

## Prof. METE AVCI

### Personal Information

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### International Researcher IDs

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### Education Information

Doctorate, Karadeniz Technical University, Fen Bilimleri Enstitüsü, Makina Mühendisliği Anabilim Dalı, Turkey 2003 - 2008

Postgraduate, Karadeniz Technical University, Fen Bilimleri Enstitüsü, Makina Mühendisliği Anabilim Dalı, Turkey 2000 - 2003

Undergraduate, Karadeniz Technical University, Mühendislik Fakültesi, Makina Mühendisliği Bölümü, Turkey 1996 - 2000

### Research Areas

Mechanical Engineering, Energy, Fluid Mechanics, Thermodynamics, Heat and Mass Transfer, Engineering and Technology

### Academic Titles / Tasks

Professor, Recep Tayyip Erdogan University, Mühendislik Fakültesi, Makine Mühendisliği Bölümü, 2019 - Continues

Associate Professor, Karadeniz Technical University, Mühendislik Fakültesi, Makina Mühendisliği Bölümü, 2013 - 2019

Assistant Professor, Karadeniz Technical University, Mühendislik Fakültesi, Makina Mühendisliği Bölümü, 2009 - 2013

### Academic and Administrative Experience

Vice Rector, Recep Tayyip Erdogan University, Mühendislik Ve Mimarlık Fakültesi, Makine Mühendisliği, 2022 - Continues

Fakülte Yönetim Kurulu Üyesi, Recep Tayyip Erdogan University, Mühendislik Ve Mimarlık Fakültesi, Makine Mühendisliği, 2021 - Continues

Head of Department, Recep Tayyip Erdogan University, Mühendislik Ve Mimarlık Fakültesi, Makine Mühendisliği, 2020 - 2022

Head of Department, Recep Tayyip Erdogan University, Mühendislik Fakültesi, Makine Mühendisliği Bölümü, 2019 - 2022

Head of Department, Karadeniz Technical University, Mühendislik Fakültesi, Makine Mühendisliği, 2014 - 2017

### Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Pulsating flow and heat transfer of power-law fluid in a circular pipe**  
Altunkaya A. N., Aydın O., Avci M.  
NONLINEAR ANALYSIS: MODELLING AND CONTROL, vol.28, no.1, pp.56-73, 2023 (SCI-Expanded)
- II. **Effect of gradually expanding flow passages on flow boiling of micro pin fin heat sinks**  
Markal B., Kul B., Avci M., Varol R.  
INTERNATIONAL JOURNAL OF HEAT AND MASS TRANSFER, vol.197, 2022 (SCI-Expanded)
- III. **Effect of air change rate on particle dispersion from inlet opening under varying particle source strengths**  
Cetin Y. E., Avci M., Aydın O.  
INTERNATIONAL JOURNAL OF VENTILATION, vol.21, no.3, pp.177-194, 2022 (SCI-Expanded)
- IV. **Effect of double cross sectional ratio on performance characteristics of pulsating heat pipes**  
Markal B., Candan Candere A., Avci M., Aydın O.  
INTERNATIONAL COMMUNICATIONS IN HEAT AND MASS TRANSFER, vol.127, 2021 (SCI-Expanded)
- V. **Investigation of flat plate type pulsating heat pipes via flow visualization-assisted experiments: Effect of cross sectional ratio**  
Markal B., Candere A., Avci M., Aydın O.  
INTERNATIONAL COMMUNICATIONS IN HEAT AND MASS TRANSFER, vol.125, 2021 (SCI-Expanded)
- VI. **Thermal energy storage performance of PCM/graphite matrix composite in a tube-in-shell geometry**  
Yazici M. Y., Saglam M., Aydın O., Avci M.  
THERMAL SCIENCE AND ENGINEERING PROGRESS, vol.23, 2021 (SCI-Expanded)
- VII. **Conical coaxial impinging air jets: angle effect on the heat transfer performance**  
Markal B., Avci M., Aydın O.  
HEAT AND MASS TRANSFER, vol.56, no.12, pp.3135-3146, 2020 (SCI-Expanded)
- VIII. **Effect of air exhaust location on surgical site particle distribution in an operating room**  
Ağırman A., Çetin Y. E., Avci M., Aydın O.  
BUILDING SIMULATION, vol.13, no.5, pp.979-988, 2020 (SCI-Expanded)
- IX. **Evaluation of in-duct UV-C lamp array on air disinfection: A numerical analysis**  
Atci F., ÇETİN Y. E., Avci M., AYDIN O.  
SCIENCE AND TECHNOLOGY FOR THE BUILT ENVIRONMENT, vol.27, no.1, pp.98-108, 2020 (SCI-Expanded)
- X. **Effect of laminar airflow unit diffuser size on pathogen particle distribution in an operating room**  
Ağırman Kalca A., Çetin Y. E., Avci M., Aydın O.  
SCIENCE AND TECHNOLOGY FOR THE BUILT ENVIRONMENT, vol.27, no.4, pp.402-413, 2020 (SCI-Expanded)
- XI. **Particle dispersion and deposition in displacement ventilation systems combined with floor heating**  
Çetin Y. E., Avci M., Aydın O.  
SCIENCE AND TECHNOLOGY FOR THE BUILT ENVIRONMENT, vol.26, no.8, pp.1019-1036, 2020 (SCI-Expanded)
- XII. **Influence of ventilation strategies on dispersion and removal of fine particles: An experimental and simulation study**  
Cetin Y., Avci M., Aydın O.  
SCIENCE AND TECHNOLOGY FOR THE BUILT ENVIRONMENT, vol.26, no.3, pp.349-365, 2020 (SCI-Expanded)
- XIII. **Prediction of Two-Phase Heat Transfer Coefficient of Flow Boiling in Minichannels**  
Markal B., Candan A., Aydın O., Avci M.  
HEAT TRANSFER ENGINEERING, vol.41, no.1, pp.17-35, 2020 (SCI-Expanded)
- XIV. **Melting and solidification of PCM in a tube-in-shell unit: Effect of fin edge lengths' ratio**  
Yağcı O. K., Avci M., Aydın O.  
JOURNAL OF ENERGY STORAGE, vol.24, 2019 (SCI-Expanded)
- XV. **Combined effects of inclination angle and fin number on thermal performance of a PCM-based heat sink**  
Yazici M. Y., Avci M., Aydın O.  
APPLIED THERMAL ENGINEERING, vol.159, 2019 (SCI-Expanded)
- XVI. **Effect of hydraulic diameter on flow boiling in rectangular microchannels**  
Markal B., AYDIN O., Avci M.

- HEAT AND MASS TRANSFER, vol.55, no.4, pp.1033-1044, 2019 (SCI-Expanded)
- XVII. **Prediction of Pressure Drop for Flow Boiling in Rectangular Multi-Microchannel Heat Sinks**  
Markal B., AYDIN O., Avci M.  
HEAT TRANSFER ENGINEERING, vol.40, pp.26-38, 2019 (SCI-Expanded)
- XVIII. **Experimental investigation of flow boiling in single minichannels with low mass velocities**  
Markal B., Candan A., AYDIN O., Avci M.  
INTERNATIONAL COMMUNICATIONS IN HEAT AND MASS TRANSFER, vol.98, pp.22-30, 2018 (SCI-Expanded)
- XIX. **Analysis of extended micro-Graetz problem in a microtube**  
Avci M., AYDIN O.  
SADHANA-ACADEMY PROCEEDINGS IN ENGINEERING SCIENCES, vol.43, no.7, 2018 (SCI-Expanded)
- XX. **Natural convection in a parallel-plate vertical channel with discrete heating by two flush-mounted heaters: effect of the clearance between the heaters**  
Sarper B., SAĞLAM M., AYDIN O., Avci M.  
HEAT AND MASS TRANSFER, vol.54, no.4, pp.1069-1083, 2018 (SCI-Expanded)
- XXI. **An experimental study on effect of inclination angle on the performance of a PCM-based flat-type heat sink**  
Avci M., Yazici M. Y.  
APPLIED THERMAL ENGINEERING, vol.131, pp.806-814, 2018 (SCI-Expanded)
- XXII. **ENHANCING STORAGE PERFORMANCE IN A TUBE-IN SHELL STORAGE UNIT BY ATTACHING A CONDUCTING FIN TO THE BOTTOM OF THE TUBE**  
AYDIN O., AVCI M., YAZICI M., Akgun M.  
ISI BILIMI VE TEKNIGI DERGISI-JOURNAL OF THERMAL SCIENCE AND TECHNOLOGY, vol.38, no.2, pp.1-13, 2018 (SCI-Expanded)
- XXIII. **EXPERIMENTAL STUDY OF SINGLE-PHASE FLUID FLOW AND HEAT TRANSFER CHARACTERISTICS IN RECTANGULAR MICROCHANNELS**  
Markal B., AYDIN O., Avci M.  
ISI BILIMI VE TEKNIGI DERGISI-JOURNAL OF THERMAL SCIENCE AND TECHNOLOGY, vol.38, no.1, pp.65-72, 2018 (SCI-Expanded)
- XXIV. **Saturated flow boiling characteristics in single rectangular minichannels: effect of aspect ratio**  
Candan A., Markal B., AYDIN O., Avci M.  
EXPERIMENTAL HEAT TRANSFER, vol.31, no.6, pp.531-551, 2018 (SCI-Expanded)
- XXV. **Effects of viscous dissipation on mixed convection in a vertical parallel-plate microchannel with asymmetric uniform wall heat fluxes: The slip regime**  
Altunkaya A. N., Avci M., AYDIN O.  
INTERNATIONAL JOURNAL OF HEAT AND MASS TRANSFER, vol.111, pp.495-499, 2017 (SCI-Expanded)
- XXVI. **Prediction of Heat Transfer Coefficient in Saturated Flow Boiling Heat Transfer in Parallel Rectangular Microchannel Heat Sinks: An Experimental Study**  
Markal B., AYDIN O., Avci M.  
HEAT TRANSFER ENGINEERING, vol.38, no.16, pp.1415-1428, 2017 (SCI-Expanded)
- XXVII. **An experimental investigation of saturated flow boiling heat transfer and pressure drop in square microchannels**  
Markal B., AYDIN O., Avci M.  
INTERNATIONAL JOURNAL OF REFRIGERATION-REVUE INTERNATIONALE DU FROID, vol.65, pp.1-11, 2016 (SCI-Expanded)
- XXVIII. **Effect of aspect ratio on saturated flow boiling in microchannels**  
Markal B., AYDIN O., Avci M.  
INTERNATIONAL JOURNAL OF HEAT AND MASS TRANSFER, vol.93, pp.130-143, 2016 (SCI-Expanded)
- XXIX. **Laminar forced convective slip flow in a microduct with a sinusoidally varying heat flux in axial direction**  
AYDIN O., Avci M.  
INTERNATIONAL JOURNAL OF HEAT AND MASS TRANSFER, vol.89, pp.606-612, 2015 (SCI-Expanded)

- XXX. **Conjugate heat transfer in a duct with an axially varying heat flux**  
AYDIN O., Avci M., BALI T., ARICI M. E.  
INTERNATIONAL JOURNAL OF HEAT AND MASS TRANSFER, vol.76, pp.385-392, 2014 (SCI-Expanded)
- XXXI. **An experimental study on the decaying swirl flow in a tube**  
AYDIN O., Avci M., Markal B., YAZICI M.  
INTERNATIONAL COMMUNICATIONS IN HEAT AND MASS TRANSFER, vol.55, pp.22-28, 2014 (SCI-Expanded)
- XXXII. **On the effect of eccentricity of a horizontal tube-in-shell storage unit on solidification of a PCM**  
Yazici M. Y., Avci M., AYDIN O., AKGÜN M.  
APPLIED THERMAL ENGINEERING, vol.64, pp.1-9, 2014 (SCI-Expanded)
- XXXIII. **Effect of eccentricity on melting behavior of paraffin in a horizontal tube-in-shell storage unit: An experimental study**  
YAZICI M., Avci M., AYDIN O., AKGÜN M.  
SOLAR ENERGY, vol.101, pp.291-298, 2014 (SCI-Expanded)
- XXXIV. **Experimental study of thermal energy storage characteristics of a paraffin in a horizontal tube-in-shell storage unit**  
Avci M., YAZICI M.  
ENERGY CONVERSION AND MANAGEMENT, vol.73, pp.271-277, 2013 (SCI-Expanded)
- XXXV. **Heat transfer in a turbulent slot jet flow impinging on concave surfaces**  
Oztekin E., AYDIN O., Avci M.  
INTERNATIONAL COMMUNICATIONS IN HEAT AND MASS TRANSFER, vol.44, pp.77-82, 2013 (SCI-Expanded)
- XXXVI. **The effects of nozzle aspect ratio and nozzle number on the performance of the Ranque-Hilsch vortex tube**  
Avci M.  
APPLIED THERMAL ENGINEERING, vol.50, no.1, pp.302-308, 2013 (SCI-Expanded)
- XXXVII. **Hydrodynamics of a turbulent slot jet flow impinging on a concave surface**  
Oztekin E., AYDIN O., Avci M.  
INTERNATIONAL COMMUNICATIONS IN HEAT AND MASS TRANSFER, vol.39, no.10, pp.1631-1638, 2012 (SCI-Expanded)
- XXXVIII. **Conjugate heat transfer with viscous dissipation in a microtube**  
Avci M., AYDIN O., ARICI M. E.  
INTERNATIONAL JOURNAL OF HEAT AND MASS TRANSFER, vol.55, pp.5302-5308, 2012 (SCI-Expanded)
- XXXIX. **Exergy analysis of a counter-flow Ranque-Hilsch vortex tube having different helical vortex generators**  
Markal B., AYDIN O., Avci M.  
INTERNATIONAL JOURNAL OF EXERGY, vol.10, no.2, pp.228-238, 2012 (SCI-Expanded)
- XL. **Analytical Investigation of Heat Transfer in Couette-Poiseuille Flow Through Porous Medium**  
AYDIN O., Avci M.  
JOURNAL OF THERMOPHYSICS AND HEAT TRANSFER, vol.25, no.3, pp.468-472, 2011 (SCI-Expanded)
- XLI. **A new vortex generator geometry for a counter-flow Ranque-Hilsch vortex tube**  
AYDIN O., Markal B., Avci M.  
APPLIED THERMAL ENGINEERING, vol.30, no.16, pp.2505-2511, 2010 (SCI-Expanded)
- XLII. **An experimental study on the effect of the valve angle of counter-flow Ranque-Hilsch vortex tubes on thermal energy separation**  
Markal B., AYDIN O., Avci M.  
EXPERIMENTAL THERMAL AND FLUID SCIENCE, vol.34, no.7, pp.966-971, 2010 (SCI-Expanded)
- XLIII. **On the constant wall temperature boundary condition in internal convection heat transfer studies including viscous dissipation**  
AYDIN O., Avci M.  
INTERNATIONAL COMMUNICATIONS IN HEAT AND MASS TRANSFER, vol.37, no.5, pp.535-539, 2010 (SCI-Expanded)
- XLIV. **Frictional Pressure Drop for Gas Flows in a Microchannel Between Two Parallel Plates**

- Avci M., AYDIN O.  
HEAT TRANSFER ENGINEERING, vol.31, no.5, pp.344-349, 2010 (SCI-Expanded)
- XLV. **Mixed Convection in a Vertical Microannulus Between Two Concentric Microtubes**  
Avci M., AYDIN O.  
JOURNAL OF HEAT TRANSFER-TRANSACTIONS OF THE ASME, vol.131, no.1, 2009 (SCI-Expanded)
- XLVI. **ANALYSIS OF HEAT AND FLUID FLOW IN CONCENTRIC ANNULAR SQUARE DUCTS**  
Kucuk H., Avci M., AYDIN O., Asan H.  
ISI BILIMI VE TEKNIGI DERGISI-JOURNAL OF THERMAL SCIENCE AND TECHNOLOGY, vol.29, no.1, pp.7-13, 2009 (SCI-Expanded)
- XLVII. **Reply to comments on our below referenced article by K. Hooman "Viscous-dissipation effects on the heat transfer in a Poiseuille flow"**  
Avci M., AYDIN O.  
APPLIED ENERGY, vol.86, no.1, pp.122-123, 2009 (SCI-Expanded)
- XLVIII. **Laminar forced convection slip-flow in a micro-annulus between two concentric cylinders**  
Avci M., AYDIN O.  
INTERNATIONAL JOURNAL OF HEAT AND MASS TRANSFER, vol.51, pp.3460-3467, 2008 (SCI-Expanded)
- XLIX. **FORCED CONVECTION FLOW OF VISCOUS DISSIPATIVE POWER-LAW FLUIDS IN A PLANE DUCT Part 1. Hydrodynamically and Thermally Fully Developed Flow**  
AVCI M., AYDIN O.  
ISI BILIMI VE TEKNIGI DERGISI-JOURNAL OF THERMAL SCIENCE AND TECHNOLOGY, vol.28, no.2, pp.9-16, 2008 (SCI-Expanded)
- L. **FORCED CONVECTION FLOW OF VISCOUS DISSIPATIVE POWER-LAW FLUIDS IN A PLANE DUCT Part 2. Thermally Developing Flow**  
AVCI M., AYDIN O.  
ISI BILIMI VE TEKNIGI DERGISI-JOURNAL OF THERMAL SCIENCE AND TECHNOLOGY, vol.28, no.2, pp.17-24, 2008 (SCI-Expanded)
- LI. **Mixed convection in a vertical parallel plate microchannel with asymmetric wall heat fluxes**  
Avci M., AYDIN O.  
JOURNAL OF HEAT TRANSFER-TRANSACTIONS OF THE ASME, vol.129, no.8, pp.1091-1095, 2007 (SCI-Expanded)
- LII. **Mixed convection in a vertical parallel plate microchannel**  
Avci M., AYDIN O.  
JOURNAL OF HEAT TRANSFER-TRANSACTIONS OF THE ASME, vol.129, no.2, pp.162-166, 2007 (SCI-Expanded)
- LIII. **Analysis of laminar heat transfer in micro-Poiseuille flow**  
AYDIN O., Avci M.  
INTERNATIONAL JOURNAL OF THERMAL SCIENCES, vol.46, no.1, pp.30-37, 2007 (SCI-Expanded)
- LIV. **Second-law analysis of heat and fluid flow in microscale geometries**  
Avci M., AYDIN O.  
INTERNATIONAL JOURNAL OF EXERGY, vol.4, no.3, pp.286-301, 2007 (SCI-Expanded)
- LV. **Analysis of micro-graetz problem in a microtube**  
AYDIN O., Avci M.  
NANOSCALE AND MICROSCALE THERMOPHYSICAL ENGINEERING, vol.10, no.4, pp.345-358, 2006 (SCI-Expanded)
- LVI. **Laminar forced convection with viscous dissipation in a Couette-Poiseuille flow between parallel plates**  
AYDIN O., Avci M.  
APPLIED ENERGY, vol.83, no.8, pp.856-867, 2006 (SCI-Expanded)
- LVII. **Thermally developing flow in microchannels**  
AYDIN O., Avci M.  
JOURNAL OF THERMOPHYSICS AND HEAT TRANSFER, vol.20, no.3, pp.628-632, 2006 (SCI-Expanded)
- LVIII. **Heat and fluid flow characteristics of gases in micropipes**  
AYDIN O., Avci M.  
INTERNATIONAL JOURNAL OF HEAT AND MASS TRANSFER, vol.49, pp.1723-1730, 2006 (SCI-Expanded)

- LIX. **Viscous-dissipation effects on the heat transfer in a Poiseuille flow**  
AYDIN O., Avci M.  
APPLIED ENERGY, vol.83, no.5, pp.495-512, 2006 (SCI-Expanded)
- LX. **Laminar forced convection with viscous dissipation in a concentric annular duct**  
Avci M., AYDIN O.  
COMPTEs RENDUS MECANIQUE, vol.334, no.3, pp.164-169, 2006 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Investigation of the Effect of Air Change Rate on Contaminant Removal Performance**  
Çetin Y. E., Avci M., Aydın O.  
JOURNAL OF POLYTECHNIC-POLITEKNIK DERGISI, vol.24, no.2, pp.453-459, 2021 (ESCI)
- II. **Bir Ameliyathane İçin Çıkış Menfez Konumunun Temizleme Süresine Etkisi**  
ÇETİN Y. E., AVCI M., AYDIN O.  
Tesisat Mühendisliği, 2019 (Peer-Reviewed Journal)
- III. **Bir Ameliyathanede Hava Değişim Katsayısının Partikül Dağılımı Üzerine Etkisi**  
AĞIRMAN A., ÇETİN Y. E., AVCI M., AYDIN O.  
Tesisat Mühendisliği, 2019 (Peer-Reviewed Journal)
- IV. **Kare Kesitli Mikrokanallarda Doymuş Kaynamalı Akış Karakteristiklerinin Deneysel İncelenmesi**  
MARKAL B., AYDIN O., AVCI M.  
Mühendis ve Makina, vol.60, no.694, pp.50-66, 2019 (Peer-Reviewed Journal)
- V. **Minikanallarda Doymuş Kaynamalı Akış Karakteristiklerinin Deneysel İncelenmesi**  
CANDAN A., MARKAL B., AYDIN O., AVCI M.  
Tesisat Mühendisliği, no.164, pp.29-38, 2018 (Peer-Reviewed Journal)

## Books & Book Chapters

- I. **Convective Heat Transfer Correlations In Some Common Geometries**  
AYDIN O., AVCI M.  
in: Microfluidics Based Microsystems: Fundamentals and Applications, Kakac S., Kosoy B., Li D., Pramuanjaroenkij A., Editor, Springer, London/Berlin, Dordrecht, pp.1-14, 2009

## Refereed Congress / Symposium Publications in Proceedings

- I. **DOLUM ORANININ ÜNİFORM OLMAYAN KESİTE SAHİP ATIMLI ISI BORUSUNUN ÇALIŞMA PERFORMANSI ÜZERİNDEKİ ETKİSİ**  
CANDAN CANDERE A., MARKAL B., AVCI M., AYDIN O.  
ULIBTK'21 Uluslararası Katılımlı 23. Isı Bilimi ve Tekniği Kongresi, Gaziantep, Turkey, 08 September 2021, vol.2, pp.1797-1805
- II. **MIXED CONVECTION IN A VERTICAL PARALLEL-PLATE MICROCHANNEL WITH VISCOUS DISSIPATION EFFECT**  
Altunkaya A. N., Avci M., Aydın O.  
Proceedings of the 5th International Anatolian Energy Symposium, Trabzon, Turkey, 24 - 25 March 2021, pp.57-68
- III. **EXPERIMENTAL INVESTIGATION OF THE PULSATING HEAT PIPES HAVING LARGER FLOW SECTIONS IN THE EVAPORATOR REGION**  
CANDAN CANDERE A., MARKAL B., AYDIN O., AVCI M.  
5th International Anatolian Energy Symposium (AES 2021), Trabzon, Turkey, 24 March 2021, pp.630-636
- IV. **Laminer Akış Ünitesi Boyutunun Cerrahi Alan Üzerindeki Patojen Partikül Dağılımına Etkisi**

- AĞIRMAN A., ÇETİN Y. E., AVCI M., AYDIN O.  
22. Isı Bilimi ve Tekniği Kongresi (22nd Congress on Thermal Science and Technology), 11 - 14 September 2019
- V. **Hava Değişim Katsayısının Kirletici Uzaklaştırma Performansına Etkisinin İncelenmesi**  
ÇETİN Y. E., AVCI M., AYDIN O.  
22. Isı Bilimi ve Tekniği Kongresi (22nd Congress on Thermal Science and Technology), 11 - 14 September 2019
- VI. **UV Lamba Diziliminin Hava Dezenfeksiyonu Üzerindeki Etkisi:Kanal Uygulaması**  
ATÇI F., ÇETİN Y. E., AVCI M., AYDIN O.  
22. Isı Bilimi ve Tekniği Kongresi (22nd Congress on Thermal Science and Technology), 11 - 14 September 2019
- VII. **Düzlemsel Bir Kanal İçerisindeki Tam Gelişmiş Akışta Manyetik Alanın Akış ve Isı ve Isı Transferi Üzerine Etkisi**  
YAĞCI E., AYDIN O., AVCI M., BALI T.  
22. Isı Bilimi ve Tekniği Kongresi (22nd Congress on Thermal Science and Technology), 11 - 14 September 2019
- VIII. **V-Şekilli Bir Yüzey Üzerine Çarpan Türbülanslı Jet Akışı**  
ÖZTEKİN KULOĞLU E., AYDIN O., AVCI M.  
22. Isı Bilimi ve Tekniği Kongresi (22nd Congress on Thermal Science and Technology), 11 - 14 September 2019
- IX. **İzotermal ve İzotermal Olmayan Akış Şartlarında Kirletici Dağılım Benzerliğinin İncelenmesi**  
ÇETİN Y. E., AVCI M., AYDIN O.  
22. Isı Bilimi ve Tekniği Kongresi (22nd Congress on Thermal Science and Technology), 11 - 14 September 2019
- X. **INVESTIGATION OF MIXED CONVECTION IN A VERTICAL MICROANNULUS: VISCOUS DISSIPATION EFFECT**  
ALTUNKAYA A. N., AVCI M., AYDIN O.  
International Symposium on Thermal Effects in Gas flows in Microscale, Karlsruhe, Germany, 24 - 25 October 2019, pp.1-12
- XI. **Effect of Air - Exhaust Location on Surgical Site Particle Distribution in an Operating Room**  
AĞIRMAN A., ÇETİN Y. E., AVCI M., AYDIN O.  
10th International Conference on Indoor Air Quality, Ventilation and Energy Conservation in Buildings (X IAQVEC2019), 5 - 07 September 2019
- XII. **Evaluation of Air Change Rates for Estimating Particle Dispersion on a Reduced Scale Model**  
ÇETİN Y. E., AVCI M., AYDIN O.  
10th International Conference on Indoor Air Quality, Ventilation and Energy Conservation in Buildings (X IAQVEC2019), 5 - 07 September 2019, vol.609
- XIII. **MIXED CONVECTION IN A UNIFORMLY HEATED VERTICAL MICROTUBE WITH VISCOUS DISSIPATION EFFECT**  
ALTUNKAYA A. N., AVCI M., AYDIN O.  
22nd Congress on Thermal Science and Technology, Kocaeli, Turkey, 11 - 14 September 2019, vol.1, pp.861-868
- XIV. **Influence of ceiling height on airflow and particle distribution in an operating room**  
AĞIRMAN A., ÇETİN Y. E., AVCI M., AYDIN O.  
13th REHVA World Congress, CLIMA 2019, 26 - 29 May 2019
- XV. **Effect of air exchange rate on particle decay in a cleanroom: A numerical study**  
ÇETİN Y. E., AVCI M., AYDIN O.  
13th REHVA World Congress, CLIMA 2019, 26 - 29 May 2019
- XVI. **Flow Boiling Characteristics in a Single Rectangular Microchannel**  
MARKAL B., CANDAN A., AYDIN O., AVCI M.  
8th International Advanced Technologies Symposium (IATS217), 19 - 22 October 2017, pp.2075-2081
- XVII. **Mikro boyutlu dikdörtgenel kanallarda kaynamalı akışın deneysel incelenmesi**  
MARKAL B., AYDIN O., AVCI M.  
VIII. Ulusal Hidrolik Pnömatik Kongresi, Turkey, 22 - 25 November 2017
- XVIII. **Faz Değiştiren Madde (FDM) İlaveli Isı Alıcı İle Elektronik Cihazların Termal Yönetimi: Kanatçık Etkisi**  
YAZICI M. Y., AVCI M., AYDIN O.  
21. Ulusal Isı Bilimi ve Tekniği Kongresi, Turkey, 13 - 16 September 2017

- XIX. **İki Düşey Levha Arasındaki Couette-Poiseuille Akışı: Karma Taşınımın İncelenmesi**  
ALTUNKAYA A. N., AVCI M., AYDIN O.  
21. Ulusal Isı Bilimi ve Tekniği Kongresi, Turkey, 13 - 16 September 2017
- XX. **Minikanalarda Doymuş Kaynamalı Akış Karakteristiklerinin Deneysel İncelenmesi**  
CANDAN A., MARKAL B., AYDIN O., AVCI M.  
13. Ulusal Tesisat Mühendisliği Kongresi, Turkey, 19 - 22 April 2017
- XXI. **Kare kesitli mikrokanallarda doymuş kaynamalı akış karakteristiklerinin deneysel incelenmesi**  
MARKAL B., AYDIN O., AVCI M.  
13. Ulusal Tesisat Mühendisliği Kongresi, Turkey, 19 - 22 April 2017
- XXII. **Düşey Yüzeyinde Ayrık Isı Kaynakları Bulunan Kanalda Yüzey Işınımının Isı Transferine Etkisi**  
SARPER B., BİRİNCİ S., SAĞLAM M., AYDIN O., AVCI M.  
13. Ulusal Tesisat Mühendisliği Kongresi, Turkey, 19 - 22 April 2017
- XXIII. **Faz Değiştiren Madde (FDM)-İlaveli Isı Alıcılarla Elektronik Ekipmanların Soğutulması: Konum Etkisi**  
YAZICI M. Y., AVCI M., AYDIN O.  
13. Ulusal Tesisat Mühendisliği Kongresi, Turkey, 19 - 22 April 2017
- XXIV. **Kare kesitli mini bir kanal içerisinde kaynamalı akışın deneysel incelenmesi**  
CANDAN A., AVCI M., MARKAL B., AYDIN O.  
21. Ulusal Isı Bilimi ve Tekniği Kongresi, Turkey, 13 - 16 April 2017
- XXV. **Düşey Eksenli Silindirik Bir Aralık İçerisinde Faz Değiştiren Madde İle Gizli Isı Depolama**  
YAĞCI O. K., AVCI M., AYDIN O.  
21. Ulusal Isı Bilimi ve Tekniği Kongresi, Turkey, 13 - 16 April 2017
- XXVI. **Silindirik Bir Boru İçerisindeki Tam Gelişmiş Akışta Manyetik Alanın Akış Ve Isı Transferi Üzerine Etkisi**  
YAĞCI E., AYDIN O., AVCI M., BALI T.  
21. Ulusal Isı Bilimi ve Tekniği Kongresi, Turkey, 13 - 16 April 2017
- XXVII. **Thermal management of electronic devices with pcm-based heat Sink: effect of inclination angle**  
YAZICI M. Y., AVCI M., AYDIN O.  
The second of the National Defense Industry Symposium (IDEFIS 2017), 6 - 08 April 2017
- XXVIII. **Natural Convection Heat Transfer from Discretely Heated Vertical Channel: Effect of the Surface Radiation**  
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Proceedings of the 2nd World Congress on Momentum, Heat and Mass Transfer (MHMT'17), 6 - 08 April 2017
- XXIX. **Innovative designs to passively enhance thermal energy storage using PCM**  
AYDIN O., AVCI M., YAZICI M. Y., AKGÜN M.  
The 8th Mediterranean Congress of Heating, Ventilating and Air-Conditioning (CLIMAMED 2015), 9 - 11 September 2015
- XXX. **Halka aralık içerisinde faz değiştiren madde FDM ile enerji depolama Kanatçık etkisi**  
YAZICI M. Y., AVCI M., AYDIN O., AKGÜN M.  
20. Ulusal Isı Bilimi ve Tekniği Kongresi 2015 (ULIBTK'15), Turkey, 2 - 05 September 2015
- XXXI. **Yarı silindirik içbükey yüzeye çarpan yuvarlak jet akışının hidrodinamik incelenmesi**  
ÖZTEKİN KULOĞLU E., AYDIN O., AVCI M.  
20. Ulusal Isı Bilimi ve Tekniği Kongresi 2015 (ULIBTK'15), Turkey, 2 - 05 September 2015
- XXXII. **Paralel mikro kanallı ısı alıcıda kaynamalı akış karakteristiklerinin deneysel olarak incelenmesi**  
MARKAL B., AYDIN O., AVCI M.  
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## Supported Projects

Markal B., Avci M., TUBITAK Project, Kademeli Genişleyen Akış Kesitine Sahip Mikro Pim Kanatçıklı Isı Alıcılarla Kaynamalı Akışın Deneysel İncelenmesi, 2020 - 2023



Avcı M., Aydın O., Pürçek G., Erdemir F., Yazıcı M. Y., TUBITAK Project, Faz Değiřtiren Madde İlaveli Batarya Termal Kontrol Sistemi Üretimi, 2018 - 2020

Markal B., Avcı M., TUBITAK Project, Değişken Kanal Genişliğine Sahip Düz Plakalı Kapalı Döngülu Atımlı Isı Borularının Deneysel İncelenmesi, 2018 - 2020

Avcı M., TUBITAK Project, Temiz Odalarda Menfez Konumlarının ve Oda Geometrisinin Kirletici Dağılımına Etkisinin Deneysel ve Sayısal Olarak İncelenmesi, 2017 - 2019

Akgün M., Avcı M., Project Supported by Higher Education Institutions, Havalı Tip Güneş Kollektörlerinde V-Kanal Açılarının Kollektör Verimine Etkisinin İncelenmesi, 2016 - 2019

Yıldız O., Avcı M., Ertop M. H., Değirmenci A., Can Z., Şahin H., Baltacı C., Kolaylı S., TAGEM Tarımsal Arařtırmalar ve Politikalar Genel Müdürlüğü Projesi, Geleneksel Gümüşhane Pestil ve Kömesinin Üretim Yöntemlerinin Ve Kalite Parametrelerinin İncelenmesi, 2014 - 2019

Aydın O., Avcı M., TUBITAK Project, Hava ile Elektronik Soğutmada Optimum Geometri ve İşletme Parametrelerinin Arařtırılması, 2014 - 2017

Aydın O., Avcı M., TUBITAK Project, Mikrokanal Akışlarında Kaynamada Isı Transferi ve Sistem Parametrelerinin Deneysel olarak İncelenmesi, 2013 - 2016

Öztekin Kuloğlu E., Avcı M., Aydın O., TUBITAK Project, İçbükey Eğrisel Yüzeyler Üzerine Çarpan Jet Akışının İncelenmesi, 2014 - 2015

Avcı M., Aydın O., Project Supported by Higher Education Institutions, Faz Değiřtiren Maddelerle Gizli Isı Depolamada Depo Geometrisi Optimizasyonu, 2011 - 2013

Aydın O., Avcı M., Kaya A., Aygün C., TUBITAK Project, Mikrokanallarda Titreşimli Biyolojik Akışların Deneysel ve Sayısal İncelenmesi, 2005 - 2008

## **Patent**

Avcı M., Yazıcı M. Y., Aydın O., Faz deęiřtiren madde ilaveli bir ısı depolama sistemi, Utility Model, CHAPTER F Mechanical engineering; Lighting; Heating; Weaponry; Destroyed Materials, The Invention Registration Number: 2018 04048 , Standard Registration, 2021

Avcı M., Markal B., Aydın O., Düz plakalı atımlı ısı borusu, Patent, CHAPTER F Mechanical engineering; Lighting; Heating; Weaponry; Destroyed Materials, The Invention Registration Number: TR 2017 23286 B , Standard Registration, 2020

Avcı M., Aydın O., Yazıcı M. Y., Sağlam M., Elektronik Cihazlar Ve Akıllı Telefonların Termal Kontrolünü Sağlayan Faz Deęiřtiren Madde İlaveli Yeni Bir Kılıf Yapısı, Patent, CHAPTER H Electricity, The Invention Registration Number: TR 2017 22655 B , Standard Registration, 2020

## **Activities in Scientific Journals**

Türk Hidrolik Dergisi, Committee Member, 2020 - Continues

Recep Tayyip Erdoğan Üniversitesi Fen ve Mühendislik Bilimleri Dergisi, Committee Member, 2019 - Continues

## **Memberships / Tasks in Scientific Organizations**

TÜBİTAK Mühendislik Arařtırma Grubu, Member of Advisory Board, 2020 - Continues, Turkey

## **Scientific Research / Working Group Memberships**

Fennec Teknoloji, Samsun University, Turkey, <https://www.fennectms.com.tr>, 2018 - Continues

## **Metrics**

Publication: 98

Citation (WoS): 1547

Citation (Scopus): 1707

H-Index (WoS): 23

H-Index (Scopus): 25