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PUBLICATIONS

My research has resulted in **28** peer-reviewed scientific journal and conference articles (**14** of them as lead author) with more than **260** citations to date since 2015. Please refer to my **LinkedIn** and **Google Scholar** profiles for more details.

LIST OF PUBLICATIONS

- 1- **Rahbar, K.**, A. Riasi, H. Khatam Bolouri Sangjoei and N. Razmjoo (2019). "[Heat Recovery of Nano-fluid Based Concentrating Photovoltaic Thermal \(CPV/T\) Collector with Organic Rankine Cycle.](#)" Elsevier, *Energy Conversion and Management*. **179** (1): 373-396.
- 2- **Rahbar, K.**, A. Riasi. "Performance Enhancement and Optimization of Solar Chimney Power Plant Integrated with Transparent Photovoltaic Cells and Desalination Method." Submitted to the *Journal of Sustainable Cities and Societies*. Under 1st revision.
- 3- **Rahbar, K.**, S. Mahmoud, R. K. Al-Dadah and N. Moazami (2015). "[Parametric analysis and optimization of a small- scale radial turbine for Organic Rankine Cycle.](#)" Elsevier, *Energy* **83**(0): 696-711.
- 4- **Rahbar, K.**, S. Mahmoud, R. K. Al-Dadah and N. Moazami (2015). "[Modelling and optimization of organic Rankine cycle based on a small-scale radial inflow turbine.](#)" Elsevier, *Energy Conversion and Management* **91**(0): 186-198.
- 5- **Rahbar, K.**, S. Mahmoud and R. K. Al-Dadah (2016). "[Mean-line modeling and CFD analysis of a miniature radial turbine for distributed power generation systems.](#)" Oxford university press, *International Journal of Low-Carbon Technologies*, **11**(2): 157-168.
- 6- **Rahbar, K.**, S. Mahmoud, R. K. Al-Dadah, N. Moazami and S. Mirhadizadeh (2017). "[Review of organic Rankine cycle for small-scale applications](#)". Elsevier, *Energy Conversion and Management* **134**:135-155.
- 7- **Rahbar, K.**, S. Mahmoud, R. K. Al-Dadah, N. Moazami and A. Bahr Ennil (2015). "[Preliminary mean-line design and optimization of a radial turbo-expander for waste heat recovery using organic Rankine cycle.](#)" Elsevier, *Energy Procedia* **75**: 860-866.
- 8- **Rahbar, K.**, S. Mahmoud, R. K. Al-Dadah and N. Moazami (2017). "[Development and Experimental Study of a Small-Scale Compressed Air Radial inflow Turbine for Distributed Power Generation](#)". Elsevier, *Applied Thermal Engineering*, **116**: 549-583.
- 9- **Rahbar, K.**, S. Mahmoud, R. K. Al-Dadah, N. Moazami and D. Ashmore. "[Feasibility study of power generation through waste heat recovery of wood burning stove using the ORC technology](#)". Elsevier, *Journal of Sustainable cities and societies*, **35**:594-614.
- 10- **Rahbar, K.**, S. Mahmoud, R. K. Al-Dadah and N. Moazami (2015). "[Integrated modelling and multi-objective optimization of organic Rankine cycle based on radial inflow turbine.](#)" In the 60th ASME Turbo Expo 2015: Turbine Technical Conference and Exposition, Montreal, Quebec, Canada, June 15–19, 2015. Paper No. GT2015-42835
- 11- **Rahbar, K.**, S. Mahmoud and R. K. Al-Dadah (2015). "[Optimized efficiency maps and new correlation for performance prediction of ORC based on radial turbine for small-scale applications.](#)" In the 3rd international seminar on ORC power systems, ASME ORC 2015, 12-14 October 2015, Brussels, Belgium.
- 12- **Rahbar, K.**, S. Mahmoud, R. K. Al-Dadah, N. Moazami and A. Bahr Ennil (2015). "[Preliminary mean-line design and optimization of a radial turbo-expander for waste heat recovery using organic Rankine cycle.](#)" In the 7th International Conference on Applied Energy (ICAE), 28-31 March 2015, Abu Dhabi, UAE.
- 13- **Rahbar, K.**, S. Mahmoud, R. K. Al-Dadah and A. Elsayed (2013). "[Modelling of a miniature radial turbine for distributed power generation systems.](#)" In the 5th International Conference on Applied Energy (ICAE), 1-4 July 2013, Pretoria, South Africa.
- 14- **Rahbar, K.**, S. Mahmoud, R. K. Al-Dadah and N. Moazami. "[One-dimensional and three-dimensional numerical optimization and comparison of single-stage supersonic and dual-stage transonic radial inflow turbines for the ORC](#)". In the ASME Power and Energy Conference, 26-30 June 2016, Charlotte, North Carolina, USA.
- 15- **Rahbar, K.**, R. Davarpanah, N. Moazami. "[Investigating the Methods of Electricity Generation from the Solar Energy for Domestic Applications](#)". In the 2nd international conference and exhibition on solar energy (ICESE), 30-31 August 2015, Tehran, Iran.
- 16- Bahr Ennil, A., S. Mahmoud, R. K. Al-Dadah, A. Al-Jubori and **K. Rahbar** (2015). "[Prediction of Losses in Small Scale Axial Air Turbine Based on CFD Modelling.](#)" Elsevier, *Energy Procedia* **75**: 3271-3276.
- 17- Ayad Al Jubori, R. K. Al-Dadah, S. Mahmoud, A.S Bahr Ennil and **K. Rahbar** (2016). "[Three dimensional optimization of small-scale axial turbine for low temperature heat source driven organic Rankine cycle.](#)" Elsevier, *Energy Conversion and Management* **133**: 411-426.
- 18- Bahr Ennil, A., R. K. Al-Dadah, S. Mahmoud, **K. Rahbar**, A. Al-Jubori (2016). "[Minimization of loss in small scale axial air turbine using CFD modeling and evolutionary algorithm optimization.](#)" Elsevier, *Applied Thermal Engineering* **102**, 841-848.

- 19- Khalil, K., S. Mahmoud, R. K. AL-Dadah, A. Al-Jubori, **K. Rahbar** (2016). "[Impact of skin friction, tip clearance and trailing edge losses on small scale cryogenic axial turbine performance.](#)" In the 61st ASME Turbo Expo 2016: Turbine Technical Conference and Exposition, Seoul, South Korea, June 13–17, 2016. Paper No. GT2016-57843.
 - 20- Abdullahi, B., R.K. Al-Dadah, S. Mahmoud, **K. Rahbar** (2013). "[Effect of slope angle and truncation level on heat pipe based Compound Parabolic Collector for Kano, Nigeria.](#)" In the 5th International Conference on Applied Energy (ICAE), 1-4 July 2013, Pretoria, South Africa.
 - 21- N. Moazami, M. L. Wyszynski, H. Mahmoudi, A. Tsolakis, Z. Zou, P. Panahifar, **K. Rahbar**, "[Modelling of a fixed bed reactor for Fischer–Tropsch synthesis of simulated N₂-rich syngas over Co/SiO₂: Hydrocarbon production.](#)" Elsevier, *Fuel*, vol. **154**, pp. 140-151, 8/15/2015.
 - 22- N. Moazami, H. Mahmoudi, **K. Rahbar**, P. Panahifar, A. Tsolakis, M. L. Wyszynski, "[Catalytic performance of cobalt–silica catalyst for Fischer–Tropsch synthesis: Effects of reaction rates on efficiency of liquid synthesis.](#)" Elsevier, *Chemical Engineering Science*, vol. **134**, pp. 374-384, 9/29/2015.
 - 23- N. Moazami, H. Mahmoudi, P. Panahifar, **K. Rahbar**, A. Tsolakis, M. L. Wyszynski, "[Mathematical Modelling and Performance Study of Fischer-Tropsch Synthesis of Liquid Fuel over Cobalt-silica.](#)" Elsevier, *Energy Procedia*, vol. **75**, pp. 62-71, 8/2015.
 - 24- N. Moazami, M. L. Wyszynski, **K. Rahbar**, A. Tsolakis, H. Mahmoudi "[A comprehensive study of kinetics mechanism of Fischer-Tropsch synthesis over cobalt-based catalyst.](#)" Elsevier, *Chemical Engineering Science*, vol **171**, pp 32-60, 2/11/2017
 - 25- N. Moazami, M. L. Wyszynski, **K. Rahbar**, A. Tsolakis. "[Parametric Study and Multi-Objective Optimization of Fixed-Bed Fischer–Tropsch Reactor: The Improvement of FT Synthesis Products Formation and Synthetic Conversion.](#)" ACS Publications, *Industrial & Engineering Chemistry Research*, vol DOI: 10.1021/acs.iecr.7b02025, 1/8/2017.
 - 26- N. Moazami, H. Mahmoudi, P. Panahifar, **K. Rahbar**, A. Tsolakis, M. L. Wyszynski, "[Mathematical Modelling and Performance Study of Fischer-Tropsch Synthesis of Liquid Fuel over Cobalt-Silica.](#)" In the 7th International Conference on Applied Energy – IC AE2015, Abu Dhabi, United Arab Emirates, 31/03/2015.
 - 27- N. Moazami, H. Mahmoudi, A. Tsolakis, **K. Rahbar**, P. Panahifar, M. L. Wyszynski, "[Mathematical modelling and chemical kinetics study of Fischer-Tropsch synthesis on a cobalt-silica catalyst.](#)" DECHEMA, European Symposium on Chemical Reaction Engineering (ESCRE 2015), Fürstenfeldbruck, Germany, 28/10/2015.
 - 28- N. Moazami, H. Mahmoudi, **K. Rahbar**, P. Panahifar, A. Tsolakis, M. L. Wyszynski, "[Study of three different kinetics approaches for Fischer-Tropsch synthesis over Co/SiO₂.](#)" IMechE, Internal Combustion Engine, Royal College of Physicians, London, United Kingdom, 03/12/2015.
 - 29- Nima Moazami, Miroslaw Lech Wyszynski, **Kiyarash Rahbar**, Athanasios Tsolakis, "[Kinetic Study and Multi-Objective Optimization of Fischer-Tropsch Synthesis Performance over Co-based Catalyst Using Evolutionary Optimization Algorithm](#)", In the 253rd American Chemical Society, National Meeting and Exhibition, San Francisco, California, April 2-6, 2017.
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