

CURRICULUM VITAE

MOSTAFA ABBASI

Research Associate
Department of Mechanical Engineering
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Personal Information

Birth Date: August 10, 1983 **Marital status:** Single

Education

2005 – 2007

M.Sc. **Mechanical Engineering, Applied Mechanics**, Amirkabir University of Technology (Tehran Polytechnic), Tehran, Iran.
Total GPA 17.01/20
Thesis Coupled Thermoelasticity of Functionally Graded Beams Based on the First-Order Shear Deformation Theory.
Supervisor Dr. M. R. Eslami, Professor at Dept. of Mechanical Engineering, Amirkabir University of Technology (Tehran Polytechnic).
Advisor Dr. M. Sabbaghian, Emeritus Professor at Dept. of Mechanical Engineering, Louisiana State University, Baton Rouge, LA ,USA.

2001 – 2005

B.Sc. **Mechanical Engineering, Solid Mechanics**, Amirkabir University of Technology (Tehran Polytechnic), Tehran, Iran.
Total GPA 16.74/20 (**Last 2 Years GPA** 17.12/20)
Thesis Investigation of free-edge effect in composite laminates under extension and thermal loading by finite element modeling.
Supervisor Dr. M. Sedighi, Assistant Professor at Dept. of Mechanical Engineering, Amirkabir University of Technology.

1997 – 2001

High School **Diploma in Mathematics**, Daneshmand High School, Tehran, Iran.
Total GPA 19.81/20

Research Interests

General: Formulation and analysis of problems in solid and structural mechanics, computational solid mechanics, biomechanics, and applied mathematics. Specialization in the theory and applications of the finite element method, thermoelasticity, composite and smart materials.

Current Research Activities: Coupled thermoelasticity analysis of functionally graded materials; analysis of functionally graded piezoelectric materials and smart structures.

Honors and Awards

- 2005** Outstanding Undergraduate Student in Mechanical Engineering with the Rank #4 in Class, Received appointment to master's program in mechanical engineering outside of normal application and examination.
- 2001** Total rank of 377 among 368404 participants of the nation-wide university entrance exam.
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Publications

Journal Papers

1. A. Armin, B. Behjat, **M. Abbasi**, and M. R. Eslami, "Finite Element Analysis of Functionally Graded Piezoelectric Beams", *Computers and Structures*, [Submitted for publication](#), 2009.
2. B. Behjat, A. Armin, M. Salehi and M. Sedighi, **M. Abbasi**, "An Static and Dynamic Analysis of Functionally Graded Piezoelectric Plates under Mechanical and Electrical Loading", *Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering*, [Submitted for publication](#), 2009.
3. A. Armin, I. Shafiee, **M. Abbasi**, and M. R. Eslami, "Thermal Load Analysis of Functionally Graded Piezoelectric Beams Using First-Order Shear Deformation Theory and the Homotopy Perturbation Method", [Under review](#), *Applied Mathematical Modelling*, 2008.
4. **M. Abbasi**, M. Sabbaghian, and M. R. Eslami, "Exact closed form solution of the dynamic coupled thermoelastic response of a functionally graded Timoshenko beam" *Journal of Mechanics of Materials and Structures*, [Accepted for publication](#), 2009.
5. A. Afshar, **M. Abbasi** and M. R. Eslami, "Two-Dimensional Solution for Coupled Thermoelasticity of Functionally Graded Beams Using Semi-Analytical Finite Element Method", *Journal of Mechanics of Advanced Materials and Structures*, [Accepted for publication](#), 2009.

6. B. Behjat, A. Armin, M. Salehi and M. Sedighi, **M. Abbasi**, " Static, Dynamic and Free Vibration Analysis of Functionally Graded Piezoelectric Panels using Finite Element Method", *Journal of Intelligent Material Systems and Structures*, **In Press, Available online**, 4 June 2009.
7. M. H. Babaei, **M. Abbasi**, and M. R. Eslami, " Coupled Thermoelasticity of Functionally Graded Beams", *Journal of Thermal Stresses*, vol. 31 (8), pp. 680-697, 2008.

Conference Papers

1. A. Komeili, A. Armin, **M. Abbasi** and M. R. Eslami, " Analytical and Finite Element Solutions for Bending of Functionally Graded Piezoelectric Beams", *17th Annual (International) Conference on Mechanical Engineering, ISME2009*, May 19-21, 2009, Tehran, Iran.
2. **M. Abbasi**, A. Armin, B. Behjat, and M. R. Eslami, " Static Analysis of Functionally Graded Piezoelectric Beams Based on Higher-Order Shear Deformation Theory under Thermal Loads", *7th International Conference on Composite Science and Technology, ICCST7*, January 20-22, 2009, Sharjah, UAE.
3. **M. Abbasi**, M. Sabbaghian, and M. R. Eslami, " Coupled Thermoelastic Vibrations Analysis of Functionally Graded Timoshenko beams using the Galerkin Finite Element method", *Presentation Paper in 2008 ASME International Mechanical Engineering Congress and Exposition, IMECE2008*, November 2-6, 2008, Boston, Massachusetts, USA.
4. A. Afshar, **M. Abbasi**, and M. R. Eslami, " Coupled Thermoelastic Vibration Analysis of Beams Based on Third-Order Shear Deformation Theory", *Proceedings of 15th International Congress on Sound and Vibration, ICSV15*, pp. 1649-1656, July 6-10, 2008, Daejeon, Korea.
5. A. Armin, **M. Abbasi**, I. Shafiee, and M. R. Eslami, " Static Analysis of Functionally Graded Piezoelectric Beams under Thermal Loads by the Homotopy Perturbation Method", *Proceedings of 15th International Congress on Sound and Vibration, ICSV15*, pp. 1561-1568, July 6-10, 2008, Daejeon, Korea.
6. **M. Abbasi**, A. Afshar, and M. R. Eslami, " An Analytical Solution for Coupled Thermoelasticity of Beams Based on Higher-Order Shear Deformation Theory", *16th Annual (International) Conference on Mechanical Engineering, ISME2008*, May 14-16, 2008, Kerman, Iran.
7. A. Armin, **M. Abbasi**, and M. R. Eslami, " Static Analysis of Simply Supported Functionally Graded Piezoelectric Beam under Thermal Loads", *16th Annual (International) Conference on Mechanical Engineering, ISME2008*, May 14-16, 2008, Kerman, Iran.
8. **M. Abbasi**, A. Bagri, M. Sabbaghian, and M. R. Eslami, " Coupled Thermoelasticity of Beams Based on the First-Order Shear Deformation Theory", *Proceedings of the 7th International Congress on Thermal Stresses (TS2007)*, pp. 365-368, Taipei, Taiwan, 2007.

Industrial Experience

- Jun - Sep.2005** Tehranjonoob Company, Project associate of design pipeline of Bidboland gas treating plant II, Tehran, Iran.
- Jun - Sep.2004** Paysaz Company, Project associate of design and fabrication pressure vessels of South Pars Gas field development phases 6, 7 & 8, Tehran, Iran.

Administrative Experience

- Apr.2006 - Nov.2006** Head of student affairs executive committee of 15th Annual International Conference on Mechanical Engineering (In association with Iranian Society of Mechanical Engineers).
- Mar.2005 - Mar.2006** President of Amirkabir Scientific Association of Mechanical Engineering.

Teaching Experience

- Apr.2009 - Present** Teaching, ANSYS training course in Amirkabir Scientific Association of Mechanical Engineering.
- Spring 2006** Teaching Assistant, Fluid Flow in Power Plant Conservation (Mechanical Design) in Amirkabir University of Technology and University of Birmingham Collaboration Program with Dr. Salehi
- Spring 2006** Teaching Assistant, Strength of Materials II in Amirkabir University of Technology with Dr. Sedighi
- Fall 2005 and Spring 2006** Teaching Assistant, Thermodynamics, Fluids Mech. , Heat Transfer in Amirkabir University of Technology and University of Birmingham Collaboration Program with Dr. Montazerin

Professional Membership

- Jul.2006 - Sep.2008** Member of Scientific board of Ofogh magazine (Scientific & Research Magazine is licensed to Amirkabir Scientific Association of Mechanical Engineering).

2003 - Present	Member of Iranian Society of Mechanical Engineers.
2002 - 2007	Member of Amirkabir Scientific Association of Mechanical Engineering

Selected Projects

Mar. - Jun.2004	Inaugurate of corrosion test device, Strength of Materials Lab. Dept. of Mechanical Engineering, Amirkabir University of Technology.
Dec.2003 - Mar.2004	Mechanical design of a rescue robot for Robocup 2004, Robotics Center of Amirkabir University of Technology.
Jan.2003 - Dec.2003	Mechanical design & manufacture of garbage collector robots, Robotics Center of Amirkabir University of Technology.

Language Skills

- **Persian**
- **Azeri**
- **English**

TOEFL iBT Score: **83** (Reading: 28 Listening: 22 Speaking: 15 Writing: 18)

GRE Score: (Verbal: **300** Quantitative: **760** Analytical: **3.0**)

Computer Skills

Programming	Pascal , MATALB
Software	AutoCAD, Solidworks, ANSYS, ABAQUS, Maple, PVElite
Miscellaneous	Microsoft Office group, Photoshop, LaTeX

References

- Dr. [Mohammad Reza Eslami](mailto:eslami@aut.ac.ir), Professor, Dept. of Mechanical Engineering , Amirkabir University of Technology (Tehran Polytechnic).Email: eslami@aut.ac.ir
- Dr. Mehdy Sabbaghian, Emeritus Professor, Dept. of Mechanical Engineering , Louisiana State University, Baton Rouge, LA, USA. Email: mehdys@bellsouth.net
- Dr. [Manouchehr Salehi](mailto:msalehi@aut.ac.ir), Associate Professor, Dept. of Mechanical Engineering , Amirkabir University of Technology (Tehran Polytechnic).Email: msalehi@aut.ac.ir
- Dr. [Mojtaba Sedighi](mailto:mojtaba@aut.ac.ir), Assistant Professor, Dept. of Mechanical Engineering , Amirkabir University of Technology (Tehran Polytechnic).Email: mojtaba@aut.ac.ir
- Dr. [Nader Montazerin](mailto:montazer@aut.ac.ir), Professor, Dept. of Mechanical Engineering , Amirkabir University of Technology (Tehran Polytechnic).Email: montazer@aut.ac.ir