



Ehsan Naderian

Resumé

Education

- 2016–2019 **Master of Mechatronic Engineering**, *K. N. Toosi University of Technology*, Tehran, 16.48.
- 2012–2015 **Bachelor of Mechanical Engineering**, *K. N. Toosi University of Technology*, Tehran, 14.77.

Master thesis

- title Application of Ultrasonic Waves for Enhancement of Skin Permeability
- supervisors Prof. Farhang Honarvar & Prof. Hamid Abrishami Moghadam
- description Transient cavitation induced by low-frequency ultrasound (called Sonophoresis) increases skin permeability to a wide range of therapeutic compounds.

Bachelor thesis

- title Modeling of Horizontally Polarized Shear Waves in A Plate by Finite Element Method
- supervisors Prof. Farhang Honarvar
- description Propagation of SH (Shear Horizpntal) guided wave in a defected plate is modeled by using FEM in ABAQUS software package, then its capability of detecting some defects has been explored.

Experience

Vocational

- 2018–2019 **Research Assistant**, *NDE Lab*, Tehran.
- 2017–2019 **Book Editor**, *K. N. Toosi University*, Tehran.

Miscellaneous

- 2018–2019 **Custom Design and Manufacturing of Experimental Setup for In-Vitro Sonophoretic Drug Delivery**, *NDE Lab*, Tehran, 100%.
- 2017–2018 **Application of Principal Component Analysis for Identification of The LDR Frequency**, *NDE Lab*, Tehran, 50-60%.

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2017–2018 **Automated Scan of Thin Plate for Detection of Defect's Pattern, Size and Location**, *NDE Lab*, Tehran, 30-40%.

2018–2019 **Design and Manufacturing Tensile Test Machine for Biological Samples**, *NDE Lab*, Tehran, 20-30%.

Computer skills

C# Visual Studio

C Arduino

G Labview

Matlab Control, Image & Signal

LaTeX Xepersian, Tikz

SolidWorks Design, Assembly

Interests

Ultrasound NDT, Medical, Imaging

Control Automation

PCBs Design, Assembly, Programming

Machine Artificial Neural Network

Learning

FEM Acoustic