Amir Yaraghi

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EDUCATION

Master of Applied Science (MASc) – Chemical Engineering, Ryerson University, Toronto, ON, 2015-2018

Thesis: *Comprehensive assessment of mixing performance for a Horizontal Agitated Paddle powder blender through DEM simulations and experiments.*

Bachelor of Engineering – Chemical Engineering (Co-op), Ryerson University, Toronto, ON, 2007– 2013

CORE COMPETENCIES

- Process optimization
- Testing & evaluation
- Computational methods
- Chemical analysis
- Planning & development
- Creative problem solving
- Technical troubleshooting
- Leadership/teamwork
- Plant/facility operations
- Technical reports
- Product/process Design
- Efficiency improvement
- Production management
- Cost reduction strategies
- SOP management

TECHNICAL SKILLS

- AutoCAD
- EDEM
- LIGGGHTS
- MS Visio
- MATLAB
- SolidWorks
- PFD / P&ID development
- Heat transfer
- MS Office Suite
- C-Programming
- Aspen HYSYS
- Fluid dynamics

PROFESSIONAL EXPERIENCE

Research associate, Ryerson University, Department of Chemical Engineering, Toronto, ON
September 2015 – January 2018

- Investigated the mixing performance of a powder blender used in the pharmaceutical industry through the discrete element method (DEM) simulations and experiments.
- Designed, procured, and developed the powder blender assembly required for experiments.
- DEM model validation was performed by fine-tuning simulation parameters and comparing the simulation and experimental results.
- EDEM and LIGGGHTS software were utilized to simulate powder mixing, while SolidWorks and MATLAB were used to develop 3D models and post-process simulation data respectively.
- The results from these novel investigations were accepted and published in various prestigious journals.

Product development technician, Formarum Inc., Richmond Hill, ON
July 2013 – March 2015

- Collaborated in developing an innovative and award-winning Device (Dive) for the disinfection of recreational water bodies, such as swimming pools, hot tubs, spas, and water gardens.
- Performed validation experiments for proof of concept through careful examination and fine-tuning of process parameters.
- Constructed, documented and updated various SOPs for conducting wastewater treatment experiments in order to uncover product improvements.
- Developed and modified the functional Prototype through extensive flow simulation models by using Solidworks and treated water experiments.
- Constructed the process control mechanism for maintaining the optimum concentration of active ingredients for microbicidal and algaecidal effectiveness.

Process engineer (Co-op), Atlantic Packaging Products Ltd., Scarborough, ON
Jan 2012 – May 2012

- Uncovered optimization opportunities by combining manual and automatic testing processes which reduced time and improved accuracy while addressing environmental issues.
- Performed routine troubleshooting procedures on numerous processes to minimize production inefficiencies.
- Presented clear and detailed results in discussions with the supervisor to manage changes for better quality control.
- Showcased strong report writing skills in presenting outcomes of analysis and advised on changes for compliance.

PUBLICATIONS

Ebrahimi. Mohammadreza, **Yaraghi. Amirsalar,** Ein-Mozaffari. Farhad, Lohi. Ali, The effect of impeller configurations on particle mixing in an agitated paddle mixer, Powder Technology. 332 (2018) 158-170.

Yaraghi. Amirsalar, Ebrahimi. Mohammadreza, Ein-Mozaffari. Farhad, Lohi. Ali, Mixing assessment of non-cohesive particles in a paddle mixer through experiments and discrete element method (DEM), Advanced Powder Technology. 29 (2018) 2693-2706.

HONOURS AND AWARDS

Graduate Academic Excellence Award M.A.Sc, Program, October 2016, valued: $2000
Presented: Professor and Graduate Program Director, Dr. Farhad Ein-Mozaffari, P.Eng
For high academic excellence in the Chemical Engineering M.A.Sc. Program.

Dean's list: 2009-2010| 2011-2012|2012-2013
Presented: Dean, Dr. Mohamed Lachemi, P.Eng., FCAE, FCSCE
Special Recognition of outstanding academic achievement in the Chemical Engineering Co-op program.

Chemical Engineering Faculty Award, November 2010, valued: $300
Presented: Dean, Dr. Mohamed Lachemi, P.Eng., FCAE, FCSCE
Recipient of the Chemical Engineering Faculty award for academic excellence.