation and Safety of Sea Transportation, Trans-Nav 2009, Gdynia, Poland, 17 - 19 June 2009, pp.517-522
- XII. **Transient conjugate heat transfer in a 2-D pool of molten core material of a light water reactor**
Liaqat A., BAYTAŞ A. C.
European Congress on Computational Methods in Applied Sciences and Engineering, ECCOMAS 2000, Barcelona, Spain, 11 - 14 September 2000
- XIII. **The resonance of natural convection in a cavity containing time periodic internal sources**
BAYTAŞ A. C.
International Symposium on Advances in Computational Heat Transfer, CHT 1997, Çeşme, Turkey, 26 - 30 May 1997

Awards

Baytaş A. C., Stanford Üniversitesi'nin her yıl gerçekleştirdiği "Dünyanın En Etkili Bilim İnsanları" listesi açıklandı. "Kariyer Boyu Etki" ve "Yıllık Etki" olarak iki kategoride yayımlanan listede, İstanbul Gelişim Üniversitesi'nden 4 akademisyen yer aldı., Stanford Üniversitesi, October 2023