

## **Tim Dallas, PhD**

### **EDUCATION:**

Post-Doctoral Research Fellow - The University of Texas – Austin (1998 – 1999)  
Ph.D. Applied Physics - Texas Tech University (1996)  
M.S. Physics - Texas Tech University (1993)  
B.A. Physics - The University of Chicago (1991)

### **ACADEMIC EXPERIENCE:**

Professor of Electrical and Computer Engineering - Texas Tech University (2013 – present)  
Director, Program for Semiconductor Product Engineering (2021 – present)  
Associate Dean, Graduate School - Texas Tech University (2016 – 2020)  
Associate Professor of Electrical and Computer Engineering (2005 – 2013)  
Assistant Professor of Electrical and Computer Engineering (1999 – 2005)

### **NON-ACADEMIC EXPERIENCE:**

President, Class on a Chip, Inc (2009-2019)  
Applications & Technology Engineer - ISI Lithography (1997 – 1998)

### **Certifications or Professional Registrations:**

Professional Engineer - TX #95085  
Remote Pilot Certification #4428624

### **PROFESSIONAL ORGANIZATIONS:**

IEEE (Senior Member)  
ASEE

### **HONORS AND AWARDS:**

Whitacre Research Award (2009)  
Lockheed-Martin Teaching Award (2008)  
Spencer A. Wells Creative Excellence in Teaching (2007)  
President's Excellence in Teaching Award (2007)  
TTU IEEE Professor of the Year Award (2006)  
Faculty Advisor: Sandia National Labs University Alliance MEMS Student Design Competition;  
1<sup>st</sup> Place: ('05, '06, '09, '10, '11, '12, '13)

### **SERVICE ACTIVITIES:**

Director, Program for Semiconductor Product Engineering (2021 – present)  
Faculty Senator, College of Engineering (2013 – 2016)  
Director, MEMS University Alliance (2012 – 2016)

### **RECENT PUBLICATIONS:**

“Biometric Authentication Technique Using Smartphone Fingertip Photoplethysmography Signals,” IEEE Sensors Journal, doi: 10.1109/JSEN.2022.317624 (2022).  
“Renewable Tensegrity Support Structures for Cost Effective Solar Photovoltaic Systems,” Shamsul Arefeen and Tim Dallas, Solar Energy 224, pp. 798-807 (2021).

"Reduction of Oxygen Vacancy Related Traps in TiO<sub>2</sub> and the Impacts on Hybrid Perovskite Solar Cells" The Journal of Physical Chemistry: Part C: Energy Conversion and Storage, Optical and Electronic Devices, Interfaces, Nanomaterials, and Hard Matter, Ho, Yu-Che; Hoque, Md Nadim Ferdous; Stoneham, Elizabeth; Warzywoda, Juliusz; Dallas, Tim; Fan, Zhaoyang, Phys. Chem. C, 2017, 121 (43), pp 23939–23946.

"The Role of Mentorship in Student Preparation for Impactful Internships," T. Dallas, and H. Greenhalgh-Spencer, and K. Frias, ASEE 2022.

"Designing 3D Printed Micro-Actuators for Functionalized Fiber Optics," Adia Radeck, Alyssa Bradshaw, Georgia Kaufman, Rebecca Rosa Tafoya, , Michael Gallegos, Tim Dallas, Holly Golecki, and Bryan Kaehr, MRS Fall 2021.

"Design and Simulation of a Solar PV System for a University Building," Afshin Balal, Miguel Herrera, Emmanuel Johnson, and Tim Dallas," ICECCT 2021.

"The Influence of Tilt Angle on Output for a Residential 4 kW Solar PV System," Afshin Balal and Tim Dallas," ICECCT 2021 "Developing Intrapreneurship in the Next Generation of Engineering Innovators and Leaders," T. Dallas, H. Greenhalgh-Spencer, and K. Frias, ASEE 2021.

"Solar-powered, Digital Classroom-in-Box: A Digital System to Mitigate the Digital Divide of Post-pandemic Education," S. Arefeen, T. Dallas, and H. Greenhalgh-Spencer, ASEE 2021.

"Developing Intrapreneurship in the Next Generation of Engineering Innovators and Leaders," T. Dallas, and H. Greenhalgh-Spencer, and K. Frias, ASEE 2021

"Educating Engineering Undergraduates to be Innovators and Managers." T. Dallas, H. Greenhalgh-Spencer, K. Frias, and T. Karp, International Symposium on Engineering Education Transformation and Internationalization, Fujian University of Technology (2019).

#### **PROFESSIONAL DEVELOPMENT ACTIVITIES:**

Texas Tech University President's Leadership Institute (2016 – 2017)

#### **Professional Development**

Conference Chair, TEXMEMS IX, September 17<sup>th</sup>, 2007, Texas Tech University.

Co-Chair, MEMS – State of Texas' State Strategy on Advanced Technology - 2005

Conference Chair, TEXMEMS IV, July 2002, Texas Tech University.

Science Coalition 2001 Meeting, Washington, D.C. – Representative from TTU.

National Science Foundation Workshop on Control and System Integration of Micro- and Nano-Scale Systems 3/29-30/2004.