

Amir Mobini

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Summary

Experienced Mechanical Designer and Engineer with a PhD in Bio-Mechanical engineering from Sharif University of Technology. Skilled in designing and developing innovative products and systems for various sectors, such as rehabilitation, tele-rehabilitation, exoskeletons, robots, cranes, material handling and bio-printing. Strong project management, problem-solving, and creative design skills. Seeking to leverage my expertise and experience to contribute to the success of a dynamic organization.

Skill Highlights

- Project Management
- Strong Decision Maker
- Complex Problem Solver
- Ansys, Solidworks, MathCAD
- Rehabilitation Devices
- Mechanical Design
- Creative Design
- Mechanical Product Design
- Material Handling Systems
- Visual C#, Python

Education

Bachelor of Science (BSc) in Mechanical Engineering 2000-2004 **Amirkabir University of Technology**, Tehran, Iran

Master of Science (MSc) in Mechanical Engineering 2004-2006 **Sharif University of Technology**, Tehran, Iran

Doctor of Philosophy (PhD) in Bio-Mechanical Engineering 2009-2015 **Sharif University of Technology**, Tehran, Iran

Interests

Mechanical Engineering:

- Cranes
- Material handling systems
- Design and production of complex systems

Bio- Mechanics:

- Rehabilitation and Tele-Rehabilitation
- Exoskeletons and Robots

Blockchain and cryptocurrency

Experience

Assistant Professor in Iranian Research Organization for Science and Technology (IROST)

2020-now

- Conducted research and teaching activities in the fields of bio-mechanical engineering and mechanical engineering.

Senior Mechanical Engineer in Aira Mechanic 2012-now

- Designed and developed different material handling products such as cranes, winches, elevators, etc.
- Managed projects from conception to completion, ensuring quality standards, specifications, deadlines, and budgets were met.
- Served as technical manager and board member
- A member of Iran Crane Manufacturers Association Technical committee

Senior Mechanical Engineer in Omid Afarinan 2019-2021

- Worked as a technical manager and an executive director for a startup company that focused on bio-printing technology.
- Designed and developed a pneumatic bio-printer that could print living cells and tissues for medical applications.
- Led a team of engineers, technicians, and researchers to test and optimize the bio-printer performance and functionality.

Senior Mechanical Engineer in Pedasys 2014-2020

- Worked as a technical manager and a mechanical designer for a company that specialized in exoskeleton robots for rehabilitation and assistance purposes.
- Designed and developed one exoskeleton robot for lower limbs.
- Conducted experiments and trials to evaluate the exoskeleton robots effectiveness and safety.

Blockchain and cryptocurrency Consultant in Goldnet Co. 2017-2022

- Designed and developed blockchain-based applications using smart contracts, tokens, and decentralized platforms.

PhD Researcher in Rehabilitation and Tele-Rehabilitation fields 2009-2015

- Managed the rehabilitation lab and supervised undergraduate and master students on their projects.
- Developed three knowledge-based products: a tele-rehabilitation system for stroke patients, a rehabilitation device for hand function recovery, and a rehabilitation device for balance training.
- Managed the Tele-Rehabilitation national project

Mechanical Engineer in Space Organization of Iran 2007-2011

- Designed different mechanical systems.
- Performed analysis, simulation, and testing of mechanical systems using software such as Ansys, Solidworks.

Mechanical Engineer in Middle East Petrogas Co. 2006-2009

- Worked as an oil and gas expert on mechanical devices.
- Managed the project of intelligent PIG (MFL) production that involved designing, developing, and testing a device that could inspect pipelines for defects and corrosion.

Mechanical Engineer in Kaani Mess Co. 2005-2006

- Worked as a design office expert on mechanical devices such as gears, bearings, etc.
- Used Solidworks to create 3D models and drawings of mechanical devices according to specifications and standards.
- Performed calculations and analysis to verify the design feasibility and performance.

Mechanical Engineer in FARAB Co. 2003-2004

- Worked as a water turbine and auxiliary design engineer for a company that specialized in hydroelectric power plants.
- Prepared technical reports and documentation for the water turbine design.

Papers

- **A.Mobini**, S.Behzadipour, M.Saadat, "Robotics and tele-rehabilitation: recent advancements, future trends", International Journal of Reliable and Quality E-Healthcare (IJRQEH) 2 (4), 1-13.
- M.Fakhar, S.Behzadipour, **A.Mobini**, "Motion performance measurement using the Microsoft Kinect sensor", International Journal of Reliable and Quality E-Healthcare (IJRQEH) 2 (4), 28-37.
- K.Bashti, M.N.Tahmasebi, H.Kaseb, F.Farahmand, M.Akbar, **A.Mobini** "Biomechanical Comparison Between Bashti Bone Plug Technique and Biodegradable Screw for Fixation of Grafts in Ligament surgery", THE ARCHIVES OF BONE AND JOINT SURGERY, Article 7, Volume 3, Issue 1, January 2015, Page 29-34.
- **A.Mobini**, S.Behzadipour, M.S.Foumani. "Accuracy of Kinect's skeleton tracking for upper body rehabilitation applications.", Disability and Rehabilitation: Assistive Technology 9.4 (2014): 344-352.
- **A.Mobini**, S.Behzadipour, M.Saadat. "Test-retest reliability of Kinect's measurements for the evaluation of upper body recovery of stroke patients.", Biomedical engineering online 14.1 (2015): 75.
- **A.Mobini**, S.Behzadipour, M.Saadat. "Hand Acceleration Measurement by Kinect for Rehabilitation Applications", Iranica. Transaction B, Mechanical Engineering; Tehran 24.1(2017): 191-201.
- **امیر مبینی**، محسن رضائیان، "تحلیل اثر بازه‌های تغییر ابعاد ساخت یک ربات کارت‌زین به روش خطی سازی مستقیم" پانزدهمین کنفرانس سالانه (بین المللی) مهندسی مکانیک ISME2007، ایران، تهران، دانشگاه صنعتی امیرکبیر، ۲۵-۲۷ اردیبهشت ۱۳۸۶
- M.T.Ahmadian, **A.Mobini**, "Online Prediction of Plate Deformations Under External Forces Using Neural Networks", in Press, Proceedings of IMECE2006, ASME International Mechanical Engineering Congress and Exposition, Chicago, Illinois, 2006.
- M.T.Ahmadian, A.Asempour, **A.Mobini**, "Load Distribution Identification of Plates Using Neural Networks", CANCAM 2007, RYERSON University, Department of mechanical and industrial engineering, Toronto, Canada, June 3-7, 2007
- M.Behzad, M.Samadi, **A.Mobini**, "Bent Shaft Characteristic Determination Using Run-up Vibration Data and Neural Networks", COMADEM 2007, Faro, Portugal, 13-15 June 2007

Google Scholar:

<https://scholar.google.com/citations?user=jtWA8qcAAAAJ&hl=en>