FAROOQ SAEED

ASSOCIATE PROFESSOR

Personal Data

Nationality | Canadian

Date of Birth | 31 October 1963

Department | Mechanical and Energy Engineering

Official IAU Email | fsaeed@iau.edu.sa

Office Phone No. | +966 50 798 4878

Language Proficiency

Language	Read	Write	Speak
Arabic	X		
English	X	X	X
Urdu	X	X	X

Academic Qualifications (Beginning with the most recent)

Date	Academic Degree	Place of Issue	Address
15-01-1999	PhD	Urbana, Illinois, USA	University of Illinois at Urbana-Champaign, Department of Aerospace Engineering, 306 Talbot Lab, 104 S. Wright St., Urbana, IL 61801, USA.
09-08-1993	MS		
26-04-1987	BE	Karachi, Pakistan	NED University of Engineering & Technology, University Road, Karachi 75270, Pakistan
07-08-2009	ABET's IDEAL Scholar certificate	Baltimore, USA	Institute for Development of Excellence in Assessment Leadership (IDEAL Scholar), ABET, Baltimore, USA
13-06-2011	Turbine Blade Manufacturing Technology certificate	Chicago, Illinois, USA	AWEA/SAE, Chicago, Illinois, USA
31-08-1989	Certificate of Aviation Maintenance & Instruction	Dhamial, Pakistan	Army Aviation Base, Dhamial, Pakistan

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

PhD	Hybrid Design Methods for Full-Scale Ice Accretion Simulation
Master	Experimental Study of the Aerodynamic Characteristics of an Arc Wing

Professional Record: (Beginning with the most recent)

Job Rank	Place and Address of Work	Date
Associate Professor	Mechanical and Energy Engineering Dept, College of Engineering, University of Dammam, Dammam 34212	27 Sept. 2016 to present
Associate Professor	Mechanical Engineering Dept, College of Engineering, King Fahd University of Petroleum & Minerals, Dhahran 31261	01 Sept. 2015 – 31 August 2016
Associate Professor	Aerospace Engineering Dept, College of Engineering, King Fahd University of Petroleum & Minerals, Dhahran 31261	26 Jan. 2011 – 31 August 2015
Assistant Professor	Aerospace Engineering Dept, College of Engineering, King Fahd University of Petroleum & Minerals, Dhahran 31261	24 Aug. 2003 – 25 Jan. 2011
Research Associate	Mechanical Engineering Dept, Ecole Polytechnique de Montreal, Montreal, Canada	01 Nov. 1998 – 23 Aug. 2003

Scientific Achievements

Published Patents
(In Chronological Order Beginning with the Most Recent)

#	Name of Inventor(s)	Patent Title	Publisher and Date of Publication
1.	**Saeed, F.**	Wind power generation device with real time pitch actuation	US Patent No. 11,236,725 B2 issued on February 1, 2022.
2.	**Saeed, F.**	Real-Time Pitch Actuation in a Vertical Axis Wind Turbine	US Patent No. 10,927,810 B2 issued on February 23, 2021.
3.	**Saeed, F.**	Anti-Icing System and Apparatus	US Patent US20170166313 A1 issued on June 15, 2017
4.	**Saeed, F.**, and Al-Garni, A. Z.	Portable and Autonomous PV-VAWT-RO Desalination System	US Patent 8,043,499 issued on October 25, 2011
5.	**Saeed, F.**, and Al-Garni, A. Z.	System for Inertial Particle Separation	US Patent 7,922,784 B2, issued on April 12, 2011
6.	Al-Garni, A. Z., Kassem, A., and **Saeed, F.**	Double Action Solar Distiller	US Patent 7,857,945 B2, issued on December 28, 2010
7.	Al-Garni, A. Z., **Saeed, F.**, and Kassem, A.	Wind-Solar Desalination Farm and Park System	US Patent 7,771,568 B2, issued on August 10, 2010
8.	Al-Garni, A. Z., Kassem, A. H., Al-Garni, A. M., and **Saeed, F.**	Low-Cost Air Conditioning System for Open Area	US Patent No. US2008/0041083 A1, issued on February 21, 2008
9.	Al-Garni, A. Z., **Saeed, F.**, and Al-Asaly, A	Submersible Craft for Water Purification	US Patent 7,168,387, issued on January 30, 2007

Published Refereed Scientific Research
(In Chronological Order Beginning with the Most Recent)

#	Name of Investigator(s)	Research Title	Publisher and Date of Publication
1.	Ali, S., Al-Amri, F., **Saeed, F.**,	Numerical and Experimental Performance Evaluation of a Photovoltaic Thermal Integrated Membrane Desalination System	*Energies*. 2022; 15(19):7417. Published online: 10 October 2022

2.	Al-Amri, F. G., **Saeed, F.**, Mujeebu, M. A.	Novel dual-function racking structure for passive cooling of solar PV panels – thermal performance analysis	*Renewable Energy* 198, 2022; 100-113. Published online: 13 August 2022
3.	Houcine, A, Maatallah, T, **Saeed, F.**,	Steam and electrical power generation by a hybrid photovoltaic/parabolic dish concentrator using beam splitter technology	*Int J Energy Res*. 2022; 1- 21 Published online: 29 April 2022
4.	**Saeed, F.**, Ahmed, K. Z., Owes, A. O. E., and Paraschivoiu, I.	Anti-Icing Hot-Air Jet Heat-Transfer Augmentation Employing Inner Channels	Advances in Mechanical Engineering, Vol. 13(12), 1–13. December 2021
5.	Siddiqui, M. U., Owes, A. O. E., Alamri, F. G., and Saeed, F.	Recent development in search for alternative low global warming potential refrigerants: A review	International Journal of Air-Conditioning and Refrigeration, Vol. 28, No. 3, 2030004, (23-pages) 2020.
6.	Paraschivoiu, I., Dy, N. V., Ammar, S., and **Saeed, F.**	Multi-Megawatt VAWTs Perspective	Journal of the Transactions of the Canadian Society of Mechanical Engineers, 42(4), pp. 343-403, 2018
7.	Brahimi, T, **Saeed, F.**, Paraschivoiu, I.	Aerodynamic Models for the Analysis of Vertical Axis Wind Turbines VAWTs	International Journal of Mechanical, Aerospace, Industrial, Mechatronic and Manufacturing Engineering, Jan. 2016
8.	**Saeed, F.**	Experimental Investigation of the Aerodynamic Characteristics of an Arc Wing,	Journal of Royal Aeronautical Society Aug. 2016
9.	Khan, M. M. A., **Saeed, F.**, and Al-Garni, A. Z.	Numerical Investigation of Mechanism for Anti-Icing Hot-Air Jet Surface Heat Transfer Enhancement	International Journal of Thermo-Physics and Heat Transfer, 2015
10.	**Saeed, F.**,	Experimental and Numerical Study of Side-Sliping 65-deg Delta and Double-Delta Wings	International Journal of Engineering and Advanced Technology, Vol. 4, Issue 2, Dec. 2014
11.	**Saeed, F.,**	An Interactive Design Tool for Aircraft Engine Sand Separator Systems	International Journal of Innovative Technology and Exploring Engineering, Dec. 2014
12.	Al-Garni, A. Z., Kassem, A. H., **Saeed, F.**, and Ahmed, F.,	Effect of Glass Slope Angle and Water Depth on the Productivity of Double Slope Solar Still	Journal of Scientific and Industrial Research, Vol. 70, 2011
13.	**Saeed, F.**, Paraschivoiu, I., Trifu, O., Hess, M., and Gabrys, C.	Inverse Airfoil Design Method for Low-Speed Straight-Bladed Darrieus-type VAWT Applications	Journal of Wind Engineering, Vol. 35, No. 3, 2011, pp. 357-368
14.	Al-Faris, E., and **Saeed, F.**	Design and Optimization Method for Inertial Particle Separator	AIAA Journal of Aircraft, Nov.-Dec. 2009
15.	Paraschivoiu, I., Trifu, O., and **Saeed, F.**	H-Darrieus Wind Turbine with Blade Pitch Control	International Journal of Rotating Machinery, Aug. 2009
16.	Fregeau, M., Gabr, M., Paraschivoiu, I., and **Saeed, F.**	Simulation of Heat Transfer from Hot-Air Jets Impinging on 3D Concave Surface	AIAA Journal of Aircraft, Mar.-Apr. 2009
17.	**Saeed, F.**	Numerical Simulation of Heat Transfer from an Array of Anti-Icing Hot-Air Jets	AIAA Journal of Aircraft, Mar.-Apr. 2008

18.	Al-Garni,A. Z., **Saeed, F.,** Al-Garni, A. M.	Experimental and Numerical Investigation of 65-deg Delta and 65/40-deg Double-Delta Wings	AIAA Journal of Aircraft, Jan.-Feb. 2008
19.	**Saeed, F**., and Al-Garni, A. Z.	An Analysis Method for Inertial Particle Separator	AIAA Journal of Aircraft, July—Aug. 2007
20.	Al-Garni, A. Z., Jamal, A., **Saeed, F.,** and Kassem, A.	Failure Rate Analysis of Boeing 737 Brakes Employing Neural Network	International Journal of Reliability, Quality and Safety Engineering, August 2007
21.	Fregeau, M., **Saeed, F**., and Paraschivoiu, I.	Numerical Correlations for Heat Transfer from an Array of Hot-Air Jets Impinging on a 3D Concave Surface	AIAA Journal of Aircraft, May-June 2005
22.	**Saeed, F.**, and Al-Garni, A. Z.	Impact of Floating-Point Arithmetic on Engineering Numerical Analysis	ARA Journal, June 2005
23.	**Saeed, F.**, Gouttebroze, S., and Paraschivoiu, I.	Modified CANICE for Improved Prediction of Ice Accretion	AIAA Journal of Aircraft, Sept. 2004
24.	Yu, J., **Saeed, F.**, and Paraschivoiu, I.	An Iterative Inverse Design Method Based on Aerodynamic Streamline Equations	AIAA Journal of Aircraft, July—August 2004
25.	**Saeed, F.**	Numerical Models for Boundary-Layer Analysis on Rough Surfaces	ARA Journal, May 2004
26.	**Saeed, F.**	State-of-the-Art Aircraft Icing and Anti-Icing Simulation	ARA Journal, June 2003
27.	**Saeed, F.**, Lutz, C., Paraschivoiu, I., Kerevanian, G.-K., Sidorenko, A., Bernard, E., Cooper, R. K., and Raghunathan, R. S.	A Comparison of Skin Friction and Heat Transfer Prediction by Various Roughness Models	AIAA Journal of Aircraft, Oct. 2002
28.	**Saeed, F.**, Selig, M. S., and Bragg, M. B.	Hybrid Airfoil Design Procedure Validation for Full-Scale Ice Accretion Simulation	AIAA Journal of Aircraft, Sept.--Oct. 1999
29.	**Saeed, F.**, Selig, M. S., and Bragg, M. B.	Hybrid Airfoil Design Method to Simulate Full-Scale Ice Accretion Throughout a Given α Range	AIAA Journal of Aircraft, Mar.—Apr. 1998
30.	**Saeed, F.**, Selig, M. S., and Bragg, M. B.	Design of Subscale Airfoils with Full-Scale Leading Edges for Ice Accretion Testing	AIAA Journal of Aircraft, Jan.—Feb. 1997
31.	**Saeed, F**., and Selig, M. S.	Multipoint Inverse Airfoil Design Method for Slot-Suction Airfoils	AIAA Journal of Aircraft, July—August 1996

Scientific Research Papers Presented to Refereed Specialized Scientific Conferences

#	Name of Investigator(s)	Research Title	Conference and Publication Date
1.	Al-Hamaly, A. S., **Saeed, F.**, and Sahin, A.	Coupled Aerodynamic and Structural Optimization of Multi-Megawatt VAWT using MATLAB	AIAA Paper 2018-2021, 36th Wind Energy Symposium of the 2018 AIAA SciTech (Science and Technology) Forum, Kissimmee, Florida, USA, Jan. 8-12, 2018
2.	**Saeed, F.**, Al-Hamaly, A. S., and Paraschivoiu, I.	Establishment of Wind Energy System Design Expertise at Imam Abdulrahman Bin Faisal University	2017 SAOO Energy Conference and Exhibition, Al-Hasa, Saudi Arabia, Dec. 2017

3.	Al-Hamaly, A. S., and **Saeed, F.**	Structural Optimization of Utility Scale Vertical Axis Wind Turbine	2017 SAOO Energy Conference and Exhibition, Al-Hasa, Saudi Arabia, Dec. 2017
4.	Paraschivoiu, I., Dy, N. V., Ammar, S., and **Saeed, F.**	Multi-Megawatt VAWTs Perspective	International Symposium on Wind & Tidal Power, Paper No. 19, Montreal, Canada, May 28-31, 2017
5.	David Marten, D., Lennie, M., Pechlivanoglou, G., Paschereit, C. O., Dy, N. V., Paraschivoiu, I., and **Saeed, F.**	Validation and comparison of a newly developed aeroelastic design code for VAWT	35th Wind Energy Symposium at the AIAA SciTech Forum, AIAA Paper No. 2017-0452, Grapevine, Texas, USA, Jan. 9-13, 2017
6.	Brahimi, T., **Saeed, F.,** and Paraschivoiu, I.	Aerodynamic Models for the Analysis of Vertical Axis Wind Turbines (VAWTs)	ICPEEE 2016: 18th International Conference on Power, Energy and Electrical Engineering, January 25-26, 2016 at Istanbul, Turkey (2016)
7.	**Saeed, F.**, Basha, M., and Al-Garni, A. Z.	Simulation of Flow around a Thick Airfoil with a Vortex Trapping Cavity	8th Symposium on Numerical Analysis of Fluid Flow and Heat Transfer, International Conference of Numerical Analysis and Applied Mathematics (ICNAAM), Rhodes, Greece, 21-27 Sept. 2013.
8.	Dy, N. V., **Saeed. F.**, Ion Paraschivoiu, I.	Dynamic Response Analysis of Darrieus-Type Vertical Axis Water Turbines	23rd International Ocean and Polar Engineering Conference (ISOPE-2013), Anchorage, Alaska, USA, June 30 to July 5, 2013
9.	**Saeed, F.**	A Model for VAWT Aerodynamic Brakes	Proceedings of the 37th ARA Congress, Chisinau, Republic of Moldova, June 4-9, 2013
10.	**Saeed, F**., Omar, H. M., Paraschivoiu, I.	Use of Spinning Finite Element Approach for VAWT Vibratory Modes and Dynamic Response Assessment	AWEA's WINDPOWER 2013 Conference & Exhibition, May 5-8, 2013, at Chicago, USA
11.	**Saeed, F.**, and Al-Garni, A. Z.	An Inverse Design Method for Aircraft Engine Sand Separator System	38th European Rotorcraft Forum of the American Helicopter Society, Amsterdam, The Netherlands, 4-7 September 2012
12.	Hasanzadeh, K., Laurendeau, E., **Saeed, F.**, and Paraschivoiu, I.	Wing Aerodyn Performance Analysis and Stall Prediction Using CANICE2D-NS Icing	20th Annual Conference of the CFD Society of Canada, Canmore, Alberta, Canada, May 9-12, 2012
13.	**Saeed, F.**, Hasanzadeh, K., Gahlawat, J., Paraschivoiu, I.	Aircraft Icing and Anti-Icing Simulation Code CANICE3D: Panel Method vs. CFD	Oral Presentation at SAE/AIAA International Conf. on Aircraft and Engine Icing and Ground De-Icing, Chicago, Illinois, USA, June 13-17, 2011
14.	Al-Garni, A. Z., Kassem, A. H., **Saeed, F.**, and Ahmed, F.	Optimization of Glass Tilt Angle of Solar Still in Saudi Arabia	IDA's Desalination Industry Action for Good Conference, Santa Margherita, Portofino, Italy, May 16-18, 2011
15.	Khan, M. M. A., **Saeed, F.**, and Al-Garni, A. Z.	Numerical Investigation of Mechanism for Anti-Icing Hot-Air Jet Surface Heat Transfer Enhancement	AIAA Paper 2010-4770, 10th AIAA/ASME Joint Thermo-Physics & Heat Transfer Conf. in Chicago, USA from 28 June – 1 July 2010

16.	Al-Garni,A. Z.,and **Saeed, F.**	Experimental and Numerical Investigation of 65-deg Delta and 65/40-deg Double-Delta Wings in Sideslip	AIAA Paper 2010-4950, 28th AIAA Applied Aerodynamics Conference, Chicago, Illinois, USA from 28 June – 1 July 2010
17.	Paraschivoiu, I., **Saeed, F.**, Desorby, V.	New Algorithms for Wind Turbine Performance Perdiction and Optimal Design	International Symposium on Transport Phenomena, ISTP-20, Victoria, BC, Canada, 7-10 July 2009
18.	**Saeed, F.**, Al-Garni, A. Z., and Khan, M. M. A.	Numerical Investigation of Mechanisms to Aid in Enhancing Surface Heat Transfer from an Impinging 2D Hot Air Jet	13th CASI Aeronautics Conference & 56th Annual General Meeting, Ottawa, Canada, 5-7 Apr. 2009
19.	Malik, M. A., and **Saeed, F.**	Performance Optimization of General Aviation Aircraft by Integration of High Power Propulsion System on Existing Airframe	13th CASI Aeronautics Conference and 56th Annual General Meeting, Ottawa, ON, Canada, 5-7 Apr. 2009
20.	Al-Faris, E., and **Saeed, F.**	Design and Optimization Method for Inertial Particle Separator	AIAA Paper No. 2008-6066, 12th AIAA/ISSMO Multidisciplinary Analysis and Optimization Conference, Victoria, British Columbia, Canada, 10 - 12 Sept. 2008
21.	**Saeed, F.**	Optimum Design of a Small VAWT: A Review of Current Limitations	Proceedings of the 32nd ARA Congress, Boston, USA, July 22-26, 2008
22.	**Saeed, F.**, Paraschivoiu, I., Trifu, O., Hess, M., and Gabrys, C.	Inverse Airfoil Design Method for Low-Speed Straight-Bladed Darrieus-type VAWT Applications	Proceedings of the 7th World Wind Energy Conference 2008, Kingston, Canada, June 24-26th, 2008
23.	Al-Garni, A. Z., Jamal, A., **Saeed, F.,** and Kassem, A. H.	Failure Rate Analysis of Boeing 737 Brakes Employing Neural Network	AIAA Paper No. 2007-7854, Proceedings of 7th AIAA Aviation Technology, Integration, and Operations Conference, Belfast, Northern Ireland, UK, 18-20 September 2007
24.	**Saeed, F.,** and Al-Garni, A. Z.,	Numerical Simulation of Heat Transfer from an Array of Anti-Icing Hot-Air Jets	AIAA Paper 2007-4287, 25th AIAA Applied Aerodynamics Conference, Miami, Florida, USA, 24-28 June 2007
25.	Al-Garni,A. Z., **Saeed, F.**, and Al-Garni, A. M	Experimental and Numerical Investigation of 65-deg Delta and 65/40-deg Double-Delta Wings	AIAA Paper 2006-0063, 44th AIAA Aerospace Sciences Meeting and Exhibit, Reno, Nevada, USA, Jan. 2006
26.	**Saeed, F.,** and Al-Garni, A. Z.	An Analysis Method for Inertial Particle Separator	AIAA Paper 2006-0014, 44th AIAA Aerospace Science Meeting & Exhibit, Reno, USA, Jan 2006
27.	**Saeed, F.**, and Al-Garni, A. Z.	Impact of Floating-Point Arithmetic on Engineering Numerical Analysis	30th Annual ARA Congress, Chisinau, Republic of Moldova, July 2005. **Saeed, F.,** Brette, C
28.	Fregeau, M., Trifu, O., and Paraschivoiu, I.	A Three-Dimensional Water Droplet Trajectory and Impingement Analysis Program	AIAA Paper 2005-4838, 23rd AIAA Applied Aerodynamics Conference, Toronto, Ontario, Canada, June 6-9, 2005

29.	Al-Garni,A. Z., Tozan, M., Kassem, A., and **Saeed, F.**	Reliability Analysis of Aircraft Air Conditioning Packs	3rd Aircraft Engineering Symposium of Saudi Arabian Airlines at Jeddah, Saudi Arabia, Nov. 30 - Dec. 1, 2004
30.	Fregeau, M., **Saeed, F.,** and Paraschivoiu, I.	Surface Heat Transfer Study for Ice Accretion and Anti-Icing Prediction in Three Dimension	AIAA Paper 2004-0063, 42nd AIAA Aerospace Sciences Meeting and Exhibit, Reno, Nevada, USA, Jan. 2004
31.	Fregeau, M., **Saeed, F.,** and Paraschivoiu, I.	Numerical Correlations for Heat Transfer From an Array of Hot-Air Jets Impinging on a 3D Concave Surface	AIAA Paper 2003-3403, 21st AIAA Applied Aerodynamics Conference, Orlando, Florida, USA, June 2003
32.	Fregeau, M., Gabr, M., **Saeed, F.,** and Paraschivoiu, I.	Numerical Simulation of Heat Transfer from an Array of Hot-Air Jets Impinging on a 3D Concave Surface	Canadian Aeronautics and Space Institute (CASI): 50th Annual General Meeting and Conference, to be published in the Conference Proceedings, Montreal, Apr. 2003
33.	Yu, J., **Saeed, F.,** and Paraschivoiu, I.	An Iterative Inverse Design Method Based on Aerodynamic Streamline Equations	AIAA Paper 2003-0214, 41st Aerospace Sciences Meeting & Exhibit, Jan. 2003, Reno, NV, USA
34.	Staelens, Y., **Saeed, F.,** and Paraschivoiu, I.	A Straight-Bladed Variable-Pitch VAWT Concept for Improved Power Generation	AIAA Paper 2003-0524, 22nd ASME Wind Energy Symposium held in conjunction with the 41st Aerospace Sciences Meeting & Exhibit, Jan. 2003, Reno, NV, USA
35.	Kerevanian, G.-K., Sidorenko, A., Bernard, E., Cooper, R. K., Raghunathan, R. S., **Saeed, F.,** Paraschivoiu, I., and Kafyeke, F.	Effect of Density and Height of Roughness Elements on Turbulent Boundary Layers	AIAA Paper 2003-0645, 41st Aerospace Sciences Meeting & Exhibit, Jan. 2003, Reno, NV, USA
36.	Yu, J., **Saeed, F.,** and Paraschivoiu, I.	Efficient Optimized Airfoil Parameterization	AIAA Paper 2003-0725, 41st Aerospace Sciences Meeting & Exhibit, Jan. 2003, Reno, NV, USA
37.	**Saeed, F.,** and Paraschivoiu, I.,	Optimization of a Hot-Air Anti-Icing System	AIAA Paper 2003-0733, 41st Aerospace Sciences Meeting & Exhibit, Jan. 2003, Reno, NV, USA
38.	Paraschivoiu, I., **Saeed, F.,** and Desobry, V.	Prediction Capabilities in Vertical-Axis Wind Turbine Aerodynamics	World Wind Energy Conference and Exhibition, Berlin, Germany, 2-6 July 2002
39.	Havugimana, P.-C., Lutz, C., **Saeed, F.,** Paraschivoiu, I., Kerevanian, G.-K., Sidorenko, A., Bernard, E., Cooper, R. K., and Raghunathan, R. S.	A Comparison of Skin Friction and Heat Transfer Prediction by Various Roughness Models	AIAA Paper 2002-3052, 20th AIAA Applied Aerodynamics Conference, 24—27 June 2002, St. Louis, Missouri, USA
40.	Kerevanian, G.-K., Sidorenko, A., Benard, E., Cooper, R. K., Raghunathan, R. S., **Saeed, F.,** Lutz C.,	Effect of Regular Roughness on Turbulent Boundary Layer	CEAS Aerospace Aerodynamics Research Conference of the Royal Aeronautical Society, Cambridge, England, June 10—13, 2002

	Paraschivoiu, I. and Kafyeke, F.		
41.	**Saeed, F.**	Numerical Models For Boundary-Layer Analysis On Rough Surfaces	Proceedings of the 27th Annual Congress of the American Romanian Academy of Arts and Sciences (ARA), May 29—June 2, 2002, Oradea, Romania, pp. 359—363
42.	Paraschivoiu, I., and **Saeed, F.**	Ice Accretion Simulation Code CANICE	Proceedings of the International Aerospace Symposium "Carafoli 2001," Oct. 19—20, 2001, Bucharest, Romania, pp. 81—86
43.	**Saeed, F.**	Joukowski Airfoils with Slot Suction	Proceedings of 26thAnnualARA (American Romanian Academy) Congress, July 25-29, 2001, Montreal, Canada, pp. 359
44.	**Saeed, F.,** Gouttebroze, S., and Paraschivoiu, I.	Modified CANICE for Improved Prediction of Airfoil Ice Accretion	Proceedings of the 48th Annual Conference and the 8th Aerodynamics Symposium of the Canadian Aeronautics and Space Institute (CASI), Apr. 29—May 2, 2001, Toronto, ON, Canada, pp. 283—289
45.	Gouttebroze, S., **Saeed, F.,** and Paraschivoiu, I.	CANICE—Capabilities and Current Status	NATO/RTO Workshop, Assessment of Icing Code Prediction Capabilities, at CIRA, Capua, Italy, Dec. 6—7, 2000
46.	**Saeed, F.**	Aircraft Icing and Anti-Icing Simulation	Proceedings of the 25th Annual ARA Congress (American Romanian Academy of Arts & Sciences), July 12-16, 2000, USA
47.	**Saeed, F.,** and Paraschivoiu, I.	Numerical Correlation for Local Nusselt Number Distribution for Hot-Air Jet Impingement on Concave Surfaces	Proceedings of the 8th Annual Conference of the CFD Society of Canada, CFD2K, Montreal, Canada, June 11—13, 2000, Vol. 2, pp. 897—904
48.	**Saeed, F.,** Morency, F.B., and Paraschivoiu, I.	Numerical Simulation of a Hot-Air Anti-Icing System	AIAA Paper 2000-0630, 38th Aerospace Sciences Meeting & Exhibit, Jan. 2000, Reno, NV, USA
49.	Morency, F.B., Tessier, P., **Saeed, F.,** and Paraschivoiu, I.	Anti-Icing System Simulation on Multi-element Airfoil	Proceedings of the 46th Annual Conference of Canadian Aeronautics and Space Institute, pp. 463—470, May 1999, Montreal, Canada
50.	**Saeed, F.**, Selig, M. S., and Bragg, M. B.	Experimental Validation of the Hybrid Airfoil Design Procedure for Full-Scale Ice Accretion Simulation	AIAA Paper 1998-0199, 36th AIAA Aerospace Sciences Meeting and Exhibit, Reno, Jan. 6-9, 1998
51.	**Saeed, F.**, Selig, M. S., and Bragg, M. B.	A Hybrid Airfoil Design Method to Simulate Full-Scale Ice Accretion Throughout a Given C_l-Range	AIAA Paper 1997-0054, 35th AIAA Aerospace Sciences Meeting and Exhibit, Reno, Jan. 6-9, 1997
52.	**Saeed, F.**, Selig, M. S., and Bragg, M. B.	A Design Procedure for Subscale Airfoils with Full-Scale Leading Edges for Ice Accretion Testing	AIAA Paper 1996-0635, 34th AIAA Aerospace Sciences Meeting and Exhibit, Reno, Jan. 15-18, 1996
53.	**Saeed, F.**, and Selig, M. S.	A New Class of Airfoils with Slot-Suction	AIAA Paper 1996-0058, 34th AIAA Aerospace Sciences Meeting and Exhibit, Reno, Jan. 15-18, 1996

54.	**Saeed, F.**, and Selig, M. S.	A Multipoint Inverse Airfoil Design Method for Slot-Suction Airfoils	AIAA Paper 1995-1857, 13th AIAA Applied Aerodynamics Conference, San Diego, June 19-22, 1995

Completed Research Projects

#	Name of Investigator(s) (Supported by)	Research Title	Report Date
1.	Saeed. F. (PI), Al-Garni, Z. A. (Co-I) KACST-NSTIP Project No. 14-ENE2337-04	Development of a Reconfigurable Variable Blade-Pitch Control Mechanism for Vertical Axis Wind Turbines of Darrieus-Type	Sept. 2017
2.	Saeed. F. (PI), Al-Garni, Z. A. (Co-I) KACST-NSTIP Project No. 11-SPA1618-04	Experimental and Numerical Study of Trapped Vortex Wing Concept for UAV and VAWT Applications	Aug. 2015
3.	Al-Garni, Z. A. (PI) Saeed. F. (Co-I), KACST-NSTIP Project No. 11-SPA1648-04	Experimental & Numerical Study of the Rolling Stability Analysis of Delta- and Double-Delta Wing	Aug. 2015
4.	Al-Garni, Z. A. (PI) Saeed. F. (Co-I), KFUPM Internal Project No. IN090026	Design, Testing and Optimization of Economically-Sound Small Solar Sea Water Desalination Units	Apr. 2012
5.	Saeed. F. (PI), Al-Garni, Z. A. (Co-I) KACST (NSTIP) Project No. 08-SPA49-4	Development of an Efficient Design Method for Aircraft Engine Sand Separator System	Aug. 2011
6.	El Ferik, Sami (PI) Omar, H. (Co-I), Ghouti, L. (Co-I), Saeed, F. (Co-I) KACST-NSTIP Project No. 09-SPA783-04	Adaptive Anti-Swing Time-Delayed Feedback Controller for Flying Cranes	Aug. 2011
7.	Saeed. F. (PI), Al-Garni, Z. A. (Co-I) KFUPM Fast Track Project No. FT070012	Aerodynamic Performance and Lateral Stability Analyses of Delta and Double-Delta Wing Configurations	Feb. 2010
8.	Saeed. F. (PI), Al-Garni, Z. A. (Co-I) KFUPM SABIC Project No. SB070026	Numerical Modeling and Investigation of Novel Design Arrangements for Improving Surface Heat Transfer from an Aircraft Hot-Air Anti-Icing System	Apr. 2008
9.	Saeed. F. (PI), Al-Garni, Z. A. (Co-I) KFUPM Fast Track Project No. FT050004	Numerical Modeling and Analysis of an Aircraft Hot-Air Anti-Icing System	Aug. 2006
10.	Saeed. F. (PI), Al-Garni, Z. A. (Co-I) KFUPM Fast Track Project No. FT/2004-08	Aerodynamic Performance and Longitudinal Stability Analyses of Delta and Double-Delta Wing Configurations	Aug. 2005

Current Research

#	**Research Title**	**Name of Investigator(s)**
1.	Adaptation of Photovoltaic Module for Harsh Desert-Like Environment	Fahad Al-Amri, Farooq Saeed, Taher Maatallah, et al (IAU) Dong Seop Kim, Yoonmook Kang, et al (Shinsung, S. Korea)
2.	Hydrogen generator from enhanced performance HCPV	Fahad Al-Amri, Farooq Saeed, Taher Maatallah, et al (IAU) Rafael Cervantes, Ignacio Luque Heredia, et al (BSQ Solar, Spain)
3.	Design, Build and Testing of a Solar-Powered Radiation-Augmented Portable Desalination System	Farooq Saeed, Abdullah Almalki, Faisal Alzahrani, M. Hani Alwaheed (IAU)

Contribution to Scientific Conferences and Symposia

#	Conference Title	Place and Date of the Conference	Extent of Contribution
1.	36th Wind Energy Symposium of the 2018 AIAA SciTech (Science and Technology) Forum	Kissimmee, Florida, USA Jan. 8-12, 2018	Paper presentation
2.	2017 SAOO Energy Conference and Exhibition	Al-Hasa, Saudi Arabia Dec. 2017	Paper presentation (**two** papers were presented)
3.	International Symposium on Wind & Tidal Power	Montreal, Canada May 28-31, 2017	Paper presentation
4.	35th Wind Energy Symposium at the AIAA SciTech Forum	Grapevine, Texas, USA Jan. 9-13, 2017	Paper presentation
5.	ICPEEE 2016: 18th International Conference on Power, Energy and Electrical Engineering	Istanbul, Turkey January, 25-26, 2016.	Paper presentation
6.	Saudi Arabia Smart Grid Conference 2015	Jeddah, Saudi Arabia Dec. 2015	RETScreen Workshop: organized & delivered
7.	8th Symposium on Numerical Analysis of Fluid Flow and Heat Transfer, International Conference of Numerical Analysis and Applied Mathematics (ICNAAM)	Rhodes, Greece 21-27, Sept. 2013	Paper presentation
8.	23rd International Ocean and Polar Engineering Conference (ISOPE-2013)	Anchorage, Alaska, USA June 30 to July 5, 2013.	Paper presentation
9.	37th ARA Congress	Chisinau, Republic of Moldova, June 4-9, 2013	Paper presentation
10.	AWEA's WINDPOWER 2013 Conference & Exhibition	Chicago, USA May 5-8, 2013.	Paper presentation
11.	38th European Rotorcraft Forum of the American Helicopter Society	Amsterdam, The Netherlands 4-7 September 2012	Paper presentation
12.	20th Annual Conference of the CFD Society of Canada	Canmore, Alberta, Canada May 9-12, 2012	Paper presentation
13.	SAE/AIAA International Conf. on Aircraft and Engine Icing and Ground De-Icing	Chicago, Illinois, USA June 13-17, 2011	Oral Presentation
14.	IDA's Desalination Industry Action for Good Conference	Santa Margherita, Portofino, Italy, May 16-18, 2011	Paper presentation
15.	10th AIAA/ASME Joint Thermo-Physics & Heat Transfer Conference	Chicago, USA 28 June – 1 July 2010	Paper presentation
16.	28th AIAA Applied Aerodynamics Conference	Chicago, USA 28 June – 1 July 2010	Paper presentation
17.	International Symposium on Transport Phenomena, ISTP-20	Victoria, BC, Canada 7-10 July 2009	Paper presentation
18.	13th CASI Aeronautics Conference & 56th Annual General Meeting	Ottawa, Canada 5-7 Apr. 2009	Paper presentation (**two** papers were presented)
19.	12th AIAA/ISSMO Multidisciplinary Analysis and Optimization Conference	Victoria, BC, Canada 10 - 12 Sept. 2008	Paper presentation
20.	32nd ARA Congress	Boston, USA July 22-26, 2008	Paper presentation

21.	7th World Wind Energy Conference 2008	Kingston, Canada June 24-26th, 2008	Paper presentation
22.	25th AIAA Applied Aerodynamics Conference	Miami, Florida, USA 24-28 June 2007	Paper presentation
23.	44th AIAA Aerospace Sciences Meeting and Exhibit	Reno, Nevada, USA Jan. 2006	Paper presentation (**two** papers were presented)
24.	30th Annual ARA Congress	Chisinau, Republic of Moldova, July 2005	Paper presentation
25.	23rd AIAA Applied Aerodynamics Conference	Toronto, Ontario, Canada June 6-9, 2005	Paper presentation
26.	3rd Aircraft Engineering Symposium of Saudi Arabian Airlines	Jeddah, Saudi Arabia Nov. 30 - Dec. 1, 2004	Paper presentation
27.	42nd AIAA Aerospace Sciences Meeting and Exhibit	Reno, Nevada, USA Jan. 2004	Paper presentation
28.	21st AIAA Applied Aerodynamics Conference	Orlando, Florida, USA June 2003	Paper presentation
29.	Canadian Aeronautics and Space Institute (CASI): 50th Annual General Meeting and Conference	Montreal, Canada Apr. 2003	Paper presentation
30.	41st Aerospace Sciences Meeting & Exhibit	Reno, NV, USA Jan. 2003	Paper presentation (**four** papers were presented)
31.	22nd ASME Wind Energy Symposium held in conjunction with the 41st Aerospace Sciences Meeting & Exhibit	Reno, NV, USA Jan. 2003	Paper presentation
32.	World Wind Energy Conference and Exhibition	Berlin, Germany 2-6 July 2002	Paper presentation
33.	20th AIAA Applied Aerodynamics Conference	St. Louis, Missouri, USA 24-27 June 2002	Paper presentation
34.	CEAS Aerospace Aerodynamics Research Conference of the Royal Aeronautical Society	Cambridge, England June 10-13, 2002	Paper presentation
35.	27th Annual Congress of the American Romanian Academy of Arts and Sciences (ARA)	Oradea, Romania 29-June 2, 2002	Paper presentation
36.	International Aerospace Symposium "Carafoli 2001"	Bucharest, Romania Oct. 19-20, 2001	Paper presentation
37.	26thAnnualARA (American Romanian Academy) Congress	Montreal, Canada July 25-29, 2001	Paper presentation
38.	48th Annual Conference and the 8th Aerodynamics Symposium of the Canadian Aeronautics and Space Institute (CASI)	Toronto, ON, Canada Apr. 29-May 2, 2001	Paper presentation
39.	NATO/RTO Workshop, Assessment of Icing Code Prediction Capabilities	CIRA, Capua, Italy Dec. 6—7, 2000	Paper presentation
40.	25th Annual ARA Congress (American Romanian Academy of Arts & Sciences)	Boston, MA, USA July 12-16, 2000	Paper presentation
41.	8th Annual Conference of the CFD Society of Canada, CFD2K	Montreal, Canada June 11—13, 2000	Paper presentation
42.	38th Aerospace Sciences Meeting & Exhibit	Reno, NV, USA	Paper presentation

		Jan. 2000	
43.	46th Annual Conference of Canadian Aeronautics and Space Institute	Montreal, Canada May 1999	Paper presentation
44.	36th AIAA Aerospace Sciences Meeting and Exhibit	Reno, Nevada, USA Jan. 6-9, 1998	Paper presentation
45.	35th AIAA Aerospace Sciences Meeting and Exhibit	Reno, Nevada, USA Jan. 6-9, 1997	Paper presentation
46.	34th AIAA Aerospace Sciences Meeting and Exhibit	Reno, Nevada, USA Jan. 15-18, 1996	Paper presentation (**two** papers were presented)
47.	13th AIAA Applied Aerodynamics Conference	San Diego, CA, USA June 19-22, 1995	Paper presentation

Membership of Scientific and Professional Societies and Organizations

- Life member AIAA (American Institute of Aeronautics & Astronautics)
- Life member RAeS (Royal Aeronautical Society, UK, Pakistan Branch)
- Full member ARA (American Romanian Academy of Arts & Sciences)

Teaching Activities

Undergraduate

#	Course/Rotation Title	No./Code/Term (Sections if more than 1)	Extent of Contribution (no. of lectures/Tutorials. Or labs, Clinics)
The following course were taught at **Imam Abdulrahman bin Faisal University (2016-Present)**			
1.	Statics	ENG 232/Terms: 2162 (2), 2165,	45 Lectures
2.	Introduction to Engineering	ENG 252/Terms: 2161 (2), 2171,	30 lectures + Tutorials
3.	Dynamics	ENG 311/Terms: 2171 (3), 2172, 2181 (2), 2182, 2192	30 Lectures
4.	Heat and Mass Transfer	ENRG 313/Term: 2185, 2205	45 Lectures + 30 Labs
5.	Fluid Mechanics	EE 321/ENRG 314/Terms: 2172, 2182, 2191	45 Lectures + 30 Labs
6.	Fluid Mechanics	ENG 321/Terms: 2161 (2)	30 Lectures + 30 Labs
7.	Fluid Mechanics	ENG 342/Terms: 2161	30 Lectures + 30 Labs
8.	Thermodynamics	ENG 352/Terms: 2162, 2165	45 Lectures
9.	Renewable Energy	ENRG 403/Terms: 2181, 2191, 2201, 2205, 2211	30 Lectures + 30 Labs
10.	Heat Exchanger Design	ENRG 406/Terms: 2211, 2215, 2221	30 Lectures
11.	Thermodynamics, Mass and Heat Transfer	ENG 441/Terms: 2185, 2221	30 Lectures + 30 Labs
12.	Fluid Dynamics	BIOEN 441/Terms: 2201, 2211	30 Lectures
13.	Summer Training	ENRG 444/Term 2195	Supervision
14.	Senior Design Project I	ENRG 503/Term: 2191, 2201, 2211, 2221	30 Lectures/Supervision
15.	Senior Design Project II	ENRG 509/Term: 2192, 2202, 2212	45 Lectures/Supervision
16.	Turbomachinery	ENRG 511/Term: 2192, 2202, 2212	30 Lectures + 30 Labs
17.	Solar Power System Design	ENRG 557/Term: 2192, 2202, 2212	30 Lectures + 30 Labs
18.	Directed Research	ENRG 565/Terms: 2182, 2215	45 Lectures/Supervision
The following course were taught at **King Fahd University of Petroleum & Minerals (2003-2015)**			

17.	Aerospace Engineering Design	AE 240	30 Lectures
18.	Gas Dynamics I	AE 325	45 Lectures
19.	Experimental and Numerical Methods for Aerospace Engineering	AE 355	30 Labs
20.	Flight Propulsion I	AE 422	45 Lectures
21.	Aerospace System Design	AE 427	45 Lectures
22.	Gas Dynamics II	AE 429	45 Lectures
23.	Numerical Methods for Aerospace Engineering	AE 450	30 Labs
24.	Fluid Mechanics	ME 311	45 Lectures
25.	Heat and Mass Transfer	ME 315	45 Lectures
The following course were taught at **Istanbul Technical University (2022)**			
1.	Boundary Layer Flow	UUM 542	30 Lectures

Brief Description of Undergraduate Courses Taught: (Course Title – Code: Description)

1.	**ENG 232 Statics:** Topics coverage includes vectors, Newton's laws, free body diagrams, equilibrium of forces for particles and rigid bodies, friction, center of mass, moment of inertia.
2.	**ENG 252 Introduction to Engineering:** Topics include introduction to engineering profession, disciplines, career planning, understanding & problem solving, research, professional ethics & code of conduct.
3.	**ENG 311 Dynamics:** Topics include kinematics of particles & rigid bodies, force & acceleration, work & energy, impulse, momentum & impact, vibrations.
4.	**ENRG 313 Heat and Mass Transfer:** Topics include conduction in 1 & 2D, unsteady conduction, convection heat transfer, external & internal flows, heat exchanger, thermal radiation heat transfer, diffusion mass transfer and laboratory exercises.
5.	**EE 321/ENRG 314 Fluid Mechanics:** Topics include fluid properties, fluid statics, conservation laws, control volume analysis, Bernoulli and Euler equations, vorticity, potential flow theory, lift and drag, boundary-layer flows, open–channel flows, flow through pipes & pipe networks; dimensional analysis and similitude, and laboratory exercises.
6.	**ENG 321 Fluid Mechanics:** Topics include fluid properties, fluid statics, conservation laws, control volume analysis, Bernoulli and Euler equations, vorticity, potential flow theory, lift and drag, boundary-layer flows, open–channel flows, flow through pipes & pipe networks; dimensional analysis and similitude, and laboratory exercises.
7.	**ENG 342 Fluid Mechanics:** Topics include fluid properties, fluid statics, conservation laws, control volume analysis, Bernoulli and Euler equations, vorticity, potential flow theory, lift and drag, boundary-layer flows, open–channel flows, flow through pipes & pipe networks; dimensional analysis and similitude, and laboratory exercises.
8.	**ENG 352 Thermodynamics:** Topics include Topics include thermodynamics definitions & basic concepts, properties of pure substance, phase change, ideal gas, first and second law of thermodynamics and applications, entropy, irreversibility, chemical reaction and combustion.
9.	**ENRG 403 Renewable Energy:** Topics include solar radiation characteristics and measurement, review of heat transfer principles and collector optical properties, Flat plate and Concentrating collectors, Geothermal power systems, Photovoltaic (PV) systems, Wind characteristics, resource assessment, wind power technology, theory, performance analysis and design, and laboratory exercises.
10.	**ENG 441 Thermodynamics, Mass and Heat Transfer:** Topics include thermodynamics definitions & basic concepts, properties of pure substance, phase change, ideal gas, first and second law of thermodynamics and applications, entropy, irreversibility, chemical reaction and combustion, conduction & convection heat transfer, thermal radiation heat transfer, diffusion mass transfer, and laboratory exercises.

11.	**BIOEN 441 Fluid Dynamics:** Topics include fluid properties, fluid statics, conservation principles to several micro and macro biological flows, control volume analysis, biological flows, macro and microcirculation, intraocular fluid flow, flow through heart, arteries and veins, and microvascular beds.
12.	**ENRG 444 Summer Training:** General supervision of summer training of students
13.	**ENRG 503 Senior Design Project I:** Design of a mechanical system related to renewable energy field
14.	**ENRG 509 Senior Design Project II:** Design of a mechanical system related to renewable energy field
15.	**ENRG 511 Turbomachinery:** Topics include introduction to turbomachinery, compressible flow, turbomachine analysis, principles, steam, hydraulic & wind turbines, axial and centrifugal compressors, pumps and turbines, wind turbines, performance characteristics & design
16.	**ENRG 565 Directed Research:** Research topics related to renewable energy field
17.	**AE 240 Aerospace Engineering Design:** Topics include history, introduction to aerospace design, lift & drag, performance and design methodology with case studies for subsonic aircraft design.
18.	**AE 325 Gas Dynamics I:** Topics include compressible fluid flow, isentropic flow, sound waves, Mach number, variable area flow, normal and oblique shocks, expansion fan, Rayleigh and Fanno flows.
19.	**AE 355 Experimental and Numerical Methods for Aerospace Engineering:** Topics include numerical modeling and problem solving in MS Excel & MATLAB, flow analysis in ANSYS Fluent, matrix operations, solution of system of linear and non-linear equations, root finding, solution of ODEs, and statistical analysis.
20.	**AE 422 Flight Propulsion I:** Topics include aerothermodynamics of gas turbine engines, inlets/diffusers, combustors and nozzles, axial compressors and turbines, rocket vehicle performance, chemical rocket thrust chambers, chemical rocket propellants.
21.	**AE 427 Aerospace System Design:** Topics include theory, background, and methods of aerospace system (e.g., aircraft, rockets, and space craft) design; including requirements and specifications of design, integration of aerodynamics, structure, propulsion, and flight dynamics and control; performance analysis and prediction; and complete integration of aerospace system.
22.	**AE 429 Gas Dynamics II:** Topics include conical flow, transonic, supersonic and hypersonic flows, linearized flow, method of characteristics
23.	**AE 450 Computational Methods in Aerospace Engineering:** Topics include numerical modeling and problem solving in MS Excel & MATLAB, airfoil flow analysis in ANSYS Fluent, matrix operations and solution of system of linear and non-linear equations, root finding, complex numbers & conformal mapping, solution of ODEs & PDEs, statistical analysis, control system and flight trajectory modeling.
24.	**ME 311 Fluid Mechanics:** Topics include fluid properties, fluid statics, conservation laws, control volume analysis, Bernoulli and Euler equations, vorticity, potential flow theory, lift and drag, boundary-layer flows, open–channel flows, flow through pipes & pipe networks; dimensional analysis and similitude.
25.	**ME 315 Heat and Mass Transfer:** Topics include Topics include conduction in 1 & 2D, unsteady conduction, convection heat transfer, external & internal flows, heat exchanger, thermal radiation heat transfer, diffusion mass transfer.

Postgraduate (King Fahd University of Petroleum & Minerals (2003-2015))

#	Course/Rotation Title	No./Code	Extent of Contribution (no. of lectures/Tutorials. Or labs, Clinics)
	Aerodynamics of Compressible Flow	AE 520	45 Lectures
	Aerospace Computational Fluid Dynamics	AE 528	45 Lectures

Brief Description of Postgraduate Courses Taught: (Course Title – Code: Description)

1	**AE 520 Aerodynamics of Compressible Flow:** Advanced topics in gas dynamics such as conical flow, transonic, supersonic and hypersonic flows, linearized flow, method of characteristics

2	**AE 528 Aerospace Computational Fluid Dynamics:** Advanced topics in CFD modeling, mathematical behavior of PDEs, discretization, stability, grid generation, 1 & 2D flows, FVM, FEM techniques.

Student Academic Supervision and Mentoring (King Fahd University of Petroleum & Minerals (2003-2015))

#	Level	Number of Students	From	to
1	Undergraduate	Averaged 19 students per semester for a total of 30 semester	2003	2015

Supervision of Master and/or PhD Thesis

#	Degree Type	Title	Institution	Date
1.	**PhD**	Anti-Icing Simulation Code (Francois Morency)	École Polytechnique de Montréal Montréal, Canada	1999
2.	**PhD**	Radiation Modelling (Fahad G. Al-Amri)	King Fahad University of Petroleum & Minerals	2008
3.	**PhD**	Aircraft Icing & Anti-Icing Simulation (Jaideep Gahlawat)	École Polytechnique de Montréal Montréal, Canada	2010
4.	**PhD**	3D Aircraft Icing Code Development (Kazem Hasanzadeh)	École Polytechnique de Montréal Montréal, Canada	2011
5.	**PhD**	Wind Turbine Fluid-Structure Interaction Model (Norbert Voutthi Dy)	École Polytechnique de Montréal Montréal, Canada	2015
6.	**MS**	Adaptive Attitude Control of Satellite (Rihan Ahmed Irfan Ahmad)	King Fahad University of Petroleum & Minerals	**2007**
7.	**MS**	Missile Performance and Stability (Ayman Abdullah)	King Fahad University of Petroleum & Minerals	**2008**
8.	**MS**	Design of a Light Aircraft (Muhammad Aamir Malik)	King Fahad University of Petroleum & Minerals	**2009**
9.	**MS**	Numerical Investigation of Mechanisms to Aid in Enhancing Surface Heat Transfer from an Impinging 2D Hot-Air Jet (Mohammed Mumtaz Ahmed Khan)	King Fahad University of Petroleum & Minerals	**2010**
10.	**MS**	Numerical Modelling and Simulation of a Hot-Air Jet Anti Icing System using Channels for Increasing Heat Transfer (Kamran Z. Ahmed)	King Fahad University of Petroleum & Minerals	**2012**
11.	**MS**	Aerodynamic and Structural Optimization of Vertical Axis Wind Turbine (Ali S. Alhamaly)	King Fahad University of Petroleum & Minerals	**2018**

Committee Membership

#	From	To	Position	Organization
1.	2017	2020	Chairman – College of Engineering Quality and Assessment Committee	College of Engineering, IAU
2.	2017	Present	Chairman - Departmental Program Assessment committee	Department of Mechanical and Energy Engineering, College of Engineering, IAU

3.	2016	Present	Member - Departmental Academic & Research committee	Department of Mechanical and Energy Engineering, College of Engineering, IAU
4.	2003	2015	Member - Departmental Academic & Research committee	Aerospace Engineering Department, KFUPM
5.	2003	2015	Member - Departmental Senior Design Project and Industry Cooperative Training Evaluation Committee	Aerospace Engineering Department, KFUPM
6.	2003	2015	Member – Departmental ABET committee	Aerospace Engineering Department, KFUPM
7.	2011	2014	Member – College of Engineering Sciences Strategic Planning Committee	College of Engineering Sciences , KFUPM
8.	2009	2010	Member – University Committee on Management of Quality Assurance and Improvement for NCAAA Accreditation	KFUPM
9.	2009	2010	Member – University Program Assessment Center Committee	KFUPM
10.	2003	2008	Member - Departmental Advising & Student Affairs committee	Aerospace Engineering Department, KFUPM

Scientific Consultations

#	From – To	Institute/Organization/Company	Full/Part-time
1.	2003 – Present	IOPARA Inc., Canada	Part-time
2.	2018 – Present	ANEM, Cyprus (Anem)	Part-time
3.	2022 – Present	MAHLE Powertrain, LLC, Plymouth, USA (MAHLE Powertrain)	Part-time
4.	2021	TBHAWT Manufacturing Co., Estonia	Part-time
5.	2020 – 2021	Shaanxi CHENMA Wind Power Limited, China	Part-time
6.	2015 – 2018	CHAVA Wind LLC, Brazil/ USA (Chava Wind)	Part-time
7.	2014-2018	Guangzhou YATU Wind Energy Co. Ltd. (formerly known as ENGGA), Ghangzhou, China	Part-time
8.	2010-2014	Guangzhou ENGGA Generators Co. Ltd., Ghangzhou, China (Inge (Yangjiang) Electric Co., Ltd.)	Part-time
9.	2012	OrganoWorld Inc., Montreal, Canada (http://organoworld.com/)	Part-time
10.	1998 – 2012	Bombardier Aerospace, Montreal, Canada (Bombardier)	Part-time
11.	2011	Jansen Aero Inc., Florida, USA,	Part-time
12.	2010	ENESSERE, Italy (Enessere)	Part-time
13.	2009	OGIN Inc. (ex FloDesign WT), Waltham, USA (Ogin Energy)	Part-time
14.	2009	WindPower Ltd., UK	Part-time

		(http://www.windpower.ltd.uk/)	
15.	2009	Wind Power Tree, Denmark (http://www.windpowertree.com/index-en.html)	Part-time
16.	2008	UrWind Inc., Montreal, Canada	Part-time
17.	2008	Norwegian Ocean Power AS, Norway (https://www.norwegianoceanpower.com/)	Part-time
18.	2008-2012	Wind Harvest International, California, USA (Wind Harvest)	Part-time
19.	2008 – 2010	CO_2Vortech Inc., Vaudreuil-Sur-Le-Lac, Quebec, Canada. (http://co2vortech.com/)	Part-time
20.	2008	Plainfield Asset Management LLC, **Greenwich, CT**, USA (https://www.pfam.com/default_dhtml.asp)	Part-time
21.	2007-2008	Windsprie Energy Inc. (formerly known as Mariah Power Inc., Nevada, USA), Reedsburg, WI, USA (Windspire Verticle Axis Wind Turbines)	Part-time
22.	2007	OrganoWorld Inc., Montreal, Canada (http://organoworld.com/)	Part-time
23.	2001-2002	Ecofys Inc.,The Netherlands, (http://www.ecofys.com/)	Part-time
24.	1994 – 1998	NASA, USA (NASA)	Part-time
25.	1993 – 1994	McDonnell-Douglas Aircraft Co. St. Louis, Illinois, USA	Part-time

Personal Key Competencies and Skills: (Computer, Information technology, technical, etc.)

Technical	
1	Wind Energy System Design & Analysis
2	Aerodynamic Design & Analysis (wind turbine, gas turbines, steam turbines, aircraft)
3	CFD Analysis: Structural, Fluid, FSI, Thermal, and Electrical
4	Low drag space launch vehicle
5	Commercial software: ANSYS, QBLADE, XFOIL, COMSOL, RETScreen, MATLAB, LabView, Fortran
6	Computer Operating systems: DOS, MS Windows, Linux, Unix, IBM's Solaris, Mac OS
7	Computer Hardware: System configuration, setup, build
8	Metal/Wood Working machines: lathe, bandsaw, cut, roll, bend, mill, turn, bore, weld.
Academic	
1	ABET Program Evaluator: ABET Accreditation, Program Development, Evaluation, Assessment and Quality Assurance
2	Engineering Labs and Mechanical Workshop Development
3	Aerospace & Energy (Renewable) Engineering Program Development, Assessment and Accreditation
4	Biomedical, Construction and Environmental Engineering Program Accreditation

Last Update

6-Feb-23