

Tony Thomas

1. Name and academic rank:

Tony Thomas, Assistant Teaching Professor

2. Education

- Doctor of Philosophy in Mechanical Engineering
- Master of Science in Materials Science and Engineering
- Master of Science in Engineering Design
- Bachelor of Engineering in Industrial and Production

3. **Academic experience** – Florida International University, Assistant Teaching Professor
2020 – Present, full-time

4. **Non-academic experience** – Not Applicable

5. **Certifications or professional registrations** – Not applicable

6. Current membership in professional organizations

- Society of Manufacturing Engineering

7. Honors and awards

- ‘Method to Produce Graphene Foam Reinforced Low Temperature Co-Fired Ceramic (LTCC) Composite’: Patent No: US20200407283A1
- ‘Method to Produce Graphene Foam Reinforced Low Temperature Co-Fired Ceramic (LTCC) Composite’: Patent No: US10807915B1
- ‘Shape Memory Polymer Inks and Methods of Printing the Same’: Patent No: US10906238B1

8. Service activities

- Co-Principle Investigator: ‘*Corrosion Behavior of 3D Printed Stainless Steels*’ research project funded by Honeywell Federal Manufacturing & Technologies
- Committee member for two PhD Students
- Faculty Advisor for the Society of Manufacturing Engineers
- Mentor for Undergraduate Research Experience program

9. Publications

- “Engineering graphene-ceramic 3D composite foams by freeze drying”, T. Thomas, C. Zhang, K. M. Feliciano Ruiz, C. I. Ramos-Pagan, D. R. Negron and A. Agarwal, *Advanced Engineering Materials*, April 2021
- “A facile and scalable approach in the fabrication of tailored 3D graphene foam via freeze drying”, T. Thomas and A. Agarwal, *Materials*, February 2021

- “Extrusion 3D printing of porous silicone architectures for engineering human cardiomyocytes-infused patches mimicking adult heart stiffness”, T. Thomas, A. S. Rubfiaro, P. Nautiyal, R. Brooks, D. Dickerson, J. He and A. Agarwal, *ACS Applied Biomaterials*, July 2020
- “3D graphene form reinforced low-temperature ceramic with multifunctional mechanical, electrical, and thermal properties”, T. Thomas, C. Zhang, P. Nautiyal, B. Boesl and A. Agarwal, *Advanced Engineering Materials*, April 2019
- “Effect of graphene reinforcement on the mechanical properties of Ti₂AlC ceramic fabricated by spark plasma sintering”, T. Thomas, C. Zhang, A. Sahu, P. Nautiyal, A. Loganathan, T. Laha, B. Boesl and A. Agarwal, *Materials Science and Engineering: A*, May 2018
- “Analysis of the thermal-mechanical redox stability of Nb₂TiO₇ and Nb_{1.33}Ti_{0.67}O₄ for SOFC application”, T. Thomas, H. Qi, X. Liu, J. Zondlo, R. Hart and E. M. Sabolsky, *Ceramics International*, May 2018
- “Effect of particle size on the formation of Ti₂AlC using combustion synthesis”, T. Thomas and C.R. Bowen, *Ceramics International*, Nov 2016

10. Briefly list the most recent professional development activities

- Fundamentals of Online Teaching
- Cybersecurity Awareness