

## Seyyed Mojtaba Hamedi

### PERSONAL INFORMATION

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Marital status: Single

Nationality: Iranian

Date of Birth : 1982

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### RESEARCH INTERESTS

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- Nanomaterials (Synthesis, characterization, and applications)
- Electrochemical Nanotechnology
- Thin films (Deposition, structure, and properties)
- Photovoltaic materials
- Dye-Sensitized Solar Cells

### EDUCATION

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#### **Master of Science: Materials Science and Engineering**

Sharif University of Technology, Tehran, Iran (2006-2009).

Thesis: "Fabrication of vertically oriented TiO<sub>2</sub> nanotube arrays by anodization in organic electrolytes and investigation of photovoltaic and Photoelectrochemical properties of nanotube arrays".

Advisor: [Dr. Masoud Askari](#)

G.P.A.: 3.2 out of 4

#### **Bachelor of Science: Materials Science and Engineering**

Isfahan University of Technology, Isfahan, Iran (2001-2006).

Thesis: "Microstructure and abrasion resistance of high chromium Fe–Cr–C hard facing alloy deposited onto low carbon steel plates".

Advisor: [Dr. Morteza Shamanian](#)

### OTHER ACCOMPLISHED RESEARCHES

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- Synthesis of CdS nano wire on the titania nanotube array using Chemical Bath Deposition, supervisor [Prof. Kh. Sadrnezhad](#), (2010)
- Electrodeposition of Ni nanowire in AAO template and its characterisation, supervisor: [Prof. Kh. Sadrnezhad](#) (2010)
- Production of Dye Sensitized Solar Cells at semi-industrial scale using titania nanotube arrays, supervisor [Prof. A. Simchi](#), (2011)

### JOB EXPERIENCE

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- part time working in [Materials and Energy Research Center](#), Karaj, Iran, March 2009 to January 2010
- Full time working in [Institute for NanoScience & NanoTechnology](#), Sharif University of Technology, Tehran, Iran, April 2010 till now

# Curriculum Vitae

## TEACHING EXPERIENCES

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- Teaching of "[Corrosion and Its Prevention](#)" in [Razi Petrochemical Co.](#), Winter 2010

## LANGUAGE

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- English (Fluent in writing and speaking)
  - Score 87 in TOEFL iBT Test
- Persian (Mother tongue)

## EDUCATION HIGHLIGHTS

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- Computer Programming Language: Basic, C, C++ and Visual C++
- Engineering Software: Autodesk Inventor, Matlab, Maple, Mathematica, JCPDS (Applications for XRD), clemex (Applications for metallography & image processing)

## PAPERS

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1. **S. M. Hamed**i, M. Askari, "Titania nanotube arrays prepared in DMF/HF electrolytes", International Congress on Nanoscience and Nanotechnology (NS 2010), March 10-12, 2010,
2. **S. M. Hamed**i, M. Askari, "Fabrication of Vertically Oriented TiO<sub>2</sub> Nanotube Arrays Using Ethylene Glycol", International Congress on Nanoscience and Nanotechnology (ICNN 2008), October 23, 2008
3. **S. M. Hamed**i, M. Shamanian, "Microstructure and abrasion resistance of high chromium Fe–Cr–C hard facing alloy deposited onto low carbon steel plates", Iranian Metallurgical Engineers Society conference, October 2008

## PATENTS

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- Submitted to the Iranian Companies Registration Office and Industrial Property
  1. Hydrogen sensor based on titania nanotube
  2. photoelectrochemical cell by self organized titania nanotube arrays

## HONORS

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- Top 1.5% in the Nation-wide UEE (University Entrance Exam) for bachelor of science, (2002)
- Top 2% in the Nation-wide UEE (University Entrance Exam) for Master degree in Science & Engineering Of Materials, (2006)

## REFERENCES

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- [Dr. M. Askari](#), Phone: +98-21-66165267, Email: [askari@sharif.edu](mailto:askari@sharif.edu)
- [Dr M. Shamanian](#), Phone: +98-311-3915737, Email: [shamanian@cc.iut.ac.ir](mailto:shamanian@cc.iut.ac.ir)
- [Prof. Kh. Sadrnezhad](#), Phone: +98-21-66165215, Email: [sadrnezh@sharif.edu](mailto:sadrnezh@sharif.edu)
- [Prof. A. Simchi](#), Phone: +98-21-66165261, Email: [simchi@sharif.edu](mailto:simchi@sharif.edu)

## EXTRACURRICULAR ACTIVITIES

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Literature, Soccer, Swimming, Mountain Climbing, Biking