

CURRICULUM VITAE

Professor Dr.

M. PINAR MENGÜÇ

PERSONAL

- FIBA Renewable Energy Endowed Chair Professor (FYE Chair Professor), Özyegin University, Istanbul, Turkey
- Founding and Current Director of Center for Energy, Environment and Economy, (CEEE/EÇEM), Özyegin University, Istanbul, Turkey
- Professor of Mechanical Engineering, Özyegin University, Istanbul, Turkey
- Courtesy Professor of Design, Technology and Society Program, School of Architecture and Design, Özyegin University, Istanbul, Turkey

OFFICE ADDRESS: Özyegin University
Center for Energy, Environment and Economy (CEEE/EÇEM)
AB4 B520C
Nisantepi, Cekmekoy 34794
Istanbul, Turkiye

OFFICE TELEPHONE: +(90) 216 564 9327

E-MAILS: pinar.menguc@ozyegin.edu.tr;
mpmenguc@gmail.com

WEB SITES: www.ozuceee.net
www.ozyegin.edu.tr/energy
www.thermalradiation.net

ORCID Researcher No: 0000-0001-5483-587X
SCOPUS ID No: 35781248000
Web of Science Researcher ID: O-3114-2013 www.researcherid.com/rid/O-3114-2013
Amazon Authors Page: <https://www.amazon.com/stores/author/B093FJ8D8H>

EDUCATION

Ph.D.: Purdue University, School of Mechanical Engineering, West Lafayette, IN, 1985.
Dissertation Title: Modeling of Radiative Heat Transfer in Multidimensional Enclosures Using Spherical Harmonics Approximation, Advisor: R. Viskanta
MSME: METU, Department of Mechanical Engineering, Ankara, Turkey, 1980 (with honors). Thesis Title: Heat Transfer in a Radiating Laminar Flow between Parallel Plates. Advisor: Yaman Yener.

BSME: METU, Department of Mechanical Engineering, Ankara, Turkey, 1978 (with honors). Area of Specialization: Heat Transfer.

EXTENDED EDUCATION:

Woods Hole Oceanographic Institute College Faculty Workshop, Woods Hole, MA, June 1992.

Laser Surgery Principles, Harvard University, Cambridge, MA, October 1998

AREAS OF RESEARCH SPECIALIZATION

Radiative heat transfer in multidimensional geometries
Radiative/optical properties of particulates and combustion products
Applied optics / laser diagnostic techniques
Inverse radiation problems
Thermal Transport in Nano-Scale: Electrons, Phonons, and Photons
Near-field Radiative Transfer and Applications
Energy Efficient Buildings and Sustainable Energy Applications
Transdisciplinary Studies

PROFESSIONAL EMPLOYMENT

7/2022-...	FIBA Renewable Energy Endowed Chair Professor (FYE Chair Professor), Özyegin University, Istanbul, Turkey
7/2023-...	Courtesy Professor of Design, Technology and Society Program, School of Architecture and Design, Özyegin University, Istanbul, Turkey
4/2009 – ...	Founding and Current Director, Center for Energy, Environment and Economy, (CEEE/EÇEM), Ozyegin University, Istanbul, Turkey
12/2008 – 2/2019	Founding and the first Head of Mechanical Engineering, Ozyegin University, Istanbul, Turkey
12/2008 – ...	Professor of Mechanical Engineering, Ozyegin University, Istanbul, Turkey
2/2022 – 8/2022	Visiting Professor, UCLA Samueli School of Engineering, Los Angeles, California, USA
7/2011 – 6/2021	Alumni Chair Professor Emeritus in Engineering, University of Kentucky, Lexington, KY, USA.
1/2009 – 6/2011	Engineering Alumni Chair Professor, UK, Lexington, KY, USA
7/1993 – 6/2011	Professor of Mechanical Engineering, UK, Lexington, KY, USA
1/2007 – 12/2008	President of Synergetic Technologies, Inc., USA
8/2006 – 12/2011	External Advisory Board Member, University of Louisville, ElectroOptics Research Institute & Nanotechnology Center, Louisville, KY, USA
7/2006	Honorary Professor, ESPOL, Guayaquil, Ecuador
8/2005 – 12/2008	Honors Program Faculty, University of Kentucky, Lexington, KY, USA

8/2003 – 12/2008	Director of the Nano-Scale Engineering Program (NECP) at the College of Engineering for Undergraduate Students, U of Kentucky, USA
9/1998 – 7/1999	Senior Research Fellow, Shriners Research Center, Harvard University/ Massachusetts General Hospital, Cambridge, MA, USA
6/1994 – 6/1999	Faculty Associate, Center for Applied Energy Research, University of Kentucky, Lexington, KY, USA
Fall 1991	Visiting Professor, Università degli Studi “Federico II,” Naples, Italy
7/1988 – 6/1993	Associate Professor of Mechanical Engineering, University of Kentucky, Lexington, KY (received tenure in 1988).
6/1988	Summer Research Fellow, IBM-Lexington, KY
7/1985 – 6/1988	Assistant Professor of Mechanical Engineering, University of Kentucky, Lexington, KY
8/1980 - 6/1985	Research Assistant, School of Mechanical Engineering, Purdue University, West Lafayette, IN
6/1978 - 7/1980	Teaching Assistant, Department of Mechanical Engineering, METU - Middle East Tech. Univ., Ankara, Turkey
4/1979 - 7/1980	Consultant, Chamber of Mechanical Engineers, on Heat Exchangers and Boilers, Ankara, Turkey

AWARDS AND HONORS

Parlar Foundation Honor Award, Middle East Technical University, Ankara, (one of the 11 recipients of the Honor Awardees, given since 1989), presented in April 2025. <https://parlar.org.tr/2024-yili-odulleri/>

Michael I. Mishchenko Medal, JQSRT-Elsevier, June 2023. Presented for the outstanding service and superior scholarly activities on light scattering and radiative transfer.

One of the 100 Patents in the 100th year of Turkish Republic;
w/ Ali Koşar, Kürşat Şendur, (No: 2019/13359; cited in <https://iprgezgini.org/2023/10/27/cumhuriyetin-100-yilinda-100-turk-patenti/>)

Purdue University Outstanding Mechanical Engineer Award, June 2020
Award was given on Sep. 10, 2021 due to pandemic; so far, awarded to about 320 alumni since 1991 out of more than 30,000 Purdue ME graduates. <https://engineering.purdue.edu/ME/People/OME/2020>

Heat Transfer Memorial Award in the Category of Art of Practice, The American Society of Mechanical Engineers (ASME), Life-time Award, (one of only 130 awards given so far, since 1959), presented at ASME IMECE, Pittsburgh, PA, USA, November 2018.

(<https://www.asme.org/about-asme/honors-awards/achievement-awards/heat-transfer-memorial-award>)

Energy Efficiency Award, the *First Place*, granted to CEEE/EÇEM by the Istanbul Chamber of Commerce and the Republic of Turkey Minister of Energy and Natural Resources, Istanbul, January 2020. (Received for the CEEE/EÇEM NEED4B-SCOLA Building project.)

Finalist and Honorable Mention, NEXT-GEN Project, Community Engagement Initiative of the Year; given by ACEEU (Accreditation Council for Entrepreneurial and Engaged Universities) at the Asia-Pacific Triple E Awards, Kochi, India, January 2020. (Received for CEEE/EÇEM)

Efficiency Award, the *First Place* for the Public Category, granted to CEEE/EÇEM, presented by the Republic of Turkey Ministry of Science and Technology, Ankara, November 2019. (Received for the CEEE/EÇEM NEED4B Project on SCOLA Building project.)

Elected Member, Science Academy, Turkey, 2016. (Executive Committee, 2017-)

Senior Member, Optical Society of America (OSA), 2015.

The Outstanding Researcher Award, Ozyegin University, 2015.

The Inaugural Knowledge Transfer Award, Ozyegin University, 2014.

IBM Smarter Planet Award, 2010 (one of the 24 recipients worldwide.)

Dedication Award, RAD'10, International Symposium on Radiation Transfer, April 1, Antalya, Turkey (2010).

Founding Member, Sustainable Transportation Association, Istanbul, Turkey (2012)

Honorary Member, GENSED (Solar Industry Association), Istanbul, Turkey (2010)

Alumni Association Professor of Engineering, University of Kentucky (2008-2011)

Alumni Association Professor Emeritus of Engineering, University of Kentucky (2011-)

<https://www.engr.uky.edu/research-faculty/departments/mechanical-engineering/people>

Invited Member of ElectroOptics Research Institute, University of Louisville, KY (2006)

Honorary Professor, ESPOL, Guayaquil, Ecuador (2006)

R&D 100 Award for Particle Characterization System, Synergetic Technologies (2005)

Fellow, ICHMT (International Center for Heat and Mass Transfer) (2002)

Fellow, ASME (American Society of Mechanical Engineers) (1999) (No: 000001574128)

Best Paper Award, ASME Heat Transfer Division (1994) (presented in November 1995)
(JA 28)

Outstanding Research Paper Award, College of Engineering, University of Kentucky
(1994) (JA 28)

Outstanding Research Paper Award, College of Engineering, University of Kentucky
(1991) (JA 21)

Listed in the Marquee's Who's Who in the World (2000)

Cited in Who's Who Among Young American Professionals, 2nd Edition (1992 -)

Cited in Who's Who in South and Southwest, 22nd Edition (1990 -)

University of Kentucky Presidential Special Faculty Incentive Award (1988-1990)
IBM Summer Research Faculty (1988)
National Science Foundation Engineering Research Initiation Award (1987)
University of Kentucky Special Summer Faculty Research Fellowship (1987)
University of Kentucky Summer Faculty Research Fellowship (1986)
Turkish Scientific and Technical Research Council Fellowship (1972-1980)

PROFESSIONAL ACTIVITIES

EDITORIAL RESPONSIBILITIES:

Editor-in-Chief, along with Ping Yang and Peter Bernath (previously, with Larry Rothman and late Michael Mishchenko)
J. of Quantitative Spectroscopy and Radiative Transfer, JQSRT, 2006-2024.
Editor, *Physics Open*, Elsevier, 2019-2021.
Editorial Advisory Board, *J. of Enhanced Heat Transfer*, Begell House, 2019-present.
Associate Technical Editor:
Journal of Quantitative Spectroscopy and Radiative Transfer, 2002-2005.
Associate Technical Editor:
ASME Journal of Heat Transfer, 1997-2000; Special Issue, 2006.

INTERNATIONAL ACTIVITIES:

Organizer, Low-Carbon Energy Technologies (LCET'2025) Conference (with Tim Fisher of UCLA and Wojciech Lipinski of Cyprus Institute), Istanbul, Türkiye, October 2025.
Executive Committee Member, International Center for Heat and Mass Transfer, 2018-.
(serving as the Chair of the Executive Committee from 2023 to 2025)
Executive Committee Member, Science Academy, Turkey, 2017-2024.
Organizer, Science Academy Conferences, Turkey, 2017-2021, 2024.
Turkish Delegate, European Union COST Action on Energy Islands, Modenerlandas, by TUBITAK and EU COST Program, 2021-.
Turkish Delegate, European Union FP7 & Horizon 2020 Energy Commissions, by TUBITAK, 2010-2016.
Turkish Chair, TUBITAK (TR) – NSF (USA) Collaboration on Sustainable Energy, May 2013-2016.
Scientific Council Member and Fellow: International Center for Heat and Mass Transfer, 1998-2018.
Chairman/Co-Chairman of the Organizing Committee:
- First International Symposium on Radiative Transfer, sponsored by the International Center of Heat and Mass Transfer (ICHMT), Kusadasi, Turkey, August 14-18, 1995.
- Second International Symposium on Radiative Transfer, sponsored by the International Center of Heat and Mass Transfer (ICHMT), Kusadasi, Turkey, July 21-25, 1997.

- Third International Symposium on Radiative Transfer, sponsored by the International Center of Heat and Mass Transfer (ICHMT), Antalya, Turkey, June 17-22, 2001.
- Fourth International Symposium on Radiative Transfer, sponsored by the International Center of Heat and Mass Transfer (ICHMT), Istanbul, Turkey, June 20-25, 2004.
- Fifth International Symposium on Radiative Transfer, sponsored by the International Center of Heat and Mass Transfer (ICHMT), Bodrum, Turkey, June 17-23, 2007.
- 10th Electromagnetic Wave/Light Scattering Conference Bodrum, Turkey, June 17-23, 2007.
- The Workshop on Architecture and Engineering of Scientific Buildings, Istanbul, Turkey, May 16-19, 2011. Sponsored by NSF and TUBITAK, co-organized with the University of Illinois.

Co-Advisor and a member of the Organizing Committee for International Workshop on Near Field Radiative Transfer at Nano and Micro Scales, Nano-Rad 2012: Sendai, Japan; 2014: Shanghai, China; 2017: Daejeon, South Korea; 2024: Sapporo, Japan.

Scientific Advisory Committee Member:

International Symposium on Radiative Transfer (Antalya 2010; Kusadası, 2013; Cappadocia, 2016; Athens 2019; Thessaloniki 2023; Kuşadası 2025)

Electromagnetic Wave/Light Scattering Conferences (St Petersburg, Russia, 2006; Harverdshire, England, 2008; Helsinki, Finland, 2010; Taormina, Sicily, 2011; Lille, France, 2013; Leipzig, Germany, 2015; Maryland, USA, 2017; College Station, TX, USA, 2018; Russia, 2021 (on line); St. Petersburg, Russia, 2023 (on-line) (Granada, Spain, 2023); Sicily, Italy 2025.

Eurotherm Conferences on Computational Radiative Transfer (2003-2021)

ASME MicroNano Conference, Hong Kong; 2008; Singapore, 2016

International Conferences on Combustion Technologies for a Clean Environment, Lisbon, Portugal (3rd Conference in July 1995, 4th in 1997; 5th in 1999; 6th in 2001; 7th in 2003)

First Mediterranean Combustion Meeting, Antalya, Turkey, June 1999.

International Heat and Mass Transfer Conference, Istanbul, Turkey, July 2000

Second Mediterranean Combustion Meeting, Sharma-el-Sheikh, Egypt, January 2002.

Third Mediterranean Combustion Meeting, Marrakech, Morocco, June 2003

Fourth Mediterranean Combustion Meeting, Lisbon, Portugal, 2005

First International Forum on Heat Transfer, Kyoto, Japan, November 2004.

Invited Participant, TASSA-TUBITAK Workshop, Gebze/Istanbul, Turkey, November 2005;

Organizer:

- Covid'19 Forecasting and Solution Preparation Team, with Ozgur Ertunc and Selenga Gürmen, Ozyegin University, Istanbul, Turkey, 2020-2021.
- Transdisciplinary Faculty Workshops 'Bağlantılar'; Ozyegin University, Istanbul, Turkey, Spring 2019.
- Transdisciplinary Workshop 'Yaklaş; with Özlem Bahadır and Gökçe Ersel of CEEE/EÇEM, Ozyegin University, Istanbul, Turkey, October 2018.
- Integrated Engineering and Architecture Workshop in Istanbul, with the University of Illinois, USA, sponsored by NSF and TUBITAK, at Ozyegin University, Istanbul, Turkey, May 2010.
- Zero Istanbul 2050 Workshop; Organized with the support from EU and Fiba Holding, Ozyegin University, Istanbul, Turkey, May 2010.
- Nanotechnology for Solar Energy Utilization, ASME Nanotechnology Institute, August 10-14, 2008, Jacksonville, Florida
- ASME IMECE Mini-Symposium on Nano- and Micro-Scale Radiative Transfer (w/ Z. Zhang), November 2006, Chicago, IL.
- ASME IMECE Mini-Symposium on Nano- and Micro-Scale Radiative Transfer (w/ Z. Zhang), November 2005, Orlando, FL.
- ASME Technical Program Representative for the 2002 8th ASME/AIAA Joint Thermophysics-Heat Transfer Conference; St. Louis, MO, June 2002
- Ad-Hoc Organizing Committee Member for ASME Heat Transfer Conferences (1998-2006)
- Symposium on Fires and Combustion Systems, International Mechanical Engineering Congress and Exposition, Atlanta, GA, November 1996.

Session Chairman/Co-Organizer:

ASME/AIAA Thermodynamics and Heat Transfer Conference, Boston, MA, June 1986.

ASME National Heat Transfer Conference, Atlanta, GA, August 1993.

Panel on Heat Transfer at Purdue U. Heat Transfer Celebrations, W. Lafayette, IN, April 2003.

ASME IMECE, Co-Chair, w/ P. Norris, session on "Nanoscale Education Programs," Chicago, IL, November 2006.

Member/Chair:

ASME K-11 Committee on Heat Transfer in Combustion Systems and Fire. (1985-1999)

ASME K-3 Heat Transfer Awards Committee Member (2005-2007)

ASME K-3 Heat Transfer Awards Committee Chair (2007-2008)

Participant:

- NSF Workshop to Determine the Emerging Technologies and Critical Phenomena in Thermal Engineering, Chicago, IL, April 19-21, 1991.
- NSF Workshop, Joint with Russian-Belorussian Scientists on "Radiative Transfer in Highly Interacting Physical Systems," University of Texas, Austin, TX, October 4-8, 1993.

UNIVERSITY SERVICES:

At the UNIVERSITY OF KENTUCKY, Lexington, KY, USA (1985-2008):

University Wide:

- Honors Program Faculty, 2005-2008
- Honors Program Advisory Board Member, 2006-2007
- Physical Sciences and Engineering Tenure and Promotion Area Committee, 1996-1998 (Member, 96-97; Chair, 97-98); Reported to the Chancellor.
- Academic Facilities Committee, University Senate, 1995-1997
- Search Committee, Associate Director of the Office of International Affairs, 1996-1997
- University Senate Member, Engineering Representative, 1994 -199
- Center for Robotics and Manufacturing Systems, Liaison Committee, 1989-1990

College Wide:

- Member, Steering Committee, Calculus in Engineering, 2007-2008
- Director, Nano-Scale Engineering Certificate Program, 2003-2008.
- Program Faculty for the Joint Mechanical Engineering Program between UK (Lexington) and WKU (Bowling Green, KY), 2003-2005

Departmental Wide:

- Thermo-Fluid Sciences Area Chairman, 1999-2002
- ME Faculty Development Committee, 1999-2002
- Curriculum Development Committee, Chairman, 1996-1997
- William Maxwell Reed Seminars Coordinator, 1988-1990; 2003-2004

- Mechanical Engineering Energy Committee, Chairman, 1985-1987
- Graduate Studies Committee, 1985-1987
- Undergraduate Studies Committee, 2005-2008.

At OZYEGIN UNIVERSITY, Istanbul, Turkey (Since 2009):

Within the University:

- Founding Director, Center for Energy, Environment and Economy (CEEE/ECM) (2009...)
- Founding Head of Department of Mechanical Engineering, 11/2008-2/2019
- University Representative to UAK (Council for Turkish Universities) (Üniversiteler Arasi Kurul); 2009-2012.
- University Administrative Executive Council Member; 2010-2018.
- University Senate (2016-2022)

University Scientific Ethics Committee, 2017-2019.
College of Engineering Administrative Council Member; 2009-2022.
University Strategy Committee (2015-2016)
University Awards Committee (2016-2019), Chair (2017, 2018)

Executive Council Member

Özyeğin University, University-Wide (2009-2018)
Özyeğin University, Institute of Arts and Sciences (2009-2018)
Özyeğin University, College of Engineering (2009-2021)
Özyeğin University, College of Architecture and Design (2014-2015)
Özyeğin University, College of Civil Aviation (2016-2021)

Outside the University:

Istanbul Collaborative (Grass-roots effort for science and technology research and development specific to nanotechnology, photonics, and radiative transfer; one of the three founders, along with Kürşat Şendur and Ali Koşar) (2009-)

Turkish Delegate to US-NSF Engineering for Sustainable Future Program,
(Appointed by TUBITAK) (2012-2016.)

Turkish Delegate to EU FP-7 and Horizon 2020 Programs, Energy Theme
(Appointed by TUBITAK) (2010-2016)

Turkish Delegate to Climate Change Talks (COP15, Copenhagen), 2009.

Turkish Delegate to Climate Change Talks (COP25, Madrid), 2019.

Turkish Delegate to Climate Change Talks (COP26, Glasgow), 2021.

Board and Founding Member, Sustainable Transportation Association, 2010-
Istanbul Climate Group, Coordinator, 2010-.

Honorary Member, GENSED, 2010.

Associate Board Member, ÇEDBIK (Green Buildings Association of Turkey),
2011-2018.

Advisory Board; World Resources Institute-Turkey, 2014-2018.

Executive Council Member, United Nations Sustainable Development
Sustainability Network, UNSDSN-Turkey, 2015- 2018.

Delegate of Turkey to European Union COST Action CA20109 on “Assesment of
Sustainable Energy Rources for Energy Islands,” 2021-2024.

SOCIETY MEMBERSHIP:

Science Academy, Turkey (Elected Member; 2016; Exec. Comm. since 2017)

American Society of Mechanical Engineers, Fellow

International Society of Heat and Mass Transfer, Fellow

The Combustion Institute

Optical Society of America, Senior Member

Society of Engineering Sciences
Tau Beta Pi, Sigma Xi, Pi Tau Sigma

REVIEWER: Reviewer for NSF, EU programs, NIH, and major journals including JQSRT, IJHMT, Applied Optics, Combustion and Flame, Nature Communications, Science, TUBITAK, NSF, DOE, European Union, and others.

ENTREPRENEURSHIP / INDUSTRIAL ACTIVITIES:

One of the three founding members of the Synergetic Technologies, Inc., Lexington, KY; Developer of particle characterization tools. (w/ former Ph.D. Student, Sivakumar Manickavasagam, and w/ C. Saltiel). Vice-President 2005-2008; President, 2007-2008; The Company was closed after licensing its patent and the product to Horiba, Japan in 2008.

PHD DISSERTATIONS DIRECTED

1. **Siva Manickavasagam**, "Effective Optical and Radiative Properties of Pulverized Coal and Char," Ph.D., 1993. (*Working for his own school system, Bangalore, India*)
2. **S. Mukerji**, "Radiation-Turbulence Interactions," Ph.D. 1997 (Co-Advisor with Professor J.M. McDonough).
3. **C. Crofcheck**, "Identification of Optical/Radiative Properties of Dairy Products," Ph.D. 2001 (Co-Advisor w/ Fred Payne). (*Professor at the University of Kentucky, Lexington, KY, USA*).
4. **Basil T. Wong**, "Thermal Heat Transport at the Nano-Scale Level and its Application to Nano-Machining" Ph.D. 2006. (*Associate Professor at Swinburne University of Technology (Sarawak), Malaysia.*)
5. **J.N. Swamy**; "A Polarized Light Scattering Based Techniques to Characterize the Dynamics of Liquid Foams," (Co-Advisor w/ C. Crofcheck), Ph.D., 2007.
6. **M. Kozan**, "Characterization of Agglomeration of Nanostructures," Ph.D., 2007. (*Research Engineer, Bridgewater, NJ, USA*).
7. **Ellie (Derbyshire) Hawes**; "Directed Self-Assembly of Nano-Size Particles," (Co-Advisor w/ C. Crofcheck), Ph.D., 2007.
8. **Jaime Sanchez**; "Electron Field-Emission from Carbon Nanotubes for Nanomachining Applications," Ph.D., 2008. (*Research Engineer at Intel, Portland, OR, USA*).
9. **Illy "Victor" Kunadian**, "Carbon-nano-tube based energy devices," (Co-Advisor w/ R. Andrews), Ph.D. 2008.
10. **K.-F. Hii**, "Precision Instrumentation for Nanomachining," (Co-Advisor w/ R. Vallance), Ph.D. 2008.
11. **Mathieu Francoeur**, "Nearfield Radiation Transfer and Nanoparticle Characterization," Ph.D. 2010. (Received the 2011 JQSRT/Elsevier Young Scientist Award). (*Associate Professor at the University of Utah, Salt Lake City, UT, USA*).
12. **Benoit Gay**, "Polarized Imaging," INSA-Lyon, CETHIL, France (served in the committee after guiding him in Lexington; Co-advisor w/ R. Vaillon; December 2010).

13. **Gazi M. Huda**, “AFM Based Nanomanufacturing,” at the University of Kentucky Electrical Engineering, Ph.D., 2013, Co-Advisor w/ T. Hastings. (Started as a co-advisor; finished as a Committee Member).
14. Erdem Ogut, “Integration of Magnetic Heads with Plasmonic Nanostructures”, Sabancı University ((*Ad-hoc* co-advisor w/K. Şendur; served officially as a Committee Member)., PhD 2014.
15. **Azadeh Didari**, “Near-and Far-Field Radiation Transfer in Metamaterials and the Development of via NF-RAD-FDTD Algorithm,” Ozyegin U, Istanbul, PhD, EE, 2016. (Received the Outstanding Research Assistant Award, 2016; Received the 2017 Elsevier/JQSRT Young Scientist Award). (*was Assistant Professor at Sehir University, Istanbul; now researcher at Hanbat National University, South Korea*).
16. **Farhad Kazemi Khosroshahi**, “Design of Spectrally Selective Coatings for High Efficiency Power Generation Devices,” Boğaziçi University, ME, PhD. 2017. (Co-advisor with Hakan Ertürk). (*Research Engineer at Ford Otosan, Istanbul*).
17. **Layth Ismael Al-Ghebery**, “Effect of pH on Particle Agglomeration and Radiative Transfer in Nanoparticle Suspensions,” Özyeğin University, Istanbul, PhD, 2018. (*Associate Professor at Baghdad University, Iraq*).
18. **Hayder Mohammed**, “Thermal and Radiative Energy/Exergy Analyses for Parabolic Trough Collector Systems,” Özyeğin University, Istanbul, PhD, 2018. (*Associate Professor at Kerala University, Iraq*).
19. **Raaid Aldoury**, 'Energy and Exergy Efficiency Analyses of High-Performance Buildings,' Özyeğin University, Istanbul, PhD, 2018. (*Associate Professor at Tikrit University, Iraq*).
20. **Roxana Family**, “Radiative Cooling by Spectrally Selective Materials for Buildings,” Özyeğin University, Istanbul, PhD, 2018.
21. **Elif Begum Elcioglu**, Fabrication of Silicon Carbide-on-Silicon Based Devices for Effective Near-Field Thermal Radiation Transfer”, METU, Ankara (Co-advisor; with Tuba Okutucu), PhD 2018. (*Assistant Professor at Eskişehir Technical University, Eskişehir, Turkey*).
22. **Cem Keskin**, “Augmenting Occupant Thermal Experience with Cyber-Physical-Social Systems: A Case-Study on Adaptive Vents,” Özyeğin University, Istanbul, PhD, 2020. (*Now R&D Administrator at CEEE/EÇEM, Ozyegin University, Istanbul, Turkey*).
23. **Tufan Akba**, ‘Micro-Scale Concentrating Solar Power System Design and Construction,’ Özyeğin University, Istanbul, PhD 2023.
24. **Gökçe Ersel**, ‘Transdisciplinary System Design for Sustainability Transitions,’ Design, Society, and Technology Program; Özyeğin University, Istanbul, PhD 2025.
25. **Canan Özsoy**, ‘A Transdisciplinary Approach and Design Thinking Methodology for Energy Transition,’ Design, Society, and Technology Program; Özyeğin University, Istanbul, PhD 2026.
26. Ersin Yildiz, ‘Radiative Heat Transfer in Continuous Heat Treatment Furnaces,’ Ozyegin University, Istanbul, PhD 2025 (PhD advisor Altuğ Başol).
27. Tolga Altınoluk, ‘Radiative Heat Transfer in Glass Melting Process,’ Ozyegin University, Istanbul, PhD 2026 (PhD advisor Altuğ Başol).
28. Berkay Halvaşi, ‘Radiative Heat Transfer in Combustion Systems,’ Ozyegin University, Istanbul, PhD 2026 (PhD advisor Altuğ Başol).

29. **Gökçe Tomrukçu**, Ozyegin University, Istanbul, PhD 2024 (with Aslihan Ünlü, Architecture).

(Own students are shown by **bold** letters; others are academically guided students.)

M.S. THESES/PROJECTS DIRECTED

1. **S. Chakravarty**, "Analytical Inversion Techniques for the Integral Form of the Radiative Transfer Equation," University of Kentucky, MSME, 1987.
2. **R.K. Iyer**, "Modeling of Radiative Transfer Using Multiple Spherical Approximations," University of Kentucky, MSME, 1987. (*Working for Tata Inc. India*)
3. **K.R. Varma**, "Modeling of Heat Transfer in Pulverized-Coal Fired Furnaces," University of Kentucky, MSME, 1988.
4. **B.M. Agarwal**, "An Experimental and Theoretical Study of Single and Multiple Scattering in an Axisymmetric System," University of Kentucky, MSME, 1989.
5. **S. Subramaniam**, "Solution of Inverse Radiation Problem with Monte Carlo Technique," University of Kentucky, MSME, 1989
6. **M.B. Bush**, "Design of a CO₂-Laser Nephelometer to Determine the Radiative Properties of Pulverized-Coal Particles," University of Kentucky, MSME, 1989.
7. **D.A. Dsa**, "Transmission/Scattering of Visible and Infrared Radiation by Pulverized Coal Particles," University of Kentucky, MSME, 1990.
8. **J. Funk**, "A Semi-Analytical Method to Predict Printed Circuit Board Package Temperatures," University of Kentucky, MSME, 1990. (co-advisor: K. Tagavi)
9. **A. Mahadeviah**, "Study of Morphology of Soot Particles in a Diffusion Flame using the Discrete Dipole Approximation," University of Kentucky, MSME, 1991.
10. **P. Dutta**, "Application of Angular Tomography to Axisymmetric Flames Containing Absorbing and Scattering Particles," University of Kentucky, MSME, 1991.
11. **S. Sitaraman**, "Modeling of Forward and Inverse Radiation Transfer in Cylindrical Geometries," University of Kentucky, MSME, 1992.
12. **R. Govindan**, "Identification of Characteristics of Soot Agglomerates from Polarization Experiments," University of Kentucky, MSME, 1996.
13. **S. Alstedt**, "Optical and Radiative Properties of Phytoplanktons," University of Kentucky, MSME, 1996.
14. **C. Klusek**, "Radiative Properties of Agglomerates," University of Kentucky, MSME, 1999.
15. **B. Wong**, "Monte Carlo Techniques for the Solution of the Transient and Steady Radiative Transfer Equation," University of Kentucky, MSME, 2001.
16. D. Barnett, "Design of a Fire-Fighter Helmet," University of Kentucky, MSME, 2003 (co-Advisor with K. Saito).
17. **Phani K. Bolloju**; MS in Mechanical Engineering (no Thesis option/project only), University of Kentucky, 2004.
18. **P. G. Venkata**, "Characterization of Nano-size Particles Near Metallic Surfaces via Surface Plasmon Scattering," University of Kentucky, MSME 2006.
19. **R. Kumar**, "Numerical Investigation and Parallel Computations for Thermal Transport for Nanomachining," University of Kentucky, MSME 2006.

20. **B. Hawes**, MS in Mechanical Engineering (no Thesis option/project only), University of Kentucky, MSME 2008.
21. Nazli Donmezer, “Dependent Absorption/Scattering by Particles,” ODTU/METU Ankara, in collaboration with Ozyegin University, Istanbul, MSME 2009. (Co-Advisor w/Tuba Okutucu). *(After receiving his PhD at Georgia Tech, became an Assistant Professor at METU, Ankara then at Bogaziçi University, Istanbul).*
22. Gazi M. Huda, “AFM Based Nanomanufacturing,” at the University of Kentucky Electrical Engineering, MSEE, 2011, w/ T. Hastings (Advisor).
23. **Senthil Kumar**, MS in Mechanical Engineering (no Thesis option/project only), MSME University of Kentucky, 2011. *(Working for Mastercard Inc. USA)*
24. **David Kurt Webb**, “Near Field Radiation Measurements,” Ozyegin University, Istanbul, MSME 2012, in Collaboration with Bogazici University (Advisor; Co-advisor: Dr. Hakan Erturk, Bogazici U.).
25. **Zafer Artvin**, “Preparation of Samples for Near Field Radiation Experiments,” in collaboration with ODTU/METU Ankara MSME 2012. (co-advised w/ Dr. Tuba Okutucu-Öztürk).
26. **Sina Talebi Moghaddam**, ‘Enhancing Local Absorption Patterns within Gold Nano-Structures on a Dielectric Surface an AFM Probe and with Evanescent Wave Illumination,’ Bogazici University (co-advisor with Hakan Erturk), Istanbul, MSME 2016. *(PhD student at Waterloo University in Canada.)*
27. **Güven Fidan**, ‘Determining Thermal Comfort in Built Environment Using Computational Fluid Mechanics Simulations.’ Ozyegin University, Istanbul, MSME 2017. *(Working for his own company, Istanbul)*
28. **Zahra Rostampour Fath**, ‘Modified Discrete Dipole Approximation with Surface Interactions (DDA-SI-z): A Study on Surface Plasmon Resonance of an Array of Gold Nano-Particles on a Dielectric Substrate,’ Ozyegin University, Istanbul, MSME 2017.
29. **Burak Sefer**, ‘Integrated Design and Application of a Campus-Wide Distributed-Photovoltaic System,’ Ozyegin University, Istanbul, MSME 2018. *(Started his own company, Reengen, with two others, Istanbul)*
30. **Ruşen Acet**, ‘Investigation of Thermal Comfort Performance of Radiant Heating Systems; Comparisons of Different Heating Surface Configurations,’ Ozyegin University, Istanbul, MSME 2018. *(Started his own company, Istanbul)*
31. **Doga Gizem Memis**, ‘An Occupant-Oriented Circular Model for Facility Management Strategy,’ Ozyegin University, Istanbul, MSME August 2018. *(Working professionally in Canada.)*
32. **Dilan Avsar**, ‘Absorption Patterns within Gold Nano-spheres on a Dielectric Substrate’ Bogazici University (co-advisor with Hakan Erturk), Istanbul, MSME 2019. *(PhD student at Waterloo University in Canada.)*
33. **Ebru Tatar**, ‘Effect of Garments on Thermophysiological Comfort,’ Ozyegin University, Istanbul, MSME 2020.
34. **Elif Gizem Tuncel**, ‘Human Body Heat Exchange Mechanism and Thermal Comfort via Visual Impact,’ Ozyegin University, Istanbul, MSME 2020.
35. **Ali Can Yelekçi**, ‘Advanced Heat Transfer Simulations in Buildings,’ Ozyegin University, Istanbul, MSME 2021.
36. **Tolga Arda Eraslan**, ‘Prediction of Flows in Buildings for Comfort,’ Ozyegin University, Istanbul, MSME 2023.

37. **Ahmet Hocaoglu**, ‘Radiative Cooling by Sand,’ Ozyegin University, Istanbul, MSEE 2024.

(Own students are shown by **bold** letters; others are academically guided students.)

POST DOCTORAL FELLOWS/RESEARCH ASSOCIATES

1. Siva Manickavasagam, Ph.D. from University of Kentucky, 1993 – 1995.
2. Sarbajit Ghosal, Ph.D. from Stanford University, 1993 – 1995.
3. De Kui Qing, Ph.D. from Yokohama U. Japan, 2000 – 2001.
4. Mustafa M. Aslan, Ph.D. from Pennsylvania State U., 2001 – 2006.
5. P.D. Kichambare, Ph.D., Japan, 2002-2004. (Dr. R. Vallance was the Principal Mentor).
6. Ozgür Bayer, PhD., METU, Turkey, 2007-2008.
7. Basil Wong, Ph.D. from University of Kentucky, 2006 - 2009.
8. Ellie Hawes, Ph.D. from University of Kentucky, 2007 - 2008. (w/ Todd Hastings).
9. Vincent Loke, PhD from University of Brisbane, Australia 2009-2010 (at Ozyegin University)
10. Sinan Eren Yalcın, PhD from Old Dominion University, USA 2012-2013 (at Ozyegin University)
11. Azadeh Didari, PhD from Ozyegin University, Turkey 2016-2019 (at Ozyegin University)
12. Cem Keskin, PhD from Ozyegin University, Turkey 2020-2025 (at Ozyegin University)

VISITING RESEARCHERS/FACULTY

1. Jun Yamada, Yamanashi University, Yamanashi, Japan, 2001-2002.
2. Rodolphe Vaillon, Cethyl, INSA-Lyon, France, Summer 2002 ; Summer 2003, March-April, 2007; June-July 2008.
3. Pablo Albella, Universita de Cantabria, Santander, Spain, 2006 Summer.
4. Benoit Gay. INSA-Lyon, France, February-August 2008.
5. Serdar Celik, US Southern Illinois University (visit to Özyegin University), August-December 2014.
6. Maxim Yurkin, (visit to Özyegin University), April-August, 2023.

DISSERTATION AND THESES COMMITTEES SERVED AS A COMMITTEE MEMBER (UK for University of Kentucky; others are indicated.)

1. K.C. Midkiff, Jr., Ph.D. in Mechanical Engineering, UK, 1986.
2. D.W. Mackowski, Ph.D. in Mechanical Engineering, UK, 1987.*
3. J.S. Zaveri, M.S. in Chemical Engineering, UK, 1988.
4. N. Srikantaiah, M.S. in Mechanical Engineering, UK, 1988.

5. M.W. Whitney, M.S. in Civil Engineering, UK, 1988.
6. S. Jolly, M.S. in Mechanical Engineering, UK, 1989.*
7. B. Chen, Ph.D. in Mechanical Engineering, UK, 1990.*
8. W. Godfrey, M.S. in Mechanical Engineering, UK, 1990.*
9. Y. Raja, M.S. in Chemical Engineering, UK, 1992.
10. Z. Ivezic, Ph.D. in Astronomy, UK, 1995.*
11. R.T. Pogue, Ph.D. in Chemistry, UK, 1995.
12. D. Bhanti, Ph.D. in Chemical Engineering, UK, 1996.*
13. A. Thomasson, Ph.D. in Agricultural Engineering, UK, 1997.*
14. D. Weatherly, Ph.D. in Mechanical Engineering, UK, 1997.
15. D. Wang, Ph.D. in Mechanical Engineering UK, (student left).*
16. V. Devakandra, Ph.D. in Chemical Engineering, UK, 1998.
17. F. Wu, Ph.D. in Electrical Engineering UK (student left).
18. L. Yuan, Ph.D. in Mechanical Engineering, UK, 2001.
19. D. Vinkovich, Ph.D. in Physics and Astronomy, UK, 2003.
20. M. Omar, Ph.D. in Mechanical Engineering, UK, 2005.
21. H. Xu, Ph.D. in Mechanical Engineering, UK, 2007.
22. Maoming Fan, Ph.D. in Mining Engr., UK, 2008.
23. M.G. Danao, M.S. in Agricultural Eng and Biosystems, UK, 2001; Ph.D. 2005.*
24. Sriram Venkatesan, M.S. in Mechanical Engineering, UK, 2005.
25. Sarang Kortikar, M.S. in Mechanical Engineering, UK, 2005.
26. Tracy Xu, Ph.D. in Mechanical Engineering, UK, 2006.
27. Belal Gharabieh, Ph.D. in Mechanical Engineering, UK, 2006.
28. Q. Deng, Ph.D. in Mechanical Engineering, UK, 2009.
29. Daniel Busbaher, MS in Mechanical Engineering, UK, 2008.
30. Piao Liu, PhD, in Electrical Engineering, UK, 2009.
31. Robert Nikutta, Ph.D. in Physics and Astronomy, UK, 2012
32. Carlos Andrés Jarro, PhD., in Electrical Engineering, UK, 2013.*
33. Gazi Huda, Ph.D. in Electrical Engineering, UK, 2013.*
34. Muhsincan Sesen, MS in Engineering, Sabancı University, 2012.*
35. Erdem Ogut, Ph.D. in Engineering, Sabancı University, 2012.*
36. Mehrdad Karimzadeh, Ph.D. in Engineering, Sabancı University, 2017.*
37. Ali Keçecioglu, Ph.D. in Engineering, Sabancı University, 2020.*

*(joint work with these students resulted refereed journal articles.)

**INTERNATIONAL/NATIONAL DISSERTATION COMMITTEES; INVITED
EXTERNAL COMMITTEE MEMBER**

1. Sylvan Lecleir, University of Strasburg, France, 2005.
2. Olivier Merchiers, Department of Physics, Universita de Cantabria, Santander, Spain, 2007.
3. Suresh Gubbala, Ph.D. in Chemical Engineering, University of Louisville, 2008.
4. Benoit Gay. CETHIL, INSA-Lyon, Lyon, France, 2010.
5. Henrik Hofgren, University of Lund, Lund, Sweden, 2015.
6. Muhammad Rafique, Harbin Institute of Technology, Harbin, China, 2017.

UNDERGRADUATE RESEARCH STUDENTS

(More than 50 total at University of Kentucky and at Özyeğin University.)

COURSES TAUGHT

UNIVERSITY OF KENTUCKY

Engineering Thermodynamics I, ME 220,
[Spring'87,90,91,93,00,08; Fall 88,89,92,99,00,02,03, Sum 05,06]
Engineering Thermodynamics II, ME 321, [Fall'85,93,94,96,97; Spring'95,96,97]
Heat Transfer, ME 325, [Spring'97,98,02,05; Fall 97,01]
Independent Study, ME 395: Internal Combustion Engines [Spring/Fall 1997]
Applications of Heat Transfer, ME 550, (new course), [Spring 1987]
Engineering Optics, ME 560, (new course), [Fall'86, 87, 88, 89, 90, 93;
Spring'92,95,98,00,01,02,05]
Radiation Heat Transfer, ME 627, [Spring'86,89,94,00,04,06;
Fall'87,90,92,95,98,01,07,08]
Boundary Layer Theory, ME 631, [Spring'88]
Applications of Radiative Transfer and Optics to Engineering Processes, ME 599,
[Spring'96]
Nano-Scale Thermal Sciences, (new course) ME 599, [Fall'04,05,06]
Impact of Emerging Technologies on Society, Honors Hon 101b, [Fall'05,06,07] (new
course).

OZYEGIN UNIVERSITY

ME 202 Engineering Thermo I, Spring '12, '13, '14, '15, '16, Fall'19, '20, '21, '23.
CEEE 211 Energy, Environment and Economy for Smarter Istanbul, Spring 2011, 2012,
Fall 2014 (new course).
ME 373 History of Technology, Fall '12, '13, '14, '15, '16, '17. (new course)
EE 401/402 Capstone Design Course, Since Fall 2012. (9 Students)
ME 409/509 Sustainable Energy, Systems and Materials, Spring 2017 (new course)
ME 566 Coherent Energy Applications for Buildings, Spring 2012 (new course)
ME 527 Radiative Heat Transfer, Spring 2013, Spring 2020, Spring 2021.
ME 599 Nano-Scale Radiative Transfer, Fall 2012 (Special course).
DIS 561 Special Project on Design (Energy Transition), Spring 2021, Spring 2022.
SEC 373 Energy and Energy Transition at the focus of Climate Crisis, Spring 2024.

INVITED SEMINARS

Delivered more than 180 keynote and invited seminars worldwide at major universities and research institutions including UCLA, Purdue, Texas A&M, Georgia Tech, Harvard/MGH, NTU Athens, Hong Kong University, etc. Detailed list is below.

1. Brigham Young University, "Determining the Radiative Properties of Coal Particles from Experiments," Provo, UT; December 5, 1990.
2. University of Cincinnati, "Inverse Radiation Problems to Determine the Effective Radiative Properties of Particles from Experiments," Cincinnati, OH; April 5, 1991.
3. Middle East Technical University, "Radiative Heat Transfer in Combustion Systems," Ankara, Turkey; October 11, 1991.
4. Università degli Studi "Federico II," "Radiative Heat Transfer," Napoli, Italy; November, 5, 8, 12, 15, 1991; (eight-lecture short course).
5. Università degli Studi "Federico II," "Discrete Dipole Approximation to Determine the Radiative Properties of Soot Agglomerates," Naples, Italy; November 20, 1991.
6. ENEL - Italian Electricity Board, "Radiative Heat Transfer: Fundamentals and Applications," Pisa, Italy; November 27-28, 1991; (eight-lecture short course).
7. Tulane University, "Inverse Radiation Problems to Determine the Effective Radiative Properties of Particles from Experiments," New Orleans, LA, May 7, 1992.
8. University of Kentucky, "Computational Aspects of Forward and Inverse Radiation Problems," Center for Computational Sciences Seminar Series, Lexington, KY, October 28, 1992.
9. Instituto Superior Tecnico, University of Lisbon, "Radiative Heat Transfer," Lisbon, Portugal; April 13-17, 1993; (four lectures).
10. Texas A&M University, "Effective Radiative and Optical Properties of Coal/Char Particles," College Station, TX, October 8, 1993.
11. Purdue University, "Diagnostics of Size and Structure of Particles using Polarized Light and Scattering Matrix Concept," West Lafayette, IN, October 27, 1995.
12. Chandrasekhar Memorial Symposium, "Radiation Transfer and Polarized Light," Society of Engineering Sciences Meeting, Tempe, AZ, October 20-23, 1996.
13. University of Kentucky, *ibid.*, Center For Computational Sciences Seminar Series, Lexington, KY, November 6, 1996.
14. Sandia National Laboratories, "Identification of the Structure of Particles via Polarized Light Diagnostics," Albuquerque, NM, February 13, 1997.
15. National Technical University of Athens, Athens, Greece, "Particle Characterization Techniques," April 1, 1998.
16. EURO THERM Seminar #56, Delphi, Greece, "Chaotic Radiation-Turbulence Interactions in Flames," April 3, 1998.
17. Università degli Studi "Federico II," "Radiation Transfer," Napoli, Italy, May 22, 1998.
18. Italian Combustion Section Meeting, "Fundamentals of Scattering-Matrix Based Particle Characterization Techniques," Ravello, Italy, May 28, 1998.
19. Massachusetts General Hospital/Harvard Medical School, Department of Dermatology, Wellman Laboratory, "Characterization of Particles/Cells using Elliptically Polarized Light Scattering," Boston, MA, October 28, 1998.
20. Army Research Laboratory, "Particle Characterization Techniques," Aberdeen Grounds, Maryland, November 12, 1998.
21. International Mechanical Engineering Congress and Exhibition, "Fundamentals of Scattering-Matrix Based Particle Characterization Techniques," FACTS Division, Anaheim, CA, November 16, 1998.

22. Purdue University, School of Mechanical Engineering, “New Directions in Radiation Transfer Research: From Particle Characterization to Applications in Surgery”, West Lafayette, IN, January 12, 1999.
23. University of Connecticut, Dept. of Mechanical Engineering “A Particle Characterization Technique based on Elliptically Polarized Light Scattering,” Storrs, CT, February 12, 1999.
24. Northeastern University, Dept. of Mechanical Engineering, *ibid.* Boston, MA, March 5, 1999.
25. French Radiative Transfer Conference, Action Concertee en Rayonnement Thermique (ACRT) “Characterization of Size and Structure of Agglomerates and Inhomogeneous Particles with Elliptical Light; Lyon, France, October 1999.
26. National Institute for Laser Enhanced Sciences (NILES), “Light Scattering and Imaging Techniques, Applications to Combustion Systems,” Cairo University, Egypt, November 19, 2000.
27. University of Missouri-Rolla, “A Particle Characterization Technique based on Elliptically Polarized Light Scattering,” Rolla, MO January 23, 2002.
28. National Institute for Standards and Technology (NIST), *ibid.*, June 03, 2002.
29. Rice University, *ibid.*, September 27, 2002.
30. Vanderbilt University, *ibid.*, February 24, 2003.
31. University of Texas at Austin, “Modeling of Energy Transfer for Carbon-Nanotube based Precision Machining,” March 5, 2003.
32. CETHIL, INSA, Lyon, France, *ibid.*, April 11, 2003.
33. KSTC/Kentucky High Schools Science Teachers Association, Lexington, KY, “Nano-Scale Engineering Certificate Program at the University of Kentucky,” November 19, 2004.
34. University of Louisville, Louisville, KY, “Nano-Scale Machining and Nano-Engineering Certificate Program at the University of Kentucky,” February 4, 2005.
35. Lexmark Inc., Lexington, KY, “Nano-Engineering: A Natural extension Beyond Nanosciences and Nanotechnology,” March 17, 2005
36. ASME Lexington Chapter, Lexington, KY, *ibid.*, March 24, 2005,
37. International Workshop on Nanophotonics and Nanobiotechnology, Koc University, Istanbul, Turkey, “Characterization of Fine Particles with Elliptically Polarized Scattered Light: Elastic and Evanescent Waves and Surface Plasmons,” June 28-July 8, 2005.
38. Texas A&M University, Department of Mechanical Engineering, College Station, TX, “Machining and Characterization at the Nanoscale,” March 1, 2006.
39. Drexel University, Department of Mechanical Engineering, Philadelphia, PA, *ibid.*, March 24, 2006
40. Fresnel Institute, Marseille, France, *ibid.*, April 3, 2006.
41. Universidad de Cantabria, Santander, Spain, *ibid.*, April 10, 2006.
42. ESPOL, Guayaquil, Ecuador, *ibid.*, July 31, 2006.
43. ESPOL Downtown Campus, Guayaquil, Ecuador, “Nanoscale Engineering: Impact on Economy via Education,” August 1, 2006.
44. ASME IMECE, Chicago, IL, Panel on Nano/Micro Scale Radiation, “Can we characterize and manipulate nanoscale particles?” November 6, 2006.

45. ASME IMECE, Chicago, IL, Panel on Nanoeducation, “Nanoscale Engineering Education Programs at the University of Kentucky,” Organized by ASME K-21 Committee on Education, November 7, 2006.
46. University of Texas, Austin, TX. “Can we characterize and manipulate nanoscale particles?” December 8, 2006.
47. University of Tennessee, Department of Mechanical Engineering, Knoxville, TN, *ibid.*, January 25, 2007.
48. University of California, Los Angeles, Department of Mechanical Engineering, Los Angeles, CA, *ibid.*, February 9, 2007.
49. University of South Carolina, Department of Mechanical Engineering, Columbia, SC, “Machining and Characterization at the Nanoscale,” April 12, 2007.
50. Villanova University, Philadelphia, PA, *ibid.*, April 23, 2007.
51. Istituto Motori, CNR, Napoli/Universita Federico Secondo, Napoli, Italy, *ibid.*, May 8, 2007.
52. Istanbul Technical University, Chemical Engineering Department, Istanbul, Turkey, *ibid.*, May 29, 2007.
53. TUBITAK Space Institute. Middle East Technical University Campus, Ankara, Turkey, *ibid.*, June 11, 2007.
54. University of Kentucky, Department of Physics and Astronomy, Lexington, KY, “Characterization to Patterning: Engineering at Nanoscales,” October 2, 2007.
55. Clemson University, Department of Physics, “Engineering at Nanoscales,” Clemson, SC, January 31, 2008.
56. The George Washington University, Department of Mechanical and Aerospace Engineering, “Characterization to Patterning: Engineering at Nanoscales,” Washington DC, April 11, 2008.
57. Computational Heat Transfer Conference, Radiation Transfer Panel, “Near-Field Radiative Transfer,” Marrakech, Morocco, May 11-17, 2008.
58. Sabanci University, “Characterization to Patterning: Engineering at Nanoscales,” Istanbul, Turkey, May 23, 2008.
59. Middle East Technical University, Department of Mechanical Engineering, *ibid.*, May 29, 2008.
60. ESPOL, Guayaquil, Ecuador, Engineering, Education, and Evolution, during Nanoforum, October 2008. <http://www.merid.org/NDN/more.php?id=1642>
61. 2009 US-EU-China Thermophysics Conference - Renewable Energy (UECTC-RE-09), “Near-Field Radiative Transfer,” Beijing, China, May 28, 2009.
62. Peking University (PKU), “Design and Engineering at Small Scales: Characterization to Patterning,” Invited Speaker, Beijing, China, June 3, 2009.
63. Arcelik Research Center, “Radiative Transfer,” Gebze, Turkey, October 15, 2009.
64. The Chamber of Mechanical Engineers, “Nano in Engineering,” Ankara, Turkey, October 19, 2009.
65. ‘Scientific Developments in Energy Efficiency Practices’, Trade Council of Shopping Centers and Retailers Conference on the Energy Efficiency in Shopping Centers, Istanbul, Turkey, 2009.
66. ‘Radiation Heat Transfer and Climate Change’, Solar Future 2010, Istanbul, Turkey. February 14, 2010.

67. 'Effect of Near-Field Radiative Transfer on Development of Thermophotovoltaic Power Generators', Solar Future 2010, Istanbul, Turkey. February 2010,
68. 'Control of near-field radiative heat transfer via surface phonon-polaritons coupling in thin films.' International Conference on Metamaterials, Photonic Crystals and Plasmonics (META'10), Cairo, Egypt.
69. March 2010, 'Near Field Radiation Between Two Surfaces' and 'Modeling Near-field Coupling of Particles on a Surface and an AFM probe via discrete dipole approximation,' Workshop on Nano particles, nano structures and near field computation, Bremen, Germany, March 2010.
70. 'Near Field Radiation Transfer for Thermophotovoltaic Cells,' NANO-TR Conference. Ankara, Turkey. April 2010.
71. 'Zero Istanbul 2050', Talk at the Özyeğin University organized event. May 25, 2010.
72. 'From Steam to Nano,' Dedication Lecture, Sixth International Symposium on Radiative Transfer, ICHMT, Antalya, Turkey. (This event was dedicated to M. P. Mengüç and two others), June 2010.
73. Near-field Radiative Transfer at Nano-Scales: For Manufacturing & Energy Harvesting'; two invited talks at the NATO Advanced Study Institute on Polarimetry, Kiev, Ukraine, (M. P. Mengüç – invited speaker for two lectures). September 2010.
74. TIREC 2010: Renewable Energy Congress of Turkey. (M. P. M. is a judge to select the best companies investing in Turkey on solar energy.) September 2010.
75. Green Buildings and Regions, Green Institutions Conference, 5-6 October, 2010, Istanbul, Turkey, October
76. 'Green Buildings,' TOKI Housing Conference Istanbul 2010, 21 October, 2010, Istanbul, Turkey.
77. 'Near Field Radiation Transfer and Applications,' Koc U. Physics Science Colloquium, Feb 24, 2011.
78. 'Light Scattering and Absorption for Applications to Manufacturing and Energy Conversion at Nanoscales', 26-30 September, 2011, Electro Magnetic and Light Scattering XIII Conference, Taormina, Italy (invited speaker)
79. 'Near-Field Radiation Transfer towards the design of Nano-Thermophotovoltaic Cells', Eurotherm Seminar 91, Microscale Heat Transfer III, Poitiers, France (invited speaker) August 29-31, 2011.
80. Moderator for 'Sustainable Buildings and Air Conditioning,' Panel, at YEM (Yapı Endüstri Merkezi), Nov. 24, 2011.
81. Moderator for the entire 'EcoDesign 2012', a day-long panel, at YEM (Yapı Endüstri Merkezi; (Information Centre of Turkish Building Work), Istanbul, April 12, 2012. Anniversary of diplomatic relations between the Netherlands and Turkey and moderated by Mengüç.
82. "Engineering in Sustainable Buildings" Alternative Energy Conference ALENCO'12, organized by İstanbul Technical University, May 8, 2012.
83. The crucial role of sustainable logistics in the development and planning of resilient cities, 3rd Global Forum on Urban Resilience & Adaptation, Bonn-Germany, Panelist in three different panels May 12-15, 2012.
84. 'Engineering and Climate Change.' Sustainable Development and Climate Change Policies, organized by Yıldız Technical University, Faculty of Economics and Administrative Sciences & Economic Development Foundation, Panelist, May 16, 2012.

85. 'Near-Field Radiation Transfer for Energy Harvesting and Manufacturing at Nanoscales', International Workshop on Nano-Micro Thermal Radiation, Miyagi-Japan, (Nano-Rad 2012); Key-Note Lecture, May 23-25, 2012.
86. Moderator for a panel discussion on "Why shall multinationals prefer Turkey for R&D investments?" Round-table Conference, Çırağan Palace Kempinski, Istanbul, June 29, 2012.
87. 'Near-Field Radiation Transfer', Numerical Heat Transfer 2012 International Conference, coordinated by Institute of Thermal Technology, Silesian University of Technology, Wroclaw, Poland, Invited Speaker, September 4-6, 2012,
88. "Integrated Engineering and Architecture Principles for Sustainable Buildings", Scientific Research Seminar Series on Architecture and Engineering for Sustainable Buildings, Organized by Kadir Has University Faculty of Engineering and Natural Sciences, Invited Speaker, November 16, 2012,
89. 'Climate Change and Sustainable Energy Seminar,' Yıldız Teknik University, Organized by: YTU Faculty of Architecture, Invited Speaker, November 15, 2012,
90. 'Near Field Radiative Transfer for Thermophotovoltaic Systems', SOLARTR-2 Electricity Conference & Exhibition, Antalya, Turkey, organized by Turkish Photovoltaic Technology Platform (UFTP), Invited Lecture, November 7-9, 2012,
91. "Near-field Heat-transfer for Energy Harvesting," Nanoscale Radiative Heat Transfer, Organized by Physics School Les Houches, Switzerland, Invited Speaker; May 15, 2013,
92. 'Engineering for Sustainable Future,' Moderator: Prof. M. Pınar Mengüç, 2nd International Green Building Summit, Swissotel the Bosphorus, İstanbul, Turkey, Organized by Turkish Green Building Council, Event site is: http://www.cedbik.org/icerikdetay_eng.asp?ID=178&IcerikID=344, February 18-19, 2013,
93. 7th International Symposium on Radiative Transfer, RAD-13, Kuşadası, Turkey, Organized by International Centre for Heat and Mass Transfer (ICMHT), Lecturer, The Symposium site is: <http://www.ichmt.org/rad-13/>, June 2-8, 2013,
94. 14th Electromagnetic & Light Scattering Conference, ELS-XIV, Lille, France, Organized by Oleg Dubovik (CNRS) and Laurent Labonnote (Université de Lille 1), Lecturer, The Conference site is: <http://www-loa.univ-lille1.fr/ELS-XIV/>, June 17-21, 2013,
95. 'Green Buildings', Moderator, Green Business 2013, Swissotel the Bosphorus, İstanbul, Turkey, Organized by Sustainability Academy, the Event site is: <http://www.yesiliskonferansi.com/2013/index.php>; September 17-18, 2013,
96. ECOWEEK İstanbul'13-Crossing the Bridge: Between Tradition and Vision Symposium, Organized by: Mimar Sinan Fine Arts University, Invited Speaker with Y. Somuncu, "Integration of Engineering and Architecture for Sustainable Buildings", Mimar Sinan Fine Arts University Faculty of Architecture, İstanbul <http://ecoweekistanbul.org/>, 18 November, 2013,
97. Energy Conservation and Waste Heat Recovery Workshop, Organized by: UCLA Institute of Pure and Applied Mathematics, Invited Speaker, "Near Field Radiation Transfer for Energy Harvesting and Characterization", Los Angeles, CA, http://www.ipam.ucla.edu/programs/msews4/msews4_poster.pdf, <http://www.ipam.ucla.edu/programs/msews4/>, 18-22 November, 2013,

98. 2nd World Intelligent Cities Summit and Exhibition (WICS 2013), Moderator, Organized by: EurAsia Strategies, Conrad İstanbul Hotel, <http://www.wicsummit.com/>, 27-28 November, 2013,
99. 4th Micro/Nanoscale Heat & Mass Transfer International Conference (MNHMT - 13), Sponsored by: ASME Heat Transfer Division, Organized by: Hong Kong University Department of Mechanical Engineering, Invited Speaker, Hong Kong, China, 11-14 December, 2013.
www.asmeconferences.org/MNHMT2013/CallForPapersDetail.cfm,
100. 33rd Energy Efficiency Week, 5th Energy Efficiency Forum and Fair, Organized by: Ministry of Energy and Natural Resources, Directorate for Renewable Energy, Moderator and Invited Speaker, “Innovative and Integrated Concepts for New and Renovated Buildings”, (9-January, 14:00-16:30), WoW Convention Center, İstanbul, <http://www.evf.gov.tr/index.html>, 8-11 January, 2014,
101. Concentrated Solar Power Workshop, Organized by: Middle East Technical University (METU), The Center for Solar Energy Research and Applications (GUNAM), Invited Speaker, “Applications and Opportunities in Turkey and Northern Cyprus”, (Session 4, 16:15-16:30), METU Culture and Convention Center, Ankara, <http://www.gunam.metu.edu.tr/cspworkshop/index.php/en/>, 10 February 2014,
102. Gaziantep 2nd International Energy Summit, Organized by: Gaziantep Metropolitan Municipality and Sustainability Academy, Invited Speaker and Moderator, “Industrial Energy Management and Efficient Use of Energy”, Şehitkamil Congress and Culture Center, Gaziantep, <http://www.gaziantepenerjizirvesi.org/>, 21 February 2014,
103. US-IL Workshop on Industrial Ecology in Multi-Scale Design and Construction of Sustainable Built Environments, Organized by: Israeli Ministry of Construction and Housing and the Technion - National Building Research Institute (NBRI), Invited Participant, Dan Panorama Hotel, Tel-Aviv, Israel, <http://sustain2014.net.technion.ac.il/>, 9-11 March 2014,
104. Yildiz Technical University, Electrical and Electronical Engineering, Smart Cities Summit, Moderator/Speaker at Smart Cities Session; April 1, 2014.
105. Shanghai University of Electric Power, Invited Lecture, “Sustainable Energy and Near Field Energy Transfer”, Shanghai, China, June 6, 2014.
106. Harbin Institute of Technology, Invited Lecture, “Radiation Heat Transfer”, Harbin, China, June 10, 2014.
107. Georgia Institute of Technology, Invited Lecture, “Sustainable Energy and Near Field Energy Transfer”, Atlanta, USA, September 11, 2014.
108. Middle East Technical University, German-Turkish Research on Energy, Invited Lecture, “Sustainable Energy and Near Field Radiative Transfer,” Ankara, TR, October 15, 2014.
109. SOLAR-TR3, Middle East Technical University, Invited Lecture, “Optics and Buildings,” Ankara, TR, April 27, 2015.

110. CHT-15: The 6th International Symposium on Advances in Computational Heat Transfer, Keynote Speaker: “Directional and Spectral Far-/Near Field Radiative Transfer For Cooling and Energy Harvesting”, Rutgers University, Piscataway, USA, 25-29 May 2015
111. Lund University, Faculty of Engineering, Invited Lecturer, “Directional and Spectral Far-/Near Field Radiative Transfer For Cooling and Energy Harvesting”, Lund, Sweden, 8-11 June 2015.
112. ELS XV 2015 - 15th Electromagnetic and Light Scattering Conference, Invited Speaker, “Optics for Sustainable Buildings and Cities”, Leipzig, Germany, 21-26 June 2015
113. NHT 2015 - Numerical Heat Transfer, Invited Keynote Lecture, “Far-/Near Field Radiative Transfer”, Warsaw, Poland, 27-30 September 2015.
114. MNHMT-16 - 5th ASME Micro/Nanoscale Heat & Mass Transfer International Conference, “Radiative Cooling,” Invited Plenary Lecture, Singapore, 3-6 January 2016.
115. Turkish Green Building Congress and Summit, “Sustainable Building Management,” Moderator/Lecturer, Istanbul, Turkey, 4-5 February 2016.
116. Texas A&M University, “Optics and Buildings,” Invited talk at the Departmental Colloquium, Atmospheric Sciences, College Station, Texas, September 7 2016.
117. TEDx Talk, 'Inspirations from Light and Energy,' Ozyeğin University event, See the details at <http://www.ozyegin.edu.tr/en/Haberler-ve-Duyurular/Duyurular/2016/WIND-OF--REGENERATION> -AT-OzU-TEDx, Ozyegin University, Istanbul, May 5 2016.
118. METU, Northern Cyprus Campus, Invited Lecture, 'Energy Efficiency for Sustainable Buildings,' Girne, Cyprus, 16 May 2016.
119. Erciyes Technology Transfer Office, 'Energy Efficient Buildings: A Case Study,' Kayseri, 26 May 2016.
120. 8th International Symposium on Radiative Transfer, 'Radiative Cooling,', Invited Lecture, Cappadocia, TR, June 6 2016.
121. “Smart Metropolises: Integrated Solutions for Sustainable Buildings and Cities” Conference, Organized by IMSAD as one of the 22 Global SBE’16 Conferences Worldwide, “Innovation for Buildings: From Science to Comfort,” Invited Talk, Istanbul, October 14 2016.
122. TEDxKocUniversity Talk, 'Vortex: Energy'; Koc University event, December 4 2016. See the details at <https://tedx.ku.edu.tr/speakers>; Koc University, Istanbul.
123. Koç University, Istanbul, Turkey, Invited Lecture, ‘From Optics to Sustainable Buildings, 20 April, 2017. Invited Lecture.
124. Ilgaz Enerji Çalıştayı, Invited Lecture, ‘Sürdürülebilir Anadolu için Enerji Verimliliği’, Ilgaz, Çankırı, Turkey, 13 May 2017.
125. CHT-17: Advances in Computational Heat Transfer, organized by International Center for Heat and Mass Transfer; ‘Impact of Computational Radiation Transfer on Science, Engineering and Society,’ Invited Keynote Lecture; Napoli, Italy, May 28-June 1 2017.
126. Nanjing University of Aeronautics & Astronautics, Invited Lecture, “From Optics to Sustainable Buildings, Nanjing, China, 19 June 2017.

127. Harbin Institute of Technology, Short Course on Nano-Micro Radiation Transfer, ‘Overview of Thermal Radiation and its Applications’, Invited Lecture, Harbin China, Jun 23 2017.
128. Harbin Institute of Technology, Short Course on Nano-Micro Radiation Transfer, ‘Near-Field Radiation Transfer Theory and FDTD Simulations, Invited Lecture, Harbin China, Jun 23 2017. (co-prepared w/ Azadeh Didari).
129. CleanAir’2017, 13th International Conference on Energy for a Clean Environment, Invited Keynote Lecture, ‘Pursue of Low-Carbon Engineering: From Combustion Chambers to Sustainable Buildings,’ Ponta Delgada, Sao Miguel, Azores, Portugal, July 2-6 2017.
130. Workshop on Sustainable Energy for Islands, Invited Lecture, ‘Sustainable Buildings,’ Invited Lecture, Ponta Delgada, Sao Miguel, Azores, Portugal, July 2 2017.
131. Fourth Greenmetric Workshop, 2018; ‘Bringing Sustainability to the Heart of a University through Teaching, Research and Service,’ Invited Lecture, Semarang, Indonesia, April 10 2018. (the related paper was written with Esra Gençtürk, Rector, Ozyegin University).
132. World Cities Istanbul Conference 2018, ‘Energy Management in Smart Cities,’ Moderator and Invited Speaker, Istanbul, April 19 2018.
133. EU Sustainable Energy Days Event 1, ‘Advanced Energy Solutions for Complex Buildings,’ Organizer/Moderator, TurkeyBuild 2018 at Yapi Fuarı, Istanbul, May 10 2018. <https://eusew.eu/energy-days/ceeeeçem-energy-sessions-turkeybuild-istanbul-2018>
134. EU Sustainable Energy Days Event 2, ‘Social-Behavioral Aspects of Energy Consumption,’ Organizer/Moderator, TurkeyBuild 2018 at Yapi Fuarı, Istanbul, May 10, 2018. <https://eusew.eu/energy-days/ceeeeçem-energy-sessions-turkeybuild-istanbul-2018>
135. Second Ilgaz Energy Workshop, Invited Lecture, ‘Sürdürülebilir Kalkınma ve Kayıp Parça’, (Sustainable Development and the Lost Piece), Invited Speaker, Keynote Lecture, 12 May 2018. Ilgaz, Çankırı, Turkey.
136. UMTIK 2018, the 18th International Conference on Machine Design and Production, ‘Impact of Energy Research and Technologies on People’s Life,’ Invited Speaker, Keynote Lecture, Eskişehir, Turkey, 3-6th July 2018.
137. ‘Towards Sustainable Gaziantep Workshop,’ Invited Speaker, Keynote Lecture, Hasan Kalyoncu University, Gaziantep, Turkey, 28 November 2018.
138. ‘Sustainable Energy and Human Element, Invited Speaker, ASME IMECE, Frank Kreith Special Session on Sustainable Energy, Pittsburgh, PA, November 2018.
139. ‘Impact of Radiation Transfer to Science and Society,’ Invited Speaker, Keynote Lecture, First Global Engineering Symposium, Bakü, Azarbaijan, March 14-16 2019.
140. ‘Enerji Verimliliğinde Temel Bariyer: Davranış Değişikliği ve Etkiler,’ (Fundamental Limits for Energy Efficiency: Behavioral Changes and Effects), 10. Enerji Verimliliği Forumu ve Fuarı, (10th Energy Efficiency Forum and Fair), Invited Moderator and Speaker, İstanbul, TR, 11-12 April 2019.
141. Third Ilgaz Energy Workshop, ‘Enerji, Davranış ve Sürdürülebilir Anadolu’, (Energy, Behavior and Sustainable Anatolia), Keynote Lecture, Istanbul, Turkey, 20 June 2019.
142. ‘Transdisciplinary Approaches towards Sustainable Buildings and Cities of Future,’ International Conference of Political Economy 2019, Istanbul, 23 June 2019.
143. World Energy Strategies Conference and Exhibition (WESCE’19), Energy Efficiency as a Transdisciplinary Concept: Research and Applications, Yıldız Technical University, Istanbul, Turkey. (Also participated in two different panels). 27 August 2019,

144. New York University, Abu Dhabi, ‘Energy Efficiency as a Transdisciplinary Concept: Research and Applications,’ Invited Lecture, Abu Dhabi, 27 October 2019.
145. Smart Future, World Expo’19, Invited panelist in the Panel: ‘Mapping the Capacity Development for the Future of Energy in Turkey,’ Istanbul, 30 October 2019.
146. Council on Higher Education (YÖK) of Turkey, ‘Future of Vocations, Vocations of Future Congress,’ Invited Panelist, Ankara, Turkey, 5 November 2019.
147. EEMKON’2019, Electrical-Electronical Engineering Congress, ‘Energy Harvesting,’ Invited Lecture, Harbiye Museum, Istanbul, 16 November 2019.
148. Climate Change Conference of Parties (COP’25), Moderator and a Speaker at a panel at Turkish Pavillion, ‘Impact of Public, Private Sector and Academia Trilogy for Energy Efficiency Policies and Applications,’ with Oğuz Can, Karsten Lindloff, Onur Ünlü, and Özlem Ünlüer, organized by Turkish Republic, Madrid, December 2020.
149. Climate Change Conference of Parties (COP’25), ‘Contributions of CEEE to ‘Action’,’ Invited Lecture, organized by WWF-Turkey, Madrid, December 2020.
150. SUNUM Lecture Series, Sabancı University, “Energy Harvesting Fundamentals and Applications,” Invited Speaker, Istanbul, 19 February 2020.
151. ARÇELİK, ‘Energy Efficiency’, ‘Efficient Talks,’ Energy Efficiency Panel, Invited Speaker by ENVER-Turkey, Istanbul, 20 February 2020.
152. Ozyeğin University, Sustainability Week, ‘Energy and Climate Panel’, Invited Moderator and Speaker, 25 February 2020.
153. American University Sharjah, Sharjah, United Arab Emirates, ‘Energy Efficiency as a Inter-and Trans-disciplinary Concepts,’ Invited Lecture for student groups, (On-line; Zoom), 1 April 2020.
154. Boğaziçi Üniversitesi Mezunları İçin, ‘COVID-19 Salgınında Normalleşme mi, İkinci Dalga mı?’ Invited lecture with Özgür Ertunç, Reyhan Diz-Küçükkaya, (On-line; Zoom), Moderated by Ali Kerem Saysel, 11 June 2020.
155. Zero Build Forum’20 International Conference, ‘Towards Near-Zero Energy Buildings by Interdisciplinary and Transdisciplinary Approaches,’ Keynote Lecture, Istanbul, On-line; 24 September 2020.
156. Sabancı University, ‘Energy Efficiency: An Interdisciplinary and Transdisciplinary Approach,’ EU GEOCOND Project, Invited Lecture, Istanbul, On-line; 12 January 2021.
157. SIUE Energy Symposium, Southern Illinois University, “Sustainable Campus,” April 21, 2021, on-line, invited lecture.
158. Selenga Gürmen and M. Pinar Mengüç, Bilim Akademisi, SARKAÇ Portalı, Meraklısına Bilim Konuşmaları, Invited Lecture, Istanbul, on-line; 1 June 2021. <https://sarkac.org/podcast/krizlerde-toplumsal-davranis-degisimleri-pinar-menguc-ve-selenga-gurmen/>
159. 23. Isı Bilimi ve Tekniği Kongresi (ULIBTK’2021) (Turkish Heat Sciences and Techniques Congress), “Radiation Heat Transfer: Research and Applications”, M. Pinar Mengüç, Keynote Lecture, September 8, 2021, Gaziantep, Turkey, (on-line/in-person) <http://ulibtk2021.gantep.edu.tr/>
160. Fotonik 2021: Ulusal Optic, Elektro-Optic, Fotonik Çalıştayı, (National Optics, Electro-Optics and Photonics Workshop), “Yakın-alan Işınımla Isı Transferi,” (“Near-Field Radiation Heat Transfer”), Bilkent University, Ankara, Turkey, M. P. Mengüç, Invited Talk, September 10, 2021, (on-line) <https://www.fotonikcalistay.com/>

161. Purdue University, Heat Transfer Division, “From Heat Transfer to Societal Impact,” Invited Lecture, September 10, 2021.
162. 8th European Thermal Sciences Conference, September 21-23, 2021, M. P. Mengüç, “Sustainable Energy & Human Dimension(s),” Keynote Lecture, September 21, 2021, Lisbon, Portugal, (on-line) <http://www.eurotherm2020.pt/>
163. American University Sharjah, Sharjah, United Arab Emirates, ‘Energy Efficiency as a Transdisciplinary Concept: Research and Applications,’ Invited Lecture for the College of Engineering Innovation Lecture Series (On-line; Zoom), 13 October 2021. <https://www.aus.edu/media/events/energy-efficiency-as-a-transdisciplinary-concept-research-and-applications>
164. Enerji Verimliliği Derneği (ENVER), Verimli Buluşmalar - 9, Türkiye’nin 2022 Enerji Verimliliği Ajandası, <https://www.youtube.com/watch?v=sWPjbNgfk6M> , M. Pınar Mengüç, Invited panelist, 12 Ocak 2022.
165. The SPARC Workshop on Radiation Transport and Applications, “Radiation Transfer: A Personal Journey,” Indian Institute of Technology, Bhubaneswar, India, (On-line; Zoom), Invited Talk, 21 January 2022.
166. Sürdürülebilirlik Adımları Derneği, “Sürdürülebilirliğin Sorumlu Mühendisleri” Projesi Açılışı, Davetli Konuşmacı, M. Pınar Mengüç, Invited speaker, 16 March 2022.
167. “Sustainable Energy: Complex Systems and Human Dimension(s),” ASTFE (American Society of Thermal and Fluid Engineers) Conference, Las Vegas, Nevada, Keynote Talk, in person, May 17, 2022.
168. “Particles, Plasmons, and Engineering,” Weiglhofer Symposium on Electromagnetic Theory, Edinburgh, Scotland, Invited Talk, in person, 18 July 2022. (Also served as a panelist for the 2030 Vision of Electromagnetics research).
169. “Near-Field Radiation Heat Transfer and Engineering”, National Optics, Electro-Optics and Photonics Workshop, Bilkent University, Ankara, Turkey, M. P. Mengüç, Invited Talk, September 9, 2022, (in person).
170. Panel Presentation, COP’27, Sharm-el-Sheikh, Egypt, November 15, 2022 (on-line).
171. Panel Presentation, COP’27, TUSIAD and Turkish Ministry of Energy, Sharm-el-Sheikh, Egypt, November 17, 2022 (on-line).
172. “From Radiation Transfer to Sustainable Energy,” International Glass Symposium, Keynote Lecture, Istanbul, Turkey, November 18, 2022 (in person).
173. “Energy and Energy Efficiency,” Nano-Open, Sabancı University, SUNUM, Invited Lecture, Istanbul, Turkey, March 8, 2023. (on-line)
174. “How can you find white in a darkened World?” (Kararan bir Dünyada Beyazı Nasıl Bulursun?), Istanbul Technical University Construction Management Summit, Keynote Lecture, Istanbul, Turkey, March 18, 2023 (in person).
175. “Climate Crisis”, Ozyeğin University Climate Crisis Conference, Invited Lecture by the Faculty of Law, Organize by Prof. Gülsün Ayhan Aygörmez and the Faculty of Law, Özyeğin University, Istanbul, May 7, 2024.
176. “Sürdürülebilirlik Liderliği ve Dönüşüm: İklim Krizine Karşı Dayanıklılık ve Uyum,” SustainHub Opening Plenary Lecture, SKD+Ozyegin University Sustainability Platform Organization. On line, İstanbul, Türkiye, April 9, 2025.
177. “Bir Tümlüsel-Türevsel Denklem İnzinde: Işık, Isı ve Toplum Metaforu,” (“In Pursuit of an Integro-Differential Equation: Light, Heat, and the Metaphor of Society”), Mustafa

- Parlar Foundation Honor Award Acceptance Lecture, METU/ODTÜ, Ankara, Türkiye, April 13, 2025.
178. “Çevresel Sürdürülebilirliğe Liderlik Etmek: İklim Krizine Karşı Dayanıklılık ve Uyum,” SustainHub Closing Lecture, SKD+Ozyegin University Sustainability Platform Organization. On line, İstanbul, Türkiye, May 28, 2025.
 179. “Reflections on 30 years of International Symposia on Radiative Transfer,” Plenary Lecture, RAD’2025, Kusadasi, Türkiye, June 14, 2025.
 180. “Light, Heat, Particles, Plasmons & Engineering,” Plenary Lecture, ELS’XXI, XXI Electromagnetic Light Scattering Conference, Milazzo, Sicily, Italy, June 23, 2025.
 181. “History of Radiative Transfer,” International CNRS Thematic School on Radiative Transfer in Semi-Transparent Media, Dinner Lecture, Hendaye, France, 3-9 October 2026.
 182. “Radiative Transfer and Light–Matter Interactions: Foundations for Particle Diagnostics and Micro/Nanoscale Engineering,” 8th Micro/Nanoscale Heat and Mass Transfer International Conference, MNHMT conference in honor of Chang-Lin Tien, Plenary Lecture, Napoli, Italy, January 9-11, 2027.

RESEARCH GRANTS AWARDED

Served as a PI or co-PI on more than 68 projects from US, Europe and Türkiye. Total funding was more than 14 Million USD (converted to USD at the time of the grant). Details are below.

1. UNIVERSITY OF KENTUCKY, Graduate School, 1986 Summer Faculty Research Fellowship, \$2,400, July-August 1986. *Funded.*
2. UNIVERSITY OF KENTUCKY, Graduate School, 1987 Special Summer Faculty Research Fellowship from Singletary Fund for Excellence, \$5,000, July-August 1987. *Funded.*
3. UNIVERSITY OF KENTUCKY, Bond Issue Program, "In-Situ Measurements of Radiative Properties of Combustion Products at Infrared," Principal Investigator, Grant No: P-126-8H700, \$14,500, 1987.
4. NATIONAL SCIENCE FOUNDATION, Engineering Initiation Award, "Determination of the Inverse Radiation Problem Using Angular Tomography," Principal Investigator, Grant No: CBT-8708679, \$34,722, 1987-1989.
5. NATIONAL SCIENCE FOUNDATION - EPSCoR, "Collaborative Research in the Computational Sciences at the University of Kentucky," Faculty Member, Grant No: RII-8610671, \$317,541 (NSF) and \$315,666 (State) 1986-1991. *Funded.*
6. UNIVERSITY OF KENTUCKY, President Special Research Incentive Grant, \$7,500, 1988-1990. *Funded.*
7. UNIVERSITY OF KENTUCKY, Major Research Equipment Grant, \$17,000, 1989-1990. *Funded.*
8. DEPARTMENT OF ENERGY, PETC - Advanced University Coal Research Program, "Determination of Local Radiative Properties in Coal-Fired Flames," Principal Investigator, Grant No: DE-FG22-87PC79916, \$199,963, 1987-1991. *Funded.*
9. IBM, Lexington, KY, "Thermal Design of Electronic Boards," \$63,533, (Direct Cost) 1988-1990. (with Professors K. Tagavi and C.J. Cremers.) *Funded.*

10. NSF/BYU ADVANCED COMBUSTION ENGINEERING RESEARCH CENTER, "Measurement of Radiative Properties of Pulverized-Coal Samples," Principal Investigator, \$18,750, 1989-1990. *Funded.*
11. ENEL - ENTE NAZIONALE PER L'ENERGIA ELETTRICA, PISA, ITALY, "Measurement of Radiative Properties of Italian Coals," Principal Investigator, \$40,000, 1989-1991. *Funded.*
12. NSF - Engineering Ahead, Summer School for High School Students, Faculty Member, 1991-1997. *Funded.*
13. ENEL - ITALIAN ELECTRICITY BOARD, PISA, ITALY, "Radiative Properties of Combustion Products in Fuel-Rich Zone of Flames," Principal Investigator, \$45,000, 1991-1993. *Funded.*
14. NATIONAL SCIENCE FOUNDATION, "Radiation Heat Transfer in Highly Coupled Physical Systems," Faculty Member, Principal Investigators: J.R. Howell and T.L. Bergman, University of Texas-Austin. (This proposal is to organize a workshop between the US and Russian/Belorussian scientists in October 1993.) *Funded.*
15. DEPARTMENT OF ENERGY, PETC - Advanced University Coal Research Program, "Radiative Properties of Char, Fly-Ash and Soot Particles in Coal Flames," Principal Investigator, \$140,000, 1992-1996. *Funded.*
16. DEPARTMENT OF ENERGY, PETC - University Coal Research Internship Program, PI, for Erin Rapela, \$1,300, 1993. *Funded.*
17. DEPARTMENT OF ENERGY, PETC - Advanced University Coal Research Program, "Radiation- Turbulence Interaction in Coal-Fired Flames," Principal Investigator; Co-PI: J.M. McDonough, \$200,000, 1993-1998. *Funded.*
18. TRW, Vehicle Safety Systems, Inc., "Classification of Particulates Generated by Propellant Combustion," Principal Investigator, \$25,330, 1994. *Funded.*
19. UNIVERSITY OF KENTUCKY, Major Research Equipment Grant, "Optical Parametric Oscillator," \$61,000, 1994. *Funded.*
20. NATIONAL SCIENCE FOUNDATION, "Invited Participant Travel Support for the International Symposium on Radiative Heat Transfer," Co-PI; PI: Brent Webb of Brigham Young University; \$10,000, 1995. *Funded.*
21. US DEPARTMENT OF AGRICULTURE, "Light Backscatter Sensor Development for Measurement of Food Consistency," Co-PI; PI: Fred Payne, \$180,000, 1998-2001. *Funded.*
22. NATIONAL SCIENCE FOUNDATION, "Radiation Transfer in Medical Applications," Principal Investigator, \$47,300, Grant No. CTS-9816593, August 1998 - July 1999. *Funded.*
23. NSF-SBIR Grant, "Characterization of Ceramic Powders", subcontract from Synergetic Technologies, Inc, \$21,000, January-September 2000. *Funded.*
24. SYNERGETIC TECH. INC, "Particle Characterization System Prototype Design and Manufacturing," \$21,500; January-September 2000. *Funded.*
25. Kentucky Partnership for Food Safety and Quality Assurance, "Improving Food Safety Using Fluorescence Correlation Spectroscopy for Detecting Low Concentrations of Viable Bacteria in Near-Real Time," \$60,000, January 2000-June 2001; CoPI; Other Co-Pis: Fred Payne, Sue Nokes. *Funded.*
26. NSF-SBIR Phase 2 Grant Subcontract from Synergetic Tech. Inc, "Characterization of Ceramic Powders" \$40,000, August 2000-June 2002. *Funded.*

27. NSF-SBIR Phase 2 Grant Subcontract from Synergetic Tech. Inc, "On-Line, Non-Destructive, Rapid Characterization of Nanopowders and Agglomerates" \$60,000, August 2001-June 2003. *Funded.*
28. NSF Travel Grant for Emerging Scientists; co-PI, PI: Brent Webb, BYU, \$16,000, May-June, 2001. *Funded.*
29. "NIRT: Staggered Probes for Integrating Nano Machining and Metrology," National Science Foundation-NIRT, \$1,000,000 (PI: Ryan Vallance; co-PIs: A. Rao, S. Jin, K. Javed), August 2002-December 2008. *Funded.*
30. "Precision Agriculture: Polarization Techniques to Enhance Remote Sensed Imagery," US Department of Agriculture/CSREES (Multi-co-PI Award), \$685,620 (MPM is one of the faculty members with sub-award about \$70,000 with S. Shearer and T. Stambough). October 2002-October 2005. *Funded.*
31. "Vacuum Chamber for Carbon-Nanotube based Precision Machining Applications," Major Research Equipment Initiative, Office of Vice President for Research, University of Kentucky, \$50,000, with Ryan Vallance, 2003. *Funded.*
32. "Development of an Optical Technique for on-line measurements of Particle and Bubble Sizes," DOE, Center for Advanced Separation Technologies (via Virginia Tech), \$152,653; April 2003-January 2005; PI: Daniel Tao; co-PIs: M. P. Mengüç and C. Crofcheck. *Funded.*
33. "Nano-Scale Engineering Education for Undergraduates at the University of Kentucky," NSF-NUE, \$130,000, January 2004 – December 2006, PI: M. Pinar Mengüç; co-PIs: R. Vallance, V. Singh, B. Hinds, Z. Chen. *Funded.*
34. "Characterization of Nano Size Metallic Particles via Polarized Light," Kentucky Science and Engineering Foundation," \$15,000, June 2003-June 2005; PI: M. Pinar Mengüç, co-PI: M. Aslan. *Funded.*
35. "Monitoring of Bubble size and Liquid Hold-up in a Foam Fractionation Column," Kentucky Science and Engineering Foundation," \$15,000, June 2003-December 2005; PI: C. Crofcheck, co-PI: M. Pinar Mengüç. *Funded.*
36. "Sensor Technology Development for Monitoring and Control of Curd Syneresis," Kentucky Science and Engineering Foundation," \$15,000, June 2003-June 2005; PI: F. Payne, co-PI: M. Castello, M. Pinar Mengüç. *Funded.*
37. "Design and Development of Surface-Wave Based Particle Characterization System," Major Research Equipment Initiative, Office of Vice President for Research, University of Kentucky, \$28,300, with M. Aslan, 2004-2005. *Funded.*
38. NSF Travel Grant for Emerging Scientists; co-PI, PI: Brent Webb, BYU, \$16,000, May-June, 2004. *Funded.*
39. "Elliptically-Polarized-Surface-Wave-Scattering-Based Diagnosis of Self-Assembly and Nano-Fabrication," NSF-NER, \$130,000, July 2004-June 2006; PI: M.P. Mengüç; co-PIs: M. Aslan and B.J. Hinds. *Funded.*
40. "Syneresis Sensor Technology Development for Curd Moisture Control," co-PI, PI: Fred Payne; other co-PIs: C. Hicks, M. Castillo, M. Pinar Mengüç, USDA, \$350,000, September 2004-August 2007. *Funded.*
41. "Directed Self-Assembly of Nano-Size Particles," NSF-NER, \$130,000, June 2006-December 2007; PI: T. Hastings, co-PIs: M.P. Mengüç, C. Crofcheck. *Funded.*
42. NSF Travel Grant for Emerging Scientists; co-PI, PI: Brent Webb, through BYU, \$10,000, May-June, 2007. *Funded.*

43. “Exploration of Nano-Melting,” PI, co-PI: S. Rankin, KSEF, \$100,000, Jan. 2007- July 2009. *Funded*.
44. “Estimation of Analytic Surfaces with Applications to Nanoparticle Characterization via Surface Waves,” Co-PI; PI. Richard Charnigo, co-PI, Cid Srinivisan, NSF, \$250,000, August 2007-July 2010, *Funded*.
45. “Nanomaterials and Architectures for Energy Conversion & Storage,” co-PI, PI: S. Rankin, DOE-EPSCoR, UK-part \$223,848/year, July 2007-August 2010. *Funded*.
46. “Syneresis Technology Validation,” co-PI, PI: M. Castillo, Fred Payne; other co-PIs: C. Hicks, M. Pinar Mengüç, USDA, \$182,996, January 2008-June 2009. *Funded*.
47. “Tip Directed-Assembly of Nanoparticles via Surface-Plasmon Excitation,” NSF, \$500,000, May 2008-May 2011; with T. Hastings. *Funded*.
48. “Experimental Investigation of Near-Field Radiative Transfer for High-Efficiency Thermophotovoltaic Power Generators,” PI, KSEF, \$100,000, July 2008-June 2011. *Funded*.
49. “NF-RAD: Near-Field Radiation Absorption and Scattering by Nanoparticles on Surfaces”, FP7-PEOPLE-IRG-2008 Marie Curie Actions—International Re-integration Grants (IRG), Ozyegin University, May1, 2009-April 30, 2012, 75,000 Euro. (about \$110,000). *Funded*. (At Ozyegin University, Istanbul, Turkey)
50. TUBITAK 1001, November 2009-October 2011, 193,000 TL (about \$130,000). *Funded*. (At Ozyegin University, Istanbul, Turkey)
51. “Emerging Engineer Travel Support, The Sixth International Symposium on Radiative Transport,” NSF, w/ B.W. Webb, 2010, \$14,800.
52. ‘Coherent Teachings of Energy, Environment and Economy for Zero Istanbul 2050,’ IBM Global, at Özyeğin University, 2010, 10,000 USD. *Funded*. (with Dr. Pınar Özuyar). (one of the two projects funded in TR)
(http://public.dhe.ibm.com/software/dw/university/innovation/2010_smarter_planet_recipients.pdf)
53. ‘Engineering and Architecture of Sustainable Buildings,’ *Funded* by the US National Science Foundation, jointly with the University of Illinois. (NSF Budget of \$80,000; 2011) (with Dr. P. Özuyar, CEEE/EÇEM).
54. ‘New Energy Efficient Design for Buildings, (NEED4B)’ *Funded* by EU-FP-7 PPP on Buildings; With ACCIONA, Spain and D’Appolonia, Italy, Özyeğin University, CEEE Budget for 5 years is €1,023,000, (2012-2018) (CEEE/EÇEM). (MPM is the PI; total budget overseen by OzU CEEE is €1,400,000, including FIBA Group and B-Design budgets). (<http://www.need4b.eu/index.aspx>)
55. ‘City Logistics Istanbul,’ DHL, Ozyegin University, €15,000. 2012-2013.
56. ‘New Refrigeration Sytems’ Bosch-Siemens Turkey; along with A. Kosar and K. Sendur of Sabancı University; Ozyegin University budget is €18,000. 2012-2013.
57. ‘Sustainable Energy Solutions for Bosch-Siemens Cerkezkoy Campus’, Bosch-Siemens Turkey; Ozyegin University budget €7,000. 2013.
58. “Total Renovation Strategies for Energy Reduction in Public Building Stock”, BRICKER, EU 7th Framework Programme, With ACCIONA, Spain, Özyeğin University Budget €443,000, CEEE Budget for 4 years; October 2013 – Haziran 2019.
59. “Risk Management of Energy Retrofits in Urban Development Projects”, TUBITAK 2501, 120,000 TL. (Collaborative Grant with US-NSF; Georgia Tech part is funded by

- NSF; PI at GT; Godfried Augenbroe; \$50,000 additional); November 2013 - Aralık 2016. PI.
60. TRIBE: "TRaIning Behaviours towards Energy efficiency: Play it!", EU - Horizon 2020: EE 11 – 2014: New ICT-based solutions for energy efficiency, Özyeğin University Budget €217.500, CEEE, February 2015 - February 2019.
 61. "Termofotovoltaik Enerji Harmanlama Sistemlerinde Yakın Alan Işınım Deneyleri", ('Near field radiation transfer experiments for thermophotovoltaic energy harvesting devices'), TUBITAK Proje No: 214M308, PI: Tuba Okutucu, co-PI: Prof. M. Pınar Mengüç; 15.05.2015-15.06.2018 (36 months), Total project budget 295.000,00 TL. (100,000 USD).
 62. 'Capacity Building in the Field of Climate Change in Turkey,' Contracting Authority: Central Finance and Contracts Unit, Grant Scheme (CCGS), Project Name: Project duration: 8 months, September 2017-May 2019, OzU Budget: 50,000 Euros.
 63. 'NEXT-GEN', Islamic Development Bank, Project duration: 14 months, July 2019-October 2020, Ozyegin University/CEEE-EÇEM Budget: 144,000 USD. (With CEEE/EÇEM researchers Yasemin Somuncu, Nil Kutlar, Dilek Saygı).
 64. 'Teaching and Dissemination Materials for Educators,' from RETA Co., via Turkish Ministry of Energy and Natural Resources, 3 months, March 2020-March 2021, Ozyegin University/CEEE-EÇEM Budget: 30.000 TL. (With CEEE/EÇEM researcher Cem Keskin).
 65. 'Travel Grant', YEVDDES, Ministry of Energy and Natural Resources, 6 months, September 2020-May 2021, Ozyegin University/CEEE-EÇEM Budget: 12,000 Euro. (With CEEE/EÇEM researcher Cem Keskin). (Terminated because of pandemic).
 65. 'HASAT', Enerji-SA, 24 months, May 2020-May 2022, Ozyegin University/CEEE-EÇEM Budget: 325.000 TL. (With CEEE/EÇEM researcher Dr. Cem Keskin; Approved but not funded because of budget elimination during pandemic).
 66. Lahore Times Square Project Sustainability Management Consultancy, March 2022-March 2024, 174,000 USD, (134,000 USD collected) (with CEEE/EÇEM researcher Dr. Cem Keskin).
 67. LEGO-FIT: "Adaptable technological solutions based on early design actions for the construction and renovation of Energy Positive Homes", EU – Horizon Innovation Action 2023, Özyeğin University/CEEE Budget €693.000, Total Budget €4,6M, May 2023 - April 2027 (with CEEE/EÇEM researchers Damla Kaleli and Dr. Cem Keskin).
 68. TUSIAD, the Turkish Industry and Business Association and EÇEM Collaboration on "Establishment of National Energy Efficiency Framework for Türkiye." September 2023-October 2025. (Internal funding from FYE Foundation support).

ARCHIVAL PUBLICATIONS

BOOKS

- B 1. Basil Wong and M. Pinar Mengüç, “*Thermal Transport for Applications in Micro/Nanomachining*,” Microtechnology and MEMS Series, Springer, Germany, June 2008.
- B 2. J.R. Howell, R. Siegel, M. P. Mengüç, “*Thermal Radiation Heat Transfer*,” 5th Edition, Taylor and Francis, CRC Press, New York, September 2010.
- B 3. J.R. Howell, M. P. Mengüç, R. Siegel, “*Thermal Radiation Heat Transfer*,” 6th Edition, Taylor and Francis, CRC Press, New York, January 2016.
- B 4. F. Kulacki, S. Acharya, Y. Chudnovsky, R.M. Cotta, R. Devirreddy, V. Dhir, M.P. Mengüç, J. Mostaghimi, K. Vafai, Editors, “*Handbook of Thermal Science and Engineering*,” Springer, July 2018.
- B 5. J.R. Howell, M. P. Mengüç, K. Daun, R. Siegel, “*Thermal Radiation Heat Transfer*,” 7th Edition, Taylor and Francis, CRC Press, New York, January 2021.
- B 6. M. P. Mengüç et al., “*From Nano to Giga: Research and Applications*,” CEEE/EÇEM 10+th Year Book, Ozyegin University Press, August 2021. (English and Turkish).
- B 7. J.R. Howell, M. P. Mengüç, K. Daun, “*Thermal Radiation Transfer Text Book*,” Taylor and Francis, New York, January 2023.
- B 8. M. Pinar Mengüç and M. Francoeur, “*Light, Plasmonics and Particles*,” Elsevier, May 2023.

EDITED PROCEEDINGS (EP) and SPECIAL ISSUE OF JOURNALS (EJ)

(More than 15 over the years)

- EP 1. M.P. Mengüç, Editor, “*Radiative Transfer I*,” Proceedings of the First International Symposium on Radiative Transfer, (held in Kusadasi, Turkey, August 1995; organized by the International Centre For Heat and Mass Transfer), Begell House, New York, 1996.
- EP 2. M.P. Mengüç, Editor, “*Radiative Transfer II*,” Proceedings of the Second International Symposium on Radiative Transfer, (held in Kusadasi, Turkey, July 1997; organized by the International Centre For Heat and Mass Transfer), Begell House, New York, 1998.
- EP 3. M.P. Mengüç, N. Selcuk, Editors, “*Radiative Transfer III*,” Proceedings of the Third International Symposium on Radiative Transfer, (held in Antalya, Turkey, June 2001; organized by the International Centre For Heat and Mass Transfer), 2001.
- EJ 4. M.P. Mengüç, N. Selcuk, J.R. Howell, J.-F. Sacadura, co-editors, “*Selected papers from the Third International Symposium on Radiative Transfer*,” Special Issue of *Journal of Quantitative Spectroscopy and Radiative Transfer*,” Volume 73, Number 2-5, 2002.
- EJ 5. P. Lybaert, N. Selcuk, D. Lemonnier, M.P. Mengüç, co-editors, “*Selected papers from Eurotherm 73*” Special Issue of *Journal of Quantitative Spectroscopy and Radiative Transfer*,” January 2004.
- EJ 6. M.P. Mengüç, N. Selcuk, B.W. Webb, D. Lemonnier, co-Editors, “*Selected papers from the Fourth International Symposium on Radiative Transfer*” Special Issue of *Journal of Quantitative Spectroscopy and Radiative Transfer*,” Vol. 93, Numbers 1-3, July 2005.
- EJ 7. D. Lemonnier, P. Lybaert, N. Selcuk, M.P. Mengüç, co-editors, “*Selected papers from Eurotherm 78*” Special Issue of *Journal of Quantitative Spectroscopy and Radiative Transfer*,” March 2007.

- EJ 8. M.P. Mengüç, N. Selcuk, B.W. Webb, D. Lemonnier, co-Editors, “*Selected papers from the Fifth International Symposium on Radiative Transfer*” Special Issue of *Journal of Quantitative Spectroscopy and Radiative Transfer*,” Vol. 109, Number 2, January 2008.
- EJ 9. M. Mishchenko, G. Videen, M.P. Mengüç, co-Editors, “*Selected papers from the Tenth Electromagnetic Wave/Light Scattering Conference*,” Special Issue of *Journal of Quantitative Spectroscopy and Radiative Transfer*,” Vol. 109, Number 8, May 2008.
- EJ 10. B.W. Webb, D. Lemonnier, MP Mengüç, co-Editors, Special Issue of Seventh International Symposium on Radiation Transfer (Rad’2013), *Journal of Quantitative Spectroscopy and Radiative Transfer*,” Vol. 143, 2014.
- EJ 11. D. Lemonnier, B.W. Webb, MP Mengüç, co-Editors, Special Issue of Eight International Symposium on Radiation Transfer (Rad’2016), *Journal of Quantitative Spectroscopy and Radiative Transfer*,” Vol. 197, 2017.
- EJ 12. Kulacki et al, M. Pinar Mengüç, (Editors), (9 Sections), *Handbook of Thermal Science and Engineering*, Section on ‘*Radiation Transfer*,’ with 9 Chapters was edited by M.P. Mengüç, July. 2018.
- EJ 13. BJ Lee, Y Shuai, M Francoeur, MP Mengüç, co-Editors, Special Issue of Third International Workshop on Nano-Micro Thermal Radiation (NanoRad’17), *Journal of Quantitative Spectroscopy and Radiative Transfer*,” Vol. 237, 106592, 2019.
- EJ 14. D. Lemonnier, B.W. Webb, MP Mengüç, co-Editors, Special Issue of Ninth International Symposium on Radiation Transfer (Rad’2019), *Journal of Quantitative Spectroscopy and Radiative Transfer*,” 2020.
- EJ 15. Lei Bi, Michael I Mishchenko, Jun Wang, Ping Yang, Gérard Gouesbet, Joop Hovenier, Nikolai Khlebtsov, Gerhard Kristensson, James Lock, Hal Maring, M Pinar Mengüç, Karri Muinonen, Christopher Sorensen, Gorden Videen, Thomas Wriedt, Maxim Yurkin co-Editors, Special Issue on selected papers from “*Electromagnetic Wave/Light Scattering Conference XVIII*,” *Journal of Quantitative Spectroscopy and Radiative Transfer*,” Vol. 245, 106820, April 2020.

(Several additional *Special Issues* were edited for *JQSRT* as the Editor-in-Chief; they are not listed.)

BOOK CHAPTERS (BC)

(More than 11 over the years)

- BC 1. R. Viskanta and M.P. Mengüç, "Modeling of Radiative Heat Transfer," *Encyclopedia of Environmental Control Technology*, Editor: P. Chermisnoff, Gulf Publishing Co., New York, Vol. 1, pp. 599-646, 1989.
- BC 2. R. Viskanta and M.P. Mengüç, "Principles of Radiative Heat Transfer in Combustion Systems," *Handbook of Heat and Mass Transfer- Vol. 4: Fundamentals of Combustion Systems*, Editor: P. Cheremisnoff, Gulf Publishing Co., New York, pp. 925-978, 1990.
- BC 3. M.P. Mengüç and B.W. Webb, "Radiative Heat Transfer," in *Fundamentals of Coal Combustion: Clean and Efficient Use*, Editor: L.D. Smoot, Elsevier Publishing Co., New York, 1993, pp. 375-430.
- BC 4. J.R. Howell and M.P. Mengüç, “Radiation,” in *Handbook of Heat Transfer*, Chapter 7,

- Editors: W. Rohsenow, J. Hartnett, Y. Cho, McGraw Hill, 1998.
- BC 5. M. Pinar Mengüç, ‘*Radiation Transfer*,’ (Introductory Chapter for the edited 9 Chapters), Handbook of Heat Transfer, Edited by F. Kulacki, Springer, 2018.
- BC 6. A. Didari, M. P. Mengüç, ‘Computational Near-Field Radiative Heat Transfer and NF-RT-FDTD Algorithm,’ *Annual Review in Heat Transfer*, Editor: Z. Zhang, Begell House, Vol. 23. 2020.
- BC 7. M. Pinar Mengüç and M. Francoeur, Chapter 1: Overview, in “*Light, Plasmonics and Particles*,” M. Pinar Mengüç and M. Francoeur, Elsevier, 2023
- BC 8. V. Loke, H. Ertürk, M. Pinar Mengüç, Chapter 10: Discrete dipole approximation with surface interactions, in “*Light, Plasmonics and Particles*,” M. Pinar Mengüç and M. Francoeur, Elsevier, 2023
- BC 9. A. Didari-Bader, M. Pinar Mengüç, Chapter 23: Biologically inspired structures and NFRT, in “*Light, Plasmonics and Particles*,” M. Pinar Mengüç and M. Francoeur, Elsevier, May 2023.
- BC.10. M. Francoeur and M. Pinar Mengüç, Chapter 26: Future Directions, in “*Light, Plasmonics and Particles*,” M. Pinar Mengüç and M. Francoeur, Elsevier, May 2023.
- BC. 11 Tom G. Mackay, Amir Boag, V. A. Markel, Olivier J.F. Martin. M. Pinar Mengüç, Kevin Vync, Chapter 22: Theoretical Future: Vision 2030, *Adventures in Contemporary Electromagnetic Theory*, Springer, 2023. DOI:[10.1007/978-3-031-24617-3](https://doi.org/10.1007/978-3-031-24617-3)

JOURNAL EDITORIALS (JE)

(More than 26 over the years)

- JE 1. E.E. Anderson, C.T. Avedisian, M.P. Mengüç,; (39 Authors in alphabetical order), “Heat transfer in the new millennium - Views by members of the ASME heat transfer division,” *ASME Journal of Heat Transfer*, Vol. 122, No. 1, Editorial, 2000.
- JE 2. M.P. Mengüç, N. Selcuk, J.R. Howell, J.F. Sacadura, “Third International Symposium on Radiative Transfer - Special Issue on Radiation III - Preface,” *Journal of Quantitative Spectroscopy and Radiative Transfer*, Vol. 73 (2-5), pp. 129-130, April 2002.
- JE 3. P. Lybaert, N. Selcuk, D. Lemonnier, M.P. Mengüç, “Special issue based on Eurotherm Seminar 73 - Computational Thermal Radiation in Participating Media II – Preface,” *Journal of Quantitative Spectroscopy and Radiative Transfer*, Vol. 84(4), pp. 369-370, April 2004.
- JE 4. M.P. Mengüç, N. Selcuk, B.W. Webb, D. Lemonnier, “Special issue based on selected papers from the Fourth International Symposium on Radiative Transfer, *Journal of Quantitative Spectroscopy and Radiative Transfer*, Vol. 93 (1-3), pp. 1-3, June-July 2005.
- JE 5. D. Lemonnier, N. Selcuk, P. Lybaert, and M.P. Mengüç, “Special issue based on Eurotherm Seminar 78 - Computational Thermal Radiation in Participating Media II – Preface,” *Journal of Quantitative Spectroscopy and Radiative Transfer*, Vol. 104 (2), pp. 197-198, March 2007.
- JE 6. Z.M. Zhang and M.P. Mengüç, “Special Issue on Nano/Microscale Radiative Transfer, *ASME Journal of Heat Transfer*, Vol. 129 (1), pp. 1-2, January 2007.

- JE 7. M.P. Mengüç, N. Selçuk, B.W. Webb, D. Lemonnier, “Special issue based on selected papers from the Fifth International Symposium on Radiative Transfer, *Journal of Quantitative Spectroscopy and Radiative Transfer*, Vol. 109, pp. 1-3, January 2008.
- JE 8. M. Mishchenko, G. Videen, M.P. Mengüç, co-Editors, “*Selected papers from the Tenth Electromagnetic Wave/Light Scattering Conference*,” Special Issue of *Journal of Quantitative Spectroscopy and Radiative Transfer*,” Vol. 109, Number 8, May 2008. Pages: 1335-1337.
- JE 9. Coelho, P.J., Lemonnier, D., Lybaert, P., Special issue based on Eurotherm Seminar No. 83: Computational thermal in participating media III, *Journal of Quantitative Spectroscopy & Radiative Transfer*, Vol. 111, Issue: 2, Special Issue: SI, Pages: 262-263, Jan. 2010.
- JE 10. Mengüç, M.P., Stoop, J., JQRST Young Scientist Award on Radiative Transfer, *Journal of Quantitative Spectroscopy & Radiative Transfer*, Vol. 111, Issue: 2, Pages: 261-261, Jan. 2010.
- JE 11. Mishchenko, M., Rothman L.S., Mengüç, M.P., 50 years of JQRST: Milestone papers, *Journal of Quantitative Spectroscopy & Radiative Transfer*, Vol. 111, Issue: 11, Pages: 1455-1458, Jul. 2010.
- JE 12. Mengüç, M.P., A retrospective view on “3-dimensional radiation in absorbing and scattering media using discrete-ordinates approximation” by JS Truelove, *Journal of Quantitative Spectroscopy & Radiative Transfer*, Vol. 111, Issue: 11, Special Issue: SI, Pages: 1644-1645, Jul. 2010.
- JE 13. Mengüç, M.P., A retrospective view on “Radiative transfer in three-dimensional rectangular enclosures containing inhomogeneous, anisotropically scattering media”, by Mengüç, M.P., Viskanta, R., *Journal of Quantitative Spectroscopy & Radiative Transfer*, Vol. 111, Issue: 11, Special Issue: SI, Pages: 1625-1626, Jul. 2010.
- JE 14. Mishchenko, M.I., Mengüç M.P., Rothman L.S., Van de Hulst Light-Scattering Award, *Journal of Quantitative Spectroscopy & Radiative Transfer*, Vol. 112, Issue: 4, Special Issue: SI, Pages: 559-559, Mar. 2011
- JE 15. Jose, Stoop, M. Mishchenko, Mengüç M.P., Special Issue Polarimetric Detection, Characterization, and Remote Sensing, *Journal of Quantitative Spectroscopy and Radiative Transfer*, Vol. 112, Issue. 13, Pages: 2041-2041, Sep. 2011.
- JE 16. Stoop, J., Mengüç, M.P., Mishchenko, Rothman L.S., The Poynting Award on Radiative Transfer, *Journal of Quantitative Spectroscopy & Radiative Transfer*, Vol. 112, Issue: 4, Special Issue: SI, Pages: 559-559, Mar. 2011 .
- JE 17. B. W. Webb, D. Lemonnier, M.P. Mengüç, N. Selçuk, Special Issue on the 6th Symposium on Radiation Transfer, Preface, *Journal of Quantitative Spectroscopy & Radiative Transfer*, Volume: 112(7), Pages: 1139-1140, August 2011.
- JE 18. Boulet, P., Lacroix, D., Lemonnier, D., Special issue based on the Eurotherm Seminar 95-Computational Thermal Radiation in Participating Media IV, *Journal of Quantitative Spectroscopy & Radiative Transfer*, Vol. 128, Special Issue: SI, Pages: 1-1, Oct. 2013.
- JE 19. Zhang Z., Maruyama S., Sakurai A., Special Issue on Micro- and Nano-Scale radiative Transfer Preface, *Journal of Quantitative Spectroscopy & Radiative Tr.*, Vol. 132, Special Issue: SI, Pages: 1-2, Jan. 2014.

- JE 20. B. W. Webb, D. Lemonnier, M.P. Mengüç, Special Issue on the 7th Symposium on Radiation Transfer, Preface, *Journal of Quantitative Spectroscopy & Radiative Transfer*, Volume: 143, Pages: 1-2, August 2014.
- JE 21. Zhang, Zhuomin; Liu, Linhua; Zhu, Qunzhi; M. P. Mengüç, Special Issue on the Second Micro- and Nano-Scale Radiative Transfer, Preface, *Journal of Quantitative Spectroscopy & Radiative Transfer*, Volume: 158, Pages: 1-2, June 2015.
- JE 22. El-Mouna Hafi, R. Fournier, M.P. Menguc, Special Issue on the Eurotherm Conference No. 105: Computational Thermal Radiation in Participating Media V, Preface, *Journal of Quantitative Spectroscopy & Radiative Transfer*, Volume: 172, Pages: 1-2, March 2016.
- JE 23. D. Lemonnier, B. W. Webb, M.P. Menguc, Special Issue on the 8th Symposium on Radiation Transfer, Preface, *Journal of Quantitative Spectroscopy & Radiative Transfer*, Volume: 197, Pages: 1-2, August 2017.
- JE 24. J Stoop, PF Bernath, MP Mengüç, MI Mishchenko, LS Rothman, 10 Years of Elsevier JQSRT Awards, Editorial, *Journal of Quantitative Spectroscopy & Radiative Transfer*, Volume: 200, Pages: A1-A2, October 2017.
- JE 25. D. Lemonnier, B. W. Webb, M.P. Menguc, Virtual Special Issue on the 9th Symposium on Radiation Transfer, Preface, *Journal of Quantitative Spectroscopy & Radiative Transfer*, Volume: 271, Article number 107748, 2021.
- JE 26. D. Lemonnier, B.W. Webb, M.P. Menguc, Virtual Special Issue on the 10th Symposium on Radiation Transfer, Preface, *Journal of Quantitative Spectroscopy & Radiative Transfer*, Volume 333, Article number 109276, March 2025.

REFEREED JOURNAL ARTICLES (JA)
(More than 150)

- JA 1. M.P. Mengüç and R. Viskanta, "Comparison of Radiative Transfer Approximations for a Highly Forward Scattering Planar Medium," *Journal of Quantitative Spectroscopy and Radiative Transfer*, Vol. 29, No. 5, pp. 381-394, 1983.
- JA 2. M.P. Mengüç and R. Viskanta, "Radiative Transfer in Three-Dimensional Rectangular Enclosures Containing In-Homogeneous, Anisotropically Scattering Media," *Journal of Quantitative Spectroscopy and Radiative Transfer*, Vol. 33, pp. 533-549, 1985. (In 2009, it is selected as one of the top 20 papers of JQSRT for the 50th year anniversary of the Journal)
- JA 3. M.P. Mengüç and R. Viskanta, "On the Radiative Properties of the Polydispersions: A Simplified Approach," *Combustion Science and Technology*, Vol. 44, pp. 143-159, 1985.
- JA 4. M.P. Mengüç, R. Viskanta, and C.R. Ferguson, "Multidimensional Modeling of Radiative Transfer in Diesel Engines," *SAE Transactions*, SAE Paper No: 850503, 1985.
- JA 5. M.P. Mengüç and R. Viskanta, "Radiation Transfer in a Cylindrical Vessel Containing High Temperature Corium Aerosols," *Nuclear Science and Engineering*, Vol. 92, pp. 570-583, 1986.
- JA 6. M.P. Mengüç and R. Viskanta, "Radiative Transfer in Axisymmetric, Finite Cylindrical Enclosures," *ASME Journal of Heat Transfer*, Vol. 108, pp. 271-276, 1986.
- JA 7. M.P. Mengüç, W.G. Cummings III, and R. Viskanta, "Radiative Transfer in a Gas Turbine Combustor," *AIAA Journal of Propulsion and Power*, Vol. 2, pp. 241-247, 1986.

- JA 8. M.P. Mengüç and R. Viskanta; "A Sensitivity Analysis for Radiative Heat Transfer in Pulverized-Coal Fired Furnaces," *Combustion Science and Technology*, Vol. 51, Nos. 1 & 2, p. 51, 1986.
- JA 9. M.P. Mengüç and R. Viskanta, "An Assessment of Spectral Radiative Heat Transfer Predictions for a Pulverized Coal Fired Furnace," in *Heat Transfer - 1986*, C.L. Tien, V.P. Carey, and J.K. Ferrell, editors, Hemisphere, Washington, D.C., Vol. 2, pp. 815-820, 1986.
- JA 10. D.W. Mackowski, R.A. Altenkirch, and M.P. Mengüç, "Extinction and Absorption Coefficients of Cylindrically-Shaped Soot Particles," *Combustion Science and Technology*, Vol. 53, pp. 399-411, 1987.
- JA 11. R. Viskanta and M.P. Mengüç, "Radiative Heat Transfer in Combustion Systems," *Progress in Energy and Combustion Sciences*, Vol. 13, pp. 97-160, 1987.
- JA 12. M.P. Mengüç and R.K. Iyer, "Modeling of Radiation Transfer Using Multiple Spherical Harmonics Approximation," *Journal of Quantitative Spectroscopy and Radiative Transfer*, Vol. 39, pp. 445-462, 1988.
- JA 13. M.P. Mengüç and R. Viskanta, "Effect of Fly-Ash Particles on Spectral and Total Radiation Blockage," *Combustion Science and Technology*, Vol. 60, pp. 97-115, 1988.
- JA 14. D.W. Mackowski, R.A. Altenkirch, M.P. Mengüç, and K. Saito, "Radiative Properties of Chain-Agglomerated Soot Formed in Hydrocarbon Diffusion Flames," *Proceedings of Twenty-Second Symposium (International) on Combustion*, The Combustion Institute, Pittsburgh, PA, 1989; pp. 1263-1269.
- JA 15. R.K. Iyer and M.P. Mengüç, "Quadruple Spherical Harmonics Approximation For Radiative Transfer in Two-Dimensional, Rectangular Enclosures," *Journal of Thermophysics and Heat Transfer*, Vol. 3, pp. 266-273, 1989.
- JA 16. K.R. Varma and M.P. Mengüç, "Effects of Particulate Concentrations on Temperature and Heat Flux Distributions in a Pulverized Coal-Fired Furnace," *International Journal of Energy Research*, Vol. 13, pp. 555-572, 1989.
- JA 17. D.W. Mackowski, R.A. Altenkirch, and M.P. Mengüç, "A Comparison of Electromagnetic Wave and Radiative Transfer Equation Analyses of a Coal Particle Surrounded by a Soot Cloud," *Combustion and Flame*, Vol. 76, pp. 415-420, 1989.
- JA 18. R. Viskanta and M.P. Mengüç, "Radiative Transfer in Dispersed Media," *ASME Applied Mechanics Reviews*, Vol. 42, pp. 241-259, 1989.
- JA 19. M.P. Mengüç and S. Subramaniam, "A Step Phase Function Approximation for the Determination of the Effective Scattering Phase Function of Particles," *Journal of Quantitative Spectroscopy and Radiative Transfer*, Vol. 43:3, pp. 253-262, 1990.
- JA 20. D.W. Mackowski, R.A. Altenkirch, and M.P. Mengüç, "Internal Absorption Cross Sections in a Stratified Sphere," *Applied Optics*, Vol. 29:10, pp. 1551-1559, 1990.
- JA 21. B.M. Agarwal and M.P. Mengüç, "Single and Multiple Scattering of Collimated Radiation in an Axisymmetric System," *International Journal of Heat and Mass Transfer*, Vol. 34, No. 3, pp. 633-647, 1991.
- JA 22. S. Subramaniam and M.P. Mengüç, "Solution of Inverse Radiation Problem for Inhomogeneous and Anisotropically Scattering Medium Using a Monte-Carlo Technique," *International Journal of Heat and Mass Transfer*, Vol. 34, No. 1, pp. 253-266, 1991.

- JA 23. M.P. Mengüç and S. Subramaniam, "Radiative Transfer Through an Inhomogeneous Fly-Ash Cloud: Effects of Temperature and Wavelength Dependent Optical Properties," *Numerical Heat Transfer, Part A: Applications*, Vol. 21, pp. 261-273, 1992.
- JA 24. J.N. Funk, M.P. Mengüç, K.A. Tagavi, and C.J. Cremers, "A Semi-Analytical Method to Predict Printed Circuit Board Package Temperatures," *IEEE Transactions: Components, Hybrids and Manufacturing Technology*, Vol. 15, No. 5, pp. 675-684, 1992.
- JA 25. M.P. Mengüç and S. Manickavasagam, "Inverse Radiation Problem in Axisymmetric Cylindrical Media," *AIAA Journal of Thermophysics and Heat Transfer*, Vol. 7, No. 3, pp. 479-486, 1993.
- JA 26. W.M. Godfrey, K. Tagavi, C.J. Cremers, and M.P. Mengüç, "Interactive Thermal Modeling of Electronic Circuit Boards," *IEEE Transactions: Components, Hybrids and Manufacturing Technology*, Vol. 16, No. 8, pp. 978-985, 1993.
- JA 27. S. Manickavasagam and M.P. Mengüç, "Effective Optical and Radiative Properties of Coal Particles as Determined from FT-IR Spectroscopy Experiments," *Energy and Fuel*, Vol. 7, No. 6, pp. 860-869, 1993.
- JA 28. M.P. Mengüç and P. Dutta, "Scattering Tomography and Application to Sooting Diffusion Flames," *ASME Journal of Heat Transfer*, Vol. 116, No. 1, pp. 144-151, 1994. (ASME Heat Transfer Division Best Paper Award.)
- JA 29. M. P. Mengüç, S. Manickavasagam, and D.A. D'sa, "Determination of Radiative Properties of Pulverized Coal Particles from Experiments," *FUEL*, Vol. 73, No. 4, pp. 613-625, 1994.
- JA 30. B. M. Vaglieco, O. Monda, F. E. Corcione, M. P. Mengüç, "Optical and Radiative Properties of Particulates at Diesel Engine Exhaust," *Combustion Science and Technology*, Vol. 102, pp. 283-299, 1994.
- JA 31. J.A. Thomasson, M.P. Mengüç, and S.A. Shearer, "A Radiative Transfer Model for Relating NIR and Micronaire Measurements of Cotton Fibers," *Transactions of the ASAE*, Vol. 38 (2), pp. 367-377, 1995.
- JA 32. Z. Ivezic and M.P. Mengüç, "An Investigation of Dependent/Independent Scattering Regimes for Soot Particles Using Discrete Dipole Approximation," *International Journal of Heat and Mass Transfer*, Vol. 39, No. 7, pp. 811-822, 1996.
- JA 33. D. Bhanti, S. Manickavasagam, and M.P. Mengüç, "Identification of Non-Homogeneous Spherical Particles from their Scattering Matrix Elements," *Journal of Quantitative Spectroscopy and Radiative Transfer*, Vol. 56, No. 4, pp. 591-608, 1996.
- JA 34. S. Manickavasagam and M.P. Mengüç, "Scattering Matrix Elements of Fractal-like Soot Agglomerates," *Applied Optics*, Vol. 36, No. 6, pp. 1337-1351, 1997. (Correction/Addition: *AO*, Vol. 36, No. 27, p. 7008, 1997)
- JA 35. Z. Ivezic, M.P. Mengüç, and T.G. Knauer, "A Procedure to Determine the Onset of Soot Agglomeration from Multiwavelength Experiments," *Journal of Quantitative Spectroscopy and Radiative Transfer*, Vol. 57, No. 6, pp. 859-865, 1997.
- JA 36. M.P. Mengüç and S. Manickavasagam, "Characterization of size and structure of agglomerates and inhomogeneous particles via polarized light," *International Journal of Engineering Sciences*, Special issue on memory of S. Chandrasekhar, Vol. 36, pp. 1569-1593, 1998.
- JA 37. S. Mukerji, J.M. McDonough, M.P. Mengüç, S. Manickavasagam and S. Chung, "Chaotic Map Models of Soot Fluctuations in Turbulent Diffusion Flames," *International Journal of Heat and Mass Transfer*, 1998.

- JA 38. S. Manickavasagam and M.P. Mengüç, "Scattering Matrix Elements of Coated Infinite-Length Cylinders," *Applied Optics*, Vol. 37, No. 12, pp. 2473-2482, 1998.
- JA 39. A. Fowler and M.P. Mengüç, "Propagation of Focussed and Multibeam Laser Energy in Biological Tissues," *ASME Journal of Biomechanical Engineering*, Vol 122, pp. 534-540, 2000.
- JA 40. C.L. Crofcheck, F.A. Payne, C.L. Hicks, M.P. Mengüç, and S.E. Nokes, "Fiber Optic Sensor Response to Low Levels of Fat in Skim Milk," *Journal of Food Process Engineering*, Vol. 23, pp. 163-175, 2000.
- JA 41. C.L. Crofcheck, F.A. Payne, C.L. Hicks, M.P. Mengüç, and S.E. Nokes, "Fiber Optic Sensor Response to High Levels of Fat in Cream," *Transactions of ASAE*, 45(1):171-178, 2002.
- JA 42. C.L. Crofcheck, F.A. Payne, and M.P. Mengüç, "Characterization of Milk Properties using a Radiative Transfer Model," *Applied Optics*, 41(10):2028, 2002.
- JA 43. B. Wong and M.P. Mengüç, "Depolarization of Radiation by Foams," *Journal of Quantitative Spectroscopy and Radiative Transfer*, Vol. 73, Numbers 2-5, pp. 273-284, 2002.
- JA 44. B. Wong and M.P. Mengüç, "Comparison of Monte Carlo Techniques to Predict the Propagation of a Collimated Beam in Participating Media," *Numerical Heat Transfer: Part-B Fundamentals*, 42:119-140 2002.
- JA 45. C. Klusek, S. Manickavasagam and M.P. Mengüç, "Compendium of Scattering Matrix Element Profiles for Soot Agglomerates," *Journal of Quantitative Spectroscopy and Radiative Transfer*, Vol. 79-80, pp. 839-859, 2003.
- JA 46. M. M. Aslan, J. Yamada, M. P. Mengüç, A. Thomasson, "Characterization of Individual Cotton Fibers via Light Scattering: Experiments," *AIAA Journal of Thermophysics and Heat Transfer* Vol. 17, No. 4, pp. 442-449. 2003.
- JA 47. D.-Kui Qing, M. P. Mengüç, F. Payne, M.G. Danao, "Fluorescence Correlation Spectroscopy for Detection of Trace Amount of Biological Agents," *Applied Optics*, Special Issue, Vol. 42, No: 16, pp: 2987-2994. 2003.
- JA 48. Christy A. Trinkle, P. Kichambare, R. Ryan Vallance, Basil T. Wong, M. P. Mengüç, B. Sadanadan, A. R. Rao, A. Bah and K. Javed, "Thermal Transport During Nanoscale Machining by Field Emission of Electrons from Carbon Nanotubes," *ASME Journal of Heat Transfer*, Vol. 125, No. 4, pp. 546, 2003.
- JA 49. Basil T. Wong and M. Pinar Mengüç, "Monte Carlo Methods in Radiative Transfer and Electron Beam Processing," *Journal of Quantitative Spectroscopy and Radiative Transfer*, Vol. 84, 437-450, 2004.
- JA 50. Rodolphe Vaillon, Basil T. Wong and M. Pinar Mengüç, "Polarized Radiative Transfer in a Particle Laden Transparent Medium via Monte Carlo Method," *Journal of Quantitative Spectroscopy and Radiative Transfer*, Vol. 84, 383-394, 2004.
- JA 51. C. Saltiel, Q. Chen, S. Manickavasagam, L.S. Schandler, R.W. Siegel, & M.P. Mengüç, "Identification Dispersion Behavior of Surface-Treated Nano-Scale Powders," *Journal of Nanoparticle Research*, Vol. 6, pp. 35-46, 2004.
- JA 52. B.T. Wong, M.P. Mengüç, R.R. Vallance, "Nanoscale machining via Electron Beam and Laser Processing," *ASME Journal of Heat Transfer*, Vol. 126, pp. 566-576, 2004. (This paper was one of the final 10 papers considered for the *JHT Best Paper Award* in 2005)

- JA 53. G. Videen, M. M. Aslan, M. P. Mengüç, “Characterization of Metallic Nanoparticles via Surface wave Scattering: A. Theoretical Framework,” *Journal of Quantitative Spectroscopy and Radiative Transfer*, Vol. 93, pp. 195-206, 2005.
- JA 54. M. M. Aslan, M. P. Mengüç, G. Videen, “Characterization of Metallic Nanoparticles via Surface wave Scattering: B. Physical Concept and Numerical Experiments,” *Journal of Quantitative Spectroscopy and Radiative Transfer*, Vol. 93, pp. 207-217, 2005.
- JA 55. C. Saliel, S. Manickavasagam, M.P. Mengüç, and R. Andrews, “Light Scattering and Dispersion Behavior of Multi-Walled Carbon Nanotubes,” *Journal of Optical Society of America-A*, Vol. 22, No. 8, pp. 1546-1554, 2005.
- JA 56. C. Crofcheck, J. Wade, M. M. Aslan, M. Pinar Mengüç, Effect of Fat and Casein Particles in Milk on the Scattering of Elliptically-Polarized Light, *Transactions of ASAE*, Vol. 48(3), pp. 1147-1155, 2005. (This paper received the *ASABE Honorable Mention Paper Award* in 2006 (one of the top 18 papers out of 417 papers published in the *Transactions*.)
- JA 57. Basil T. Wong, M. Pinar Mengüç, and R. Ryan Vallance, “Sequential Nano-Patterning Using Electron and Laser Beams: A Numerical Methodology,” *Journal of Computational and Theoretical Nanoscience*, Vol. 3, No. 2, pp. 1-12, 2006.
- JA 58. Padmakar Kichambare, R. Ryan Vallance, B. Sadanadan, Apparao M. Rao, Kazi Javed, and M. P. Mengüç, Growth of Tungsten Oxide Nanorods with Carbon Caps, *Journal of Nanoscience and Nanotechnology*, 6, 536–540, 2006
<https://doi.org/10.1166/jnn.2006.095>
- JA 59. King-Fu Hii, R.R. Valance, S.B. Chickkaramanahalli, M.P. Mengüç, A. Rao, “Characterization of Field Emission from Carbon-Nanotubes at Small Distances,” *Journal of Vacuum Science and Technology B*, Volume 24, Issue 3, pp. 1081-1087, 2006.
- JA 60. M. M. Aslan, Czarena Crofcheck, Daniel Tao, and M. Pinar Mengüç, “Evaluation of Micro Bubble Size and Gas Hold up in Two Phase Gas-Liquid Columns via Scattered Light Measurements,” *Journal of Quantitative Spectroscopy and Radiative Transfer*, Vol. 101, pp. 527-539, 2006.
- JA 61. M. M. Aslan, M. Pinar Mengüç, Siva Manickavasagam and Craig Saliel, “Size and shape prediction of colloidal metal oxide MgBaFeO particles from light scattering measurements,” *Journal of Nanoparticle Research*, V. 8, No. 6, pp. 981-994, 2006.
- JA 62. J. N. Swamy, C. Crofcheck and M. P. Mengüç, “A Monte Carlo Ray Tracing Study of Polarized Light Propagation in Liquid Foams,” *Journal of Quantitative Spectroscopy and Radiative Transfer*, Vol. 101, pp. 527-539, 2007.
- JA 63. E.A. Hawes, J.T. Hastings, C. Crofcheck, and M.P. Mengüç, “Spectrally selective heating of Nanosized Particles by Surface Plasmon Resonance,” *Journal of Quantitative Spectroscopy and Radiative Transfer*, Vol. 101, pp. 527-539, 2007.
- JA 64. P. Garudadri Venkata, M. M. Aslan, M. Pinar Mengüç, G. Videen, “Surface Plasmon Scattering Patterns of Gold Nanoparticles and 2D Agglomerates,” *ASME Journal of Heat Transfer*, (Special Issue on Micro- and Nano-Scale Radiative Transfer), Vol. 129, pp. 59-71, 2007.
- JA 65. M. Francoeur, P.G. Venkata, and M. Pinar Mengüç, “Sensitivity Analysis for Characterization of Gold Nanoparticles and 2D-Agglomerates via Surface Plasmon Scattering Patterns,” *Journal of Quantitative Spectroscopy and Radiative Transfer*, V. 106, pp. 44 -55, 2007.
- JA 66. Basil T. Wong, M. Pinar Mengüç, and R. Ryan Vallance, “Thermal Conduction Induced

- by Electron Beam,” *International Journal of Heat and Mass Transfer*, Vol. 50, pp. 5099-5107, 2007.
- JA 67. J. A. Sánchez, Basil T. Wong and M. Pinar Mengüç, Pablo Albella, “Field emission and electron deposition profiles as a function of CNT tip geometries,” *Journal of Applied Physics*, 101: 114313, 2007.
- JA 68. R. Charnigo, M. Francoeur, M. P. Mengüç, A. Brock, M. Leichter, C. Srinivasan, “Nanoparticle Characterization via Derivatives of Scattering Profiles,” *Journal of Optical Society of America A*, Vol. 24, no. 9, pp. 2578-2589, 2007.
- JA 69. J. A. Sanchez and M. Pinar Mengüç, “Phase Change Phenomena during Electron-Beam Based Nano-machining: Molecular Dynamics Simulations,” *Physical Review B*, V. 76. 224104 (1-11), 2007.
- JA 70. M. Kozan, J. Thangala, R. Bogale, M. Pinar Mengüç, Mahendra K. Sunkara, “In-Situ Characterization of Dispersion Stability of WO₃ Nanoparticles and Nanowires” *Journal of Nanoparticle Research*, Volume: 10, Issue: 4 Pages: 599-612, April 2008.
- JA 71. M. Francoeur and M. P. Mengüç, “Role of the fluctuational electrodynamics theory in near-field radiative heat transfer,” *Journal of Quantitative Spectroscopy and Radiative Transfer*, Vol. 109, pp 280-293, 2008.
- JA 72. M. Kozan and M. P. Mengüç, “Exploration of fractal nature of WO₃ nanowire aggregates,” *Journal of Quantitative Spectroscopy and Radiative Transfer*, Vol. 109, pp 380-393, 2008.
- JA 73. J.A. Sánchez, M. P. Mengüç, “Geometry dependence on the electrostatic and thermal response of a carbon nanotube during field emission.” *Nanotechnology*, Article Number: 075702, February 20, 2008.
- JA 74. J.A. Sánchez, M.P. Mengüç, “Melting and evaporation of Cu and Ni films during electron-beam heating.” *Journal of Applied Physics*, 103, Issue: 5, Article Number: 054316, March 2008.
- JA 75. J.A. Sanchez, K.-F. Hii, M.P. Mengüç, and R.R. Vallance, “Heat transfer during field emission from carbon nanotubes,” *AIAA Journal of Thermophysics and Heat Transfer*, Volume 22, Number 2, April-June 2008.
- JA 76. E.A. Hawes, J.T. Hastings, C. Crofcheck, and M.P. Mengüç, “Spatially Selective Melting and Evaporation of Nanosized Gold Particles,” *Optics Letters*, Vol.33, Issue 12, pp. 1383-1385, 2008.
- JA 77. M. Francoeur, M.P. Mengüç, R. Vaillon, “Near-field radiative heat transfer enhancement via surface phonon-polaritons coupling in thin films,” *Applied Physics Letters*, Article: 43109, July 28, 2008.
- JA 78. I. Kunadian, R. Andrews, D. Qian, M.P. Mengüç, “Growth Kinetics of MWCNT’s Synthesized by Continuous-Feed CVD Method,” *Carbon*, Vol. 47, pp. 384-395, 2009.
- JA 79. I. Kunadian, Rodney Andrews, Dali Qian, M. P. Menguc, Thermoelectric power generation using doped MWCNTs, *Carbon*, Volume 47, 589-601, 2009.
- JA 80. I. Kunadian, Rodney Andrews, M. P. Menguc, Dali Qian, Multiwalled carbon nanotube deposition profiles within a CVD reactor: An experimental study, *Chemical Engineering Science*, 64(7), Page 1503-1510, 2009.
- JA 81. J. N. Swamy, C. Crofcheck and M. P. Mengüç, “Time Dependent Scattering Properties of Slow Decaying Foams,” *Colloids and Surfaces A-Physicochemical and Engineering Aspects*, Issue: 1-3 Pages: 80-86, April, 15 2009.
- JA 82. Basil T. Wong, M. Pinar Mengüç, “Analysis of Electrical and Thermal Responses of n-

- doped Silicon to impinging Electron Beam and Joule Heating,” *International Journal of Heat and Mass Transfer*, Volume: 52 Issue: 11-12 Pages: 2632-2645, 2009.
- JA 83. A. Thomasson, S. Manickavasagam, and M. Pinar Mengüç, “Cotton Fiber Characterization with FTIR and Laser Techniques,” *Applied Spectroscopy*, Vol. 63, No. 3, pp. 321-330, 2009.
- JA 84. M. Francoeur, M.P. Mengüç, R. Vaillon, “Solution of near-field thermal radiation in one-dimensional layered media using dyadic Green’s functions and the scattering matrix method,” *Journal of Quantitative Spectroscopy and Radiative Transfer*, Vol 110(18), pp. 2002-2018, 2009.
- JA 85. K.F. Hii, R. Vallance, M. P. Mengüç, “Design, operation, and motion characteristics of a precise piezoelectric linear motor,” *Precision Engineering*, Vol 34(2), pp. 231-241, 2010.
- JA. 86. Benoit Gay, Rodolphe Vaillon and M. Pinar Mengüç, “Polarization imaging of multiply-scattered radiation based on Integral-Vector Monte Carlo Method,” *Journal of Quantitative Spectroscopy and Radiative Transfer*, Volume: 111, Issue: 2, Pages: 287-294, Jan. 2010
- JA 87. B.T. Wong and Menguc, M.P., “A unified Monte Carlo treatment of transport of electromagnetic energy, electrons and phonons in absorbing and scattering media,” *Journal of Quantitative Spectroscopy and Radiative Transfer*, Volume: 111, Issue: 3, Pages: 399-419, Feb. 2010
- JA 88. M. Francoeur, M.P. Mengüç, R. Vaillon, “Near-field radiative heat exchanges between two thin films supporting surface phonon-polaritons,” *Journal of Applied Physics*, Vol, 107 Issue: 3 Article Number: 034313, Feb 2010
- JA 89. J. N. Swamy, C. Crofcheck, M.P. Menguc,” Polarized Light Based Scheme to Monitor Column Performance in a Continuous Foam Fractionation Column,” *Journal of Biological Engineering*, 2010
- JA 90. M. Francoeur, M.P. Menguc, and R. Vaillon, Local density of electromagnetic states within a nanometric gap formed between two thin films supporting surface phonon-polaritons. *Journal of Physics-D: Applied Physics*, Volume: 43, Issue: 7, Article Number: 075501, Feb. 24 2010.
- JA. 91. Loke, V., and Mengüç, M.P. (2010). Surface Waves and AFM Probe-Particle Near-Field Coupling: Discrete Dipole Approximation with Surface Interaction. *Journal of Optical Society of America - A. JOSA A*, Vol. 27 Issue 10, pp.2293-2303 (2010). Available on-line freely as it is Selected to Spotlight in Optics: <http://www.opticsinfobase.org/spotlight/summary.cfm?uri=josaa-27-10-2293>)
- JA 92. Wong, Basil, T., Francoeur, Mathieu, Mengüç, M.P. A Monte Carlo Simulation for Phonon Transport within Silicon Structures at Nanoscales with Heat Generation,” *International Journal of Heat and Mass Transfer*, Vol. 54, Issue: 9-10, pages: 1825-1838, Apr. 2011
- JA 93. Richard Charnigo, Mathieu Francoeur, Patrick Kenkel, M. Pinar Mengüç, Benjamin Hall, and Cidambi Srinivasan, “Estimating Quantitative Features of Nanoparticles using multiple derivatives of scattering profiles” *Journal of Quantitative Spectroscopy and Radiative Transfer*, Vol. 112, Issue: 8, Pages: 1369-1382, May. 2011
- JA 94. Francoeur, M., Vaillon, R., and Mengüç, M.P. Impacts of Thermal Effects on the Performances of Nanoscale-Gap Thermophotovoltaic Power Generators. *IEEE Transactions on Energy Conversion*. Vol. 26, Issue:2, Pages: 686-698, Jun. 2011
- JA 95. Howell, J.R., and Mengüç, M.P. The QJSRT Web-Based Configuration Factor Catalog:

- A Listing of Relations for Common Geometries. *Journal of Quantitative Spectroscopy and Radiative Transfer*. Volume: 112 Issue: 5 Pages: 910-912 DOI: 10.1016/j.jqsrt.2010.10.002, March 2011.
- JA 96. Francouer, M.F., Vaillon, R., and Mengüç, M.P. Control of near-field radiative heat transfer via surface phonon-polariton coupling in thin films. *Journal of Applied Physics A.*, Vol. 103, Issue: 3, Pages: 547-550, Jun. 2011
- JA 97. Sendur, K., Koşar, A., and Mengüç, M.P. Localized Radiative Energy Transfer from a Plasmonic Bow-Tie Nanoantenna to a Magnetic Thin-Film Stack. *Journal of Applied Physics A.*, Vol. 103, Issue: 3, Pages: 703-707, Jun. 2011
- JA 98. Loke, V., Nieminen, T.A., and Mengüç, M.P. DDA with Surface Interaction: Computational Toolbox for MATLAB. *Journal of Quantitative Spectroscopy and Radiative Transfer*. Vol. 112, Issue:11, Special Issue, Pages: 1711-1725, July 2011
- JA 99. Gazi, M. Huda, Donev, Eugeni, U., Mengüç, M.P., J.T. Hastings, Effects of a Silicon Probe on Gold Nanoparticles on Glass under Evanescent Illumination, *Optics Express*, Vol. 19, Issue: 13, Pages: 12679-12687, Jun. 2011
- JA 100. Francouer, M.F., Vaillon, R. and Mengüç M.P., Coexistence of Multiple Regimes for Near-field Thermal Radiation between Two Layers Supporting Surface Phonon Polaritons in the Infrared, *Physical Review B.*, Vol. 84, Issue: 7, Aug. 2011.
- JA 101. Charnigo, R., Francoeur, M., Kenkel, P., Mengüç, M.P., Hall, B., Srinivasan, C. Credible intervals for nanoparticle characteristics , *Journal of Quantitative Spectroscopy and Radiative Transfer*, Volume 113, issue 2, pp. 182-193, 2012.
- JA 102.C. A. Jarro, E U. Donev, M. P. Mengüç, and J.T. Hastings, Silver Patterning Using an Atomic Force Microscope Tip and Laser-Induced Chemical Deposition from Liquids, *Journal of Vacuum Science & Technology B*, Volume: 30, Issue:6, Article No: 06FD02 <https://doi.org/10.1116/1.4764093>, Nov. 2012.
- JA 103. S. Muhsincan, Y. Teksen, K. Sendur, M.P. Mengüç, H. Ozturk, H. F. Yagcı Acar, and A. Kosar, Heat Transfer Enhancement with Actuation of Magnetic Nanoparticles Suspended in a Base Fluid, *Journal of Applied Physics A*, Volume: 112 Issue: 6, Article No: 064320 DOI: 10.1063/1.4752729 Sep. 15, 2012.
- JA 104. E. Ogut, M.P. Mengüç, and K. Sendur. Integrating Magnetic Heads With Plasmonic Nanostructures in Multilayer Configurations, *IEEE Transactions on Magnetics*, Vol:49 Issue:7 Pages: 3687-3690 DOI: 10.1109/TMAG.2013.2247982, Jul 2013.
- JA 105. S. Muhsincan, Y. Teksen, B. Şahin, K. Şendur, M.P. Mengüç and A. Koşar, “Boiling heat transfer enhancement of magnetically actuated Nanofluids”, *Applied Physics Letters*, Vol: 102, Issue: 16, Article Number: 163107, DOI: 10.1063/1.4802791, April 22, 2013.
- JA 106. Loke, V., Huda, G.M., Donev, E.U., Schmidt, V., Hastings, J.T., Mengüç, M.P., Wriedt, T., Comparison between discrete dipole approximation and other modeling methods for the plasmonic response of gold nanospheres, *Applied Physics B: Lasers and Optics*; DOI:10.1007/s00340-013-5594-z, Vol. 115(2), pp. 237-246, 2014.
- JA 107. B.T. Wong, M. Francoeur, V. N-S Bong, and M.P. Mengüç, “Coupling of near-field thermal radiative heating and phonon Monte Carlo simulation: Assessment of temperature gradient in doped silicon thin film”, *Journal of Quantitative Spectroscopy and Radiative Transfer*, Vol. 143, pp. 46-55, 2014.
- JA108. Azadeh Didari and M. Pinar Mengüç, “Analysis of Near-Field Radiation Transfer within Nano-Gaps Using FDTD Method,” *Journal of Quantitative Spectroscopy and*

- Radiative Transfer*, Vol. 146 pp. 214-226, 2014.
- JA109. M. Karimzadehkhoei, S. Yalcin, K. Şendur, M. Pınar Mengüç, A. Koşar, Pressure drop and heat transfer characteristics of nanofluids in horizontal microtubes under thermally developing flow conditions, *Exp. Therm. Fluid Sci.* Vol. 67, 37-47, 2015.
- JA110. A. Didari, M. P. Mengüç, “Near-Field Thermal Emission between Structured Surfaces separated by Nano-Gaps,” *Journal of Quantitative Spectroscopy and Radiative Transfer*, Vol. 158, 43-51, 2015.
- JA111. A. Didari, M. P. Mengüç, “Near to Far-Field Coherent Thermal Emission by Surfaces Coated by Nanoparticles: Evaluation of Effective Medium Theory,” *Optics Express*, 23 (11), A547-A552, 2015.
- JA112. A. Didari, M. P. Mengüç, "Near-field thermal radiation transfer by mesoporous metamaterials," *Optics Express*, 23(19): A1253-A1258, 2015.
- JA113. S. Celik, R. Family, M. P. Mengüç, “Analysis of perlite and pumice based building insulation materials,” *Journal of Building Engineering*, Vol 6, pp. 105-111, 2016.
- JA114. Sina Talebi Moghaddam, Hakan Ertürk, M. Pınar Mengüç, “Enhancing local absorption patterns within gold nano-structures on a dielectric surface under an AFM probe and with evanescent-wave illumination,” *Journal of Quantitative Spectroscopy and Radiative Transfer*, Vol. 178, 124-133, 2016.
- JA115. M. Karimzadehkhoei, K. Şendur, M. P. Mengüç, Y. Leblebici and Ali Koşar, “Increasing the Stability of Nanofluids with Cavitating Flows in Micro Orifices,” *Applied Physics Letters*, Vol. 109, No. 10, pp. 247-251, 2016. (104101)
- JA116. M. Karimzadehkhoei, M. Shojaeian, K. Şendur, M.P. Mengüç, A. Koşar, ‘The effect of nanoparticle type and nanoparticle mass fraction on enhancement in pool boiling,’ *International Journal of Heat and Mass Transfer*, Vol. 109, pp. 157-166, 2017.
- JA117. R. Family, M.P. Mengüç, ‘Materials for Radiative Cooling: A Review,’ *Procedia of Environmental Sciences*, Vol. 38, pp. 752-75, 2017.
- JA118. Farhad Kazemi Khosroshahi, H. Ertürk, M. P. Mengüç, ‘Optimization of Spectral Selective SI/SO₂ based Filters for Thermophotovoltaic Devices.’ *Journal of Quantitative Spectroscopy and Radiative Transfer*, RAD’2016 SI, Volume: 198, Pages: 123-131, 2017.
- JA119. MA Keçebas, MP Menguc, A Kosar, K Sendur, ‘Passive radiative cooling design with broadband optical thin-film filters,’ *Journal of Quantitative Spectroscopy and Radiative Transfer*, RAD’2016 SI, Volume: 198, Pages: 179-186, 2017.
- JA120. S.T. Moghaddam, D. Avşar, H. Ertürk, M.P. Mengüç, ‘Effect of Probe Location on the absorption by an array of gold nano-particles on a dielectric surface,’ *Journal of Quantitative Spectroscopy and Radiative Transfer*, RAD’2016 SI, Volume: 198, Pages: 106-113, 2017.
- JA121. A. Didari and M. P. Mengüç, “A Design Tool for Near-Field Radiative Transfer: The Developmental Steps of The NF-RT-FDTD Code,” *Journal of Quantitative Spectroscopy and Radiative Transfer*, RAD’2016 SI, Volume: 198, Pages: 95-105, 2017.
- JA122. M. Karimzadehkhoei, M. Sezen, K. Şendur, M.P. Mengüç, A. Koşar, ‘Subcooled Flow Boiling Heat Transfer of Al₂O₃/Water Nanofluids in Horizontal Microtubes and the Effect of Surface Characteristics of Nanoparticle Deposition,’ *Applied Thermal Engineering*, Vol. 127, pp. 536-546, 2017.
- JA123. A. Didari, E. B. Elcioglu, T. Okutucu-Ozyurt, and M. P. Mengüç, “Near-field radiative

- transfer in spectrally tunable double-layer phonon-polaritonic metamaterials,” *Journal of Quantitative Spectroscopy and Radiative Transfer*, Vol. 212, pp. 120-127, 2018. [<https://www.sciencedirect.com/science/article/pii/S0022407317309184>].
- JA124. Hayder Noori Mohammed, M. Pinar Mengüç, "Solar Radiation Exergy and Quality Performance for Iraq and Turkey," *International Journal of Exergy*, Vol. 25, No. 4, pp. 364-385, 2018.
- JA125. Mehrdad Karimzadehkhoei, A. K. Sadaghiani, A.R. Motezakker, Sarp Akgönül, Arzu Ozbey, Kürşat Şendur, M Pinar Mengüç, Ali Koşar, 'Experimental and Numerical Investigation of Inlet Temperature Effect on Convective Heat Transfer of Al₂O₃/Water Nanofluid Flows in Microtubes,' *Heat Transfer Engineering*, pp. 1-15, 2018.
- JA126. L. Al-Gebory, M. P. Mengüç, A. Koşar, K. Şendur, "Effect of Electrostatic Stabilization on Thermal Radiation Transfer in Nanosuspensions: Photo-thermal Energy Conversion Applications," *Renewable Energy*, Vol. 119, pp. 625-640, 2018.
- JA127. Mehrdad Karimzadehkhoei, M. Shojaeian, A.K. Sadaghiani, Kürşat Şendur, M Pinar Mengüç, Ali Koşar, 'Entropy Generation Analyses of Laminar Flows of Water-Based Nanofluids in Horizontal Minutubes under Constant Flux Conditions,' *Entropy*, Vol. 20(4). p. 242, 2018.
- JA128. Hayder Noori Mohammed, M. Pinar Mengüç, "Energy and Exergy Analyses of Spectrally Selective Surfaces for CSP Systems," *International Journal of Exergy*, Vol. 27, No. 1, pp. 81-104, 2018.
- JA129. L. Al-Gebory, M. P. Mengüç, "The Effect of pH Value on Particle Agglomeration and Radiative Transfer in Nanoparticle Suspensions" *Journal of Quantitative Spectroscopy & Radiative Transfer*, Vol. 219, pp 46-60, 2018.
- JA130. Raaid R. J. Al-Doury, M. P. Mengüç, "Static and Dynamic Analyses for the Exergetic, Exergoeconomic, and Environmental Assessment of a High-Performance Building" *International Journal of Exergy*, Vol. 27, No. 3, p. 393, 2018.
- JA131. Roxana Family, M. Pinar Mengüç 'Analysis of Sustainable Materials for Radiative Cooling Potential in Buildings,' *Sustainability*, Vol. 10(9), p. 3049, 2018.
- JA132. Cem Keskin, M. P. Mengüç, "On Occupant Behavior and Innovation Studies Towards High Performance Buildings: A Transdisciplinary Approach," *Sustainability*, Vol. 10(10), p. 3567, 2018.
- JA133. A. Didari and M. P. Mengüç, "A biomimicry design for nanoscale radiative cooling applications inspired by *Morpho didius* butterfly" *Nature Scientific Reports*, Vol. 8, p. 16891, 2018.
- JA134. Zahra Rostampour Fathi, M. Pinar Menguc, Hakan Erturk, 'Plasmon coupling between complex gold nanostructures and a dielectric substrate,' *Applied Optics*, Vol. 57(10), 8954-8963, 2018.
- JA135. J.H. Howell and M. P. Mengüç, " Challenges for Radiative Transfer 1: Towards the Effective Solution of Conjugate Heat Transfer Problems," *Journal of Quantitative Spectroscopy and Radiative Transfer*. Vol. 221, pp. 253-259, 2018.
- JA136. Azadeh Didari, M. Pinar Mengüç, 'Biomimicry designs for passive optical solutions for nanoscale radiative cooling applications,' in NANOSTRUCTURED THIN FILMS XI, SPIE, Edited by A. Lakhtakia and TG Mackay, Vol. 10731, Article No: 107310C, DOI: 10.1117/12.2320504, 2018
- JA137. E.B. Elçioğlu, A. Didari, Tuba Okutucu-Özyurt and M. P. Mengüç, "Tunable near-field

- radiative transfer by III-V group compound semiconductors,” *Journal of Physics D: Applied Physics*, Vol. 52, No. 10, 105104, 2019. <https://doi.org/10.1088/1361-6463/aaf947>.
- JA138. D. Avsar, H. Ertürk, M. P. Mengüç, “Plasmonic Responses of Metallic/Dielectric Core-Shell Nanoparticles on a Dielectric Substrate”, *Materials Research Express*, Vol. 6, No. 6, 2019. <https://dx.doi.org/10.1088/2053-1591/ab07fd>
- JA139. Cem Doğan Şahin, M. Pinar Mengüç, ‘An Image Registration Method for Mobile Device-Based Multispectral Optical Diagnostics for Buildings,’ *Applied Optics*, Vol. 58, No. 26 / 10 September 2019 / 7165, 2019. (Q1)
- JA140. M Karimzadehkhoei, AK Sadaghiani, AR Motezakker, S Akgönül, Arzu Ozbey, Kürşat Şendur, M Pinar Mengüç, Ali Koşar, “Experimental and Numerical Investigation of Inlet Temperature Effect on Convective Heat Transfer of gamma-Al₂O₃/Water Nanofluid Flows in Microtubes,” *Heat Transfer Engineering*, 40 (9-10), pp. 738-752, 2019. (Q1)
- JA 141. S. Çelik and M.P. Mengüç, ‘Thermal Analysis of Perlite Reinforced Concrete Panels at Varying Moisture Content,’ *Heat Transfer Research*, Begell House, DOI: 10.1615/HeatTransRes.2019025925, pages 207-216, 2020. (Q3)
- JA 142. C. Keskin and M. P. Mengüç, ‘An Adaptive Vent System for Localized and Customized Thermal Management in Buildings,’ *ASME Journal of Heat Transfer*, DOI: 10.1115/1.4045664. 2020.
- JA 143. D. Avsar, H. Ertürk, M. P. Mengüç, “Absorption and Plasmon Resonance of Bi-Metallic Core-Shell Nanoparticles on a Dielectric Substrate,” *Journal of Quantitative Spectroscopy and Radiative Transfer*, Vol. 241, Paper No: 106684, 2020. (Q1)
- JA144. M. A. Kecebaş, M.P. Mengüç, A. Koşar, K. Şendur, “Spectrally Selective Filter Design for Passive Radiative Cooling,” *Journal of Optical Society of America – B*, Vol. 37(4), pp. 1173-1182, 2020, DOI: 10.1364/JOSAB.384181.
- JA 145. Raaid R. J. Al-Doury, S. Ozkan, M. P. Mengüç, “Cascaded Thermodynamic and Environmental Analyses of Energy Generation Modalities of a High-Performance Building based on Real-Time Measurements.” *Entropy*, Vol. 22(4), p. 445, 2020.
- JA146. E. Yildiz, A.M. Başol, M. P. Mengüç, “Segregated Modeling of Continuous Heat Transfer Furnaces,” *Journal of Quantitative Spectroscopy and Radiative Transfer*, No. 106993, 2020. (Q1)
- JA147. Roxana Family, M. Pinar Mengüç, Serdar Çelik ‘Coupled Heat Transfer Analysis for Concrete and Green Roofs to Evaluate Radiative Cooling for Buildings,’ *Springer Heat and Mass Transfer*, (Wärme- und Stoffübertragung), 2020 (6), HAMT-D-19-00610R2.
- JA148. L. Al-Gebory, M. P. Mengüç, “Optical and Radiative Properties of Nanoparticle Suspensions: the Effects of Particle Stability, Agglomeration, and Sedimentation,” *Journal of Enhanced Heat Transfer*, Volume 27, Issue 3, pages 207-247, 2020. (DOI: 10.1615/JEnhHeatTransf.2020033420).
- JA 149. Moein Talebian Gevari, Soroush Niazi, Mehrdad Karimzadehkhoei, Kursat Sendur, M. Pinar Mengüç, Morteza Ghorbani, Ali Koşar, “Deagglomeration of nanoparticle clusters in a ‘Cavitation on Chip’ device,” *AIP Advances*, Vol.10, Issue 11, 2020. DOI: 10.1063/5.0029070
- JA 150. T. Akba, D. Baker, M.P. Mengüç, ‘Gradient-Based Optimization of Volumetric Receiver Geometry and Mass Flow Rate’, *Renewable Energy*, Vol. 203, pp. 741-752, 2023.
- JA 151. T. Akba, D. Baker, M.P. Mengüç, ‘Geometric Design of Micro Scale Volumetric

- Receiver Using System-Level Inputs: An Application of Surrogate-Based Approach, *Solar Energy*, 262, 111811, 2023.
- JA 152. Niloufar Pirouzfam, M.P. Mengüç, K. Şendur, “Colorization of Passive Radiative Cooling Coatings using Plasmonic Effects”, *Solar Energy Materials and Solar Cells*, 253, 112225, 2023.
- JA 153. T. Akba, D. Baker, M.P. Mengüç, “Off-design performance of Micro-scale Brayton cycle,” *Energy Conversion and Management*, 289, 117187, 2023.
- JA 154. MA Kecebas, M. P Menguc, K Sendur, “Spectral emissivity profiles for radiative cooling,” *ACS Applied Optical Materials* 2 (6), 1010-1024, 2023.
- JA 155. M.C. Ozsoy and M.P. Mengüç, "A Transdisciplinary Approach and Design Thinking Methodology for Application to Complex Problems and Energy Transition," *World*, Vol. 5, pp. 119-135, 2024.
- JA 156. B. Halvaşı, A.M. Başol, Ö. Ertunç, and M.P. Mengüç, “Investigation of Soot Formation and Agglomeration in Ethylene/Air Jet Diffusion Flame with Rank-Related SLW Gas Model,” *Journal of Quantitative Spectroscopy and Radiative Transfer*, 325, 109068, 2024.
- JA 157. B Halvaşı, T Altınoluk, AM Başol, MP Mengüç, A Karadağ, “Spectral radiation modeling of gas and soot in glass melting furnaces: Evaluation of RC-SLW vs WSGG model.” *Thermal Science and Engineering Progress* 64, 103780, 2025.
- JA 158. K. Gürel and M. Pinar Mengüç, “A Sectoral Benchmarking Analysis of Industrial Energy Efficiency in Türkiye: Methodology, Technical Challenges, and Findings,” *Energy Reports*, 2026 (under review).
- JA 159. G. Otkun and M. Pinar Mengüç, “From Silos to Systems: Facilitating change through the Transdisciplinary Sustainability Transitions Framework”, *Discover Sustainability*, 2026 (under review).

MAGAZINE PUBLICATIONS FOR PUBLIC

(More than 22)

- MA 1. S. Manickavasagam, M. P. Mengüç, Z. B. Drozdowicz, C. Ball, “Size, Shape, and Structure Analysis of Fine Particles,” *American Ceramic Society Bulletin*, 81 (7): 29-33 July 2002.
- MA 2. M.-G.C. Danao, F.A. Payne, C.L. Hicks, M.P. Mengüç, S.E. Nokes, T.S. Stombaugh, “Enhanced real time optical detection of micron-sized particles in water using standing ultrasonic wave fields, *SPIE Proceedings*, Volume 5994, 2005.
- MA 3. M. P. Mengüç, Y. Somuncu, “Enerji Verimliliği Boyutu ve İstanbul 2050’ye Doğru”, *Enerji Journal*, 46-68, February 2012.
- MA 4. M. P. Mengüç, “Tasarımın Yeşil Zirvesi ‘EKODesign Konferansı Bu Yıl 5.Yaşını Kutladı”, *Yap, Journal Addition*, 54-56, May 2012.
- MA 5. M. P. Mengüç, Interview with Özyeğin University CEEE Director, “İstanbul’u 2050’ye Hazırlıyorlar”, *Milliyet Cadde*, July 2012, available at: http://cadde.milliyet.com.tr/2012/07/27/HaberDetay/1572330/Istanbul_u_2050_ye_hazirliyorlar

- MA 6. M. P. Mengüç, Interview with Özyeğin University CEEE Director, “Özyeğin Üniversitesi Yeşil Kampüsü”, *Yapı Journal Addendum*, 67-70, October 2012.
- MA 7. M. P. Mengüç, Interview with Özyeğin University CEEE Director, “Prof.Dr. Pınar Mengüç ile söyleşi”, *Bilim.org*, April 2013, available at: <http://www.bilim.org/prof-dr-pinar-menguc-ile-soylesi/>
- MA 8. M. P. Mengüç, Interview with Özyeğin University CEEE Director, “Sürdürülebilirlik Bir Trend Değil, Ezber Bozma Önerisi”, *EKOIQ Journal*, No:47, Jan 2015, available at: <http://ozlembahadir.blogspot.com.tr/search?q=ekoIQ>
- MA 9. M. P. Mengüç, Interview with Özyeğin University CEEE Director, “Enerjide başkasını zengin etmeyelim”, *Bugün Newspaper*, November 2015, available at: <http://www.bugun.com.tr/enerjide-baskasini-zengin-etmeyelim-1942194.html>
- MA10. M.P.Mengüç, Interview with Özyeğin University CEEE Director, “EÇEM, araştırmalarında Türkiye İMSAD üyeliği ile güç kazanacak”, *IMSAD Journal*, No:24, December 2015, available at: http://www.imsad.org/Uploads/Files/imsad_dergi_sayi24_kck.pdf
- MA 11. M. P. Mengüç, NEED4B – ScOLa Building Anatomical Case Study for “Special Issue”, *Yapı Journal*, No: 413, April 2016.
- MA12. “En Akıllı Kampus” (The Smartest Campus), *Hürriyet Newspaper*; <http://www.hurriyet.com.tr/en-akilli-kampus-40214887>. September 2, 2016.
- MA13. “En Example of a Green Building, Ozyeğin SCOLA Building,” *Yeşil Bina Journal*. September 2016.
- MA14. ‘Bilginin Birikimi,’ *Bilimle Birlikte (Along with Science)*, *Yapı Dergisi*, YEM, Istanbul, February 2017. https://docs.wixstatic.com/ugd/b91653_6e9a5dd321004246a554351db11580dc.pdf https://www.ozyegin.edu.tr/imgken/getattachment/9852746d-b3d3-4a19-a656-26b5d8b6fba3/Bilimle-Birlikte-1_M-P-Menguc_YAPI-Dergisi.pdf
- MA15. ‘Vitruvius’tan Esinlenmeler,’ *Bilimle Birlikte (Along with Science)*, *Yapı Dergisi*, YEM, Istanbul, March 2017. https://docs.wixstatic.com/ugd/b91653_b8fe4e49b0884c94b6bf371964ed0dba.pdf
- MA16. ‘Teknolojik Vitruvius,’ *Bilimle Birlikte (Along with Science)*, *Yapı Dergisi*, YEM, Istanbul, April 2017. https://docs.wixstatic.com/ugd/b91653_67c4f8b22f804c35b6a7a3919560b511.pdf
- MA17. ‘Panjur,’ *Bilimle Birlikte (Along with Science)*, *Yapı Dergisi*, YEM, Istanbul, July 2017. https://my.ozyegin.edu.tr/sites/default/files/users/2091/Bilimle%20Birlikte_YAPI%20DERGİSİ_Temmuz%202017.pdf
- MA18. ‘Türkiye’de COVID-19 salgını normalleşme süreci ve dalgalanmalar,’ *Bilim Akademisi*, *Sarkaç.org* platformu, Özgür Ertunç, M. Pınar Mengüç, Reyhan Diz-Küçükkaya, 30 Mayıs 2020. <https://sarkac.org/2020/05/turkiyede-covid-19-salgini-normallesme-sureci-ve-dalgalanmalar/>
- MA19. ‘Okullar ve üniversitelerin kapalı alanlarında koronavirüs bulaşma riski nasıl azaltılabilir?,’ *Bilim Akademisi*, *Sarkaç.org* platformu, Özgür Ertunç, M. Pınar Mengüç, 8 Ekim 2020 <https://sarkac.org/2020/10/kapali-alanlarda-koronavirus-bulasma-riski-nasil-azaltilabilir/>
- MA20. ‘Toplumsal krizlere aile terapisi yaklasimi,’ *Bilim Akademisi*, *Sarkaç.org* platformu, Selenga Gurmen, M. Pınar Mengüç, 11 Şubat 2021. <https://sarkac.org/2021/02/toplumsal-krizlere-aile-terapisi-yaklasimi/>

- MA21. ‘Türkiye’de COVID-19 salgını normalleşme süreci ve dalgalanmalar,’ Bilim Akademisi, Sarkaç.org platformu, Selenga Gurmen, M. Pinar Mengüç, 30 Mayıs 2021. <https://sarkac.org/2020/05/turkiyede-covid-19-salgini-normallesme-sureci-ve-dalgalanmalar/>
- MA22. ‘Delta varyantı ile kapalı alanlarda artan Covid’19 bulaşma riski ve yüzyüze eğitim için öneriler’ Bilim Akademisi, Sarkaç.org platformu, Özgür Ertunç, M. Pinar Mengüç, 5 Eylül 2020. <https://sarkac.org/2021/09/delta-varyanti-ile-kapali-alanlarda-artan-covid-19-bulasma-riski-ve-yuzyuze-egitim-icin-oneriler/>

CONFERENCE PUBLICATIONS

REFEREED CONFERENCE ARTICLES AND PRESENTATIONS (RA)

(More than 150)

- RA 1. R. Viskanta, A. Urgan, and M.P. Mengüç, "Predictions of Radiative Properties of Pulverized Coal and Fly-Ash Polydispersions," ASME Paper No: 81-HT-24, 1981. Presented at the ASME National Heat Transfer Conference in Milwaukee, WI, August 1981.
- RA 2. M.P. Mengüç and R. Viskanta, "Comparison of Radiative Transfer Approximations for Highly Forward Scattering Planar Medium," ASME Paper No: 82-HT-17, 1982. Presented at the ASME/AIAA Thermophysics and Heat Transfer Conference in St. Louis, MO, June 1982.
- RA 3. M.P. Mengüç, Y. Yener, and M.N. Ozisik, "Interaction of Radiation and Convection in Thermally Developing Laminar Flow in a Parallel-Plate Channel," ASME Paper No: 83-HT-035, 1983. Presented at the ASME National Heat Transfer Conference, Seattle, WA, August 1983.
- RA 4. M.P. Mengüç and R. Viskanta, "Radiative Transfer in Three-Dimensional Rectangular Enclosures," ASME Paper No: 84-HT-035, 1984. Presented at the ASME National Heat Transfer Conference, Niagara Falls, NY, August 1984.
- RA 5. M.P. Mengüç and R. Viskanta, "Radiative Transfer in Axisymmetric, Finite Cylindrical Enclosures," in *Fundamentals of Thermal Radiation Heat Transfer*, T.C. Min, Editor, ASME, New York, 1984. Presented at the ASME Winter Annual Meeting in New Orleans, LA, December 1984.
- RA 6. M.P. Mengüç, R. Viskanta, and C.R. Ferguson, "Multidimensional Modeling of Radiative Transfer in Diesel Engines". Presented at SAE International Congress, Detroit, MI, February 27 - March 2, 1985.
- RA 7. M.P. Mengüç, W.G. Cummings III, and R. Viskanta, "Radiative Transfer in a Gas Turbine Combustor," AIAA Paper No: 85-1072. Presented at AIAA 20th Thermophysics Conference, Williamsburg, VA, June 19-21, 1985.
- RA 8. M.P. Mengüç and R. Viskanta, "A Sensitivity Analysis for Radiative Heat Transfer in Pulverized-Coal Fired Furnaces," in *Heat Transfer in Fire and Combustion Systems*, C.K. Law, Y. Jaluria, W.W. Yuen, K. Miyasaka editors, ASME, New York, pp. 221-229, 1985. Presented at the ASME National Heat Transfer Conference in Denver, CO, August 1985.

- RA 9. M.P. Mengüç and R. Viskanta, "Effect of Fly-Ash Particles on Spectral and Total Radiation Blockage," in *Fundamentals and Applications of Radiation Heat Transfer*, A.M. Smith and T.F. Smith editors, ASME HTD-Vol. 72. Presented at the 1987 National Heat Transfer Conference, Pittsburgh, PA, August, 1987.
- RA 10. S. Chakravarty, M.P. Mengüç, D.W. Mackowski and R.A. Altenkirch, "Application of Two Inversion Schemes to Determine the Absorption Coefficient Distribution in Flames," in *1988 National Heat Transfer Conference Proceedings*, Vol. 1, H.R. Jacobs editor, ASME HTD-Vol. 96, pp. 171-178. Presented at the ASME National Heat Transfer Conference, Houston, TX, July, 1988.
- RA 11. R.K. Iyer and M.P. Mengüç, "Quadruple Spherical Harmonics Approximation for Two-Dimensional Rectangular Enclosures," in *1988 National Heat Transfer Conference Proceedings, Vol. 1*, H.R. Jacobs editor, ASME HTD-Vol. 96, pp. 251-258. Presented at the ASME National Heat Transfer Conference, Houston, TX, July, 1988.
- RA 12. M.P. Mengüç and B. Chen, "Difference Formulation of Radiative Transfer For Application to Closely Packed Media". Presented at the ASME Winter Annual Meeting, Chicago, IL, November, 1988.
- RA 13. S. Jolly, M.P. Mengüç, K. Saito, and R.A. Altenkirch, "Scaling Flashover Phenomena in Compartment Fires," *Proceedings of the First International Symposium on Scale Modeling*, Tokyo, Japan, 1989.
- RA 14. S. Subramaniam and M.P. Mengüç, "Inverse Radiation Problem in Single and Double layer Planar Systems with Monte Carlo Technique," in *Radiation Heat Transfer: Fundamentals and Applications*, T.F. Smith, M.F. Modest, A.M. Smith, S.T. Thynell, Editors; HTD-Vol. 137, pp. 157-164. Presented at the 1990 ASME/AIAA Joint Thermophysics and Heat Transfer Conference, Seattle, WA, June 1990.
- RA 15. W.M. Godfrey, K. Tagavi, C.J. Cremers, M.P. Mengüç, "Interactive Thermal Modeling of Electronic Circuit Boards" in *Thermal Modeling and Design of Electronic Systems and Devices*, R.A. Wirtz, E.L. Lehmann, Editors, HTD-Vol. 153, pp. 65-71. Presented at the 1990 ASME Winter Annual Meeting, Dallas, Texas, December 1990.
- RA 16. M.P. Mengüç, D. Dsa, and S. Manickavasagam, "Determining the Radiative Properties of Pulverized Coal Particles from Experiments," *Proceedings of the ASME-JSME Thermal Engineering Joint Conference*, J.R. Lloyd, Y. Kurosaki, Editors; Vol. 5, pp. 22-33. Presented at Reno, Nevada, March, 1991.
- RA 17. M.P. Mengüç and S. Manickavasagam, "Inverse Radiation Problem in Axisymmetric, Non-Homogeneous Media," in *Fundamentals of Radiation Heat Transfer*, W.A. Fiveland, A.L. Crosbie, A.M. Smith, T.F. Smith, Editors; HTD-Vol. 160, pp. 61-68. Presented at the ASME National Heat Transfer Conference, Minneapolis, MN, July 1991.
- RA 18. J. Funk, M.P. Mengüç, K. Tagavi, and C.J. Cremers, "A Semi-Analytical Method to Predict Printed Circuit Board Package Temperatures". Presented at the IEEE-CHMT Semiconductor Thermal and Temperature Measurement Symposium, Phoenix, AZ, February 1991.
- RA 19. M.P. Mengüç and P. Dutta, "Scattering Tomography and its Application to Sooting Diffusion Flames," in *Heat Transfer in Fire and Combustion Systems*, A.M. Kanury and M.O. Brewster, Editors; ASME HTD-Vol 199, pp. 37-44. Presented at the ASME National Heat Transfer Conference, San Diego, CA, August 1992.
- RA 20. M.P. Mengüç, A. Mahadeviah, K. Saito, S. Manickavasagam, "Application of the Discrete Dipole Approximation to Determine the Radiative Properties of Soot

- Agglomerates," in *Heat Transfer in Fire and Combustion Systems*, A.M. Kanury and M.O. Brewster, Editors; ASME HTD-Vol. 199, pp. 9-16. Presented at the ASME National Heat Transfer Conference, San Diego, CA, August, 1992.
- RA 21. F.E. Corcione, O. Monda, B.M. Vaglieco, and M.P. Mengüç, "Optical Characteristics of Soot Particles at D.I. Diesel Engine Exhaust: Shape and Spectral Effects," in Proceedings of the 2nd International Conference on Fluid Mechanics, Combustion, Emission and Reliability in Reciprocating Engines, Presented at Capri, Italy, September 1992.
- RA 22. S. Manickavasagam and M.P. Mengüç, "Effective Radiation Properties of Coal Particles in Planes at $\lambda = 10.6\mu\text{m}$," in *Heat Transfer in Fire and Combustion Systems-1993*, B. Farouk, M.P. Mengüç, R. Viskanta, C. Presser, S. Chellaiiah, Editors, ASME HTD-Vol. 250, pp. 145-157. Presented at the ASME National Heat Transfer Conference, Atlanta, GA, August 1993.
- RA 23. S. Manickavasagam and M.P. Mengüç, "Inverse Radiation-Conduction Problem in Planar Systems," in *Radiation Heat Transfer Theory and Applications*, A. M. Smith and S. H. Chan, Editors, ASME HTD- Vol. 244, pp. 67-75, Presented at the ASME National Heat Transfer Conference, Atlanta, GA, August 1993.
- RA 24. B.M. Vaglieco, D. Monda, F.E. Corcione, and M.P. Mengüç, "Optical and Radiative Properties of Soot Agglomerates at D.I. Diesel Engine Exchange," in *Heat Transfer in Fire and Combustion Systems-1993*, B. Farouk, M.P. Mengüç, R. Viskanta, C. Presser, S. Chellaiiah, Editors, ASME HTD-Vol. 250, pp. 137-143. Presented at the ASME National Heat Transfer Conference, Atlanta, GA, August 1993.
- RA 25. J.A. Thomasson, M.P. Mengüç, and S.A. Shearer, "Light Scattering on Cotton fibers: Relating Optical Properties to Quality," ASAE Paper No: 931067, St. Joseph, MI, 1993.
- RA 26. J.A. Thomasson, M.P. Mengüç, and S.A. Shearer, "Modeling Light Propagation in Cotton with Radiation Heat Transfer Models," ASAE Paper No: 931610, St. Joseph, MI, 1993.
- RA 27. R. Govindan, S. Manickavasagam, and M.P. Mengüç, "On Measuring the Mueller Matrix Elements of Soot Agglomerates," Radiation-I: Proceedings of the First International Symposium on Radiative Heat Transfer; presented at Kusadasi, Turkey, August 1995. Begell House, NY, 1996.
- RA 28. J.M. McDonough, D. Wang, and M.P. Mengüç, "Radiation-Turbulence Interactions in One-Dimensional Flames," Radiation-I: Proceedings of the First International Symposium on Radiative Heat Transfer; presented at Kusadasi, Turkey, August 1995. Begell House, NY, 1996.
- RA 29. M.P. Mengüç, J.M. McDonough, S. Manickavasagam, S. Mukerji, S. Swabb, S. Ghosal, "Chaotic Fluctuations of Soot Particles in Turbulent Diffusion Flames: Experimental Data and Logistic Map Models," presented at the International Mechanical Engineering Congress and Exposition, Atlanta, GA, November, 1996. Published in Symposium on Fire and Combustion Systems, M. P. Mengüç, K. Ball, and O. Ezekoye, eds, ASME HTD-Vol. 335, pp. 271-280, 1996.
- RA 30. S. Manickavasagam, R. Govindan, M.P. Mengüç, "Estimation of the Morphology of Soot Agglomerates by Measuring their Scattering Matrix Elements," presented at the International Mechanical Engineering Congress and Exposition, Dallas, TX, November, 1997. Published in ASME HTD-Vol. 352, eds. K. Annamalai, et al., pp. 29-32, 1997.
- RA 31. S. Manickavasagam, C. Klusek, and M.P. Mengüç, "Scattering Matrix Elements of Agglomerates: Experimental Data and Theoretical Predictions," Radiation-II:

- Proceedings of the Second International Symposium on Radiative Heat Transfer*; presented at Kusadasi, Turkey, July 1997. Begell House, NY, 1998.
- RA 32. R. Vaillon, J.F. Sacadura, and M.P. Mengüç, “Analysis of Radiation Polarization in an Emitting-Absorbing and Scattering medium,” Presented at the European Thermal Sciences Meeting, Heidelberg, Germany, September 7-10, 2000.
- RA 33. C.L. Crofcheck, F. A. Payne, M. P. Mengüç. Characterization of Light Propagation in Milk Using a Radiative Transfer Model. Presented at the 2001 National Heat Transfer Conference in Anaheim, California, June 2001.
- RA 34. Basil Wong and M. P. Mengüç. “Comparison of Monte Carlo Techniques to Predict the Propagation of a Collimated Beam in Participating Media,” Presented at the 2001 National Heat Transfer Conference in Anaheim, California, June 2001.
- RA 35. B. Wong and M.P. Mengüç, “Depolarization of Radiation by Foams,” *Proceedings of Radiation-III*, Edited by M. P. Mengüç and Nevin Selcuk, Antalya, Turkey, June 2001.
- RA 36. M. Kozan, M.P. Mengüç, S. Manickavasagam, C. Saltiel, “Effect of Particle Shape Irregularities on the Angular Profiles of Scattering Matrix Elements,” presented at the 8th Joint AIAA/ASME Thermophysics and Heat Transfer Conference, St Louis, MO, June 24-26, 2002.
- RA 37. M. Aslan, J. Yamada, M.P. Mengüç, A. Thomasson, A., “Radiative Properties of Individual Cotton Fibers: Experiments and Predictions,” to be presented at the 8th Joint AIAA/ASME Thermophysics and Heat Transfer Conference, St Louis, MO, June 24-26, 2002.
- RA 38. B. Wong, M.P. Mengüç, R. Valance, C. Trinkle, “Modeling of Energy Transfer in Field Emission of Carbon Nanotubes,” to be presented at the 8th Joint AIAA/ASME Thermophysics and Heat Transfer Conference, St Louis, MO, June 21-24, 2002.
- RA 39. D.-K. Qing, M.P. Mengüç, F. Payne, M.G. Danao, “Fluorescence Correlation Spectroscopy for Detection of Trace Amount of Biological Agents,” ASME International Mechanical Engineering and Congress, New Orleans, November 17-22, 2002.
- RA 40. Y. Xu, J.M. McDonough, M.P. Mengüç, “Radiation-Turbulence Interactions in Flames: A Chaotic-Map Based Formulation,” ASME International Mechanical Engineering and Congress, New Orleans, November 17-22, 2002.
- RA 41. C. Trinkle, P. Smith, R. Valance, B. Wong, M.P. Mengüç, “Thermal Finite Difference Analysis of Threshold Heating for Nanoscale Machining,” ASME International Mechanical Engineering and Congress, New Orleans, November 17-22, 2002.
- RA 42. C.A. Trinkle, R.R. Vallance, M.P. Mengüç, A. Bah, K. Javed, A.M. Rao, and S. Jin. "Nanoprobe Concepts for Field Emission Nanomachining". *Proceedings of the 17th Annual Meeting of the American Society for Precision Engineering*. St. Louis, MO. October 20-25, 2002.
- RA 43. Basil T. Wong and M. Pinar Mengüç, “Monte Carlo Methods in Radiative Transfer and Electron Beam Processing,” *Eurotherm 73, Proceedings of Eurotherm73 on Computational Thermal Radiation in Participating Media*, 15-17 April 2003, Mons, Belgium.
- RA 44. Rodolphe Vaillon, Basil T. Wong and M. Pinar Mengüç, “Polarized Radiative Transfer in a particle laden Transparent Medium via Monte Carlo Method,” *Eurotherm 73, Proceedings of Eurotherm73 on Computational Thermal Radiation in Participating Media*, 15-17 April 2003, Mons, Belgium.
- RA 45. S. Ghosal, S. Manickavasagam, M. Pinar Mengüç, J. Sheng, H. Blomquist, “Optical

- Sizing of Particles Generated by Propellant Combustion,” Third Mediterranean Combustion Symposium, Marrakech, Morocco. June 8-13, 2003.
- RA 46. Basil T. Wong and M. Pinar Mengüç, “Electronic Thermal Conduction in Thin Gold Films,” ASME Summer Heat Transfer Conference, HT2003-47172, Las Vegas, NE, July 21-23, 2003.
- RA 47. Basil T. Wong, M. Pinar Mengüç, and R. Ryan Vallance, “Nano-Indentation Using a Carbon Nanotube,” ASME International Mechanical Engineering Congress and Exposition, IMECE 2003, Paper #42361, November 15-21, 2003.
- RA 48. Basil T. Wong, R. Vaillon, and M. Pinar Mengüç, “Depolarization of Linearly and Circularly Polarized Light by Absorbing Foam and Froth,” ASME International Mechanical Engineering Congress and Exposition, IMECE 2003, Paper #42018, November 15-21, 2003.
- RA 49. G. Videen, M. Aslan, M. P. Mengüç, “Characterization of Metallic Nanoparticles via Surface Wave Scattering: A. Theoretical Framework,” Fourth International Symposium on Radiative Transfer, Istanbul, Turkey, June 20-25, 2004.
- RA 50. M. Aslan, M. P. Mengüç, G. Videen, “Characterization of Metallic Nanoparticles via Surface Wave Scattering: B. Physical Concept and Numerical Experiments,” Fourth International Symposium on Radiative Transfer, Istanbul, Turkey, June 20-25, 2004.
- RA 51. Basil T. Wong, M. Pinar Mengüç, and R. Vallance, “Sequential Nano-Patterning: A Numerical Approach,” the Fourth Int. Symposium on Radiative Transfer, Istanbul, Turkey, June 20-25, 2004.
- RA 52. P.G. Venkata, M.M. Aslan, M.P. Mengüç, G. Videen, The Surface plasmon scattering patterns of gold nanoparticles and agglomerates, 2005 ASME International Mechanical Engineering Congress and Exposition, Orlando, Florida, USA, November 5-11, 2005.
- RA 53. J. N. Swamy, C. Crofcheck and M. P. Mengüç, “A Monte Carlo Ray Tracing Study of Polarized Light Propagation in Liquid Foams,” Proceedings of Eurotherm78 – Computational Thermal Radiation in Participating Media II, 5-7 April 2006, Poitiers, France.
- RA 54. E.A. Hawes, J.T. Hastings, C. Crofcheck, and M.P. Mengüç, “Spectrally selective heating of Nanosized Particles by Surface Plasmon Resonance,” Proceedings of Eurotherm78 – Computational Thermal Radiation in Participating Media II, 5-7 April 2006, Poitiers, France.
- RA 55. E.A. Hawes, J.T. Hastings, C. Crofcheck, and M.P. Mengüç, “Near Field Absorption and Scattering by the Surface Plasmon Resonance of Agglomerated Gold Particles,” 9th Electromagnetic Wave and Light Scattering Conference, St. Petersburg, Russia, June 3-9, 2006.
- RA 56. M. Francoeur, P. G. Venkata, M. M. Aslan, and M. P. Mengüç, “Preliminary sensitivity analysis for characterization of gold nano-particles via surface wave scattering,” 9th Electromagnetic Wave and Light Scattering Conference, St. Petersburg, Russia, June 3-9, 2006.
- RA 57. M. P. Mengüç, E. Hawes, J. Jensen, I. StOmer, “Impact of Emerging Technologies on Society: From Aqueducts to Nanotechnology,” Paper 2006-2360, ASEE Conference, Chicago, IL, June 18-21, 2006.
- RA 58. M. Francoeur and M. P. Mengüç, “Role of the fluctuational electrodynamics theory in near-field radiative heat transfer,” The Fifth International Symposium on Radiation Transfer, Bodrum Turkey, June 17-23, 2007.

- RA 59. M. Kozan and M. P. Mengüç, "Exploration of fractal nature of WO₃ nanowire aggregates," The Fifth International Symposium on Radiation Transfer, Bodrum, Turkey, June 17-23, 2007.
- RA 60. Benoit Gay, Rodolphe Vaillon and M. Pinar Mengüç, "Polarization imaging of multiply-scattered radiation based on Integral-Vector Monte Carlo Method," *Eurotherm Seminar #83 on Computational Thermal Radiation in Participating Media III*, Lisbon, Portugal, Editors: P. Coelho, D. Lemonnier, P. Lybaert, N. Selcuk, April 2009, pp. 131-142.
- RA 61. M. Francoeur, M.P. Mengüç, R. Vaillon, "Near-field radiation emission from thin SiC films," *Eurotherm Seminar #83 on Computational Thermal Radiation in Participating Media III*, Lisbon, Portugal, Editors: P. Coelho, D. Lemonnier, P. Lybaert, N. Selcuk, April 2009, pp. 335-346.
- RA 62. B. Wong and M.P. Mengüç, "Monte Carlo Procedures: A unified view for radiative transfer, electron beam transport and for thermal conduction by electrons and phonons," *Eurotherm Seminar #83 on Computational Thermal Radiation in Participating Media III*, Lisbon, Portugal, Editors: P. Coelho, D. Lemonnier, P. Lybaert, N. Selcuk, April 2009, pp. 335-346.
- RA 63. R. Charnigo, M. Francoeur, P. Kenkel, M.P. Mengüç, B. Hall, and C. Srinivasan, "Nonparametric derivative estimation and the computation of posterior probabilities for nanoparticle characteristics", 2009 Joint Statistical Meetings, Washington DC, USA, August 1-6, 2009.
- RA 64. M. Francoeur, M.P. Mengüç, and R. Vaillon, "Control of near-field radiative heat transfer via surface phonon-polariton coupling in thin films", META'10: 2nd International Conference on Metamaterials, Photonic Crystals and Plasmonics, Cairo, Egypt, February 22-25, 2010 (Paper).
- RA 65. M. Francoeur, R. Vaillon, and M.P. Mengüç, "Thermal effects on performances of GaSb and In_{0.18}Ga_{0.82}Sb based nanoscale-gap thermophotovoltaic energy conversion device: A. Mathematical modeling", Sixth International Symposium on Radiative Transfer, Antalya, Turkey, June 13-19, 2010.
- RA 66. Sendur, K., Kosar, A., and Mengüç, M.P., Localized radiative energy transfer from a plasmonic bow-tie nanoantenna to a magnetic thin film stack. International Conference on Metamaterials, Photonic Crystals and Plasmonics (META'10), pp. 582-586, 2010.
- RA 67. Sesen, M., Arslanap, M., Sendur, K., Mengüç, M.P., Yagci, A., and Kosar, A., Compact Heat Removal System with Magnetic Nanoparticles . 6th Nanoscience and nanotechnology Conference (NanoTR6), pp. 401A., 2010.
- RA 68. Dönmezer, N., Mengüç, M.P., and Okutucu, T., Dependent Absorption and Scattering by Interacting Nanoparticles. RAD 10: Sixth International Symposium on Radiative Transfer, Note: Reviewed and Published in CD-ROM., 2010.
- RA 69. Bayer, O. and Mengüç, M.P., Roof Pond Applications as a Passive Cooling Technology for Buildings: A Critical Review. Clima 2010 Proceedings, Note: CLIMA 2010 Congress CD; the ISBN Code of the CD is 978-975-6907-14-6, 2010.
- RA 70. Gazi M. Huda, M. Pinar Mengüç, and J. Todd Hastings., (2012). Absorption suppression of silver nanoparticles in the presence of an AFM tip: A harmonic oscillator model, The Fifth International Workshop on Theoretical and Computational Nano-Photonics, TaCoNa-Photonics 2012, Germany, AIP Conf. Proc. 1475, pp. 134-136, available online: <http://dx.doi.org/10.1063/1.4750120> (3 pages)

- RA 71. Vaillon R., Dupré O., Francoeur M., and Mengüç, M.P., (2013). NEXTGEN NANO PV, Thermal Issues in the Design of PV Devices: Focus on Nanoscale-Ga Thermophotovoltaic Cells, 2013.
- RA 72. A. Didari and M. P. Mengüç, "Analysis Of Near-Field Emission Within Nano-Gaps Using Finite Difference Time Domain Method", *Proceedings of the 7th International Symposium on Radiative Transfer(RAD-13)*, Kusadasi, Turkey, June 2-8, 2013 (Paper).
- RA 73. A. Didari, M. P. Mengüç, "Analysis of Near-Field Emission Within Nano-Gaps Using Finite Difference Time Domain Method" Electromagnetic and Light Scattering Conference XIV, Lille, France, June 17-June 21, 2013 (Poster).
- RA 74. B.T. Wong, M. Francoeur, V. N-S Bong, and M.P. Mengüç, "Coupling of near-field thermal radiative heating and phonon Monte Carlo simulation: Assessment of temperature gradient in doped silicon thin film," *Proceedings of the 7th International Symposium on Radiative Transfer(RAD-13)*, Kusadasi, Turkey, June 2-8, 2013 (Paper).
- RA 75. R. Charnigo, M. Francoeur, P. Kenkel, M.P. Mengüç, B. Hall, and C. Srinivasan, "Nonparametric derivative estimation and the computation of posterior probabilities for nanoparticle characteristics," *2009 Joint Statistical Meetings*, Washington DC, USA, August 1-6, 2009 (Paper).
- RA 76. M. Francoeur, M.P. Mengüç, and R. Vaillon, "Near-field thermal radiation emission from SiC thin films," *Eurotherm Seminar 83: Computational Thermal Radiation in Participating Media III*, Lisbon, Portugal, April 15-17, 2009 (Paper).
- RA 77. M. Francoeur, R. Vaillon and M.P. Mengüç, "Performance analysis of nanoscale-gap thermophotovoltaic energy conversion devices," submitted to *TMNN-2011: Thermal and Materials Nanoscience and Nanotechnology*, Antalya, Turkey, May 29-June 3, 2011 (Paper).
- RA 78. M. Francoeur, M.P. Mengüç, and R. Vaillon, "Control of near-field radiative heat transfer via surface phonon-polariton coupling in thin films," *META'10: 2nd International Conference on Metamaterials, Photonic Crystals and Plasmonics*, Cairo, Egypt, February 22-25, 2010 (Paper).
- RA 79. Gazi M. Huda, M.P. Mengüç and J. Todd Hastings, "Absorption Suppression of Silver Nanoparticles in the presence of an AFM tip: a Harmonic Oscillator Model", 5th International Workshop on Theoretical and Computational Nano-Photonics (TaCoNa-Photonics), Bad Honnef, Germany, Book Series: AIP Conference Proceedings Volume: 1475 Pages: 134-136 DOI: 10.1063/1.4750120, Oct 24-26, 2012
- RA 80. A. Didari, M. P. Mengüç, "Near to Far-Field Thermal Emission by Nanoparticles on a Substrate: Evaluation of Effective Medium Theory," *Optics for Solar Energy (OSA)*, Canberra, Australia, Dec 2-5, 2014 (Paper).
- RA 81. A. Didari, M. P. Mengüç, "Impact of Nanostructures on Near-Field Radiative Heat Transfer: Modeling by Finite Difference Time Domain Method," CHT-15, 6th International Symposium on Advances in Computational Heat Transfer, Piscataway, USA, May 25-29, 2015 (Paper).
- RA 82. Sina Talebi Moghaddam, M. P. Mengüç, Hakan Ertürk, "Light Scattering from defected nano-sized objects on a surface via DDA-SI," The XVth Electromagnetic Light Scattering Conference, (ELS XV), Leipzig, Germany, June 21-25, 2015. (Paper).
- RA 83. S. Celik, Roxana Family, M.P. Mengüç, "Thermal evaluation of perlite and pumice based building insulation materials using reverse heat leak method", The First Thermal and

- Fluids Engineering Summer Conference (TFESC), New York City, NY, USA, Aug. 9-13, 2015. (Paper).
- RA 84. Sina Talebi Moghaddam, M. P. Mengüç, Hakan Ertürk, "Heating of noble metal nanostructures on a dielectric surface due to plasmonic resonances and the effect of a probe", The First Thermal and Fluids Engineering Summer Conference (TFESC), New York City, NY, USA, Aug. 9-13, 2015. (Paper).
- RA 85. Y. Somuncu, M. P. Mengüç, The "Energy-Efficiency-Core" Concept for a New Building, PLEA 2015-31th International PLEA Conference ARCHITECTURE IN (R)EVOLUTION, Bologna, Italy, 9-11 September 2015 (Paper).
- RA 86. M. P. Mengüç, Y. Somuncu, U. Simitli, B. Sefer, Ş. Çağlayan, S. Özkan, "Integrated Engineering and Architecture for Energy Efficient Academic Buildings, 14th International Conference of the International Building Performance Simulation Association, Hyderabad – India, 7-9 December 2015. (Paper).
- RA 87. Q. Wang, R. Ocal, G. Augenbroe, M. P. Mengüç, P. Ozuyar, "An Evaluation of Energy Efficiency Measures in a Turkish Campus Building for Thermal Comfort and Economic Risk," 14th International Conference of the International Building Performance Simulation Association, Hyderabad – India, 7-9 December 2015. (Paper).
- RA 88. Mehrdad Karimzadehkhouri, Sinan Eren Yalcin, Kursat Sendur, M. Oinar Menguc, Ali Kosar, "Heat Transfer Characteristics of Nanofluids in Horizontal Microtubes," The 5th International Conference on Heat Transfer and Fluid Flow in Micro-scale 2014 (HTFFM-V), Marseille, France; 04/2014 (Paper).
- RA 89. A. Didari and M. P. Mengüç, "Far-Field Thermal Emission by Metamaterials With Nano-Scale Porosities And Corrugations," Optics for Solar Energy (OSA), Suzhou, China, Nov 2-5, 2015 (Paper).
- RA 91. Faizan Siddiqui, Altug M. Basol, M. Pinar Mengüç, "Ray tracing on graphic processors: towards high fidelity radiative transfer solvers," Proceedings of the 8th International Symposium on Radiative Transfer, RAD-16, June 6-10, 2016, Cappadocia, Turkey
- RA 92. S. Talebi Moghaddam, H. Ertürk, M. P. Mengüç, "Effect Of Silicon AFM Probe Location On Absorption Profile Of Gold Nano-Structures On A Dielectric Surface" Proceedings of the 8th International Symposium on Radiative Transfer, RAD-16 June 6-10, 2016, Cappadocia, Turkey (Paper).
- RA 93. Farhad Kazemi Khosroshahi, H. Ertürk, M. P. Mengüç, Spectral Selective Si/SO₂ based Filters for Thermophotovoltaic Devices. Proceedings of the 8th International Symposium on Radiative Transfer, RAD-16, Cappadocia, Turkey, June 6-10, 2016. (Paper).
- RA 94. A. Didari and M. P. Mengüç, "A Design Tool for Near-Field Radiative Transfer: The Developmental Steps of The NF-RT-FDTD Code," Proceedings of the 8th International Symposium on Radiative Transfer, RAD-16, Cappadocia, Turkey, June 6-10, 2016.
- RA 95. R. Family, S. Celik and, M. P. Mengüç, "Evaluation of Thermal Radiation and Conduction Transfer in Sustainable Building Materials," Integrated solutions for Sustainable and Smart Buildings & Cities, SBE16, Istanbul, Turkey, October 13-15, 2016. (Paper).
- RA 96. Yasemin Somuncu, M. P. Mengüç, "A Brief Discussion of Energy Certification Systems for Buildings" SBE16 Smart Metropolises, Integrated solutions for Sustainable and Smart Buildings & Cities Conference, Istanbul, Turkey October 13-15, 2016. (Paper).
- RA 97. G. Fidan, M. P. Mengüç, "Evaluation of Thermal Comfort of a Classroom Environment based on Glass Optical Features " SBE16 Smart Metropolises, Integrated solutions for

- Sustainable and Smart Buildings & Cities Conference, Istanbul, Turkey October 13-15, 2016. (Paper).
- RA 98. Ruşen Can Acet, M. P. Mengüç, " "Experimental Investigation of Thermal Comfort Performance of the Radiant Heating Systems" SBE16 Smart Metropolises, Integrated solutions for Sustainable and Smart Buildings & Cities Conference, Istanbul, Turkey October 13-15, 2016. (Paper).
- RA 99. Roxana Family M. P. Mengüç, 'Materials for Radiative Cooling: A Review,' International Conference on Sustainable Synergies from Buildings to the Urban Scale, SBE16, Thessaloniki, Greece, October 17-19, 2016.
- RA 100. Atilla Dönük, Selman Sağlam, Çığır Diner, Yunus Çengel, Onur Günduru, Francesco Orioli, Yasemin Somuncu, M. Pinar Mengüç, 'An Application of Parabolic Trough Collector (PTC) System to a Hospital Building, SOLAR-TR 2016, Istanbul. December 3-6, 2016. (Paper).
- RA 101. Layth Al-Gebory, M. Pinar Mengüç, 'Spectral Transmittance of Nanoparticulate Media for Solar Thermal Collectors: Effect of the Size and Size Distribution,' SOLAR-TR 2016, Istanbul. December 3-6, 2016. (Paper).
- RA 102. Layth Al-Gebory, M. Pinar Mengüç, 'An Investigation on the effects of particle agglomeration on Thermophysical Properties and Thermal Performance of Nanosuspensions'. ENTECH16 Conference, December 15-16, 2016, Istanbul, Turkey.
- RA 103. Layth Al-Gebory, M. Pinar Mengüç, 'The effect of pH value on particle agglomeration and the radiative properties of nanoparticle suspensions,' ELS16 Conference, University of Maryland, 24 March 2017, USA.
- RA 104. Layth Al-Gebory, M. Pinar Mengüç, 'The effect of Al_2O_3 particle agglomeration on the spectral radiative properties of nanoparticle suspensions. ICTE 2017 Conference, April 25-28, 2016, Istanbul, Turkey.
- RA 105. Hayder Mohammed, M. Pinar Mengüç, 'Exergy Efficiency for Thermal Radiation Transfer', ICTE 2017 Conference, April 25-28, 2016, Istanbul, Turkey.
- RA 106. A. Didari, E. B. Elcioglu, T. Okutucu-Ozyurt, M. P. Mengüç, "Near-Field Thermal Emission from GaN-SiC Double-layer Structures", NanoRad 2017, The Third International Symposium on Nano-Micro Scale Radiation Transfer, KAIST, South Korea, July 26-28, 2017. (Paper).
- RA 107. F. K. Khosroshahi, H. Ertürk M. P. Mengüç, "Enhancement of Spectral Absorption and Transmission of Graphene Based NanoStructures in Narrow-Bands" NanoRad 2017, The Third International Symposium on Nano-Micro Scale Radiation Transfer, KAIST, South Korea, July 26-28, 2017. (Paper).
- RA108. M. A. Kecebas, M. P. Mengüç, A. Kosar, K. Sendur, "Passive Radiative Cooling System Design with Periodic High-Low Index Segments", NanoRad 2017, The Third International Symposium on Nano-Micro Scale Radiation Transfer, KAIST, South Korea, July 26-28, 2017. (Paper).
- RA 109. A. Didari, M. P. Mengüç, "Biologically Inspired Designer Nanostructures for Radiative Cooling Applications", NanoRad 2017, The Third International Symposium on Nano-Micro Scale Radiation Transfer, KAIST, South Korea, July 26-28, 2017.
- RA110. E.B. Elçioglu, A. Didari, T. Okutucu-Özyurt, M. P. Mengüç, "GaN-SiC double-layer structures and the effects of the vacuum gap and temperature difference on near-field thermal radiation", ULIBTK'17, 21. Ulusal Isı Bilimi ve Tekniği Kongresi, 13-16 September 2017, Corum, Turkey (Paper).

- RA 111. A. Didari and M. P. Menguc, "spectral and spatial near-field radiative transfer analysis in nature-inspired golden spiral nanostructures," The 17th Electromagnetic and Light Scattering Conference, Texas, USA, March 4-8, 2018 (Extended Abstract).
- RA 112. A. Didari and M. P. Menguc, "Passive optical solutions for nanoscale radiative cooling applications: A biomimicry design," SPIE Nanoscience + Engineering conference on Nanostructured Thin Films XI, San Diego, USA, August 19-23, 2018 (Abstract)
- RA 113. A. Didari, E. B. Elcioglu, T. Okutucu-Ozyurt, and M. P. Mengüç, "Tailoring near-field thermal radiation with mesoporous GaN and h-BN designer metamaterials," in proceedings of EUROTHERM SEMINAR No.110 - Computational Thermal Radiation in Participating Media VI, Cascais- Lisbon, Portugal, April 11-13, 2018 (Paper).
- RA 114. C.D. Şahin, M. P. Mengüç, "A Non-destructive Building Energy Diagnostics Method to Generate Image-based 3D Thermal Maps of Historic Buildings ," The 3rd International Conference on Energy Efficiency in Historic Buildings, Visby, Sweden, Sept 26-27, 2018.
- RA 115. R. Family and M. P. Menguc, "Radiative cooling of buildings by using sustainable roof materials", 3rd Conference on Advances in Mechanical Engineering (ICAME), Istanbul, Turkey, December 19-21, 2017.
- RA 116. Y. Somuncu, M. P. Mengüç, "An Anatomic Case Study: ÖzÜ SCOLA Building", EKODESIGN 2016; Journal of Special Building Selection, YEM, 26 April 2016, İstanbul, Turkey.
- RA 117. Y. Somuncu, M. P. Mengüç, "Voluntary Certification Systems and Schemes Based on Energy Perspective", Republic of Turkey MoEU International Symposium on Energy Efficiency in Buildings, 13-14 February 2017, Ankara, Turkey.
- RA 118. Y. Somuncu, A. Dönük, S. Sağlam, Ç. Diner, Y. A. Çengel, O. Günduru, M. P. Mengüç, F. Orioli, "An Application of Parabolic Trough Collector (PTC) System to a Hospital Building", SOLARTR 2016, 6-8 December 2016, İstanbul, Turkey.
- RA 119. Y. Somuncu, M. P. Mengüç, "Brief Discussion of Energy Certification Systems for Buildings", SBE16, Integrated Solutions for Sustainable and Smart Buildings & Cities, 13-15 October 2016, İstanbul, Turkey.
- RA 120. L. Al-Gebory, M. P. Mengüç, "The Effect of Al₂O₃ Particle Agglomeration on the Spectral Radiative Properties of Nanoparticle Suspensions", International Conference on Energy and Thermal Engineering, Istanbul, Turkey, Apr 25-28, 2017.
- RA. 121. L. Al-Gebory, A. Karagoz, M. P. Mengüç, "Investigation of Thermophysical Properties and Thermal Performance of Nanosuspensions Considering the Effect of Particle Size Growth", 13th Nanoscience and Nanotechnology Conference, Antalya, Turkey, Oct 22-25, 2017.
- RA. 122. L. Al-Gebory, M. P. Mengüç, "Effects of particle agglomerate deposits on the radiative response of heterogeneous coatings", The 17th Electromagnetic and Light Scattering Conference ELS-XVII, Texas, USA, Mar 4-9, 2018.
- RA 123. F. K. Khosroshahi, H. Ertürk, ve M. P. Mengüç, "Enhancement of spectral absorption of graphene based nano-structures in narrow bands", Maryland, USA, 2017 (Poster).
- RA. 124. C. Keskin, M.P. Menguc, "A 'Game' of Leveraging Behavior Change through ICT", Poster Presentation, Behavior, Energy & Climate Change Conference, October 2017, Sacramento/CA, USA.
- RA. 125. D. Avşar, H. Ertürk, M. P. Mengüç, "Investigation of Localized Heating of Core-Shell Nanoparticles Made of Different Materials Using AFM Probe," 3rd Thermal and Fluids

- Engineering Conference (TFEC), FL, USA, March 4-7, 2018.
- RA 126. L. Al-Gebery, M. P. Mengüç, "Effects of particle agglomerate deposits on the radiative response of heterogeneous coatings", The 17th Electromagnetic and Light Scattering Conference ELS-XVII, Texas, USA, Mar 4-9, 2018.
- RA.127. D. Avşar, H. Ertürk, M. P. Mengüç, "Comparison of Local Absorption of Core-Shell Nanoparticles with Different Core Size and Shell Thickness," The 17th Electromagnetic and Light Scattering Conference (ELS-XVII), TX, USA, March 4-9, 2018.
- RA.128. A. Didari and M.P. Mengüç, "Biomimicry Designs for passive optical solutions for radiative cooling applications", SPIE Nanostructured Thin Films, XI, 10731, 107310C, San Diego, August 2018.
- RA.129. Cem Doğan Şahin, M. P. Mengüç, "A Non-destructive Building Energy Diagnostics Method to Generate Image-based 3D Thermal Maps of Historic Buildings", The 3rd International Conference on Energy Efficiency in Historic Buildings, Visby, Sweden, September 26th to 27th, 2018.
- RA 130. B. Elcioglu, A Didari, T. Okutucu, M.P. Menguc , Near-Field Radiative Transfer Between Doped Silicon Wafers and Silicide Films. NANOTR-14 Conference, Cesme, Izmir. September, 2018.
- RA 131. E. Gençtürk, M. P. Mengüç, 'Bringing Sustainability to the heart of a university through teaching, research and service,' E3S Web of Conferences, Vol. 48, No, 06007, 2018. Presented by MPM at Semarang, Indonesia; April 2018.
- RA 132. C. Keskin, M.P. Mengüç, 'Interdisciplinary Network of Sustainable Engineering and Application to Built Environment,' ASME IMECE, (Presented by MPM at Pittsburgh, USA, November 2018.
- RA.133. A. Dönük, S. Sağlam, Y. Çerçi, O. Günduru, Y. Somuncu, M. P. Mengüç, "Advanced Energy Solutions at Complicated Buildings", SolarTR, Istanbul, November 29, 2018.
- RA.134. M. Ghashami, J. Bailey, E. Mitchell, E.B. Elcioglu, A. Didari, T. Okutucu, M.P. Mengüç, K. Park, "Sub-Continuum Air Conduction Measurement between Planar Structures", Eurotherm Seminar No 111: Nanoscale and Microscale Heat Transfer VI, At: Levi, Lapland, Finland, December 2018.
- RA.135. Faizan P. Siddiqui, Kaan Meneksedag, Altug M. Basol, M. Pinar Mengüç, 'Segregated Approach for Modeling of Continuous Heat Treatment Furnaces,' 9th International Symposium on Radiative Transfer, Athens, Greece, June 2019.
- RA.136. Azadeh Didari, M. Pinar Mengüç, 'Localized Radiative Heat Transfer in Biomimicry Designs Inspired by Neon Tetra Fish,' 9th International Symposium on Radiative Transfer, Athens, Greece, June 2019.
- RA.137. Dilan Avsar, Hakan Ertürk, M. Pinar Mengüç, "Absorption and Plasmon Resonance of Bi-Metallic Core-Shell Nanoparticles on a Dielectric Substrate," 9th International Symposium on Radiative Transfer, Athens, Greece, June 2019.
- RA.138. Nil Kutlar and M. P. Mengüç, "Daylighting Design Process for Visual Comfort and Energy Efficiency for a Signature Building", IOP Symposium on Central Europe towards Sustainable Buildings, Prague, Czech Republic, July 2-4, 2019.
<https://doi.org/10.1088/1755-1315/290/1/012145>
- RA.139 Cem Keskin, M. Pinar Mengüç, "Adaptive Vent System for Localized and Customized Thermal Conditioning", 16th IBPSA International Conference and Exhibition, Sept 2-4, 2019, Rome/Italy, URL: www.buildingsimulation2019.org
- RA.140. Ali Can Yelekci, Cem Keskin, M. Pinar Mengüç, 'Numerical Analysis of Solar

- Radiation Effects at Indoors with Internal Partitions and External Solar Shades,' EuroSun Conference, Greece, September 3, 2020. (on-line). (doi:10.18086/eurosun.2020.01.03 Available at <http://proceedings.ises.org>)
- RA.141. Gönenç Can Altun, Altuğ Başol, M. Pınar Mengüç, 'Parallel Computational Methodology for Digital Twin of a Goblet Annealing Furnace,' Başarım-2020-HPC (6. Ulusal Yüksek Başarımlı Hesaplama Konferansı), 8-9 October 2020, Ankara, Turkey; (on-line).
- RA. 142 Cem Keskin, M. Pınar Mengüç, "Enhancing Occupants Thermal Experience with a Novel Adaptive Vent System, RoomVent Conference, February 14, 2021.
- RA. 143 Oğuzhan Aşık, Gönenç Can Altun, Hazar Şişik, Altuğ M. Başol, M. Pınar Mengüç, "Numerical Investigation of the Heating of Zone of a Container Glass Annealing Furnace: Effect of Bottle Layout inside the Furnace on the Heating Effectiveness" Şişecam International Glass Conference, Istanbul. November 17-18, 2022.
- RA. 144 Altinoluk, Tolga | [Basol, Altug M.](#) | [Menguc, M. Pinar](#) | Karadag, Adnan, Numerical Investigation of the Refining Process in a Glass Melting Furnace containing Gas Bubbles *Proceedings of CONV-22: Int. Symp. on Convective Heat and Mass Transfer June 5 – 10, 2022, Turkey (2022)* [10.1615/ICHMT.2022.CONV22.360](https://doi.org/10.1615/ICHMT.2022.CONV22.360)
- RA. 145 B. Halvaşı, A. M. Başol, Ö. Ertunç, M. P. Mengüç, "Investigation of Soot Formation of Swirl-Stabilized Jet A-1 Spray Flame with Rank Correlated SLW including Eyhtlene and Acetylene Radiation," Mediterranean Combustion Meeting, Luxor, Egypt, Jan. 21-25, 2023.
- RA. 146 D. İmamoğlu, A. M. Başol, Ö. Ertunç, M. P. Mengüç, "The Comparison of Quasi-Steady Evaporation Models in a Swirl-Stabilized Combustion Chamber," Mediterranean Combustion Meeting, Luxor, Egypt, Jan. 21-25, 2023.
- RA. 147 C. Ozsoy and M. P. Mengüç, "A Transdisciplinary Approach and Design Thinking Methodology for Energy Transition," ASME 17th International Conference on Energy Sustainability, Paper No. ES2023-106943, Washington D.C., July 10-12, 2023.
- RA. 148 T. Akba, D. Baker, and M. P. Mengüç, "Design Methodology of a Concentrating Solar Volumetric Receiver," ASME 17th International Conference on Energy Sustainability, Paper No. ES2023-106966, Washington D.C., July 10-12, 2023. <https://doi.org/10.1115/ES2023-106966>
- RA. 149 T. A. Eraslan, C. Keskin, and M. P. Mengüç, "Airflow Characteristics and Thermal Comfort of Air Diffusers," ASME 17th International Conference on Energy Sustainability, Washington D.C., July 10-12, 2023.
- RA. 150 Ersin Yıldız, Altuğ Melik Başol, M. Pınar Mengüç, 'A Monte Carlo Method Random Walk-Based Methodology for calculation of Sensitivity Coefficients in Inverse Radiant Boundary Design Problem,' RAD'2023, 10th International Symposium on Radiation Transfer, Thessaloniki, Greece, June 2023. DOI:[10.1615/RAD-23](https://doi.org/10.1615/RAD-23)
- RA. 151 Berkay Halvaşı, Altuğ Melik Başol, M. Pınar Mengüç, 'Numerical Simulation of Combustion in a Glass Melting Furnace: Influence of Spectral Radiation Modules,' RAD'2025, 11th International Symposium on Radiation Transfer, Kusadasi, Türkiye, June 2025.

EXTENDED ABSTRACTS, POSTERS AND PRESENTATIONS (EA)

(More than 59)

- EA 1. M.P. Mengüç, and R. Viskanta, "Radiative Transfer in Multidimensional Enclosures Containing Absorbing, Emitting and Anisotropically Scattering Media," NSF and NASA Workshop on Parallel Computations in Heat Transfer and Fluid Flows, University of Maryland, College Park, MD, November 14-15, 1984.
- EA 2. D.W. Mackowski, R.A. Altenkirch, and M.P. Mengüç, "Multiple-Wavelength Pyrometer Measurement of Particle Size in Pulverized-Coal Flames," Eastern States Combustion Symposium, Philadelphia, PA, November 1985.
- EA 3. D.W. Mackowski, R.A. Altenkirch, and M.P. Mengüç, "Extinction and Absorption Coefficients of Cylindrically-Shaped Soot Particles" Central States Section, The Combustion Institute Technical Meeting, Argonne National Laboratory, Chicago, IL, May 1987.
- EA 4. D.W. Mackowski, R.A. Altenkirch, K. Saito, and M.P. Mengüç, "Optical Determination of Soot Agglomeration in Gas Diffusion Flames" Central States Section, The Combustion Institute Technical Meeting, Argonne National Laboratory, Chicago, IL, May 1987.
- EA 5. D.W. Mackowski, R.A. Altenkirch, and M.P. Mengüç, "Electromagnetic Wave Analysis of a Coal Particle Surrounded by a Soot Cloud" Central States Section, The Combustion Institute Technical meeting, Indianapolis, IN, April 1988.
- EA 6. M.P. Mengüç, "Radiative Properties of Pulverized-Coal Particles" DOE Contractors Meeting, Pittsburgh, PA, July 1989.
- EA 7. M.P. Mengüç, and S. Subramaniam, "Inverse Monte Carlo Technique for Determining Single Scattering Albedo and Asymmetry Factor of Multiple Scattering Planar Media" *2nd International Congress on Optical Particle Sizing*, Tempe, Arizona, March 1990.
- EA 8. M.P. Mengüç, and B.M. Agarwal, "Recovering the Phase Functions of Mono-and Poldispersions from Experiments" *2nd International Congress on Optical Particle Sizing*, Tempe, Arizona, March 1990.
- EA 9. M.B. Bush, D. Dsa, S. Manickavasagam, and M.P. Mengüç, "Design and Calibration of a CO₂-laser Nephelometer for Determining the Radiative Properties of Pulverized Coal Particles" Combustion Institute Central States Section Meeting, Cincinnati, OH, May 1990.
- EA 10. M.P. Mengüç, M.B. Bush, D. Dsa, S. Manickavasagam, and S. Pasini, "Determining the Radiative Properties of Italian Coals from Experiments" *23rd International Symposium on Combustion*, Combustion Institute, Orleans, France, July 1990.
- EA 11. A. Manickavasagam, and M.P. Mengüç, "Radiative Properties of Pulverized Coal Particles Heated in a Diffusion Flame," Central States Section Meeting, Combustion Institute, Columbus, OH, April 1992.
- EA 12. M.P. Mengüç, A. Mahadeviah, K. Saito, and S. Manickavasagam, "Application of the Discrete Dipole Approximation to Determine the Radiative Properties of Soot Agglomerates," Central States Section Meeting, Combustion Institute, Columbus, OH, April 1992.
- EA 13. F.E. Corcione, D. Monda, B.M. Vaglieco, and M.P. Mengüç, Combustion Institute, French, Italian, Swedish Sections Meeting, Capri, Italy, September 1992.

- EA 14. M.P. Mengüç, O. Monda, and B.M. Vaglieco, "Optical Radiative Properties of Diesel Particles," Combustion Institute, Joint Meeting of the Italian and Spanish Sections, Stresa, Italy, June 28-July 1, 1993.
- EA 15. M.P. Mengüç, and S. Manickavasagam, "Effective Optical and Radiative Properties of Coal/Char Particles," presented at the NSF Workshop on Radiative Transfer in Highly Coupled Physical Systems, University of Texas, Austin, TX, October 1993.
- EA 16. S. Ghosal, S. Manickavasagam, and M.P. Mengüç, "Light Scattering Experiments for Simultaneous Determination of Soot and Char Volume Fractions in Coal-Fired Flames," presented at the Poster Session, 25th International Symposium on Combustion, Irvine, CA, August 1994.
- EA 17. S. Manickavasagam, and M.P. Mengüç, "Effective Optical Properties of Pulverized Coal/Char Particles," presented at the Poster Session, 25th International Symposium on Combustion, Irvine, CA, August 1994.
- EA 18. M.P. Mengüç, and J.M. McDonough, "The Regime Maps of Radiation-Turbulence Interactions in Pulverized-Coal Laden Flames," presented at the Poster Session, 25th International Symposium on Combustion, Irvine, CA, August 1994.
- EA 19. D. Wang, J.M. McDonough, and M.P. Mengüç, "Modeling of Radiation-Turbulence Interactions in Flames Using Additive-Turbulence Decomposition Approach," presented at the Poster Session, 25th International Symposium on Combustion, Irvine, CA, August 1994.
- EA 20. B.M. Vaglieco, S. Manickavasagam, and M.P. Mengüç, "Spectral Radiative Properties and Structure of Soot Agglomerates at D.I. Diesel Engine Exhaust," presented at the Poster Session, 25th International Symposium on Combustion, Irvine, CA, August 1994.
- EA 21. S. Manickavasagam, M.P. Mengüç, and B.M. Vaglieco, "Identification of Size and Structure of Soot Agglomerates at the Exhaust of Diesel Engines," presented at the Italian Section Meeting of the Combustion Institute, Napoli, Italy, 1995.
- EA 22. M.P. Mengüç, S. Manickavasagam, and R. Govindan, "Diagnostics of Particulate Size and Structure Using Polarized Light and Scattering Matrix Concept," presented at "The Symposium on Thermal Science and Engineering" in Honor of Chancellor Chang-Lin Tien, November 14, 1995, University of California, Berkeley.
- EA 23. M.P. Mengüç, "Fundamentals of Scattering-Matrix Based Particle Characterization Techniques," presented at the Italian Section Combustion Meeting, May 26-28, 1998, Ravello, Italy. (invited key note lecture, presented by MPM)
- EA 24. Basil T. Wong, M.P. Mengüç, R.R. Vallance, A. Rao. "Modeling of Energy Transfer for Carbon Nanotube-Based Precision Machining". Proceedings of the Annual Meeting American Physical Society (APS) March Meeting 2003. Austin, TX. March 3-7, 2003.
- EA 25. B. Wong, M.P. Mengüç, R.R. Vallance, International Forum on Heat Transfer, Kyoto, Japan, November 25-27, 2004.
- EA 26. M.M. Aslan, M.P. Mengüç, Surface Wave-Scattering-Based Characterization of Nano-Particles, NANO2004-46062, The 3rd Annual Integrated Nanosystems: Design, Synthesis & Applications Conference, the Westin in Pasadena, California USA, September 22-24, 2004, Poster.
- EA 27. P.G. Venkata, M.M. Aslan, B.J. Hinds, and M.P. Mengüç, Monitoring of Gold Nano-Particles on Metallic/Dielectric Films via Evanescent Waves: Numerical Results, NanoMAT-2004 International

- Workshop, September 19-21, 2004, Lexington-KY USA, Poster.
- EA 28. M. Kozan, B. Gharaibeh, M.M. Aslan, A.J. Salazar, K. Saito, and M.P. Mengüç, Effect of fluorescent additives on optical behavior of ultra high solid epoxy paint – A polarized light scattering analysis, 2005 Paint Technology Workshop, Lexington, Kentucky USA, October 12-13, 2005, Presentation.
- EA 29. J.N. Swamy, C. Crofcheck, M. P. Mengüç. A Monte Carlo Ray Tracing Simulation of Polarized Light Propagation in Liquid Foams: a Preliminary Approach to Foam Characterization. Presented at the 2005 AIChE Annual Meeting in Cincinnati, OH. Presentation No. 18a.
- EA 30. Jaime A. Sanchez, King-Fu Hii, M. Pinar Mengüç and R.R. Vallance, Exploration of multiphysics phenomena during field emission from a carbon nanotube. Poster session HTD K7 Nano/microscale Radiative Transfer and Properties at the ASME IMECE, November 5-11, 2005, Orlando, Fl. (Presented by Sanchez).
- EA 31. Jaime A. Sanchez, Basil T. Wong, M. Pinar Mengüç and R.R. Vallance, Molecular Dynamics Study of Phase Change Phenomena during Field Emission Induced Nanomachining. Poster session at the ASME IMECE, November 5-10, 2006, Chicago, Il. (Presented by Sanchez).
- EA 32. Mathieu Francoeur, Pradeep G. Venkata, and M. Pinar Mengüç. "Sensitivity analysis for characterization of gold nanoparticles and 2D-agglomerates via surface plasmon scattering patterns". 2006 International Mechanical Engineering Congress & Exposition. Chicago, IL. November 5-10, 2006. Poster 06-019, Oral Presentation IMECE2006-16390. (Presented by M. Francoeur).
- EA 33. Mathieu Francoeur, M. Pinar Mengüç, Rodolphe Vaillon, "Modeling of surface phonon-polaritons coupling in thin films for near-field thermal radiation," 11th Electromagnetic Wave and Light Scattering Conference, Hertfordshire, United Kingdom, September 8-13, 2008. (Presented by M. Francoeur).
- EA 34. Mathieu Francoeur, M. Pinar Mengüç, Rodolphe Vaillon, "Polarized-surface-wave-scattering system (PSWSS) for characterization of nanoparticles," 11th Electromagnetic Wave and Light Scattering Conference, Hertfordshire, United Kingdom, September 8-13, 2008. (Presented by M. Francoeur).
- EA 35. Nazli Donmezer, Tuba Okutucu, M. Pinar Mengüç, "Dependent Absorption and Scattering by Interacting Nano-Sized Particles," Nano-TR, Eskisehir, Turkiye, June 4-8, 2009.
- EA 36. M. Francoeur, and M.P. Mengüç, "Near-field thermal radiation and potential application for clean energy production", KYNanomat 2008, Louisville, KY, March 16-18, 2008 (Poster). (Presented by MF)
- EA 37. M. Francoeur, M.M. Aslan, P.G. Venkata, and M.P. Mengüç, "Polarized-surface-wave-scattering system (PSWSS) for in-situ and on-line characterization of nanostructures", KYNanomat 2008, Louisville, KY, March 16-18, 2008 (Poster). (Presented by MA)
- EA 38. M. Francoeur, M.M. Aslan, P.G. Venkata, and M.P. Mengüç, "Polarized-surface-wave-scattering system (PSWSS) for in-situ and on-line characterization of nanostructures", NSF CMMI Engineering Research and Innovation Conference 2008, Knoxville, TN, January 7-10, 2008 (Poster). (Presented by MF)
- EA 39. Nazli Donmezer, Tuba Okutucu, M. Pinar Mengüç, "Dependent Absorption and Scattering by Interacting Nano-Sized Particles," Nano-TR, Eskisehir, Turkiye, June 4-8, 2009. (Presented by ND)

- EA 40. M. Francoeur, M. Arik, and M.P. Mengüç, “Estimating near-field thermal radiation between two flat silicon wafers with surface roughness”, International Conference on Nanomaterials and Nanosystems, Istanbul, Turkey, August 10-13, 2009.
- EA 41. Kursat Sendur, Ali Kosar, M. Pinar Mengüç, “Localized Nanoscale Heating using Nano-Optical Antennas, IEEE 2009 Annual Meeting, October 2009, Antalya, Turkey. (Presented by KS)
- EA 42. Vaillon R., Dupre O., Francoeur M. and Mengüç M.P., “Thermal issues in the design of PV devices: focus on nanoscale-gap thermophotovoltaic cells”, Nextgen Nano PV, anotechnology for Next Generation High Efficiency Photovoltaics Spring International School, IES Cargese, Corsica, France, April 1-6, 2013 (Presented by RV)
- EA 43. O. Dupre, R. Vaillon, M. Francoeur, P.-O. Chapuis, and M.P. Mengüç, “Thermal issues in solar and near-field thermophotovoltaics,” *2013 ELYT Lab Workshop*, Zao To-o-gatta, Japan, February 17-20, 2013. (Presented by RV)
- EA 44. M.P. Mengüç, B.T. Wong, and M. Francoeur, “Energy transfer at nanoscales via MC simulations,” *ECCOMAS Special Interest Conference: Numerical Heat Transfer 2012*, Gliwice-Wroclaw, Poland, September 4-6, 2012 (Extended Abstract).
- EA 45. M.P. Mengüç, M. Francoeur, R. Vaillon, D.K. Webb, H. Ertürk, T. Okutucu, Z. Artvin, V. Loke, S.K. Sankaralingam, T. Hastings, G. Huda, and E. Donev, “Near-field thermal radiation transfer for manufacturing and energy harvesting applications,” *Eurotherm 91: Microscale Heat Transfer III*, Poitiers, France, August 29-31, 2011 (Extended Abstract).
- EA 46. M. Francoeur, R. Vaillon, and M.P. Mengüç, “Near-field thermal radiation regimes between two layers supporting surface phonon-polaritons,” *Eurotherm 91: Microscale Heat Transfer III*, Poitiers, France, August 29-31, 2011 (Extended Abstract).
- EA 47. M. Francoeur, M.P. Mengüç, and R. Vaillon, “Coexistence of different near-field thermal radiation regimes between two layers supporting surface phonon-polaritons in the infrared,” *USNCCM-11: Minisymposium on Computational Radiative and Convective Heat Transfer*, Minneapolis, USA, July 25-29, 2011 (Presented by RV)
- EA 48. A. Didari, M. P. Mengüç, “FDTD Analysis of Near-Field Thermal Radiation Emission 20th European Doctoral School on Metamaterials. Louvain-La-neuve, Belgium, May 7-May 12, 2012 (Oral pres. by AD).
- EA 49. A. Didari, M. P. Mengüç, “Finite Difference Time Domain Method For Analysis Of Near Field-Emission Within Nano-Gaps” Electromagnetic and Light Scattering Conference XIV, Lille, France, June 17-June 21, 2013 (Poster). (Presented by AD)
- EA 50. A. Didari, M. P. Mengüç, “Analysis of Near-Field Emission Within Nano-Gaps Using Finite Difference Time Domain Method ” Nanoscale Radiative Heat Transfer School, Physics school , Les Houches, France, May 11-May 17, 2013 (Poster). (Presented by AD)
- EA 51. E. Ogut, M. P. Menguc, and K. Sendur, “Integrating Magnetic Heads with Plasmonic Nanostructures in Multilayer Configurations”, in Recording Physics and Modeling I, 12th Joint MMM/Intermag Conference, Chicago, Illinois, USA: IEEE Magnetics Society, Jan. 2013. (Presented by KS)
- EA 52. K. Sendur, E. Ogut, and M. P. Menguc, “Plasmonic resonances and damping mechanisms in the vicinity of magnetic layers,” Seagate University Conclave, Minneapolis, USA, June 2013. (Presented by KS)
- EA 53. A. Didari, M. P. Mengüç, “Finite Difference Time Domain Method for Analysis of Near Field-Emission within Nano-Gaps,” 14th Electromagnetic and Light Scattering Conference (ELS-XIV), Lille, France, June 17-21, 2013 (Abstract).

- EA 54. A. Didari, M. P. Mengüç, “Near-Field Thermal Emission between Corrugated Surfaces separated by Nano-Gaps,” Nanoscale and Microscale Heat Transfer IV (Eurotherm 103), Lyon, France, October 15-17, 2014 (Extended Abstract).
- EA 55. A. Didari, M. P. Mengüç, “Near-Field Thermal Radiation between Nano-Gaps,” The Nanotechnology in Manufacturing Workshop, Istanbul, Turkey, Oct 15-17, 2014 (Oral presentation by AD).
- EA 56. A. Didari, M. P. Mengüç, “Effect of Nanoparticles to Near-Field Thermal Emission Calculations by FDTD Method,” 2nd International workshop on Nano and Micro Thermal radiation (NanoRad14, Shanghai, China, June 6-9, 2014 (Extended Abstract).
- EA 57. A. Didari, M. P. Mengüç, “Near-to Far-Field Emission Characteristics of Mesoporous Metamaterials,” WE-Heraeus-Seminar: Heat transfer and heat conduction on the nanoscale, Bad Honnef, Germany, April 10-15, 2016 (Poster, presented by AD).
- EA 58. B. Elcioglu, A Güngör, E. Camadan T. Okutucu, M.P. Menguc, “SiC-on-Si Based Near-Field Radiative Transfer Device Design, Fabrication, and Experimental Setup Development.” NANOTR-14 Conference, Cesme, Izmir. 2018, September. (poster presentation).
- EA 59. Oğuzhan Aşık, Gönenç Can Altun, Hazar Şişik, Altuğ M. Başol, M. Pınar Mengüç, “Numerical Investigation of the Cooling of Zone of a Container Glass Annealing Furnace,” Şişecam International Glass Conference, Istanbul. November 17-18, 2022. (poster presentation).

POPULAR WRITINGS IN TURKISH

(More than 15)

All in YAPI DERGİSİ, Istanbul, with title: ‘Bilimle Birlikte’ (Along with Science)

- February 2017, Sayı: 423, Bilginin Birikimi
- March 2017, Sayı: 424, Vitruvius’tan Esinlenmeler
- April 2017, Sayı: 425, Teknolojik Vitruvius
- June 2017, Sayı: 427, Geleceğin Binalarına Doğru
- July 2017, Sayı: 428, Panjur
- August 2017, Sayı: 429, Örneklerle Panjur
- October 2017, Sayı: 432, Paris

SARKAÇ (Science Academy On-line Platform): (These are all in Turkish, to inform public. The first five are for Covid’19 and the last one is for the description of Materials Science Programs.

‘Türkiye’de COVID-19 salgını normalleşme süreci ve dalgalanmalar,’ Bilim Akademisi, Sarkaç.org platformu, Özgür Ertunç, M. Pınar Mengüç, Reyhan Diz-Küçükkaya, 30 Mayıs 2020. <https://sarkac.org/2020/05/turkiyede-covid-19-salgini-normallesme-sureci-ve-dalgalanmalar/>

“Okullar ve üniversitelerin kapalı alanlarında koronavirüs bulaşma riski nasıl azaltılabilir? ,”

Bilim Akademisi, Sarkaç.org platformu, Özgür Ertunç, M. Pinar Mengüç, 8 October 2020. <https://sarkac.org/2020/10/kapali-alanlarda-koronavirus-bulasma-riski-nasil-azaltilabilir/>

“Toplumsal Krizlere Aile Terapisi Yaklaşımı,” Bilim Akademisi, Sarkaç.org platformu, Selenga Gürmen, M. Pinar Mengüç, 11 February 2020. <https://sarkac.org/2021/02/toplumsal-krizlere-aile-terapisi-yaklasimi/>

“Toplumsal Sorunlar için Davranış Değişim Modeli,” Bilim Akademisi, Sarkaç.org platformu, Selenga Gürmen, M. Pinar Mengüç, 21 February 2020. <https://sarkac.org/2021/02/toplumsal-sorunlar-icin-davranis-degisim-modeli/>

“Delta varyantı ile kapalı alanlarda artan Covid-19 bulaşma riski ve yüzyüze eğitim önerileri,” Bilim Akademisi, Sarkaç.org platformu, Özgür Ertunç, M. Pinar Mengüç, 5 September 2021. <https://sarkac.org/2021/09/delta-varyanti-ile-kapali-alanlarda-artan-covid-19-bulasma-riski-ve-yuzyuze-egitim-icin-oneriler/>

“Malzeme bilimi ve mühendisliği nedir?” Bilim Akademisi, Sarkaç.org platformu, Yusuf Z. Menciloğlu and M. Pinar Mengüç, 13 January 2022. <https://sarkac.org/2022/01/malzeme-bilimi-ve-muhendisligi-nedir/>

PATENTS

- PT 1. "Radiation Modulator Systems," (Co-inventors: M. P. Mengüç, B. Walcott, M. Marra) US Patent Awarded August 25, 1998; #5,797,736 (See <http://www.google.com.tr/patents/US5797736>)
- PT 2. “Non-Intrusive Method and Apparatus for Characterizing Particles Based in Scattering Matrix Elements Measurements Using Elliptically Polarized Light,” (Co-inventors: M. P. Mengüç and S. Manickavasagam) US Patent Awarded on April 13, 2004; #6,721,051. (See <http://www.google.com.do/patents/US6721051>)
- PT 3. “Nano-scale Machining with Carbon Nanotubes,” (Co-inventors: R. Vallance, A.R. Rao, M. P. Mengüç) US Patent Awarded on December 9, 2003; #6,660,959 (See <https://www.google.com/patents/US20030173338>)
- PT 4. “Substrate Patterning by Electron Emission-Induced Displacement” (Co-inventors: J.B. Reppert, J.B.Gaillard, B.C. Elliott, D. E. Dickel, A.R. Rao, M. P. Mengüç) Patent Disclosure to Clemson University. September 29, 2007; Full patent application made through Clemson University and the University of Kentucky, October 2008. United States Patent No: 7818816, October 19, 2010. (See <https://www.google.com/patents/US7818816>)

PT 5. “Nanoplasmonic Device with Nanoscale Cooling, M. P. Mengüç (Ozyegin University) Kursat Sendur, Ali Kosar, (Sabanci University), patent accepted **20140246171** in EU, **South Korea, Japan, (confirmed; patent issued)**, Singapore, China, Thailand (pending) Turkish Patent Office. TR 2017 17340 T4.

<https://worldwide.espacenet.com/patent/search/family/048044024/publication/EP2764763A1?q=EP11873687>

PT 6. ‘Flow System for Avoiding Agglomeration,’ Ali Kosar, Kursat Sendur, (Sabanci University), M. P. Mengüç (Ozyegin University), patent application No: PCT/TR2015/050145, Application made on 22/10/2015. *Bronz Medal; at the 2nd Istanbul International Innovation Fair*, 17-22 September 2019 by Turk Patent. Turkish Patent Issued (TR 2019 13359 T4). (Türkçe başlık: Parçacık Topaklanmasını Önlemeye Yönelik Akış Sistemi). ***TRIADIC* patent; approved in the USA, EU and Japan (2021).**

(<https://worldwide.espacenet.com/patent/search/family/055083458/publication/EP3365627A1?q=pn%3DEP3365627A1>)

Also Chosen as one of the 100 patents in the 100th year of Turkish Republic, No: 2019-13359
<https://iprgezgini.org/2023/10/27/cumhuriyetin-100-yilinda-100-turk-patenti/>

PT 7. “A Silicon-based Closed and Integrated Platform for the investigation of Radiative Transfer at Micro-Nano-Scaşes,” Begüm Elçioğlu, Tuba Okutucu-Öztürk, M. Pinar Mengüç, Turkish Patent is issued (2024).

The following two applications did not go through after many attempts although still found at on-line searches:

-. “Cascaded Photovoltaic and Thermophotovoltaic Energy Conversion Systems with Near-Field Radiation Transfer Enhancement at Nanoscale Gaps,” (M. Francoeur, R. Vaillon, M.P. Mengüç), Patent Disclosure to the University of Kentucky. June 25, 2008 (Provisional patent application for US 20100031990 A1) (See <http://www.google.com/patents/US20100031990>). (***did not go through***)

-. “Adaptive Vent System For Localized And Personalized Thermal Comfort,” C. Keskin, M. P. Mengüç. (Ozyegin University), Patent disclosure was made to Ozyegin University, March 27, 2019. PCT Application No: PCT/TR2019/050703. Published as WO 2021/040634 (2021). (***did not go through***)
<https://worldwide.espacenet.com/patent/search/family/068426799/publication/WO2021040634A1?q=WO%202021%2F040634>

OTHER PUBLICATIONS

PUBLISHED BOOK REVIEW (BR)

- BR 1. "Theory of Reflection of Electromagnetic and Particle Waves," by J. Lekner, in *American Scientist*, May-June 1989, p. 300.

INDUSTRIAL ACTIVITIES/CONTRACTS

M. P. Mengüç is one of the founders of the Synergetic Technologies Inc., (STI), an advanced particle characterization start-up company, established in 1996, with Dr. Sivakumar Manickavasagam (former Ph.D. student) and Dr. Craig Saltiel. Since 1997, STI has received several SBIR grants from NSF and NIH. Currently, M. P. Mengüç is the Vice-President of the company. In September 2007, STI licence was transferred to Horiba, Japan, to develop a benchtop measurement system, which will be marketed starting in 2008. The STI grants are listed below:

- NSF Phase I, II, IIB (all same title): (1997-2002)
Characterization of Ceramic Particles Based on Elliptically Polarized Light
\$99,837, \$399,977, \$350,000
- NSF Phase I, II: (1999-2003)
On-Line, Non-Destructive, Rapid Characterization of Nanopowders and Agglomerates
\$99,959, \$499,977
- NSF Phase I: (1998-1999)
Monitoring and Characterization of Fine Particulates from Combustion Sources
\$99,955
- NIH Phase I: (2001-2002)
Characterization of Nano-Scale Pharmaceutical Powders
\$99,997
- NSF Phase I: (2008-2009)
Spectroscopic Measurements based Diagnostics.
\$100,000.

April 1, 2026 Version 13.03