



Mostafa Saket

Education

- 2011–2013 **Masters of Science**, *Aerodynamics Engineering*, University of Tehran, Tehran.
2005–2010 **Bachelor**, *Aerospace Engineering*, IHU, Tehran.

Master's Thesis

- Title *Application and Implementation of Modern Design of Experiment (MDOE) in Wind Tunnel Testing.*
Supervisor Professor Parviz M.Zadeh
Description Implementation and using the DOEs and RSMs in wind tunnel testing for the first time in Iran.

Experiences

- 2009–Present **Researcher, expert and wind tunnel designer, member of test design group, supervisor of group of systematic and conceptual design of a Vertical Axis Wind Turbine (VAWT) for home usages**, QHADR AERODYNAMICS RESEARCH CENTER (THE ONLY INDUSTRIAL SUPERSONIC WIND TUNNEL LAB IN IRAN) , Tehran.
2013–Present **Research and Analysis of Pneumatic Actuators of Stewart Robot**, at Human and Robot Interaction Laboratory **TaarLab**, University of Tehran.
2012-2013 **Systematic and Conceptual Design of a Hand-Launch UAV and Manufacture it for 2hours endurance, 5km range and 1100m altitude**, MEMBER OF UT STUDENT TEAM OF SYSTEMATIC AND CONCEPTUAL DESIGN AND MANUFACTURE OF A UAV (SIRANG) , Achieve the 3rd Rank in Sharif Technology University Competition (2013), Tehran.
2010–2011 **Scientific Reporter at the first scientific news agency of Iran: HITNA news agency (Hitna.ir)**.

Research Interests

- Wind Tunnel Testing
- Numerical and Experimental Aero-Hydrodynamics
- Application of Optimization Techniques in Aero-Hydrodynamics
- Engineering Ethics
- Wind Turbine Design and Analysis
- Optimization and Design of Experiment

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Patent

Design and Manufacture of a Smoke Generator for Flow Visualization in Wind Tunnel (Low and high subsonic testing) for the first time in Iran.

Accomplished Projects

Airplane Design Course	Conceptual design of a 150 passenger turbo propeller airplane.
Boundary Layer Course	Investigation of Wake Effects on Wind Turbine Performance.
Viscous Flow Course	Turbulence Boundary Layer overland Flow.
Supersonic Aerodynamics Course	Design of a Nozzle by Using Characteristics Equations.
Experimental Aerodynamics Course	Evaluation of Hot-Wire, Hot-Film and Kulite results in wind tunnel testing.

Conferences Papers

1. "Design and Manufacture of a Smoke Generator for Flow Visualization in compressible Wind Tunnel", first national conference of Aero-hydrodynamics, 2012, Tehran.
2. "Design and Manufacture of a Smoke Generator for Flow Visualization in Incompressible Wind Tunnel", first national conference of Aero-hydrodynamics, 2012, Tehran.
3. "Evaluation of role of knowledge management in Learning and Education in Iran", Technology, Science and Society conference, British Columbia University, Jan 2013.
4. "How to test the air pollution in wind tunnel testing with smoke generator, The 7th national conference of environment protection, 2013
5. "A new method for Engineering Ethics Learning", The 7th national student conference of mechanical engineering, 2013.

Publications

1. Translating "*Engineering Ethics*" By Charles B. Fleddermann to Persian which is published by Hermes Publication in 2013.
2. Chang, Christopher A., et al, "Design, Development and Evaluation of an Interaction Simulator for Engineering Ethics Education", *Mechanics Engineering* (Scientific-Promotion Magazine), Translated by: Mostafa Saket, Hossein Kord, summer 2012, pp.67-73.
3. Mostafa Saket, A. Haqiri, "Application of wind energy as the passive defense upon the earthquake", *Passive Defense* (Scientific-Promotion Magazine), summer 2013, pp. 25-32.
4. Writing more than 10 Essays in Technology and Science's Books Criticism magazine about Nanofluids, Aerospace, Airplane industries, etc. areas.

Workshops

1. SAR Satellites: Providing information from these satellites and challenges.
2. SPH (Smoothed Particle Hydrodynamics): advantages and limitations of this method.

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3. Aerodynamics of Wind Turbine: basics of design and applications.
4. Wind Tunnel Facilities and Applications: basic concepts of supersonics wind tunnel

Computer skills

Matlab, Maple, CFX, SolidWorks, L^AT_EX

Languages

Persian **Mother tongue**

English **Fluent**

Arabic **Basic**

Hobbies

- Persian Music
- Persian Culture
- Tennis

- Calligraphy
- Writing a Book about Persian Music, *Heavenly Organist*, 2011