

Dr. Reda Ragab

Assistant Professor



Personal Data:

Nationality | Egypt
Date of Hire | 20/8/2025
Date Rank Obtained | 2017
Department | Mechanical Engineering
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Education:

Academic Degree	Major	specialty	Place of Issue	Address	Date
Doctorate (PhD)	Mechanical Engineering	Thermo-fluid Sciences	University of New Orleans	New Orleans, LA, USA	2013
Masters (M.Sc.)	Mechanical Engineering	Thermo-fluid Sciences	Zagazig University	Zagazig, Egypt	2008
Bachelor (B.Sc.)	Mechanical Engineering	Thermo-fluid Sciences	Zagazig University	Zagazig, Egypt	2000

PhD, Master or Fellowship Research Title: (Academic Honors or Distinctions):

PhD	Experimental Investigation of Mist Film Cooling and Feasibility Study of Mist Transport in Gas Turbines
Master	Numerical Simulation for the Impact of Wet Compression on the Performance and Erosion of an Axial Compressor

Experiences:

Title of Job	Address of Work	Country	Date	
Associate Professor	Zagazig University	Egypt	From	2024
			To	Current
Assistant Professor	Zagazig University	Egypt	From	2017
			To	2024
Research Associate	University of New Orleans	USA	From	2016
			To	2017
Postdoctoral Researcher	University of Memphis, TN	USA	From	2015
			To	2016
Postdoctoral Researcher	Louisiana State University	USA	From	2014
			To	2015
Research Assistant	University of New Orleans	USA	From	2009
			To	2013
Research/Teaching Assistant	Zagazig University	Egypt	From	2000

			TA	2009
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Research Interests:

1. Computational Fluid Dynamics(CFD)
2. Turbomachinery Simulations
3. Renewable Energy (Wind, Solar, and Hybrid Systems)
4. Fluid Flow and Heat Transfer
5. Experimental Fluid Dynamics

Publications:

#	Name of author(s)	Title of Publication	Publisher and Date of Publication	Link of Publication
1	Saber, M., Abdelall, G., Ezzeldin, R., Abdel Gawad, A.F., and Ragab, R.	Techno-economic assessment of the dethridge waterwheel under sluice gates in a novel design for pico hydropower generation	Renewable Energy , Vol (234), Nov. 2024, 121206,	https://doi.org/10.1016/j.renene.2024.121206
2	Hamdi, M.; El Salmawy, H. A.; and Ragab, R.,	Incorporating Operational Constraints into Long-Term Energy Planning: The Case of the Egyptian Power System Under High Share of Renewables	Energy , Vol 300, 2024, 131619.	https://doi.org/10.1016/j.energy.2024.131619 .
3	Ragab, R. , Hamdi, M., El Salmawy, H.A., and Ismail, M.,	Optimized system for combined production of electricity/green hydrogen for multiple energy pathways: a case study of Egypt	Clean Energy , Vol. 8, Issue 4, August 2024, Pages 219–236	https://doi.org/10.1093/ce/zkae046
4	Hamed, I., AbdelGawad, A.F. & Ragab, R.,	Computational study of reducing wind loads on solar-power plants using windbreaks	J. Braz. Soc. Mech. Sci. Eng. 46, 371 (2024).	https://doi.org/10.1007/s40430-024-04787-0
5	Khass, T, Ragab, R., El Salmawy, H. A., and Ismail, M.	Stochastic Model for Predicting the Evolution of Electric Vehicles in Egypt and Their Impact on Energy and Environment up to 2040,”	Journal of Southwest Jiaotong University , Vol 59(2), April 2024.	https://doi.org/10.35741/issn.0258-2724.59.2.9
6	Azab I. A., Khass T., El Salmawy H.A., & Ragab R.	Design, Installation, and Performance Monitoring of a 105 kWp Rooftop Solar PV System	Journal of Advanced Research in Fluid Mechanics and Thermal Sciences , 111(2), 16–42.	https://doi.org/10.37934/arfmts.111.2.1642

7	Hamdi M., Ragab R , El Salmawy H.A.	The value of diurnal and seasonal energy storage in baseload renewable energy systems: A case study of Ras Ghareb-Egypt	J. Energy Storage 61: 106764.	https://doi.org/10.1016/j.est.2023.106764
8	Hamdi M., El Salmawy H.A., Ragab R	Optimum configuration of a dispatchable hybrid renewable energy plant using artificial neural networks: Case study of Ras Ghareb, Egypt	AIMS Energy , 2023, 11(1): 171-196.	10.3934/energy.2023010
9	Ragab, R. , Al Sawy, T., Hamdi, M., El Salmawy H. A.	Optimized Hybrid Renewable Energy System for a Baseload Plant	Applied Energy Symposium: MIT A+B, Cambridge, USA, August 11-13, 2021. Energy Proceedings, Vol.17: Technology Innovation to Accelerate Energy Transitions	https://doi.org/10.46855/energy-proceedings-8674
10	Ragab, R. , and El Salmawy, H. A.	Techno-Economic Assessment of Wind Farm Repowering : A case Study of Zafaranah Station, Gulf of Suez, Egypt	Applied Energy Symposium: MIT A+B, Cambridge, USA, August 11-13, 2021. Energy Proceedings, Vol. 17: Technology Innovation to Accelerate Energy Transitions,	https://doi.org/10.46855/energy-proceedings-8624
11	Hamdi, M., Ragab, R. , and El Salmawy, H. A	Design Optimization of a Utility-Scale Grid-Connected Solar PV System for Least Cost of Electricity	2 nd International Conference for Engineering Sciences and Applications (ICESA): Paper No. ICESA2021-MEC-206, Cairo, Egypt, October 22-23, 2021. (Best Paper Award)	
12	Wang, T. and Ragab, R.	Investigation of Applicability of Transporting Water Mist for Cooling Turbine Blades	ASME J. of Thermal Science and Engineering Applications , Feb. 2020, Vol. 12 /	https://doi.org/10.1115/1.4042860

			011009-1~11, 2020;	
13	Ragab, R. and Wang, T.	An Experimental Study of Mist/Air Film Cooling with Fan-Shaped Holes on an Extended Flat Plate - Part 1: Heat Transfer,"	ASME J. Heat Transfer 140 (4), 042201-1~12, April, 2018	https://doi.org/10.1115/1.4037641
14	Ragab, R. and Wang, T.,	An Experimental Study of Mist/Air Film Cooling with Fan-Shaped Holes on an Extended Flat Plate - Part 2: Two-Phase Flow Measurements and Droplet Dynamics	ASME J. Heat Transfer 140(4), 042202-1 ~11, April, 2018 .	https://doi.org/10.1115/1.4037642
15	Ragab, R., and Wang, T	An Experimental Study of Mist Film Cooling with Fan-Shaped Holes on an Extended Flat Plate - Part 1: Heat Transfer	ASME Turbo Expo 2014: June 16-20, Düsseldorf, Germany,	https://doi.org/10.1115/GT2014-26169
16	Ragab, R., and Wang, T.	An Experimental Study of Mist/Air Film Cooling with Fan-Shaped Holes on an Extended Flat Plate - Part 2: Two-Phase Flow Measurements and Droplet Dynamics	ASME Turbo Expo 2014, June 16-20, Düsseldorf, Germany	https://doi.org/10.1115/GT2014-26170
17	Ragab, R., and Wang, T	Investigation of Applicability of Using Water Mist for Cooling High- Pressure Turbine Components via Rotor Cavity Feed Channels,"	ASME 2013 Summer Heat Transfer Conference, July 14-19, 2013, Minneapolis, MN, USA,	https://doi.org/10.1115/HT2013-17150
18	Wang, T., and Ragab, R	Investigation of Applicability of Transporting Water Mist for Cooling Turbine Blades	ASME Turbo Expo, June 16-20, 2014, Dusseldorf, Germany	https://doi.org/10.1115/GT2014-25818
19	Ragab, R., and Wang, T.	An Investigation of Applicability of Transporting Water Mist for Cooling Turbine Vanes	Proceedings of Turbo Expo 2012, June 11-15, 2012, Copenhagen, Denmark	https://doi.org/10.1115/GT2012-70110
20	Ragab, R., and Wang, T.	An Investigation of Liquid Droplet Evaporation Model Used in Multiphase Flow Simulation	IMECE2012, November 9-15, 2012, Houston, Texas, USA.	https://doi.org/10.1115/IMECE2012-87392

21	A. F. El-Sayed, H.A. El-Salmawy, M.H. Gobran, and Ragab, R.	Numerical Study of Wet Compression Using Methanol Injection in Axial Compressor	Proceedings of ASME Turbo Expo 2010: June 14-18, 2010, Glasgow, UK.	https://doi.org/10.1115/ GT2010-22079
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Language Proficiency:

1. Arabic (Native Language)
2. English (Professional)
3. French (Beginner)