# Zeinab Babasafari

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#### **KEY SKILLS**

- Critical and analytical thinking demonstrated by solving industrial problem for 5 years' engineering experience in EPC Company and completing PhD industrial project.
- Leadership in tendering and estimating, feasibility studies and other technical and financial documents in heavy industries.
- Managing and organizing skills, dealing with several projects and people at a time as application engineer, project coordinator, interpreter and HDR student.
- Working well within the system, generating ideas and creative solutions as multidisciplinary engineer.
- Excellent communication and group work, speaking well in client-vendor situations.
- > Great attention to detail by working as quality control, engineering document and drawing checker, working on MDR project and tender price.

#### **MAIN WORKING FIELDS**

- Mineral, metallurgical & chemical processing systems
- Industrial feasibility studies
- Design Factory and Equipment
- Material and equipment procurement
- Recovery, Recycling and Reusing wastes in mineral industries

## **PROFESSIONAL EXPERIENCE**

## Application Engineering and R&D Expert

SBR International EPC and Knowledge Based Company | Iran | www.Sbr-co.com May. 2012 – Jan. 2017

#### **Highlights:**

- Providing technical support to customers in heavy industries for wide range of engineering issues.
- Leadership in tender document, feasibility studies and other technical and financial documents and drawings, involving more than 200 engineering documents.
- Coordinator of some mega projects like Foolad Sang Lime and Dolomite plant project, Vertical Kiln (3\*400 Tons / Day), EPC Contract, Iran, Co-operator: CHISAKI, Japan; Sangan Iron Ore Beneficiation Plant, EPC Contract, Iran, Co-operator: OUTOTEC, Finland.
- Participated in many conferences and professional exhibitions as technical and marketing expert.
- Considered material handling expert and grinding process designer in mineral industries.

#### **Achievements:**

## **EPC and MC Project**

 Gol-E-Gohar Pelletizing Plant II (5MT/Y), EPC Contract, Iran, 2012-2017. Cooperator: Outotec, Germany.

- Foolad Sang Lime and Dolomite Vertical Kiln (3\*400 Tons / Day), EPC Contract, Iran, 2012- 2017,
   Cooperator: CHISAKI, Japan.
- AFA Steelmaking and casting Plant, MC Contract, Iran, 2014-2016. Cooperator SMS Concast, Germany.
- HDRI plant, FASA Complex, IRITEC, 2016.
- Reconstruction rail manufacturing line, ESCO, Iran, 2014-2016. Cooperator Kuttner
- Qaenat Lime Plant, Iran, 2016, Co-operator, Maerz, Switzerland.

## **Green projects**

- Grinding pelletizing losses and reusing them in pelletizing plant, Mobarakeh Steel Company, 2014.
- Reusing construction waste material
- Municipal Solid waste management, waste-to-energy (Anaerobic Digestion, incineration and Gasification plants), Co-operator: Outotec, HZI,....
- Desulphurization methods for pelletizing plant of Mobarakeh Steel Company., Co-operator: FLSMITH,
   NU-TECH, Dustven. IRMA.
- EAF Slag Processing system, Mobarakeh Steel Company, 2016, Co-operator, Ecofer, Finland.

## **Feasibility Study reports**

- Pelletizing Plant, Persian Gulf Saba Steel Company, 2016.
- Graphite Electrode project, Ardakan, Iran, 2015.
- Steel Making Plant, Sarakhs, Khorasan, Iran, 2013
- Modification of DRI plant GHAEM 2, ESCO, 2014.

#### Quality Control and Production Supervisor

Zarin Iran Porcelain Industries Company | Iran | www.zariniran.com

Oct. 2011 - May. 2012

#### **Highlights:**

- Quality control from raw material to finish product
- Find creative solution to eliminate product defects; Supervised of operator performance and equipment.
- Filling ISO forms routinely and preparing daily report on factory conditions to manage production lines.

#### \*\*Achievements:

- Removing pinholes in hotel dishes leading to improvement quality of products and profit.
- Improving quality of products of hand worked glazed unit, affected on manufacturing profit and production efficiency.
- Managing and experimental practical skills by supervision of factory production line and testing quality of raw materials.

# **Teaching / Academic Experience (In Australia)**

#### > Lab/teaching Assistant Demonstrator

EIS Faculty, University of Wollongong, NSW, Australia

Mar. 2018 - Jul.2020

## Marketing and Managing Experience

President of Persian Cultural Society Club (Volunteer work)

## **Highlights:**

- Planning and organizing more than 10 Event
- Managing social media and preparing adverts

## Director of Advertising & Publicity Office (Self-Employed)

Asooyeh advertisement and Art Group | Iran | www.asooyeh.com

Jan. 2016 - Jan. 2017

#### **Highlights:**

- More than 10 Graphic Design projects consisting of catalogue, Poster, Logo, ...
- Designed Engineering website like http://sbr-co.net, http://www.notazco.com/.
- Created Business Marketing Packages for Arta Sepehr Kavian, Novin Tejarat, Rashnu Companies.

## **Internship**

ISOMAX Unit| Esfahan Oil Refinery Company |Iran| www.eorc.ir

**Summer 2007** 

## **EDUCATION**

PhD of Material/Mechanical Engineering (Industrial Project)

Feb. 2017- Aug. 2020

School of mechanical materials and mechatronic engineering, Faculty of engineering and information Science, University of Wollongong, NSW, Australia.

#### **Industrial Partner**

Molycop Industry, a global leader in grinding media, molycop.com ((https://molycop.com/)

#### \*\*Main Outcomes:

- Microstructural developing of low alloyed high carbon steel for industrial application. It improves wear resistance of steel balls, will prolong the life of grinding media, reduce pollution and increase energy efficiency.
- Simulation of industrial heat treatment processes, using the ABAQUS software.
- Developing a novel technique to use a non-destructive magnetic measurement technique to the relationship between microstructure and mechanical properties of high-carbon steel.
- Presentation at the premier international congress, Euromat 2019, Stockholm, Sweden.
- Presentation at Australia's largest interdisciplinary technical meeting, CAMS 2018, advanced material and manufacturing, Wollongong, November 2018, Australia.
- Based on this research 4 article in high impact international journal will be publish in 2020.

## **▶** MSc of Chemical Engineering-Inorganic Chemical Industries

Sep. 2008-Feb. 2011

Iran University Science and Technology, Iran, Grade: 16.94/20 (HD, Third rank)

**Dissertation:** « Investigating the effects of ethanol amines and polyglaycoles as grinding aid in cement mill. », **Seminar:** «Investigating the applications of glass flake and its effect on polymer coatings»,

> BSc of Chemical Engineering-Inorganic Chemical Industries

Sep. 2004-Jun. 2008

University of Kashan, Iran, Grade: 16.77/20 (HD, First rank)

Dissertation: «Simulation of Distillation Part of Isomax Unit of Isfahan Refinery by HYSYS. »

## **CERTIFICATES**

- LEAP Module –Research Commercialization, 5 Weeks online course by e-Grad School (Australia) (eGSA), 2017
- LEAP Module Critical thinking and creativity, e-Grad School (Australia) (eGSA), 2017.
- LEAP Module Project Management, e-Grad School (Australia) (eGSA), 2017.
- LEAP Module -Leadership and communication skill, e-Grad School (Australia) (eGSA), 2017.
- Principals and Theory of Piping, 32 h, 2015.
- Organizational Behaviour, 2014.
- Internal Audit training Course, F.T. Co, Esfahan (Iran), 2013.
- Entrepreneurship and business skills, Ministry of Cooperatives Labour and Social Welfare, Esfahan (Iran).

## **TECHNICAL SKILLS**

- Microsoft Office; Photoshop; Outlook, Polymath, Maple, Matlab, Autodesk Vault, Primavera
- Engineering Software: Abaqus, ThermoCalc, AutoCAD, HYSYS,...
- Laboratory skills: Sample precreation, microscopical techniques, mechanical tests, heat treatment, chemical analysis,...

# **PROFESSIONAL MEMBERSHIP**

The Australasian Institute of Mining and Metallurgy (The AusIMM), Australia.
 Green manufacturing hub, UNSW, Australia
 Isfahan Science and technology town.
 Cement research Centre, IUST, Iran.

2019- Present
2014-2017
2009-2012

## **HONOURS AND AWARDS**

- HDR UOW scholarship, 2017-2021.
- Awarded by UOW to attend EUROMAT 2019 Conference, Stockholm, Sweden, September 2019.
- Awarded by UOW to attend iAccelerate Impact Conference, Innovation campus, UOW, August 2017.
- Official Permission to establish research centre in mineral processing, by Ministry of Industry, Mine & Trade at a Glance at SBR, 2016, Iran.
- Official permission to establish advertising agency by Ministry of Culture guidance, 2016, Iran.
- Iranian Science and technology scholarship.
- Third Rank in Master of Iran University Science and Technology. 2011.
- First rank in the bachelor's and chosen as elite student in Chemical Engineering, 2008.
   Top 1% of applicants of Iran University Entrance Exam (konkoor) in the field of Mathematics, 2004.

## **REFERENCES**

- Available upon request