

## Assoc. Prof. ÖZGÜR BAYER

### Personal Information

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### International Researcher IDs

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Publons / Web Of Science ResearcherID: CAF-6447-2022

ScopusID: 37017931600

Yoksis Researcher ID: 207280

### Education Information

Doctorate, Middle East Technical University, Graduate School of Natural and Applied Sciences, Makine Mühendisliği (Dr), Turkey 2002 - 2009

Postgraduate, Middle East Technical University, Graduate School of Natural and Applied Sciences, Makine Mühendisliği (YI) (Tezli), Turkey 2000 - 2002

Undergraduate, Middle East Technical University, Faculty of Engineering, Makine Mühendisliği Bölümü, Turkey 1995 - 2000

### Foreign Languages

English, C2 Mastery

### Certificates, Courses and Trainings

Other, Temel Bilirkişilik Eğitimi, Chamber of Mechanical Engineers, 2017

### Dissertations

Doctorate, Simulation of refrigerated space with radiation, Middle East Technical University, Graduate School of Natural and Applied Sciences, Makine Mühendisliği (Dr), 2009

Postgraduate, Performance improvement of household refrigerators, Middle East Technical University, Graduate School of Natural and Applied Sciences, Makine Mühendisliği (YI) (Tezli), 2002

### Research Areas

Mechanical Engineering, Heat and Mass Transfer, Heating, Refrigerating and Air Conditioning, Computational fluid dynamics, Thermal Systems, Thermal machines, Electromagnetism, Acoustics, Heat Transfer, Classical Mechanics and

## Academic Titles / Tasks

Associate Professor, Middle East Technical University, Faculty of Engineering, Department of Mechanical Engineering, 2020 - Continues

Assistant Professor, Middle East Technical University, Faculty of Engineering, Department of Mechanical Engineering, 2018 - 2020

Assistant Professor, Middle East Technical University, Faculty of Engineering, Department of Mechanical Engineering, 2014 - 2018

Lecturer, Middle East Technical University, Faculty of Engineering, Department of Mechanical Engineering, 2012 - 2014

Research Assistant, Middle East Technical University, Faculty of Engineering, Department of Mechanical Engineering, 2000 - 2009

## Academic and Administrative Experience

Middle East Technical University, Faculty of Engineering, Makine Mühendisliği Bölümü, 2017 - Continues

## Courses

MECHANICAL ENGINEERING SYSTEMS LAB., Undergraduate, 2024 - 2025, 2023 - 2024, 2022 - 2023, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016, 2014 - 2015

THERMODYNAMICS I, Undergraduate, 2024 - 2025, 2015 - 2016

THERMAL ENGINEERING, Undergraduate, 2023 - 2024, 2022 - 2023, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2014 - 2015, 2013 - 2014

HEAT TRANSFER, Undergraduate, 2024 - 2025, 2023 - 2024, 2022 - 2023, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2014 - 2015

HEATING, VENTILATING, AIR CONDITIONING and REFRIGERATION, Undergraduate, 2023 - 2024, 2020 - 2021, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016, 2014 - 2015, 2013 - 2014, 2012 - 2013

REFRIGERATION ENGINEERING, Undergraduate, 2020 - 2021, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016, 2014 - 2015

HEATING, VENTILATING, AIR CONDITIONING and REFRIGERATION, Undergraduate, 2020 - 2021, 2013 - 2014

BASICS OF RESEARCH METHODS AND ETHICS IN ENGINEERING, Postgraduate, 2018 - 2019, 2017 - 2018

THERMODYNAMICS II, Undergraduate, 2017 - 2018, 2015 - 2016, 2014 - 2015

ADVANCED THERMODYNAMICS, Postgraduate, 2018 - 2019, 2014 - 2015

ADVANCED ENGINEERING MATHEMATICS, Postgraduate, 2014 - 2015

SECOND LAW ANALYSIS OF ENGINEERING SYSTEMS, Undergraduate, 2013 - 2014

## Advising Theses

Bayer Ö., Investigation on performance of combined annular and longitudinal rectangular fins on a horizontal cylinder in free convection, Postgraduate, E.SALAMATBAKHSI(Student), 2024

Bayer Ö., Solmaz İ., Hydrothermal characterization of metal foam-cladded pin fin array heat sink, Postgraduate, N.GÜLER(Student), 2024

Bayer Ö., CHARACTERIZATION OF LATENT THERMAL ENERGY IN A STORAGE UNIT WITH FIBONACCI-SEQUENCE-INSPIRED FINS, Postgraduate, S.BAGHAEI(Student), 2023

Azgin K., Bayer Ö., Oven controlled package for MEMS devices, Postgraduate, B.ERDOĞAN(Student), 2023

Bayer Ö., Simulation and control strategy adaptation of a parabolic trough collector integrated thermal system for

industrial processes, Postgraduate, D.PINARLI(Student), 2022

Bayer Ö., Aradağ Çelebioğlu S., Investigation of Marangoni-induced flows in vertical microchannels, Postgraduate, A.UĞUR(Student), 2022

Ulaş A., Bayer Ö., Design and validation of an air conditioning system for an industrial system, Postgraduate, B.FİLİZ(Student), 2022

Bayer Ö., Characterization of a conceptual modified synthetic jet design in a confined space, Postgraduate, A.ATEŞ(Student), 2022

Bayer Ö., Dursunkaya Z., Investigation of the effect of design parameters on vapor chamber heat transfer characteristic, Postgraduate, İ.KARAKAYA(Student), 2022

Bayer Ö., Experimentation and optimization of a heat pump integrated dishwasher, Postgraduate, E.KÜTÜK(Student), 2019

BAYER Ö., Numerical and experimental analysis for comparison of square, cylindrical and plate fin arrays in external flow, Postgraduate, A.BARIŞ(Student), 2018

Bayer Ö., Çıray C., Numerical calculation of rough turbulent boundary layer for incompressible fluids, Postgraduate, G.ATAY(Student), 2018

BAYER Ö., Flow visualization and determination of temperature distribution in inclined channels, Postgraduate, A.MEHMET(Student), 2018

Aradağ Çelebioğlu S., Bayer Ö., Benzer özellikli çift ve tek kompresörlü ev tipi buzdolaplarının enerji indeksine göre deneysel karakterizasyonu, Postgraduate, A.AKDEMİR(Student), 2018

Erdoğan S. T., Bayer Ö., Production of aerated alkali-activated slag pastes and mortars using hydrogen peroxide, Doctorate, M.ŞAHİN(Student), 2017

Yamalı C., Bayer Ö., Experimental analysis of an auxiliary air conditioning system used in an armored vehicle, Postgraduate, A.KORKMAZ(Student), 2015

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

- I. **Supercooled erythritol for high-performance seasonal thermal energy storage**  
Yang S., Shi H., Liu J., Lai Y., BAYER Ö., Fan L.  
Nature Communications, vol.15, no.1, 2024 (SCI-Expanded)
- II. **Experimental and numerical investigation on fluid flow and heat transfer behaviour of foam cladded pin fin heat sink**  
Güler N., BAYER Ö., SOLMAZ İ.  
Applied Thermal Engineering, vol.256, 2024 (SCI-Expanded)
- III. **Investigation of isothermal entropy change, relative cooling power, and refrigerant capacity of GdCoAl nanocomposite thin film by changing the Al ratio at low magnetic fields of 100 Oe and 1000 Oe**  
BAYER Ö., PAT S.  
Surfaces and Interfaces, vol.50, 2024 (SCI-Expanded)
- IV. **Performance improvement in a vertical latent thermal energy storage tank with crossing heat transfer tubes**  
Baghaei Oskouei S., BAYER Ö.  
Journal of Energy Storage, vol.88, 2024 (SCI-Expanded)
- V. **Hydrothermal performance of a wavy minichannel heatsink with longitudinal vortex generators**  
Salamatbakhsh E., BAYER Ö.  
THERMAL SCIENCE AND ENGINEERING PROGRESS, vol.50, 2024 (SCI-Expanded)
- VI. **Effect of impinging flow on hydrothermal characteristics of a pipe-network mini channel heatsink**  
Salamatbakhsh E., BAYER Ö., SOLMAZ İ.  
International Communications in Heat and Mass Transfer, vol.154, 2024 (SCI-Expanded)
- VII. **Solar-powered hybrid energy storage system with phase change materials**  
Baghaei Oskouei S., Frate G. F., Christodoulaki R., BAYER Ö., Akmandor İ. S., Desideri U., Ferrari L., Drosou V., TARI İ.

ENERGY CONVERSION AND MANAGEMENT, vol.302, 2024 (SCI-Expanded)

- VIII. **Heat Transfer Enhancement of a Mini Channel Heatsink by Utilizing Flexible Beams Placed Downstream of a Cylindrical Obstacle**  
Salamatbakhsh E., Oskouei S. B., BAYER Ö.  
Heat Transfer Engineering, 2024 (SCI-Expanded)
- IX. **Close-contact melting and natural convection in unconstrained melting: A parametric study**  
Baghaei Oskouei S., Li Z., BAYER Ö., Fan L.  
International Journal of Heat and Mass Transfer, vol.218, 2024 (SCI-Expanded)
- X. **Experimental and numerical investigation of melting and solidification enhancement using Fibonacci-inspired fins in a latent thermal energy storage unit**  
Baghaei Oskouei S., BAYER Ö.  
INTERNATIONAL JOURNAL OF HEAT AND MASS TRANSFER, vol.210, 2023 (SCI-Expanded)
- XI. **Effect of bypassing the heat transfer fluid on charging in a latent thermal energy storage unit**  
Baghaei Oskouei S., BAYER Ö.  
JOURNAL OF ENERGY STORAGE, vol.62, 2023 (SCI-Expanded)
- XII. **Evaluation of magnetocaloric behavior and refrigeration performance of Gd<sub>3</sub>Co<sub>10</sub>Al<sub>18</sub>7 nanostructured thin film alloy with multiple Curie temperatures**  
BAYER Ö., Baghaei Oskouei S., PAT S.  
Applied Physics A: Materials Science and Processing, vol.129, no.4, 2023 (SCI-Expanded)
- XIII. **A novel cascade latent heat thermal energy storage system consisting of erythritol and paraffin wax for deep recovery of medium-temperature industrial waste heat**  
Yang S., Shao X., Luo J., Baghaei Oskouei S., Bayer Ö., Fan L.  
ENERGY, vol.265, 2023 (SCI-Expanded)
- XIV. **Investigation of flow and heat transfer behavior of integrated pin fin-aluminum foam heat sink**  
ŞAHİN Y. S., TOPRAK B. İ., SOLMAZ İ., BAYER Ö.  
APPLIED THERMAL ENGINEERING, vol.219, 2023 (SCI-Expanded)
- XV. **Enhanced power density during energy charging of a shell-and-tube thermal storage unit: Comparison between the inclusion of metal fins and foams**  
Li Z., Baghaei Oskouei S., Fu G., BAYER Ö., Fan L.  
Journal of Energy Storage, vol.55, 2022 (SCI-Expanded)
- XVI. **Experimental and numerical investigation of a novel pipe-network mini channel heatsink**  
TOPRAK B. İ., Baghaei Oskouei S., BAYER Ö., SOLMAZ İ.  
International Communications in Heat and Mass Transfer, vol.136, 2022 (SCI-Expanded)
- XVII. **Investigation of double-layered wavy microchannel heatsinks utilizing porous ribs with artificial neural networks**  
BAYER Ö., Baghaei Oskouei S., Aradag S.  
International Communications in Heat and Mass Transfer, vol.134, 2022 (SCI-Expanded)
- XVIII. **Experiment-based optimization of an energy-efficient heat pump integrated water heater for household appliances**  
Atasoy E., Çetin B., Bayer Ö.  
ENERGY, vol.245, 2022 (SCI-Expanded)
- XIX. **Investigation of olive mill sludge treatment using a parabolic trough solar collector**  
Ben Othman F., Eddhibi F., Bel Hadj Ali A., Fadhel A., BAYER Ö., TARI İ., Guizani A., Balghouthi M.  
Solar Energy, vol.232, pp.344-361, 2022 (SCI-Expanded)
- XX. **Stress fields around magma chambers influenced by elastic thermo-mechanical deformation: implications for forecasting chamber failure**  
Browning J., KARAOĞLU Ö., BAYER Ö., Turgay M., Acocella V.  
BULLETIN OF VOLCANOLOGY, vol.83, no.7, 2021 (SCI-Expanded)
- XXI. **Developing and Implementation of an Optimization Technique for Solar Chimney Power Plant With Machine Learning**  
Ulucak O., Kocak E., Bayer Ö., Beldek U., Yapic E. O., Ayli E.

- JOURNAL OF ENERGY RESOURCES TECHNOLOGY-TRANSACTIONS OF THE ASME, vol.143, no.5, 2021 (SCI-Expanded)
- XXII. **Investigation of the structural, magnetic, and cooling performance of AlFe thin film and AlFeGd nanometric giant magnetocaloric thin films**  
Pat S., Bayer Ö., Akay S. K., Mohammadigharehbagh R., Kaya M.  
JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS, vol.32, no.5, pp.5635-5644, 2021 (SCI-Expanded)
- XXIII. **Development of silica fume-based geopolymer foams**  
Shakouri S., BAYER Ö., ERDOĞAN S. T.  
CONSTRUCTION AND BUILDING MATERIALS, vol.260, 2020 (SCI-Expanded)
- XXIV. **Thermomechanical interactions between crustal magma chambers in complex tectonic environments: Insights from Eastern Turkey**  
KARAOĞLU Ö., BAYER Ö., Turgay M. B., Browning J.  
TECTONOPHYSICS, vol.793, 2020 (SCI-Expanded)
- XXV. **Experimental based numerical approach for determination of volumetric heat transfer coefficients of modified graphite foams**  
Gürüf G., Solmus I., Bilen K., Bayer Ö.  
APPLIED THERMAL ENGINEERING, vol.174, 2020 (SCI-Expanded)
- XXVI. **Optimization of Vortex Promoter Parameters to Enhance Heat Transfer Rate in Electronic Equipment**  
Ayli E., BAYER Ö.  
JOURNAL OF THERMAL SCIENCE AND ENGINEERING APPLICATIONS, vol.12, no.2, 2020 (SCI-Expanded)
- XXVII. **EXPERIMENTAL AND NUMERICAL STUDY ON HEAT TRANSFER PERFORMANCE OF SQUARE, CYLINDRICAL AND PLATE HEAT SINKS IN EXTERNAL TRANSITION FLOW REGIME**  
İnci A. B., Bayer Ö.  
ISI BİLİMİ VE TEKNİĞİ DERGİSİ-JOURNAL OF THERMAL SCIENCE AND TECHNOLOGY, vol.39, no.2, pp.151-161, 2019 (SCI-Expanded)
- XXVIII. **Production of lightweight aerated alkali-activated slag pastes using hydrogen peroxide**  
Sahin M., Erdoğan S. T., Bayer Ö.  
CONSTRUCTION AND BUILDING MATERIALS, vol.181, pp.106-118, 2018 (SCI-Expanded)
- XXIX. **Comparison of Dynamic PTC Thermal Models Using Semi-Analytical and Finite Volume Methods**  
BAYER Ö., Uzgoren E.  
ENVIRONMENTAL PROGRESS & SUSTAINABLE ENERGY, vol.37, no.3, pp.1191-1200, 2018 (SCI-Expanded)
- XXX. **Effect of freezing rate and storage on the texture and quality parameters of strawberry and green bean frozen in home type freezer**  
Bulut M., Bayer Ö., Kırtıl E., Bayındırlı A.  
INTERNATIONAL JOURNAL OF REFRIGERATION-REVUE INTERNATIONALE DU FROID, vol.88, pp.360-369, 2018 (SCI-Expanded)
- XXXI. **Experimental investigation of surface roughness effects on the flow boiling of R134a in microchannels**  
Jafari R., Okutucu Özyurt H. T., Ünver H. Ö., Bayer Ö.  
EXPERIMENTAL THERMAL AND FLUID SCIENCE, vol.79, pp.222-230, 2016 (SCI-Expanded)
- XXXII. **Experimental investigation and CFD analysis of rectangular profile FINS in a square channel for forced convection regimes**  
Ayli E., Bayer Ö., Aradağ Çelebioğlu S.  
INTERNATIONAL JOURNAL OF THERMAL SCIENCES, vol.109, pp.279-290, 2016 (SCI-Expanded)
- XXXIII. **CFD simulations and reduced order modeling of a refrigerator compartment including radiation effects**  
Bayer Ö., Oskay R., Paksoy A., Aradağ Çelebioğlu S.  
ENERGY CONVERSION AND MANAGEMENT, vol.69, pp.68-76, 2013 (SCI-Expanded)
- XXXIV. **Hybrid Ventilation System Simulation for Several Cities in Turkey**  
Aradağ S., BAYER Ö., karataş c., poyraz u., kalkan o., haciahmetoglu f., efe y., kahvecioglu m., guncu a.

INTERNATIONAL JOURNAL OF VENTILATION, vol.9, no.4, pp.351-357, 2011 (SCI-Expanded)

**XXXV. EVALUATION OF NUSSELT NUMBER FOR A FLOW IN A MICROTUBE USING SECOND-ORDER SLIP MODEL**

Cetin B., Bayer Ö.

THERMAL SCIENCE, vol.15, 2011 (SCI-Expanded)

## Articles Published in Other Journals

- I. **On the design of a solar heat storage tank at 120°C**  
Christodoulaki R., Akmandor İ. S., BAYER Ö., Desideri U., Ferrari L., Frate G. F., Drosou V.  
INTERNATIONAL JOURNAL OF SUSTAINABLE ENERGY, vol.42, 2023 (ESCI)
- II. **A THEORETICAL ANALYSIS ON THE OPERATING AND DESIGN PARAMETERS AFFECTING THE PERFORMANCE OF A SEWAGE WASTEWATER SOURCED HEAT PUMP SYSTEM**  
DOĞAN E., SOLMAZ İ., Bayer Ö.  
JOURNAL OF THERMAL ENGINEERING, vol.9, no.1, 2023 (ESCI)
- III. **Eccentricity in a Horizontal Latent Thermal Energy Storage Unit: Effects of Inner Tube Geometry**  
BAYER Ö.  
Mühendis ve Makina, vol.63, 2022 (Peer-Reviewed Journal)
- IV. **ANALYSIS OF LOCAL THERMAL EQUILIBRIUM ASSUMPTION IN TRANSIENT FORCED CONVECTION IN A GRAPHITE FOAM CHANNEL**  
GÜRÜF G., SOLMAZ İ., BAYER Ö.  
SIGMA JOURNAL OF ENGINEERING AND NATURAL SCIENCES-SIGMA MUHENDISLIK VE FEN BILIMLERI DERGISI, vol.38, no.4, pp.2057-2067, 2020 (ESCI)
- V. **TS 825 Standard: A Critical Evaluation on Updates**  
BAYER Ö., Ünal Ö., Özkalender S.  
Tesisat Mühendisliği, no.179, pp.59-71, 2020 (Peer-Reviewed Journal)
- VI. **TAM GELİŞMİŞ TÜRBÜLANSLI İÇ AKIŞTA KANATÇIKLI YAPILAR ÜZERİNDE ZORLANMIŞ TAŞINIM KORELASYONU ELDESİ: PARAMETRİK DENEYSEL ANALİZ**  
Bayer Ö.  
Uludağ Üniversitesi Mühendislik Fakültesi Dergisi, vol.23, pp.417-430, 2018 (Peer-Reviewed Journal)

## Books & Book Chapters

- I. **Insulation materials**  
BAYER Ö.  
in: Energy Generation and Efficiency Technologies for Green Residential Buildings, , Editor, The Institution of Engineering and Technology Books, Stevenage, pp.149-172, 2019

## Refereed Congress / Symposium Publications in Proceedings

- I. **SIMULTANEOUS CLOSE-CONTACT MELTING AT DIFFERENT MELTING TEMPERATURES IN A CYLINDRICAL ENCLOSURE**  
Oskouei S. B., Salamatbakhsh E., Bayer Ö.  
9th International Symposium on Advances in Computational Heat Transfer, CHT 2024, İstanbul, Turkey, 26 - 30 May 2024, vol.2024, pp.393-406
- II. **Winding Type Alternation of a Refurbished Old Generator**  
Tosun N., Gülletutan G., Yakut M. S., Alp Yılmaz D., Bayer Ö., Keysan O.  
2023 IEEE Workshop on Electrical Machines Design, Control and Diagnosis, WEMDCD 2023, Newcastle upon Tyne,

England, 13 - 14 April 2023

- III. **Influence of a flexible vortex generator on hydrodynamic and heat transfer characteristics of a pin-fin array**  
Baghaei Oskouei S., Bayer Ö.  
CHT-21, International Symposium on Advances in Computational Heat Transfer, 15 August 2021
- IV. **Decarbonization of industrial processes: technologies, applications and perspectives of low-temperature solar heat (80-150°C)**  
Bartali R., Christodoulaki R., Drosou V., BAKER D. K., Svaizer P., Alarcón-Padilla D., Osório T., Kramer W., Bolognese M., Praticò L., et al.  
EuroSun 2020, 01 September 2020
- V. **Water Sludge Drying: Modelling of a Solar Thermal Plant for a Solar Vacuum Dryer**  
Bartali R., BAYER Ö., Pınarlı D., Erdoğan S., Bolognese M., BAKER D. K., Praticò L., Crema L.  
EuroSun 2020, 01 September 2020
- VI. **Analyses of heat pump system as an energy efficient alternative of resistance heater for a household appliance: an applicability aspect**  
Kütük E., Bayer Ö.  
XII International Conference on Computational Heat, Mass and Momentum Transfer, Rome, Italy, 3 - 06 September 2019, pp.1-6
- VII. **Thermal performance of a novel collector integrated oval solar tank (CIOST)**  
Erdoğan S., Bayer Ö.  
4th International Conference on Viable Energy Trends, İstanbul, Turkey, 26 - 28 April 2019, pp.199-213
- VIII. **TS 825 standardı: güncellemeler üzerine kritik bir değerlendirme**  
Bayer Ö., Ünal Ö., Özkalender S.  
14. ULUSAL TESİSAT MÜHENDİSLİĞİ KONGRESİ, İzmir, Turkey, 17 - 20 April 2019, pp.37-47
- IX. **Magma odalarının termomekanik modellenmesi: Doğu Anadolu'dan bir örnek çalışma**  
Karaoğlu Ö., Bayer Ö., Turgay M. B.  
Uluslararası Katılımlı 72. Türkiye Jeoloji Kurultayı, Ankara, Turkey, 28 January - 01 February 2019, pp.920-924
- X. **Benzer özellikli çift ve tek kompresörlü ev tipi buzdolaplarının enerji indeksine göre deneysel karakterizasyonu**  
Akdemir A., Aradağ Çelebioğlu S., Bayer Ö.  
4. Uluslararası Katılımlı Anadolu Enerji Sempozyumu, Edirne, Turkey, 18 - 20 April 2018, pp.1592-1601
- XI. **Tam gelişmiş türbülanslı iç akışta hizalı ve kaydırılmış akış yönlendiricilerin ısı transferine olan etkisinin deneysel ve sayısal yöntemlerle incelenmesi**  
Aylı E., Mergen S., Bayer Ö.  
4. Uluslararası Katılımlı Anadolu Enerji Sempozyumu, Edirne, Turkey, 18 - 20 April 2018, pp.1368-1380
- XII. **Numerical optimization of heat transfer augmentation for square, circular and plate fins in forced, fully developed external flow**  
Bayer Ö., İnci B.  
2nd International Conference on Viable Energy Trends (InVenT-2017), Helsinki, Finland, 28 - 30 April 2017, pp.176-188
- XIII. **Investigation of natural ventilation in a public place in winter season with the comparison of experimentation and CFD results**  
Bayer Ö., Kütük E.  
12th REHVA World Congress CLIMA 2016, Aalborg, Denmark, 22 - 25 May 2016, pp.1-10
- XIV. **Comparison of experimentation and CFD results for applicability of natural ventilation in METU library reserve section**  
Bayer Ö., Kütük E.  
The 8th Mediterranean Congress of Heating, Ventilation and Air-Conditioning (Climamed15), Antibes, France, 9 - 11 September 2015, pp.1-8
- XV. **Comparison of different heating systems for the indoor swimming pool located at METU campus, Ankara**

- Bayer Ö., Yalılı M., Ektaş Ş.  
7th International Ege Energy Symposium and Exhibition, Uşak, Turkey, 18 - 20 June 2014, pp.1-14
- XVI. **Experimental investigation of heat transfer and pressure drop over rectangular profile fins placed in a square channel**  
Aylı E., Kıyıcı F., Bayer Ö., Aradağ Çelebioğlu S.  
Proceeding of Proceedings of CONV-14: International Symposium on Convective Heat and Mass Transfer. June 8 - 13, 2014, Kusadasi, Turkey, Aydın, Turkey, 8 - 13 June 2014, pp.1-11
- XVII. **Comparison of household refrigeration cycle design outputs using R134a and R600a as working fluids**  
Bayer Ö., Cüylan G., Oskay R.  
XI. International HVACR Technology Symposium, İstanbul, Turkey, 8 - 10 May 2014, pp.1-8
- XVIII. **Performance assessment of a solar assisted HVACsystem for a medium-sized office building in Larnaca, North Cyprus**  
Bayer Ö., Güldiken D. M.  
Climamed'13, Mediterranean Congress of Climatization, İstanbul, Turkey, 3 - 04 October 2013, pp.387-396
- XIX. **Jeotermal enerjili ve güneş enerjili sera ısıtma sistemlerinin karşılaştırılması: Ege Bölgesi için kritik bir gözden geçirme**  
Bayer Ö., Ektaş Ş.  
ULIBTK'xx13 19. Ulusal Isı Bilimi ve Tekniği Kongresi, Samsun, Turkey, 9 - 12 September 2013, pp.1386-1399
- XX. **Sabit hacme paralel yerleştirilen ve zorlanmış türbülanslı taşınımında hava ile soğutulan elektronik kartların optimum aralığı**  
Bayer Ö., Yüncü H.  
ULIBTK'xx13 19. Ulusal Isı Bilimi ve Tekniği Kongresi, Samsun, Turkey, 9 - 12 September 2013, pp.526-531
- XXI. **CFD simulations and reduced order modeling of a refrigerator compartment including radiation effects**  
Bayer Ö., Oskay R., Paksoy A., Aradağ Çelebioğlu S.  
6TH INTERNATIONAL ADVANCED TECHNOLOGIES SYMPOSIUM (IATS'xx11), Elazığ, Turkey, 16 - 18 May 2011, pp.1-7
- XXII. **Evaluation of nusselt number for a flow in a microtube with constant heat flux including axial conduction, viscous dissipation and second-order slip model**  
Çetin B., Bayer Ö.  
The 3rd International Symposium on Nonlinear Dynamics, Shanghai, China, 25 - 28 September 2010, pp.1-8
- XXIII. **Roof-pond applications as a passive cooling technology for buildings: a critical review**  
Bayer Ö., Mengüç M. P.  
Clima 2010 Rehva World Congress, Antalya, Turkey, 9 - 12 May 2010, pp.1-8
- XXIV. **Hybrid ventilation system simulation for several cities in Turkey**  
Aradağ Çelebioğlu S., Bayer Ö., Karatas C., Poyraz U., Kalkan O., Haciahmetoglu F., Efe Y., Kahvecioglu M., Goncu A.  
Clima 2010 Rehva World Congress, Antalya, Turkey, 9 - 12 May 2010, pp.1-8

## Supported Projects

- Akmandor S., Bayer Ö., Tarı İ., Desideri U., TÜBİTAK International Multi-Cooperation Project, INNOSOLPOWER, YENİLİKÇİ YÜKSEK GÜÇ YOĞUNLUĞUNA SAHİP MİKRO-TERMAL GÜNEŞ ENERJİSİ DEPOLAMA, 2021 - 2024
- Bayer Ö., Project Supported by Other Private Institutions, Özgün Enerji Verimli Soğutma Algoritması, 2020 - 2022
- BAYER Ö., ÖZGİRGİN YAPICI E., AYLI İNCE Ü. E., Project Supported by Higher Education Institutions, Experimental investigation of geometrical parameters on solar chimney power plant performance, 2020 - 2022
- Bayer Ö., Solmuş İ., Bilen K., TUBİTAK Project, Entegre İğne Kanatçıklı-Alüminyum Köpük Isı Kuyusunun Akış Ve Isı Transferi Davranışının İncelenmesi, 2019 - 2021
- Baker D. K., Bayer Ö., Tarı I., Nitz P., H2020 Project, INSHIP: Integrating National Research Agendas on Solar Heat for Industrial Processes, 2017 - 2021



TARI İ., BAYER Ö., TÜBİTAK International Bilateral Joint Cooperation Program Project, Atık Çamurların Değerlendirilmesi İçin Güneş Enerjili Kurutma Teknolojileri Geliştirilmesi, 2018 - 2020

Bayer Ö., Project Supported by Higher Education Institutions, Mini/Mikro Kanallı İki Fazlı Soğutma Sistemi Tasarımı ve Deneysel Performans Analizleri, 2017 - 2019

Bayer Ö., Project Supported by Other Official Institutions, CER Motorlarının Soğutma Performansı Deneysel İyileştirilmesi, 2018 - 2018

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