

EDUCATION

- PH.D. STUDENT, MECHANICAL AND MATERIALS ENGINEERING DEPARTMENT, COLLEGE OF ENGINEERING AND COMPUTING, FLORIDA INTERNATIONAL UNIVERSITY (FIU), MIAMI, FL, USA / 2021-NOW
 - Graduate Research Assistant at Advanced Ceramics Group / MME / FIU
 - Project title: "fundamentals understanding of flash sintering for highly conductive high temperature ceramics"
 - Supervisor: Professor [Zhe Cheng](#) | Florida International University (FIU) | Miami | USA
- MASTER OF SCIENCE, AEROSPACE ENGINEERING, FACULTY OF NEW SCIENCES AND TECHNOLOGIES, UNIVERSITY OF TEHRAN, TEHRAN, IRAN / 2015-2018
 - GPA: 3.7/4
 - Thesis title: "Estimating mechanical properties of Graphene/Polymer using Multi-scale modeling"
 - ✓ Modeling Graphene Sheet (GS) using nano-scale continuum mechanics approach
 - ✓ Studying the effect of model size on the Young's modulus of GS
 - ✓ Assessing the influence of defects on the mechanical properties of GS
 - ✓ Modeling the interphase between Graphene and Polymer
 - ✓ Studying the micromechanical interactions of the Graphene/Polymer nanocomposite
 - ✓ Stochastic modeling of the effective random parameters
 - ✓ Predicting the Young's modulus of Graphene/Polymer nanocomposite
 - Supervisor: Professor [Roham Rafiee](#) | University of Tehran | Tehran | Iran
- BACHELOR OF SCIENCE, MECHANICAL ENGINEERING, SCHOOL OF MECHANICAL ENGINEERING, COLLEGE OF ENGINEERING, UNIVERSITY OF TEHRAN, TEHRAN, IRAN / 2010-2015

PUBLICATIONS

- ❖ Journal Articles (Citations: 56, h-index: 3)
 - R Rafiee, A Eskandariyun "Comparative study on predicting Young's modulus of graphene sheets using nano-scale continuum mechanics approach", *Physica E: Low-dimensional Systems and Nanostructures* 90, 42-48 (2017)
 - R Rafiee, A Eskandariyun "Estimating Young's Modulus of Graphene/Polymer Composites Using Stochastic Multi-scale Modeling", *Composites Part B: Engineering* 173, 106842 (2019)
 - R Rafiee, A Eskandariyun "Predicting Young's modulus of agglomerated graphene/polymer using multiscale modeling" *Composite Structures* 245, 112324 (2020)
 - R Rafiee, A Eskandariyun, Claudio Larosa, Marco Salerno "Multi-scale modeling of polymeric composites including nanoporous fillers of milled anodic alumina" (Under Review at the Journal of Mechanics of Materials)
- ❖ Conference Presentations
 - R Rafiee, A Eskandariyun "Modeling graphene sheets using nano-scale continuum mechanics approach", ICCS19: The 19th International Conference on Composite Structures, Universidade do Porto, Portugal, September 2016.
 - R Rafiee, A Eskandariyun "The influence of vacancy defects on the Young's modulus of Graphene sheets", CCFA5: The 5th international conference on Composites Characterization, Fabrication, and Application, Iran University of Science and Technology, Iran, December 2016.
 - R Rafiee, A Eskandariyun "Predicting mechanical properties of Graphene sheets", ACEX2017: 11th International Conference on Advanced Computational Engineering and Experimenting, Vienna, Austria, July 2017.
 - R Rafiee, A Eskandariyun "Predicting Young's modulus of graphene reinforced polymers", MECHCOMP2019, Lisbon, Portugal, July 2019.
 - R Rafiee, P Sharifi, A Eskandariyun "Challenges of industrial applications of nanocomposites". IranComp95, University of Tehran, Iran, January 2017.

NOTABLE PROJECTS

- COMPOSITES COURSE PROJECT - MATLAB/ANSYS
 - Title: "FE analysis of a composite pipe under internal pressure"
 - Supervisor: Professor Roham Rafiee
- STRUCTURAL DYNAMICS COURSE PROJECT - ANSYS
 - Title: "FE analysis of rotating circular beam under torsional vibration"
 - Supervisor: Professor Mohammad-Hossein Sabour
- STRUCTURAL ANALYSIS COURSE PROJECT - SOLIDWORKS/ANSYS
 - Title: "Modeling and Stress analysis of an airplane wing"
 - Supervisor: Professor Alireza Torabi
- MECHANICAL DESIGN COURSE PROJECT - SOLIDWORKS
 - Title: "Design and modeling of a heavy vehicle gear-box"
 - Supervisor: Professor Majid Safarabadi
- PRODUCT DESIGN AND DEVELOPMENT COURSE PROJECT - SOLIDWORKS
 - Title: "Re-design and optimization of a typical hospital bed"
 - Supervisor: Professor Kiomars Jafar-Shaghghi
- INTERNSHIP PROJECT AT IRAN POWERPLANT REPAIRS CO.
 - Title: "Tolerance range control of compressor blades in a gas turbine"
 - Supervisor: Hooman Oladi M.Sc.

PROFESSIONAL EXPERIENCES

- INTERN, IRAN POWERPLANT REPAIRS COMPANY, KARAJ, ALBORZ, IRAN / 2014 SUMMER - 2015 SUMMER
- INTERNATIONAL RELATIONS OFFICER, NIKAN TEB SASAN COMPANY, TEHRAN, IRAN / 2016-2018 (24 MONTHS)
- OFFICIAL FIBROSCAN® OPERATOR TRAINER, ECHOSENS COMPANY (FRANCE)

LANGUAGES

- Proficient with ENGLISH:
 - TOEFL score: 95 (Reading: 20 | Listening: 29 | Speaking: 22 | Writing: 24)
 - GRE score: 318 (Quantitative Reasoning: 168 | Verbal Reasoning: 150 | Analytical Writing: 3.0)
- Familiar with TURKISH
- Familiar with ARABIC
- Native in PERSIAN

HONORS & AWARDS

- ❖ Ranked 2nd among MS students in aerospace engineering at the University of Tehran / 2015-2018
- ❖ Ranked 303rd among more than 3200 participants in Iranian National University Graduate Entrance Exam in Aerospace Engineering for M.Sc. degree / 2015
- ❖ Ranked 412th among more than 120,000 participants in Iranian National University Entrance Exam for B.Sc. degree / 2010
- ❖ Bronze Medalist in the Iranian National Astronomy and Astrophysics Olympiads / 2007
- ❖ Member of Students' Scientific Association of Aerospace Engineering, University of Tehran / 2016-2017
- ❖ Member of Iran's National Elites Foundation / 2007-now
- ❖ Member of the Organizing Committee of the "Composites Application in Iranian Industries" Conference
- ❖ Accepted in Exceptional Talent Students School Entrance Exam / 2003

SOFTWARE SKILLS

- Proficient with ANSYS
 - Solid Mechanics | Structural analysis | Modal analysis
 - Proficient with COMSOL MULTIPHYSICS
 - Proficient with MATLAB
 - Proficient with SOLIDWORKS
 - Proficient with ABAQUS
 - Proficient with LAMMPS
 - Proficient with AUTOCAD 2D/3D
 - Proficient with MICROSOFT OFFICE
 - MS Word | MS Excel | MS PowerPoint | MS Project
 - Familiar with PHOTOSHOP
-

OTHER INTERESTS

Photography | Music | Painting | Basketball | Theater | Literature | Hiking

REFERENCES

Professor Zhe Cheng, College of Engineering and Computing, Florida International University, Miami, FL
Professor Roham Rafiee, Faculty of New Sciences and Technologies, University of Tehran, Tehran, Iran
Professor Alireza Torabi, Faculty of New Sciences and Technologies, University of Tehran, Tehran, Iran
Professor Abbas Rastgo ghamsari, School of Mechanical Engineering, University of Tehran, Tehran, Iran
Professor Majid Safarabadi, School of Mechanical Engineering, University of Tehran, Tehran, Iran