



# Reza Sallakhniknezhad

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## ABOUT ME

I believe there is no barrier to learning, and hard work will definitely be rewarded. I am a patient and easy-going person as I was influenced by the virtues of Stoicism from a young age. I was often described as diligent and easy to get along with.

## EDUCATION AND TRAINING

11/2023 – CURRENT Turin, Italy

**PHD IN CIVIL AND ENVIRONMENT ENGINEERING** Politecnico di Torino

Website <https://www.polito.it/>

30/08/2021 – 11/09/2023 Beijing, China

**MSC. IN MECHANICAL ENGINEERING, SCHOOL OF POWER ENGINEERING** Beijing Institute of Technology

Website <https://english.bit.edu.cn/> | Final grade 3.75/4

19/09/2010 – 04/07/2018 Tehran, Iran

**BACHELOR DEGREE PROGRAM IN THE FIELD OF "MECHANICAL ENGINEERING-SOLID DESIGN MECHANICS"** Islamic Azad University, Central Tehran Branch

Website <http://iauctb.ac.ir/en> | Final grade 14.73/20

## WORK EXPERIENCE

30/08/2021 – 13/09/2023

**RESEARCH ASSISTANT** BEIJING INSTITUTE OF TECHNOLOGY

10/2014 – 10/2019

**HEAD OF THE QUALITY CONTROL DEPARTMENT** ABAN TOSEE SPARE PARTS

- Head of the quality control Department
- Vice-head of the Engineering Department
- The co-founder of the R&D department
- Vice-Manager of the Research on Iran Khodro Co. Peugeot Gearboxes
- Head of the team responsible for dealing with Fatigue Tests and analyzing Production Defects
- Purchasing Manager for French Peugeot 207 Spare Parts
- Member of the team Responsible for Analyzing & doing Fatigue Tests on French Peugeot Spare Parts

## DIGITAL SKILLS

Python | Machine Learning | Web Design(WordPress, Wix) | Deep Learning | MATLAB | Data analysis softwares for materials characterization

## LANGUAGE SKILLS

Mother tongue(s): **PERSIAN** | **AZERI TURKISH**

Other language(s):

|                | UNDERSTANDING |         | SPEAKING          |                    | WRITING |
|----------------|---------------|---------|-------------------|--------------------|---------|
|                | Listening     | Reading | Spoken production | Spoken interaction |         |
| <b>ENGLISH</b> | C2            | C2      | C1                | C1                 | B2      |

|                | UNDERSTANDING |         | SPEAKING          |                    | WRITING |
|----------------|---------------|---------|-------------------|--------------------|---------|
|                | Listening     | Reading | Spoken production | Spoken interaction |         |
| <b>GERMAN</b>  | B1            | B1      | B1                | B1                 | B1      |
| <b>FRENCH</b>  | A2            | B1      | A2                | A2                 | A2      |
| <b>TURKISH</b> | B1            | B1      | B1                | B1                 | B1      |
| <b>ARABIC</b>  | A2            | B1      | A2                | A2                 | B1      |
| <b>CHINESE</b> | B1            | B1      | A2                | A2                 | B1      |

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

## ADDITIONAL INFORMATION

### TEACHING EXPERIENCE

08/2017 – 07/2019

**Safety & Quality Control Protocols (7 Courses)**

Aban Tosee Spare Parts

### PUBLICATIONS

**A scalable dual-layer PAN/SAN nanofibrous membrane for treatment of saline oily water using membrane distillation**

– 2023

Desalination journal

Link <https://doi.org/10.1016/j.desal.2023.116895>

**Sallakhniknezhad, R., Niknejad, A.S., Barani, M., Ranjbari, E., Bazgir, S., Kargari, A., Rasouli, M., Highly saline drilling mud water treatment by using single-step direct contact membrane distillation (DCMD) process**

– 2022

Desalination Journal

Link <https://doi.org/10.1016/j.desal.2022.115938>

**Sallakhniknezhad, R., Khorsi, M., Niknejad, A.S., Bazgir, S., Kargari, A., Sazegar, M., Rasouli, M., Chae, S., Enhancement of physical characteristics of styrene-acrylonitrile nanofiber membranes using various post-treatments for membrane distillation**

– 2021

Membranes Journal

Link <https://doi.org/10.3390/membranes11120969>

**Ahmadian, H., Sallakhniknezhad, R., The effects of shot peening duration on corrosion properties of Magnesium Alloy AZ91 in 3.5% NaCl Solution**

– 2021

Link <https://link.springer.com/article/10.1007/s40033-021-00253-6>

**Ahmadian, H., Sallakhniknezhad, R., Tiangfeng, Z., Kiahosseini, R., Mechanical Properties of Al-Mg/MWCNT Nanocomposite Powder Produced Under Different Parameters of Ball Milling Process**

– 2021

Diamond & Related Materials

Link <https://doi.org/10.1016/j.diamond.2021.108755>

**Heidary, F., Sallakhniknezhad, R., Thermopiezoelastic Stress Analysis of Rotating Thin Disk Under Hygrothermal Loading**

– 2021

Second Conference on Mechanics, Electrical and Engineering Sciences

Link <https://civilica.com/doc/1266128/>

## READY TO SUBMIT PROJECTS

01/02/2023

**Optimizing the operating parameters of the GAME process for fabrication of nanofibrous PP adsorbents**

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05/11/2022

**Treatment of highly-saline water via novel PP membrane using direct contact membrane distillation**

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10/08/2022

**An environmentally-friendly SA/SAN membrane activated via a novel post-treatment method**

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08/08/2022

**Alcohol-induced PVDF membranes for water desalination using DCMD process**

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(Ready to submit-needing the supervisor's final revision)

## ONGOING PROJECTS

01/06/2022 – CURRENT

**Scalable piezoelectric nanofibrous membranes used for membrane distillation**

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Master's thesis

04/03/2022 – CURRENT

**Hydrophilic layer thickness effect on performance of DCMD process for saline oily water treatment using dual-layer nanofibrous membranes**

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supervisor's final revision

16/08/2022 – CURRENT

**Triple-layer PAN/SAN/PAN membrane fabricated by the electroblowing process**

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Ongoing

12/09/2022 – CURRENT

**Symmetric SAN membrane fabricated by the NIPS process**

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Ongoing.

## HONOURS AND AWARDS

20/07/2023

**Fully-funded university Scholarship – Politecnico di Torino** I was privileged to get the only non-defined fully funded PhD scholarship in civil and environmental engineering at Polito

**Internet + competition** Our team had the honor of securing a third prize among teams from all Chinese Universities. This project was done as a part of social activities for graduation

20/05/2023

**Beijing Challenge Cup 2023, Black technology special competition** Our team had the honor of securing a second prize. This project was done as a part of social activities for graduation

2022

**Reviewer** 2 times- International Journal of Metalcasting (IJMC)

08/2021

**Fully-funded CSC Scholarship – Chinese Scholarship Council**

07/2015

**Getting accepted into Iran University of Science & Technology's Mechanical Engineering Msc. Program Via the National Exam, which was ranked 1st in the country & 475th according to Times Ranking**

12/2006

**Passing the first stage of National Math Olympiad**

02/2005

**Ranked first in the middle-school Provincial Mathematics Competition**

## VOLUNTEERING

02/2017 – CURRENT Amnesty International

**Active member**

12/09/2016 – CURRENT Iranian Red Crescent Society

## **Blood Donator**

### **COURSES**

27/07/2023 – 07/08/2023

#### **2023 UCAS summer school**

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Fully funded summer school by SIAT-CAS and IUE-CAS

10/07/2023 – 15/07/2023

#### **CityU summer camp**

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Fully funded summer school by Department of Chemistry

19/07/2021 – 20/07/2021

#### **Mobility in Transition**

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Boysen-TU Dresden Summer School 2021

04/07/2021 – 15/07/2021

#### **Psychology in Economics**

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Summer School at University of Wurzburg

05/2020

#### **CFA Level 1 & 2 Exam Preparation Course**

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Sharif Financial and Investment Group

07/2012

#### **Entrepreneurship Course**

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Ministry of Work & Social Welfare

07/2012

#### **CATIA Design Course**

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Tehran Institute of Technology

### **MOOC COURSES**

12/02/2022

#### **Impact Measurement & Management for the SDGs**

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Coursera-Duke University (Verified)

08/2021

#### **Mechanical Alloying & its Application in Nanomaterials Synthesis**

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Nano Education Website (Verified)

07/2021

#### **Smart Materials: Microscale and Macroscale Approaches**

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Coursera-St. Petersburg Polytechnic University (Verified)

17/07/2021

#### **Water Resources Management and Policy**

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Coursera- University of Geneva (Verified)

21/06/2021

#### **Quantifying Relationships with Regression Models**

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Coursera-Johns Hopkins University (Verified)

05/06/2021

#### **Patent Law**

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Coursera- University of Pennsylvania (Verified)

05/2021

#### **Using Python for Research**

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Edx

19/05/2021

**Data Science Math Skills**

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Coursera-Duke University (Verified)

30/04/2021

**Introduction to Machine Learning**

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Coursera-Duke University (Verified)

25/03/2021

**Programming for Everybody (Getting Started with Python)**

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Coursera-University of Michigan (Verified)

12/2020

**Microscopic Analysis Methods (Fundamentals of Optics, SEM, SEM Lab, SEM Sample preparation, TEM, TEM Lab, TEM Sample preparation, TEM Data Analysis, AFM, TEM Lab, AFM Sample preparation, AFM Data Analysis, STM, STM Lab, ECSTM)**

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Nano Education Website (Verified)

11/2020

**X-Ray Diffraction Analysis (Crystallography, XRD, X'Pert, GIXRD, SAXS, OriginPro)**

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Nano Education Website (Verified)

## **LANGUAGE PROFICIENCY CERTIFICATES**

16/09/2023

**HSK III**

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213/300

21/04/2022

**IELTS**

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7.5

27/08/2018

**B1 Zertifikat**

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73/100

## **RESEARCH INTERESTS**

**Wastewater treatment**

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**Energy storage devices**

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**Desalination technologies**

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**Membrane-based filtration**

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**Membrane fabrication**

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**Solar desalination**

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**Supercapacitors**

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## **REFERENCES**

**Prof. Alberto Tiraferri**

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Email: [alberto.tiraferri@polito.it](mailto:alberto.tiraferri@polito.it), Google Scholar: <https://scholar.google.com/citations?user=IzA9LAMAAA&hl=fa>.

**Prof. Ali Kargari**

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**Prof. Saeed Bazgir**

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**Prof. Wei Zhongbao**

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