

Ahmet Mete Muslu

Address: Love Manufacturing Building (MRDC II) – 771 Ferst Dr NW, Atlanta, GA

E-mail: metemuslu@gatech.edu / metemuslu5@gmail.com

Phone: +14706212983

Birth Date: 01.05.1995

EDUCATION

GEORGIA INSTITUTE OF TECHNOLOGY - Atlanta, Georgia (2020 – Present)

Overall GPA: 4.00/4.00

Ph.D. in Mechanical Engineering

Research Topic: Integrated Thermal Management in SiC-based Drive Inverters

ÖZYEĞİN UNIVERSITY - Istanbul, TURKEY (2013 - 2020)

Department of Mechanical Engineering – Master’s Degree (2018-2020)

Honors: 100% Performance Scholarship

GPA: 3.96/4.00

Department of Mechanical Engineering – Bachelor’s Degree (2013-2018)

Honors: 100% Performance Scholarship

GPA: 3.83 /4.00 - **Graduation Ranking:** 1st

EXPERIENCE

EVATEG & ARTGROUP – Istanbul, Turkey (04/2014 – 12/2019)

Position: Research and Teaching Assistant

- ◆ Worked on various heat transfer related studies such as thermal management of high-power LEDs, thermal and optical measurement techniques of LEDs.

TEI – TUSAŞ Engine Industries, Inc. – Eskisehir, Turkey (08/2016-09/2016)

Position: Intern, R&D Department - Additive Manufacturing, YAKUT Project

- ◆ Worked on Selective Laser Melting Method for Metal Additive Manufacturing.
- ◆ Involved in quality control processes and practiced various measurement instruments.
- ◆ Observed various special processes such as shot peening, plasma spraying, nickel coating, EDM, ECM, welding, brazing, chemical milling, de-burring, FPI techniques.

CREDIT EUROPE BANK – Dubai, The United Arab Emirates (08/2015-09/2015)

Position: Intern

- ◆ Observed various operations including accounting, treasury, corporate marketing, and compliance in different departments, and developed finance knowledge.

VESTEL ELECTRONICS INDUSTRY AND TRADE INC.- Manisa, TURKEY (07/2015 – 08/2015)

Position: Intern, LED Test Measurement Laboratory

- ◆ Conducted photometric performance tests of different kinds of LED products, reported test results and worked on accreditation process related with TS EN ISO/IEC 17025 standard.

PROJECTS & RESEARCH STUDIES

TUBITAK 1005 - Developing an LED Thermal Characterization Device (07/2017-11/2019)

Position: Research Assistant

- ◆ Funded by TUBITAK (Scientific and Technological Research Council of Turkey) to conduct a 1005 Project (Project No: 217M357) aiming for developing a junction temperature measurement device.
- ◆ Conducted junction temperature measurements, photometric and electrical tests for various LED types including RGB and white LEDs.
- ◆ Made validation studies using an Infrared Thermal Camera, developed 3D models and conducted Finite Element Analysis (FEA) using Autodesk Inventor and ANSYS.

ARMEE – Developing a Multi-Purpose Wearable Arm Support (01/2017- 02/2018)

Position: Research Assistant

- ◆ Designed mechanical parts using Autodesk Inventor, conducted stress and deflection analysis for the mechanical parts using ANSYS Mechanical and manufactured prototypes in 3D printers.

GLOBALIZATION of EVATEG funded by Istanbul Development Agency (ISTKA) (09/2015 – 08/2016)

Position: Research Assistant and Quality Control Representative

- ◆ Undertook both technical and management roles to establish a laboratory management system in Energy Efficient Electronics and Lighting Technologies Research, Development and Demonstration Center (EVATEG).

DARPA Field-Reversible Thermal Connector Challenge (09/2014-10/2015)

Position: Team Member

- ◆ Developed 3D CAD Models and conducted thermal analysis on a thermal connector model using ANSYS Icepak.
- ◆ Deserved the “*Best Commercial Potential Award*” as a team by Defense Advanced Research Projects Agency (DARPA) in a competition held in Missouri University, USA.

PUBLICATIONS

- ◆ C. Cengiz, A. M. Muslu, M. Arik, B. Dogruoz, 2020, “**Enhanced Thermal Performance of High Flux LED Systems with Two-Phase Immersion Cooling**”, IEEE, ITherm Conference, 2020.
- ◆ G. Tarcin, A. Saygin, M. Muslu, M. Budakli, M. Arik, 2020, “**Rapid Heating and Cooling Chamber for Photonics Junctions Measurement System**”, IEEE, ITherm Conference, 2020.
- ◆ A.M. Muslu, B. Ozluk, M. Arik, 2020, “**An Investigation Into the Optothermal Behavior of a High Power Red Light Emitting Diode (LED): Impact of an Optical Path**”, ASME Journal of Electronic Packaging.
- ◆ B. Ozluk, A.M. Muslu, M. Arik, 2019, “**A Comparative Study for the Junction Temperature of Green Light Emitting Diodes (LED)s**”, IEEE Trans. for CPMT.
- ◆ A. M. Muslu, and M. Arik, 2019, “**Impact of Electronics over Localized Hot Spots in Multi-Chip White LED Light Engines**”, IEEE, ITherm Conference, 2019, Las Vegas, USA.
- ◆ A. M. Muslu, O. Isil, M. Arik, 2019, “**Challenges for Measuring Multi-chip LED Light Engines for Interior Lighting Applications**”, LED Professional (LpS) Symposium, Bregenz, Austria.
- ◆ A.M. Muslu, O. Isil, M. Arik, 2019, “**A New Approach for Fast and Accurate Measurement of Light Emitting Diodes Junction Temperatures**”, LED Professional, May/June 2019.
- ◆ U.Z. Uras, A.M. Muslu, M. Arik, F. Goren, 2019, “**Thermal and Optical Challenges for Solid State Automotive Lighting Applications**”, LED Professional, March/April 2019.
- ◆ S.S. Gulduren, V. Cosar, M.Muslu, M. Arik, 2019, “**An Investigation into Phase Change Materials for Thermal Management and Efficiency Improvement of Photovoltaic Power Harvesting Systems**”, 14th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT), Wicklow, Ireland.
- ◆ M. Muslu, B. Ozluk, E. Tamdogan, and M. Arik, 2017, “**Impact of Junction Temperature over Forward Voltage Drop for Red, Blue and Green High Power Light Emitting Diodes**”, IEEE, ITherm Conference, May, 2017, Orlando, USA.

PATENTS

- ◆ A.M. Muslu, B. Ozluk, E. Tamdogan, and M. Arik, “**Junction Temperature Measurement Device**”, US Patents.
- ◆ S. U. Yuruker, E. Tamdogan, A.M. Muslu, and M. Arik, “**A Novel Field-Reversible Thermal Connector Design**”, US Patents. (Applied)

SKILLS

COMPUTER SKILLS

- ◆ Autodesk Inventor
- ◆ AutoCAD
- ◆ ANSYS Icepak
- ◆ ANSYS Workbench
- ◆ ANSYS Fluent
- ◆ Matlab and Simulink
- ◆ Engineering Equation Solver (EES)
- ◆ Q3D Extractor
- ◆ MS Office (Excel, Word, Powerpoint)

LANGUAGE SKILLS

- ◆ Proficient user of English (TOEFL Score: 102/120)