

CURRICULUM VITAE

Name Surname : İbrahim KOÇ
Title : Asst.Prof.Dr
Date of Birth : September 01, 1970

Education :

| Degree | Area | University | Year |
|---------------|------------------------|-------------------------------|------|
| PhD | Mechanical Engineering | İstanbul Technical University | 2006 |
| MSc | Mechanical Engineering | İstanbul Technical University | 1994 |
| Bachelor's D. | Mechanical Engineering | İstanbul Technical University | 1991 |

PhD Dissertation Title and Advisor:

“Experimental and computational investigation of film cooling on the blade of gas turbine”

Prof. Dr. Cem PARMAKSIZOĞLU

MSc Dissertation Title and Advisor:

“Two dimensional temperature distribution on a gas turbine blade”

Prof. Dr. Cem PARMAKSIZOĞLU

Professional Background

| Title | Institution | Year |
|---------------------|--|-----------|
| Mechanical Engineer | Air Supply & Maintenance Center (TuAF) | 1993-2000 |
| Teaching Assistant | Turkish Air Force Academy | 2000-2006 |
| Assistant Professor | Turkish Air Force Academy | 2006-2016 |
| Assistant Professor | Istanbul Gelisim University | 2016-2018 |
| Assistant Professor | Altinbas University | 2018- |

Research Areas: Thermodynamics, Heat Transfer, Gas Turbine, Computational Fluid Dynamics (CFD)

MSc and PhD Theses Supervised

MSc Theses Supervised

- "Investigation of CN-235 CASA Air Curtain Wing Design with Calculated Fluid Dynamics", İlyas KARAOĞLU, Air Force Academy, Institute of Aerospace Technologies, 2014-2015.

- "Investigation of the Reduction of Drag Force for Various Wing Tip Models by Using Computational Fluid Dynamics Methods", Erkan YILDIZ, Air Force Academy, Institute of Aerospace Technologies, 2014-2015. (Co-supervising)
- "The design of a hybrid fuel rocket which can locate a communications satellite into the orbit", İLHAN TURCAN, Air Force Academy, Institute of Aerospace Technologies, 2013.
- "Utilization of NANO IHA's and their use in battle environments", Aytuğ AKKOR, Air Force Academy, Institute of Aerospace Technologies, 2011.

PhD Theses Supervised

- "Desing, Manufacture and Performance Analysis of a Microwave Electro Thermal Thruster System", Mehmet Serhan YILDIZ, Air Force Academy, Institute of Aeronautics and Astronautics, 2016. (Co-supervisor)

Publications

A. International Journal Papers

A1. Koç İbrahim, İslamoğlu Yaşar, Akdağ Ünal (2009). Investigation of film cooling effectiveness and heat transfer coefficient for rectangular holes with two rows. Aircraft Engineering and Aerospace Technology, 81(2), 106-117.

A2. Taymaz İmdat, **Koç İbrahim**, İslamoğlu Yaşar (2008). Experimental study on forced convection heat transfer characteristics in a converging diverging heat exchanger channel. Heat and Mass transfer, 44(10), 1257-1262.

A3. Koç İbrahim (2007). Experimental and numerical investigation of film cooling effectiveness for rectangular injection holes. Aircraft Engineering and Aerospace Technology, 79(6), 621-627.

A4. Koç İbrahim, Parmaksızoğlu İsmail Cem, Çakan Murat (2006). Numerical Investigation of Film Cooling Effectiveness on the Curved Surface. Energy Conversion and Management, 47(9-10),1231-1246.

A.5 Koç İbrahim, Parmaksızoğlu İsmail Cem (2013). Free Cooling in the Water Cooling Towers: a Case Study for Istanbul, Turkey. Gazi University Journal of Science, 26(3), 467-472.

A6. Koç İbrahim (2015). The use of liquefied petroleum gas lpg and natural gas in gas turbine jet engines. Advances in Energy Research, 3(1), 31-43., Doi: 10.12989/eri.2015.3.1.031.

A7. Koç İbrahim (2017). Thermal Stresses on a Reginal Cooling Plate. International Journal of Engineering Technologies-IJET, 3(3), 116-123.

A8. Koç İbrahim (2017). Experimental Investigation of Velocity and Turbulence Variations in Inclined Jet in Cross-Flow. Gazi University Journal of Science, 30(3), 63-77.

B. International Papers (Printed in Conference Proceedings)

B1. Çelik Murat, Özkan Ömer, **Koç İbrahim** (2015). Electrothermal Propulsion System Selection for Communication Satellite NSSK Maneuver Using Multi Criteria Decision Making Method. 7th International Conference on Recent Advances in Space Technologies "Emerging Private Space" RAST 2015.

B2. Pirge Gürsev, **Koç İbrahim**, Başaran Ali (2007). Possible Applications of Thermal Barrier Coatings in Space Practices. 3rd International Conference on Recent Advances in Space Technologies "Space for a More Secure World" RAST 2007

C. National Journal Papers

C1. **Koç İbrahim** (2012). Sıvı Kristalin Isı Transferi Uygulamalarında Kullanılması. Havacılık ve Uzay Teknolojileri Dergisi, 5(3), 61-65.

C2. Solum Cafer, **Koç İbrahim**, Altuntaş Yılmaz (2011). Çift Etkili LiBr-H₂O Akışkanlı Absorpsiyonlu Sogutma Sisteminde Termodinamiksel Büyüklüklerin Sistem Performansına Etkileri. Havacılık ve Uzay Teknolojileri Dergisi, 5(1), 19-26.

C3. **Koç İbrahim**, Parmaksızoğlu İsmail Cem (2006). Egrisel Yüzeyler Üzerinde Film Sogutmanın Sayısal İncelenmesi. İtÜ Dergisi, 5(5), 15-22.

C4. **Koç İbrahim** (2006). Silindirik Enjeksiyon Deliklerinde Film sogutma İncelenmesi. Havacılık ve Uzay Teknolojileri Dergisi, 2(4), 1-6.

C5. **Koç İbrahim**, Parmaksızoğlu İsmail Cem, İslamoğlu Yaşar (2006). Dikdörtgen Delikli Düz Levha Üzerinde Film Sogutmanın Deneysel İncelenmesi. Isı Bilimi ve Tekniği Dergisi, 26(1), 9-14.

D. National Conference Papers

D1. **Koç İbrahim**, SAYAR Ersin, Parmaksızoğlu İsmail Cem (2017). Bina Enerji Tüketiminin Isıl Modellenmesi. 13. ULUSAL TESİSAT MÜHENDİSLİĞİ KONGRESİ.

D2. Karabük Salih Burak, Kökalp Emir, **Koç İbrahim** (2014). Hidrojenle Çalışan IHA'nın Kavramsal Tasarımı ve İmalatı. Havacılıkta İleri teknolojiler Konferansı(HITEK 2014)

D3. **Koç İbrahim**, Altuntaş Yılmaz, Solum Cafer (2012). Gaz Türbin Kanadı Üzerinde İki Boyutlu Sıcaklık Dağılımının Çıkartılması. IV. Ulusal Havacılık ve Uzay Konferansı(UHUK 2012)

D4. **Koç İbrahim**, İslamoğlu Yaşar (2007). İki Sıralı Dikdörtgen Deliklerde Film Sogutma Etkenliği İncelemesi. 16. Ulusal Isı Bilimi ve Tekniği Kongresi (ULIBTK'07)

D5. Koç İbrahim, Parmaksızoğlu İsmail Cem (2004). Düz Bir Plaka Üzerinde Film Sogutmanın Sayısal İncelenmesi. Havacılıkta İleri Teknolojiler ve Uygulamaları Sempozyumu (HITEK)

D6. Koç İbrahim, Parmaksızoğlu İsmail Cem (2004). Egrisel Yüzeyde Film Sogutmanın Sayısal İncelenmesi. Havacılık Sempozyumu

Projects

- “Conceptual Design and Production of Hydrogen-Operated UAV”, The Scientific and Technological Research Council of Turkey (TUBITAK) Project, (Project Manager), 2014.
- “Microwave Electrothermal Rocket Design, Production and Testing as Space Propulsion System”, The Scientific and Technological Research Council of Turkey (TUBITAK) Project, (Researcher), 2016.

Undergraduate and graduate level courses in the last two years

| Academic Year | Semester | Course Name | Weekly Hours | | Number of Students |
|---------------|----------|--|--------------|----------|--------------------|
| | | | Theoretical | Practice | |
| 2018-2019 | Fall | Numerical Analysis | 3 | 1 | 79 |
| | | Special Topics in Mechanical Engineering I | 3 | - | 31 |
| | | Radiation Heat Transfer | 3 | - | 15 |
| | | Design Project | 1 | - | 10 |
| 2017-2018 | Fall | Piston Engines-I | 3 | - | 61 |
| | | Thermodynamics | 3 | - | 67 |
| | | Computer Aided Technical Drawing | 3 | 2 | 59 |
| | | Gas Turbine Engine-I | 3 | - | 52 |
| | Spring | Piston Engines-II | 3 | - | 50 |
| | | Basic Information Technologies | 3 | - | 4 |
| | | Mechanic | 3 | - | 58 |
| | | Gas Turbine Engine-I | 3 | - | 52 |
| | | Heat Transfer | 3 | - | 27 |
| | | Building installations | 2 | - | 15 |
| 2016-2017 | Fall | Heat Transfer | 3 | - | 10 |
| | | Piston Engines-I | 3 | - | 48 |
| | | Thermodynamics | 3 | - | 49 |
| | | Computer Aided Technical Drawing | 3 | 2 | 48 |
| | | Aircraft Material Information | 3 | - | 49 |

Editorial and Refereeing

- IV. National Aviation and Space Conference (UHUK 2012), Coordinator and Conference Proceedings Booklet Editor, 12-14 September 2012

Scientific Committee Membership and / or Referee:

- Journal of Aerospace Science and Technology (ISSN: 1270-9638)
- Applied Thermal Engineering
- International Journal of Thermal Sciences
- Journal of Thermal Science and Technology