Name: Rasa Jamshidi

Date of Birth: Feb 26, 1987

Email: r.jamshidi.a@gmail.com

Professional Experience

- Université libre de Bruxelles (ULB), Brussels, Belgium
  Post-doctoral Researcher in Precision mechatronics Laboratory (2020- Till Now). Advisor: Prof. Christophe Collette.
  Research area: Active damping of non-linear structures

Education

- **PhD:** Mechanical Engineering, K. N. Toosi University of Technology, 2013 – 2019. GPA: 18.03/20 (In 5% of top rank students)
  Dissertation: Linear and Nonlinear vibration control of conical shell embedded by piezoelectric layers as sensors and actuators. Advisor: Prof. A. A. Jafari.
- **Master of Science:** Mechanical Engineering, K. N. Toosi University of Technology, 2010–2012. GPA: 17.69/20 (In 5% of top rank students) Dissertation: Present an algorithm to predict the occurrence of reperfusion injury using soft computing. (Grade: 19/20) Advisor: Prof. A. Ghaffari.
- **Bachelor of Science:** Mechanical Engineering, University of Tehran, 2005-2009. GPA: 16.05/20 (In 10% of top rank students).
  Dissertation: Experimental Damage Detection of Howe Truss Structure by Modal Analysis. (Grade: 20/20) Advisor: Prof. M. Mahjoob.

Honors and Awards

- Ranked 22th in University Entrance Exam for PhD degree among more than 2000 participants (2013)
- In 10% of top students among all undergraduates (over 160 students) in Mechanical Engineering Department, University of Tehran (2005 - 2009)
- In 5% of top students in Master's level in Mechanical Engineering Department, K.N.Toosi University of Technology (2010 - 2012)
- Ranked 158th in University Entrance Exam among more than 380000 participants (2005)
- Ranked 165th in University Entrance Exam for Master degree among more than 20000 participants (2010)

Research Interests

- Nonlinear vibration

- Shell and plate vibration
- Adaptive Structures
- Smart Structures
- Modal Analysis
- Dynamic Systems
- Fuzzy Logic

Papers

• Journal Papers

1- **R. Jamshidi,** A. A. Jafari "*Evaluating sensor distribution in simply supported truncated conical shells with piezoelectric layers"* Mechanics of Advanced Materials and Structures, 2018.
2- **R. Jamshidi**, A. A. Jafari "*Transverse Sensing of Simply Supported Truncated Conical Shells"* Journal of Computational Applied Mechanics, 2017.
3- **R. Jamshidi,** A. A. Jafari "*Evaluating Actuator Distributions in Simply Supported Truncated Thin Conical Shell with Embedded Piezoelectric Layers*" Journal of Intelligent Material Systems and Structures, 2018.
4- **R. Jamshidi,** A. A. Jafari "*Conical Shell Vibrations Control with Distributed Piezoelectric Sensor and Actuator Layer*" Composite Structures, 2020 (Revised).
5- **R. Jamshidi,** A. A. Jafari "*Nonlinear Vibration of Conical Shell with A Piezoelectric Sensor Patch and A Piezoelectric Actuator Patch*" Journal of Vibration and Control, 2020 (Submitted).
6- **R. Jamshidi,** A. A. Jafari "*Conical Shell Vibration Optimal Control with Distributed Piezoelectric Sensor and Actuator Layers*" ISA Transactions, 2020 (Submitted).
7- **R. Jamshidi,** A. A. Jafari "*Active Control of Forced Vibration of Conical Shells with A Piezoelectric Sensor and Actuator Layer*" Mechanics of Advanced Materials and Structures, 2020 (Submitted).

• Conference Papers

1- **R. Jamshidi,** A. A. Jafari**, "***Free vibration analysis of vertical Rectangular plates in contact with fluid on one side"* 5th International Acoustic and Vibration conference, 2011, Tehran, Iran.

2- **R. Jamshidi**, M. Mahjoob, H. Ebrahimi "*Damage Detection of Truss Structure by Modal Testing"*, 1st International Acoustic and Vibration conference, 2011, Tehran, Iran.
3- H. Ebrahimi, A. Gaffari, A. Atyabi, **R. Jamshidi** "*Estimation of normal and ischemia tissues, with different doses of vasopressin (AVP), through packet wavelet analysis of electrocardiogram and atrial blood pressure signals"* 21st International Mechanical Engineering Conference, 2013, Tehran, Iran.
4- A. Gaffari, H. Ebrahimi, A. Atyabi, **R. Jamshidi "***Cardiac arrhythmia diagnosis method using hybrid network with Feature analysis on ECG signals"* 21st International Mechanical Engineering Conference, 2013, Tehran, Iran.

Teaching Experiences

	Institute/University	Course	Presenting Period
1	Mobin Institute of Higher Education	Strength of Materials	Fall 2016
2	Mobin Institute of Higher Education	Advanced Control	Fall 2017
3	Mobin Institute of Higher Education	Design in mechanical engineering	Fall 2017
4	K.N.Toosi University of Technology	Technical Drawing 2	Spring 2018
5	K.N.Toosi University of Technology	Machine Dynamic (Teacher Assistant)	Fall 20142017
6	K.N.Toosi University of Technology	Engineering Mathematic (Teacher Assistant)	Fall 2011
7	K.N.Toosi University of Technology	Advanced Engineering Mathematic (Graduate course, Teacher Assistant)	Fall 2011

Language Skills and Proficiency

Language\Skill	**Reading**	**Speaking**	**Writing**
Englih	**High**	**Medium**	**High**

- Full Course English Training Certificate from Iran Language Institute
- MSRT English degree (Grade: 81/100).

Computer Skills

- Mathematical Computation: MATLAB (Professional), Maple, Mathematica.
- CAD: SolidWorks (Professional), Catia, AutoCAD.
- FEM Software: ANSYS APDL (Programming) & ANSYS Workbench (Professional).
- Others: Microsoft Office.

Hobbies

- Photography
- Cycling
- Hiking and Mount Climbing
- Swimming