

#### **PERSONAL INFORMATION:**

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## **EDUCATION:**

- Ph.D. (2012-2018)
  - Energy Systems Engineering
  - o K. N. Toosi University of Technology, Tehran, Iran
  - o Thesis Title: Analysis of Thermal Stability in Lead-acid Batteries
- M.Sc. (2007-2009)
  - o Mechanical Engineering of Agricultural Machinery
  - o University of Tehran, Tehran, Iran
  - Thesis Title: Energy and Exergy Analysis of a Fluidized Bed Dryer by Laboratorial Method and Simulation of the System Using Computational Fluid Dynamic (CFD) Method
- B.Sc. (2002-2007)
  - Agricultural Machinery Engineering
  - o University of Tabriz, Tabriz, Iran

# **RESEARCH INTEREST:**

- Renewable energy
- Battery and energy storage systems
- Heat and fluid flow
- Computational Fluid Dynamic (CFD) method
- Energy and exergy analysis
- Design and development of agricultural machinery
- Stability analysis
- Modeling and simulation
- Optimization

## **PUBLICATION:**

- Nazghelichi, T., Torabi, F. and Esfahanian, V., 2021. Reducing the charging time of a lead-acid cell in the sense of linear stability analysis. *Journal of Energy Storage*, 36, pp.102-369.
- Nazghelichi, T., Torabi, F. and Esfahanian, V., 2020. Non-dimensional analysis of electrochemical governing equations of lead-acid batteries. *Journal of Energy Storage*, 275, pp.192-199.
- Nazghelichi, T., Torabi, F. and Esfahanian, V., 2018. Prediction of temperature behavior of a lead-acid battery by means of Lewis number. *Electrochimica Acta*, 275, pp.192-199.
- Nazghelichi, T., Torabi, F. and esfahanian, V., 2018. Optimization of geometrical parameters in a lead-acid battery using response surface method to access of maximum capacity, minimum charge-time and minimum temperature rise, *Modares Mechanical Engineering*, Vol. 18, No. 04, pp. 1-10, 2018 (in Persian).
- Nazghelichi, T., Jafari, A., Kianmehr, M.H. and Aghbashlo, M., 2013. CFD simulation and optimization of factors affecting the performance of a fluidized bed dryer. *Iranian Journal of Chemistry and Chemical Engineering (IJCCE)*, 32(4), pp.81-92.
- Nazghelichi, T., Aghbashlo, M., Kianmehr, M.H. and Omid, M., 2011. Prediction of energy and exergy of carrot cubes in a fluidized bed dryer by artificial neural networks. *Drying Technology*, 29(3), pp.295-307.
- Nazghelichi, T., Aghbashlo, M. and Kianmehr, M.H., 2011. Optimization of an artificial neural network topology using coupled response surface methodology and genetic algorithm for fluidized bed drying. *Computers and electronics in agriculture*, 75(1), pp.84-91.
- Nazghelichi, T., Kianmehr, M.H. and Aghbashlo, M., 2011. Prediction of carrot cubes drying kinetics during fluidized bed drying by artificial neural network. *Journal of food science and technology*, 48(5), pp.542-550.
- Aghbashlo, M., Kianmehr, M.H., Nazghelichi, T. and Rafiee, S., 2011. Optimization of an artificial neural network topology for predicting drying kinetics of carrot cubes using combined response surface and genetic algorithm. *Drying technology*, 29(7), pp.770-779.
- Aghbashlo, M., Kianmehr, M.H., Arabhosseini, A. and Nazghelichi, T., 2011. Modeling the carrot thin-layer drying in a semi-industrial continuous band dryer. *Czech Journal of Food Science*, 29(5), pp.528-538.
- Nazghelichi, T., Kianmehr, M.H. and Aghbashlo, M., 2010. Thermodynamic analysis of fluidized bed drying of carrot cubes. *Energy*, 35(12), pp.4679-4684.
- Nazghelichi, T., Torabi, F., Esfahanian, V., 2019. Effective parameters in thermal stability of lead-acid batteries and reducing the charging time. *1st International*

*Conference on Modern Power Trains With the Focus on Electric Vehicles.* Iran University of Science and Technology, Tehran, Iran. 27--28th Feb.

- Nazghelichi, T., Kianmehr, M.H. and Hassanbeigi, S., 2010. Simulation of a fluid bed dryer using CFD method and its optimization using Taguchi method. *The 6th International Congress of Agricultural Machinery Engineering and Mechanization. University of Tehran, Iran.* 15--16th Sep.
- Nazghelichi, T., Kianmehr, M.H. and Hassanbeigi, S., 2010. Analysis of thermodynamic effects of some drying parameters in a fluid bed dryer. *The 6th International Congress of Agricultural Machinery Engineering and Mechanization*. University of Tehran, Iran. 15--16th Sep.
- Nazghelichi, T., Kianmehr, M.H., Aghabshlo, M. and Arabhosseini, A. Mathematical modeling of thin-layer drying of carrot slices in length of continuous dryer. *The 5th biannual congress of agricultural machinery engineering and mechanization*. Ferdowsi University of Mashhad, Iran. 28--29th Aug.

## **ACADEMIC TEACHING EXPERIENCE:**

- Thermodynamics
- Fluid mechanics
- Applied fluid mechanics
- Electromechanical power conversion systems
- Engineering of hydroelectric energy
- Application of hydraulics and pneumatics
- Engineering circuit analysis
- Mass and energy balance
- Statics
- Strength of materials
- Mathematical modeling and simulation
- Differential equations

#### LANGUAGES:

- English: Professional working proficiency
- Persian: Native proficiency
- Turkmen: Native proficiency
- Arabic: Limited working proficiency
- Turkish: Limited working proficiency