

Prof. ALMILA GÜVENÇ YAZICIOĞLU

Personal Information

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Education Information

Doctorate, University Of Illinois At Chicago, Makina Mühendisliği (Tezli), United States Of America 1999 - 2004

Post Graduate, Middle East Technical University, Graduate School of Natural and Applied Sciences, Makine Mühendisliği (YI) (Tezli), Turkey 1997 - 1999

Under Graduate, Middle East Technical University, Faculty of Engineering, Makine Mühendisliği Bölümü, Turkey 1993 - 1997

Research Areas

Mechanical Engineering

Academic Titles / Tasks

Associate Professor, Middle East Technical University, Faculty of Engineering, Makine Mühendisliği Bölümü, 2011 - Continues

Assistant Professor, Middle East Technical University, Faculty of Engineering, Makine Mühendisliği Bölümü, 2006 - 2011

Lecturer, Middle East Technical University, Faculty of Engineering, Makine Mühendisliği Bölümü, 2005 - 2006

Professional Experience

Deputy Head of Department, Middle East Technical University, Faculty of Engineering, Makine Mühendisliği Bölümü, 2014 - 2017

Advising Theses

GÜVENÇ YAZICIOĞLU A., Optimization of a heat sink with heterogeneous heat flux boundary condition, Post Graduate, E.Turgut(Student), 2019

GÜVENÇ YAZICIOĞLU A., Failure analysis in adhesively bonded composite joints, Post Graduate, R.Deniz(Student), 2019

GÜVENÇ YAZICIOĞLU A., Integration of solar energy and industrial waste heat into an industrial zone with heat distribution network and optimization of energy sources for units, Post Graduate, S.Karımı(Student), 2019

GÜVENÇ YAZICIOĞLU A., Investigating the dominant factors regarding ignition transient in the design procedure of the nozzle of a pyrogen igniter, Post Graduate, Y.Yeşilyurt(Student), 2019

GÜVENÇ YAZICIOĞLU A., Co-cured manufacturing of advanced composite materials using vacuum assisted resin transfer molding, Post Graduate, M.AKIN(Student), 2018

GÜVENÇ YAZICIOĞLU A., Design and manufacturing of electrically conductive composites via microvascular channels, Doctorate, H.TANABI(Student), 2017

GÜVENÇ YAZICIOĞLU A., 3-d numerical simulations of fluid flow and heat transfer in various micro conduits, Doctorate,

M.BİLGEHAN(Student), 2017
YAVUZ M. M. , GÜVENÇ YAZICIOĞLU A., Effect of wing heating on flow structure of low swept delta wing, Post Graduate, G.ŞENCAN(Student), 2016
GÜVENÇ YAZICIOĞLU A., BAKER D. K. , Design and modeling of a novel rectifier with ceramic hollow fiber membrane contactor for miniaturized absorption cooling devices, Post Graduate, O.ÖZKAN(Student), 2015
GÜVENÇ YAZICIOĞLU A., BAKER D. K. , Modelling, transient simulation and parametric study of parabolic trough collector with thermal energy storage, Post Graduate, T.Akba(Student), 2014
GÜVENÇ YAZICIOĞLU A., BAKER D. K. , Modelling, transient simulations and parametric studies of parabolic trough collectors with thermal energy storage, Post Graduate, T.AKBA(Student), 2014
GÜVENÇ YAZICIOĞLU A., Experimental and theoretical investigations on alumina-water nanofluid viscosity with statistical analysis, Post Graduate, E.BEGÜM(Student), 2013
GÜVENÇ YAZICIOĞLU A., Experimental investigation of single phase liquid flow and heat transfer in multiport minichannels, Post Graduate, M.ALTINÖZ(Student), 2013
ERKOÇ Ş., GÜVENÇ YAZICIOĞLU A., Structural properties of defected graphene nanoribbons under tension: Molecular-dynamics simulations, Post Graduate, B.TÜZÜN(Student), 2012
SERT C., GÜVENÇ YAZICIOĞLU A., Experimental investigation of uninterrupted and interrupted microchannel heat sinks, Post Graduate, A.GÖZDE(Student), 2012
GÜVENÇ YAZICIOĞLU A., A numerical forced convection heat transfer analysis of nanofluids considering performance criteria, Post Graduate, O.KİREZ(Student), 2012
GÜVENÇ YAZICIOĞLU A., Experimental comparison of different minichannel geometries for use in evaporators, Post Graduate, Y.ATA(Student), 2012
GÜVENÇ YAZICIOĞLU A., Experimental investigation of R134A flow in a 1.65 mm copper minitube, Post Graduate, B.TEKİN(Student), 2011
GÜVENÇ YAZICIOĞLU A., Heat transfer enhancement with nanofluids, Post Graduate, S.ÖZERİNÇ(Student), 2010
GÜVENÇ YAZICIOĞLU A., Analysis of single phase convective heat transfer in microchannels with variable thermal conductivity and variable viscosity, Post Graduate, A.CEM(Student), 2010
GÜVENÇ YAZICIOĞLU A., Design and experimental investigation of microchannel heat exchanger, Post Graduate, M.Çetin(Student), 2010
GÜVENÇ YAZICIOĞLU A., Design and experimental investigation of a microchannel heat exchanger, Post Graduate, M.ÇETİN(Student), 2010
GÜVENÇ YAZICIOĞLU A., A Computer Code Based on the Thermal Network Method and the Ray Tracing Technique for the Thermal Analysis of Satellites, Post Graduate, H.GÜRGÜÇ(Student), 2009
GÜVENÇ YAZICIOĞLU A., Analytical solution for single phase microtube heat transfer including axial conduction and viscous dissipation, Post Graduate, M.BARIŞIK(Student), 2008
GÜVENÇ YAZICIOĞLU A., Effect of surface roughness in microchannels on heat transfer, Post Graduate, M.BİLGEHAN(Student), 2008

Articles Published in Journals That Entered SCI, SSCI and AHCI Indexes

- I. **Modeling, transient simulations and parametric studies of parabolic trough collectors with thermal energy storage**
Akba T., Baker D., GÜVENÇ YAZICIOĞLU A.
SOLAR ENERGY, vol.199, pp.497-509, 2020 (Journal Indexed in SCI)
- II. **Experimental study and Taguchi Analysis on alumina-water nanofluid viscosity**
Elcioglu E. B. , GÜVENÇ YAZICIOĞLU A., TURGUT A., Anagun A. S.
APPLIED THERMAL ENGINEERING, vol.128, pp.973-981, 2018 (Journal Indexed in SCI)
- III. **Numerical simulation of fluid flow and heat transfer in a trapezoidal microchannel with COMSOL multiphysics: A case study**
Turgay M. B. , GÜVENÇ YAZICIOĞLU A.
NUMERICAL HEAT TRANSFER PART A-APPLICATIONS, vol.73, no.5, pp.332-346, 2018 (Journal Indexed in SCI)

- IV. **Effect of variable thermal conductivity and viscosity on single phase convective heat transfer in slip flow**
KAKAÇ S., GÜVENÇ YAZICIOĞLU A., Gozukara A. C.
HEAT AND MASS TRANSFER, vol.47, no.8, pp.879-891, 2011 (Journal Indexed in SCI)
- V. **Slip-flow heat transfer in microtubes with axial conduction and viscous dissipation - An extended Graetz problem**
Cetin B., GÜVENÇ YAZICIOĞLU A., KAKAÇ S.
INTERNATIONAL JOURNAL OF THERMAL SCIENCES, vol.48, no.9, pp.1673-1678, 2009 (Journal Indexed in SCI)
- VI. **EFFECT OF SURFACE ROUGHNESS IN PARALLEL-PLATE MICROCHANNELS ON HEAT TRANSFER**
Turgay M. B. , GÜVENÇ YAZICIOĞLU A.
NUMERICAL HEAT TRANSFER PART A-APPLICATIONS, vol.56, no.6, pp.497-514, 2009 (Journal Indexed in SCI)
- VII. **Fluid flow in microtubes with axial conduction including rarefaction and viscous dissipation**
Cetin B., GÜVENÇ YAZICIOĞLU A., KAKAÇ S.
INTERNATIONAL COMMUNICATIONS IN HEAT AND MASS TRANSFER, vol.35, no.5, pp.535-544, 2008 (Journal Indexed in SCI)

Articles Published in Other Journals

- I. **Experimental Analysis of Laminar Flow and Heat Transfer in Multi Port Finned Mini Channel**
Çevrim B., GÜVENÇ YAZICIOĞLU A., KAKAÇ S.
Hittite Journal of Science & Engineering, vol.3, no.1, 2016 (Other Refereed National Journals)
- II. **Electron microscope visualization of multiphase fluids contained in closed carbon nanotubes**
GÜVENÇ YAZICIOĞLU A., MEGARIDIS C., NICHOLLS A., GOGOTSI Y.
JOURNAL OF VISUALIZATION, vol.8, no.2, pp.137-144, 2005 (Refereed Journals of Other Institutions)

Books & Book Chapters

- I. **Heat Exchangers**
GÜVENÇ YAZICIOĞLU A., ARADAĞ ÇELEBİOĞLU S., AYLI İNCE Ü. E. , GÜLBEN G., KAKAÇ S.
in: Comprehensive Energy Systems, DİNÇER İBRAHİM, Editor, ELSEVIER, pp.40-69, 2018
- II. **Thermophysical Properties of Nanofluids**
ÖZERİNÇ S., GÜVENÇ YAZICIOĞLU A., KAKAÇ S.
in: Microscale and Nanoscale Heat Transfer Analysis Design and Application, Rebay Mourad, Kakaç Sadık, Cotta Renato M., Editor, CRC Press, New York, pp.125-154, 2016
- III. **Convective Heat Transfer with Gaseous Flow in Microducts**
GÜVENÇ YAZICIOĞLU A., KAKAÇ S.
in: Microscale and Nanoscale Heat Transfer Analysis Design and Application, Rebay Mourad, Kakaç Sadık, Cotta Renato M., Editor, CRC Press, New York, pp.251-281, 2016
- IV. **Thermophysical Properties of Nanofluids**
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in: Microscale and Nanoscale Heat Transfer Analysis Design and Application, Mourad Rebay, Sadık Kakaç, Renato M. Cotta, Editor, CRC Press, Boca Raton, Florida, pp.125-154, 2016

Refereed Congress / Symposium Publications in Proceedings

- I. **Effect of Wing Heating of Flow Structure of Low Swept Delta Wing**
ŞENCAN G., GÜVENÇ YAZICIOĞLU A., YAVUZ M. M.
9th. Ankara International Aerospace Conference, Ankara, Turkey, 20 - 22 September 2017

- II. **Kanat Isıtmasının Düşük Ok Açılı Delta Kanat Üzerindeki Akış Yapısına Etkisi**
Şencan G., Güvenç Yazıcıoğlu A., Yavuz M. M.
21. Ulusal Isı Bilimi ve Tekniği Kongresi, Çorum, Turkey, 13 - 16 September 2017
- III. **Çoklu girişli kanatçıklı bir mikrokanalın ısıl hidrolik analizi**
ÇEVİRİM B., GÜVENÇ YAZICIOĞLU A., KAKAÇ S.
21. Ulusal Isı Bilimi ve Tekniği Kongresi, Çorum, Turkey, 13 - 16 September 2017, vol.1
- IV. **Modeling of the rectifier of a mini absorption cooling device using ceramic hollow fiber membranes**
OZKAN O., GÜVENÇ YAZICIOĞLU A., BAKER D. K.
ASME-ATI-UIT 2015 - Thermal Energy Systems: Production, Storage, Utilization and the Environment, 17 - 20 May 2015
- V. **EXPERIMENTAL INVESTIGATION OF SINGLE-PHASE LIQUID FLOW AND HEAT TRANSFER IN MULTIPORT MINICHANNELS**
Altinoz M., GÜVENÇ YAZICIOĞLU A., Baker D.
12th International Conference on Nanochannels, Microchannels and Minichannels (ICNMM), Illinois, United States Of America, 3 - 07 August 2014
- VI. **Numerical Analysis of Nanofluids Convective Heat Transfer with Euler Euler and Mixture Model Approaches**
Sert İ. O., SEZER UZOL N., GÜVENÇ YAZICIOĞLU A., KAKAÇ S.
CONV-14: Int. Symp. on Convective Heat and Mass Transfer, Kuşadası, Turkey, 8 - 13 June 2014
- VII. **Silindirik Kanallarda Nanoakışkanlarla Laminer Zorlanmış Taşınım İle Isı Transferinin Sayısal Analizi**
Sert İ. O., SEZER UZOL N., GÜVENÇ YAZICIOĞLU A., KAKAÇ S.
ULIBTK'13, 19. Ulusal Isı Bilimi ve Tekniği Kongresi, Samsun, Turkey, 9 - 12 September 2013
- VIII. **Enhancement of Convective Heat Transfer with Nanofluids Single Phase and Two Phase Analysis**
Sert İ. O., SEZER UZOL N., GÜVENÇ YAZICIOĞLU A., KAKAÇ S.
5th International Conference on Applications of Porous Media, Cluj-Napoca, Romania, 25 - 28 August 2013
- IX. **Analysis of Transient Laminar Forced Convection of Nanofluids in Circular Channels**
Sert İ. O., SEZER UZOL N., GÜVENÇ YAZICIOĞLU A., KAKAÇ S.
ASME 2012 IMECE, ASME 2012 International Mechanical Engineering Congress & Exposition, Houston, Texas, United States Of America, 9 - 15 November 2012
- X. **NUMERICAL ANALYSIS OF CONVECTIVE HEAT TRANSFER OF NANOFLUIDS FOR LAMINAR FLOW IN A CIRCULAR TUBE**
Kirez O., GÜVENÇ YAZICIOĞLU A., KAKAÇ S.
ASME International Mechanical Engineering Congress and Exposition, Texas, United States Of America, 9 - 15 November 2012, pp.471-478
- XI. **Experimental Comparison of Performances of Three Different Plates for Gasketed Plate Heat Exchangers**
Sert İ. O., SEZER UZOL N., GÜVENÇ YAZICIOĞLU A., KAKAÇ S.
Sixth International Conference on Thermal Engineering: Theory and Applications, İstanbul, Turkey, 29 May - 01 June 2012
- XII. **Farklı Sayı ve Boyutlarda Plakalı Isı Değiştiricilerinin Deneysel Olarak İncelenmesi ve Nümerik Program Oluşturulması**
Sert İ. O., SEZER UZOL N., GÜVENÇ YAZICIOĞLU A., KAKAÇ S.
ULIBTK'11, 18. Ulusal Isı Bilimi ve Tekniği Kongresi, Cumhuriyet Üniversitesi, Zonguldak, Turkey, 7 - 10 September 2011
- XIII. **Development of A Computer Program For Gasketed Plate Heat Exchangers Based On Experimental Analysis**
Sert İ. O., SEZER UZOL N., GÜVENÇ YAZICIOĞLU A., KAKAÇ S.
7th International Conference on Computational Heat and Mass Transfer, İstanbul, Turkey, 18 - 22 July 2011
- XIV. **Performance Predictions of A Gasketed Plate Heat Exchanger by Using Computational Fluid Dynamics**
Sert İ. O., SEZER UZOL N., GÜVENÇ YAZICIOĞLU A., KAKAÇ S.

- 7th International Conference on Computational Heat and Mass Transfer, İstanbul, Turkey, 18 - 22 July 2011
- XV. **Experimental Investigation of the Characteristics of a Chevron Type Gasketed Plate Heat Exchanger**
Sert İ. O. , SEZER UZOL N., GÜVENÇ YAZICIOĞLU A., KAKAÇ S.
6th International Advanced Technologies Symposium (IATS'11), Elazığ, Turkey, 16 - 18 May 2011
- XVI. **Plakalı Isı Değiştirgeçlerinde Plakaya Bağlı Isı Transferinin Deneysel İncelenmesi ve Modellenmesi**
Sert İ. O. , SEZER UZOL N., GÜVENÇ YAZICIOĞLU A., KAKAÇ S.
X. Ulusal Tesisat Mühendisliği Kongresi, TESKON 2011, İzmir, Turkey, 13 - 16 April 2011
- XVII. **ROUGHNESS EFFECT ON THE HEAT TRANSFER COEFFICIENT FOR GASEOUS FLOW IN MICROCHANNELS**
Turgay M. B. , GÜVENÇ YAZICIOĞLU A., Kakac S.
14th International Heat Transfer Conference, Washington, Kiribati, 8 - 13 August 2010, pp.229-238
- XVIII. **EXPERIMENTAL INVESTIGATION OF HEAT TRANSFER AND PRESSURE DROP FOR TWO-PHASE R134A FLOW IN A 1.65 MM COPPER TUBE**
Tekin B., GÜVENÇ YAZICIOĞLU A., Kerpıcci H., Kakac S.
10th ASME Biennial Conference on Engineering Systems Design and Analysis, İstanbul, Turkey, 12 - 24 July 2010, pp.765-773
- XIX. **Development of A Computer Program for The Numerical Investigation of Heat Transfer in A Gasketed Plate Heat Exchanger**
Sert İ. O. , SEZER UZOL N., GÜVENÇ YAZICIOĞLU A., KAKAÇ S.
ASME 2010 10th Biennial conference on Engineering Systems Design and Analysis, ESDA2010, İstanbul, Turkey, 12 - 14 July 2010
- XX. **Comparison of Gasketed Plate Heat Exchangers with Double Pipe Heat Exchangers**
Sert İ. O. , SEZER UZOL N., GÜVENÇ YAZICIOĞLU A., KAKAÇ S.
ASME 2010 10th Biennial conference on Engineering Systems Design and Analysis, ESDA2010, İstanbul, Turkey, 12 - 14 July 2010
- XXI. **CONVECTIVE HEAT TRANSFER IN MICROSCALE SLIP FLOW**
GÜVENÇ YAZICIOĞLU A., KAKAÇ S.
Conference of the NATO-Advanced-Study-Institute on Microfluidics Based Microsystems - Fundamentals and Applications, Cesme Izmir, Turkey, 23 August - 04 September 2009, pp.15-19
- XXII. **Gövde Boru Tipi Bir Isı Değiştirgecinin Isıl ve Hidrolik Performansının Deneysel ve Teorik Analizi**
Sert İ. O. , SEZER UZOL N., GÜVENÇ YAZICIOĞLU A., KAKAÇ S.
ULIBTK'09, 17. Ulusal Isı Bilimi ve Tekniği Kongresi, Cumhuriyet Üniversitesi, Sivas, Turkey, 24 - 27 June 2009

Supported Projects

GÜVENÇ YAZICIOĞLU A., Project Supported by Higher Education Institutions, Mikrokanallardaki Yüzey Pürüzlülüğünün Akışa Ve Isı Transferine Etkisinin Üç Boyutlu Sayısal Analizi, 2011 - 2011

Citations

Total Citations (WOS):137

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