1. **Name: Maedeh Amiri**

1. Educational Background

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| **Degree** | **Year** | **University** | **Major** | **GPA** | **Thesis/Dissertation** |
| Doctorate | 2015- 2017 | Texas State University, San Marcos | Materials Science, Engineering, and Commercialization | 4.0 | Polymer/clay nanocomposite self-assembly for gas barrier films application |
| Master’s | 2012-2014 | Texas State University, San Marcos | Industrial Technology (Concentration: Manufacturing). | 4.0 | An Agent-based model for supplier selection in Digital Manufacturing Market |
| Bachelor’s | 2005-2009 | Mazandaran University of Science and Technology | Industrial Engineering  Concentration: Systems Analysis | 3.2 | Management information systems of a law office (MIS) city of Babol |

1. University Experience

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| **Position** | **University** | **Dates** |
| Asst Professor of Instruction | Texas State University | Fall 2024-present |
| Lecturer | Texas State University | Spring 2018-Spring 2023 |
| Postdoctoral Research Associate | Texas State University - Chemistry Department | Feb-Sep 2018 |
| Research Associate, and Trainer | Texas state university - Advanced polymer processing lab | May-December 2017 |
| Teaching Assistant | Texas State University - Engineering Department | Spring 2015, Fall 2015 |
| Teaching Assistant | Texas state University- Technology Department | Fall 2014 |

1. Relevant Professional Experience

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| **Position** | **Entity** | **Dates** |
| Consultant | Nabaco. Inc | July 2016-present |
| Director of QC | Nabaco.Inc | 2019-2022 |
| Intern -Quality assurance | Freezing Modern Industrial Company | Summer2009 |

1. Other Professional Credentials (licensure, certification, etc.)

* **Certification:**
* **Certified Many faces of Autism**, Ohio university**,** September 2023
* **Certified Adult and pediatric first Aid/CPR/AED**, American Red Cross, June 2023
* **Certified Lean Six Sigma Green Belt Certification**, Institute of Industrial and Systems Engineers, October 2021
* **Certified Occupational Safety and Health Standards f**or General Industry, OSHA Safety Training Institute, June 2021
* **Certified Mastering SQF, Edition 9, (**safety Quality for food), Registrar Corp Food Safety Training, September 2021
* **Certified Teaching online, Summer 2020**
* **Certified Six Sigma** -Yellow Belt- Six Sigma.us, Austin, 2014
* **Certified SAS-** macro programing Language- SAS Institute Inc, Austin ,2014

* **Writing Business Plan and SBIR Proposals**
* **Project Management:** Product Design and Development, Enterprise Resource Planning(ERP), System Analysis and Design, Layout Planning and Simulation
* **Programming:** Pascal, C#, HTML (Web Page Design), Java script, Java, SAS, R
* **Software:** Minitab, Auto CAD, Catia, Lingo, Arena, primavera (p3), Portage, Simio, Design-Expert, Creo, Any Logic, Microsoft SQL Server , ERP SAP, Microsoft Project, Visio, Win QSP
* **Manufacturing:** Injection molding, Extrusion, inkjet 3D Printing, extruder, Palletizer, tensile tester
* **Instruments:** Scanning Electron Microscope (SEM), Transmission electron microscopy (TEM), Atomic-force microscopy (AFM), X-Ray Diffraction (XRD), profilometer, UV-VIS spectrometer, DLS (Dynamic Light Scattering), TGA (Thermal Gravimetric Analysis), DSC (Differential Scanning Calorimetry), Dynamic Mechanical Analysis (DMA), Oxygen Transmission

1. **TEACHING**

1. **Courses Taught:**

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|  | **Courses** | **Semester** |
| TECH 4392 | Micro and Nano Manufacturing | Spring 2019, Fall 2019 |
| TECH 3354 | Lean system principle | Spring 2019, Fall 2019, Spring 2020, Spring 2021, spring 2022, spring 2023, spring 2024 |
| TECH 3364 | Quality Assurance | Spring 2019, Fall 2019, Spring 2020, Fall 2021, spring 2021, Fall 2022, Fall 2023, Fall 2024 |
| TECH 4380 | Industrial safety | Summer 2019, Fall 2019, Fall 2021, Spring 2021, fall 2022, spring 2022, spring 2023, fall 2023, spring 2024, Fall 2024 |
| TECH 5387 | Advanced Facilities Planning | Spring 2019, Spring 2020, spring 2021, spring 2022, Spring 2023, spring 2024 |
| TECH 3357 | Facilities Planning | Spring 2019, Spring 2020, Spring 2021, spring 2022, Spring 2023, spring 2024 |
| TECH 4397 | SPCL Problems, Independent study | Spring 2019, |
| TECH 5384 | **Problems in Technology.** | Spring 2019, Fall 2019 |
| TECH 1311 | Engineering Graphic Design | Fall 2021, spring 2022, fall 2022, spring 2023, fall 2023, spring 2024, Fall 2024 |
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1. **SCHOLARLY/CREATIVE**

**A. Works in Print**

1. **Patents**

* 1) US Patent Pending: Molecularly Self-assembling Nanocomposite Barrier Coating for Gas Barrier Application and Flame Redundancy, Gary W. Beall, Ray Cook, **Maedeh D. Amiri**, 2018

1. **Articles**

Refereed Journal Articles:

1. “Chitosan-Based Coatings for Food, Pharmaceutical and Medical Applications, in progress
2. "Gel-Based Novel Wound Dressing, submitted, Maedeh Amiri, journal of Macromolecular Bioscience, submitted, 2024
3. “Performance Evaluation on Nanocomposite Clay Modified Rubberized Binders” Shyaamkrishnan Vigneswaran; Jihyeon Yun; Hyunhwan Kim; Maedeh Amiri; Soon-Jae Lee, International Journal of Pavement Research and Technology ,2023
4. “The Application of Clay-Based Nanocomposite Hydrogels in Wound Healing” Zahra Rezanejad Gatabi, Niloofar Heshmati, Mehri Mirhoseini, Maedeh Dabbaghianamiri, Arabian Journal for Science and Engineering, Springer Berlin Heidelberg,2023
5. “Design of smart nanomedicines for effective cancer treatment” Niloofar Heshmati Aghda, Maedeh Dabbaghianamiri, James W Tunnell, Tania Betancourt, International Journal of Pharmaceutics, Elsevier,2022
6. “ The accuracy of electrical impedance tomography for breast cancer detection: a systematic review and meta-analysis” Zahra Rezanejad Gatabi, Mehri Mirhoseini, Nasrin Khajeali, Iman Rezanezhad Gatabi, Maedeh Dabbaghianamiri, Sara Dorri, The Breast Journal, Hindawi,2022
7. “Self-assembled Montmorillonite clay-poly vinyl alcohol nanocomposite as a safe and efficient gas barrier” **Maedeh D.Amiri,** El-shazly M. Duraia, and Gary W. Beall, Results in Materials, 7, 2020.
8. “Self-Assembling Nanostructured Intercalates Via Ion-Dipole Bonding” **Maedeh D. Amiri**, and Gary Beall, Dalton Transactions, 2018.
9. “Formation of Periodic Size-Segregated Stripe Pattern via Directed Self-assembly of Binary Colloids and Its Mechanism” Sayantan Das, El-Shazly M.Duraia, Orlin D.Velev, **Maedeh D.Amiri,** and Gary W.Beall, Applied surface science, 2018
10. “Improvement Approach for Gas Barrier Behavior of Polymer/Clay Nanocomposite Films“ **Maedeh D. Amiri**, Sayantan Das, and Gary Beall, Advances MRS, 2017.
11. “Agent-based Simulation and Modeling for Service Allocation in the Digital Manufacturing Market”, **Maedeh D. Amiri**, Farhad Ameri, and Jesus Jimenez, International Journal of Agent Technologies and Systems (IJATS), Volume 7, Issue 2, 2015.
12. “An Agent-based Model for Supplier Selection in Digital Manufacturing Market”, **Maedeh D. Amiri**, Farhad Ameri, and Jesus Jimenez, Preceding of Third Annual World Conference of the Society for Industrial and System Engineering (SISE), 2014.
13. “An Improved Measurement Algorithm for Increasing the Accuracy of Sing-Around Type Ultrasonic Flow Meters”, J. R. Gatabi, I. R. Gatabi, M. Soltani, P. Mohammadi, **Maedeh D.Amiri,** S. Ebrahimi, Mechanika, 2012 Volume 18(2): 209-2133-
14. "A Novel Property of the Conservative Vector Fields", I. R. Gatabi, **Maedeh D.Amiri**, Mohammad Soltani, PooriaMohammadi, J. R. Gatabi, European Journal of Scientific Research, Vol. 52 Issue 3(2011).

Papers Presented at Professional Meetings:

“Improvement Approach for Gas Barrier Behavior of Polymer/Clay Nanocomposite Films “Maedeh **D. Amiri**, Sayantan Das, and Gary Beall, MRS Spring Meeting & Exhibit, Phoenix, Arizona, April 2017.

1. Invited Talks, Lectures, and Presentations:

* “Barrier Improvement Approach for polymer/clay composite Films”, **invited speakers conference, Rome**, Italy, 2023
* “Improvement Approach for Gas Barrier Behavior of Polymer/Clay Nanocomposite Films “Maedeh **D. Amiri**, Sayantan Das, and Gary Beall, MRS Spring Meeting & Exhibit, Phoenix, Arizona, April 2017.
* “Polymer/Clay Nanocomposite Self–Assembly Approach for Gas Barrier Film Applications “**Maedeh D. Amiri**, Caleb Martin, and Gary Beall, MRS Spring Meeting & Exhibit, Phoenix, Arizona, March 30, 2016.
* “An Investigation on the Effects of the Metal Surface Coating Factors on the Mechanical

Properties of the Parts Fabricated by the Fully Dense Freeform Fabrication Process”, Bahram

Asiabanpour, Abbas Fahami, Aron Zamora, and **Maedeh D. Amiri,** Seventh Annual International Research Conference for Graduate Students, San Marcos, November 17, 2015.

* “An Agent-based Model for Supplier Selection in Digital Manufacturing Market”, **Maedeh D.**

**Amiri,** Farhad Ameri, and Jesus Jimenez, the Society for Industrial and System Engineering (SISE), San Antonio, 2014.

b. Fellowships, Awards, Honors:

* Rice Business Plan competition, Houston, 2019
  + NASA best invention for space exploration award, $75,000
  + Best of Texas award, $25,000, awarded from the Texas Business Hall of Fame
  + 4th place in the elevator pitch contest, $2,500 award
* New Ventures competition, American University of Sharsa, Dubai, 2019, won $8,000 award.
* New Venture competition, Temple, TX, 2019, won $10,000 first prize
* New Venture competition, Texas State University, 2018, won one of three $20,000 prizes.
* Student Government Scholarship, Texas State University, 2017
* Graduate College Scholarship, Texas State University, 2017
* Dissertation Support Fellowship Award, Graduate College, Texas State University, 2017
* Women in Science and Engineering scholarship, College of Science, Texas State University, 2015
* Outstanding Researcher Awarded, Department of Engineering Technology, Texas State University, 2014

1. **SERVICE**

**Conference Judge:**

* International Research Conference for Graduate Students, College of Science, Texas State University, 2021
* WISE (Women in Science), College of Science, Texas State University, 2020
* Graduate Research Conference (GRCC), Texas State University, 2024

**Committee Member:**

* Sarah Hutcheson, Major in master of science in Chemistry, December 2021, “MECHANICAL PROPERTIES OF POLYMER-CLAY NANOCOMPOSITE THIN FILMS***“***
* Directed project Committee member for Dinesh Kartic Meda, December 2021,” Supply Chain Traceability in Discrete Manufacturing”
* Directed project Committee member for Ekundayo Akinwale, May 2021,” The Environmental Impact of 5G Network Technology”

**Central Texas Biodiversity Bunch, Advisor, Texas state university Chapter,** August 2024

**IISE (Institute of Industrial and Systems Engineers) Member**, 880244334, 2021

**Alpha Chi National College Honor Society, member,** Texas State University, 2017

**Conference Paper Reviewer:**

* **Technical reviewer,** Sustainability, MDPI, March 2024-present
* **Technical reviewer,** minerals, MDPI, February 2024-present
* **Technical Reviewer**, MRS Advances, May 2016-present