



Resume

March, 2022

FAHAD A. AL-SULAIMAN, PhD, PMP, CEM, CEA, LEED
Professor

Founding Director, IR Center for Renewable Energy and Power Systems
Founding Director, Center of Excellence in Energy Efficiency,
Director (A) Office of Collaboration with K.A.CARE at KFUPM,
Program coordinator, Intelligent Energy Systems Management
Director (X), Center of Research Excellence in Renewable Energy

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Short Biography

A professional with 20+ years of experience in leading centers, managing projects, innovative research, educational programs development; an initiator and pro-active, visionary and strategic planner, inventor and professional writer, negotiator, and professional speaker. A professional who takes initiative and responsibilities with proven records to excel in his work for better achievements. Expert in renewable energy, energy efficiency, cogeneration/trigeneration, cooling, water desalination, grid integration, techno-economic studies for energy systems, feasibility studies & life cycle analysis, optimization of processes, energy efficiency & energy auditing, energy policy & regulations, due diligence, and development of cutting-edge technologies for commercialization potential.

Founding director of IR Center for Renewable Energy and Power Systems and the founding Director of the Center of Excellence in Energy Efficiency, both at KFUPM and Acting Director of the Office of Cooperation with KACARE at KFUPM. Also, he was the director of the Center of Research Excellence in Renewable Energy. Initiator and founder and mentor of the Students Energy Club at KFUPM. Initiator and founder of the Energy Incubator program at KFUPM. Took the initiative to propose and chair the committees to establish new graduate and undergraduate programs and courses and training programs related to renewable energy and energy efficiency all at KFUPM.

Participated in publishing more than 160+ high-quality scientific papers and technical reports with proven records (the average impact factor for the ISI journal papers published is more than 6, h-index is 45, i10-index 91, and Google citations of around 7,000. Obtained more than 12+ US patents in which some had been converted into pilot projects. Developed an innovative system that enhances air humidification and cooling using solar energy with a better record as compared to existing similar systems, and developed a new solar chimney in which I doubled its power outputs. Received the best researcher award and won the best research project both from KFUPM for the academic year 2016-2017 with the highest rank in KFUPM. Participated in more than 35 different committees and attended more than 60 short courses and workshops in leadership, project management, strategic planning, research projects, entrepreneurship, educational skills, engineering skills, and dialogue skills. Attended more than 30 technical conferences and symposiums. Certified energy manager (CEM) and certified energy auditor (CEA) by the Association of Energy Engineers (AEE) and, in addition, certified trainer for CEM and CEA. I am a certified project management professional (PMP) from PMI. Certified Leadership in Energy and Environmental Design (LEED) Green Associate - U.S. Green Building Council. I was/currently a supervisor and committee member for tens of students for their graduate and undergraduate projects.

- BS in Mechanical Engineering with Honors from King Fahd University of Petroleum & Minerals (January 2001).
- MS in Mechanical Engineering (energy) from King Fahd University of Petroleum & Minerals (2003).
- Ph.D. in Mechanical Engineering (energy) from the University of Waterloo (2010).
- Visiting Professor at the Center for Clean Water and Clean Energy in the Massachusetts Institute of Technology (MIT), USA. (2012), one year.
- Visiting researcher at the Consulting Services Department (CSD) in Saudi Aramco in summer of 2002 (2 months).
- Vice president, Saudi Students Club, Canada, Jan 2006- Dec 2008.
- Researcher, Gas Turbines, National Research Council, Canada, March 2008-Aug-2008.
- Visiting Professor at the Center for Clean Water and Clean Energy, Massachusetts Institute of Technology (MIT) in the summer of 2011 (1 month).
- Visiting Professor at the Solar Energy Research Institute at the National University of Singapore (NUS) in the summer of 2015 (more than 2 months).
- Visiting Professor at the Oxford Institute for Energy Studies at Oxford University in the summer of 2017 (2 months)
- Visiting Researcher at the Process & Control Systems Department (P&CSD) at Saudi Aramco in the summer of 2019 (2 months).
- Vice president, Association of Energy Engineers, Saudi Chapter, April 2020-March 2022.

Highlights of Expertise

- Strategic Planning and Analysis
- Programs and Projects Management
- Team Building and Leadership
- Staff Training and Development
- Contract Negotiations and Administration
- Due Diligence
- Professional Writing and Presentations
- Budget Development and Oversight
- Profit and Loss Responsibility
- Change and Risk Management
- Renewable Energy and Energy Efficiency
- Cogeneration & Trigeneration
- Water Desalination and Cooling Systems
- Applications of 4.0 IR in Energy Systems
- Techno-Economic Energy System Studies
- Feasibility Studies and Life Cycle Analyses
- Process Improvements and Optimization
- Energy Efficiency and Auditing
- Energy Policy and Regulations
- Commercialization and Technology Development

PROFESSIONAL EXPERIENCE

May 2021-present	<p>Founding Director, Interdisciplinary Research Center for Renewable Energy and Power Systems, RI, KFUPM.</p> <p>Managing the Center to develop sustainable and energy-efficient solutions having the social, environmental, and economic impact to achieve relevant objectives of the SAUDI VISION 2030. The metrics and KPIs of the Center include development of solutions that have an economic and social impact, spin-off/start-up companies, licensing of the patents developed, high-quality research outcomes, industrial engagement, educational and training programs development, human capacity building, and infrastructure and labs development. Managing 30 full-time research staff and coordinating the research with 40 faculty. The Center consists of five research groups (PV cells and systems, Grid integrations, hybrid renewable energy solutions, intelligent energy management, and energy policies & regulations).</p> <ul style="list-style-type: none"> → Built 5 research groups (Renewable Energy Materials, Power Systems, Hybrid Renewable Energy Solutions, Intelligent Energy Management, and Regulations & Policies) and coordinate 15 projects. → Founded the Renewable Energy Incubator at KFUPM after securing the SR23 Million Fund NiDLP
Oct 2016-present	<p>-Founding Director: Center of Excellence in Energy Efficiency, Research Institute (RI) at KFUPM</p> <p>Oversee daily operations and energy efficiency enhancements projects for applied research and small-and medium-sized plants, and commercial buildings. Prepare and execute strategic plans. Create and offer related energy courses and student training at undergraduate and graduate levels. Training of more than 600 students through industrial visits and conducting and preparing energy reports and online training. Design marketing tools aimed at communicating the importance of energy efficiencies to the community. Respond to client requests and prepare project management roadmaps.</p> <ul style="list-style-type: none"> ◆ Secured from authority to provide generous funding for the first five years within the Saudi Energy Efficiency Program and proposed to increase mandate to 300% of the initial plan and fund by 300%. ◆ <u>Middle East Region Award</u>, Institutional Energy Management by Association of Energy Engineers (AEE) 2021, for the Center of Excellence in Energy Efficiency (CEEE), KFUPM. ◆ <u>Emirates Energy Award, education and capacity building</u>, for the Center of Excellence in Energy Efficiency (CEEE), KFUPM. ◆ Established the energy efficiency & Management lab. ◆ Established and mentoring the student energy club. ◆ Initiated and coordinate the students 50K competition on energy efficiency
Sept 2020-Present	<p>Office of Cooperation with King Abdullah City for Atomic and Renewable Energy (KACARE), KFUPM</p> <p>Director (A) (2020 to present)</p> <p>Manage and coordinate the collaboration between KFUPM and KACARE.</p>

May 2021-Present	<p>Program coordinator Intelligent Energy Systems Management Initiated this CX program for undergraduate students. Introduced, launched, and manage CX program for undergraduate students at KFUPM. The program includes courses on Energy Efficiency & Auditing, Machine Learning and Data Analytics, Energy Management & Policy, and Intelligent Energy Systems.</p>
Jan 2022-present	<p>Program manager: <i>Renewable Energy Incubator</i>. Managing the incubator with an objective to develop new technologies, prototypes, and human capacity building of faculty, engineers, and students. The program is supported through NIDL as part of Saudi Vision 2030.</p>
Aug. 2014-May 2021	<p>Director, Center of Research Excellence in Renewable Energy, Research Institute (RI) at KFUPM:</p> <p>Manage industrial and applied research, and research and development projects assisted by 20 staff. Develop training initiatives and courses for students and engineers. Create unique technologies for renewable energy for potential commercial use. Prepare and implement strategic plans including marketing tools to meet Vision 2030. Built and supervise research labs.</p> <ul style="list-style-type: none"> ◆ Increased annual research outcomes in journal papers and patents by 500%. ◆ Initiator and founder of Renewable Energy Incubator program at KFUPM. ◆ Almarai Prize for the best research unit in Saudi Arabia ◆ Aligned research activities and outcomes with <u>VISION 2030</u> and engaged academic departments into its activities.
April 2020-March 2022	<p>Vice president, Association of Energy Engineers -Saudi Chapter.</p>
2021-now	<p>Certified, Leadership in Energy and Environmental Design- Green Associate (LEED-GA), U.S. Green Building Council</p>
2020- Now	<p>Certified: Project Management Professional (PMP), Project management Institute (PMI).</p>
Summer 2019	<p>Visiting Scholar at Saudi ARAMCO, Energy System Division, Process, and Control Systems Department. Worked in:</p> <ul style="list-style-type: none"> • Technology assessment for: <ul style="list-style-type: none"> - 4.0 industrial revolution (IR) applications for energy efficiency and solar energy systems, - cogeneration plants, and - advance thermal power cycles. • Reviewed standards for the optimization of combined heat and power systems.
2018-present	<p>Certified Energy Manager and Trainer (CEM) by the Association of Energy Engineers (AEE).</p>
2018-present	<p>Certified Energy Auditor and Trainer (CEA) by the Association of Energy Engineers (AEE).</p>
Summer 2017	<p>Visiting Professor, Oxford Institute for Energy Studies (RIC of the University of Oxford), Oxford, UK. <i>Worked in energy policy for grid-connected rooftop solar photovoltaic systems.</i></p>
Summer 2015	<p>Visiting Professor, Solar Energy Research Institute, National University of Singapore, Singapore <i>Worked on solar air-conditioning systems using energy recovery techniques to enhance their performance.</i></p>
Sept. 2011-Aug. 2012	<p>Post-Doctoral Associate, Center for Clean Water and Clean Energy, Mech. Eng. Dept., MIT, Cambridge, USA.</p> <p>Tested efficient thermal/solar-driven water desalination systems and analyzed new cogeneration plants. Completed two short courses in leadership and one in public speaking</p>

	<p>while attending workshops on developing unique ideas to patents and commercial products, professional writing of technical reports, and commercial presentations.</p> <ul style="list-style-type: none"> • Developed novel solar water desalination system with significantly improved effectiveness against reported technologies in literature with four issued patents and three ISI journal papers.
Summer 2011	Visiting Scholar , Center for Clean Water and Clean Energy, MIT , Cambridge, USA. One month.
March 2008-Aug-2008.	Energy Researcher , Gas Turbines, National Research Council, Canada, <ul style="list-style-type: none"> • Development and commission of testing facility for aerodynamics of gas turbines.
Jan 2006-Dec 2007	Vice president , Saudi Student Club, Canada
Summer 2002	Visiting scholar at Saudi ARAMCO , Rotating Equipment Division, Consulting Services Department (CSD). Worked on issues related to compressors and their international standards for performance testing.
Summer 2000	Trainee (internship) at General Electric (GE-MEELSA, in Dammam First Industrial City), Inspection and Quality Department. <ul style="list-style-type: none"> • Worked in inspection and maintenance of rotating equipment: Turbines, Compressors, Pumps, Motors, Electrical Generators, and as well combustion chambers.

ACADEMIC RANKING

Sept 2019 - present	Professor in ME Department at KFUPM
Sept 2015 -Sept 2019	Associate Professor in ME Department at KFUPM
Mar. 2011-Sept 2015	Assistant professor in ME Department at KFUPM.
Dec. 2003 -Feb. 2011	Lecturer at ME Department at KFUPM
July 2001 - Nov. 2003	Graduate Assistant at ME Department of KFUPM.

EDUCATION

2005-2010	<p>Ph.D., Mechanical Engineering (Energy), University of Waterloo, thesis title: "Thermodynamic Modeling and Thermo-economic Optimization of Integrated Trigeneration Plants Based on Organic Rankine Cycle". Dec. 2010. The thesis work compared the performance and thermo-economic of power generation, cogeneration, and trigeneration plants considering solar energy vs biomass vs fuel cells as sources of energy.</p> <ul style="list-style-type: none"> • Novel trigeneration system was developed. • 10 ISI Q1 top journals and 3 conference papers in the proceeding were published with 1200+ citations
2001-2003	M.S. degree in Mechanical Engineering (Energy), KFUPM , June 2003. Thesis title: "Test Facility Development for Small Centrifugal Compressors (Design Stage)".
1995-2001	B.S. Mechanical Engineering, KFUPM , Jan. 2001 with honors.

Professional Certifications:

- Certified Energy Manager (CEM) and Trainer, Association of Energy Engineers, 2018-Present.
- Certified Energy Auditor (CEA) and Trainer, Association of Energy Engineers, 2018-Present.
- Certified project management professional (PMP) from PMI,2020.emira

- Certified Leadership in Energy and Environmental Design (LEED) Green Associate - U.S. Green Building Council, 2021.

Awards:

- International Award -*Energy Professional Development* by the Association of Energy engineers (AEE), 2021.
- Middle East Region Award, Institutional Energy Management by Association of Energy Engineers (AEE) 2021, for the Center of Excellence in Energy Efficiency (CEEE), KFUPM.
- Emirates Energy Award, education and capacity building, for the Center of Excellence in Energy Efficiency (CEEE), KFUPM.
- Received Award for the best research unit in Saudi Arabia by Almarai Prize for Scientific Innovation for the Center of Research Excellence in Renewable Energy. 2019-2020.
- Earned the Best Researcher Award for academic years 2016-2017.
- Received the Best Project Award in 2016-17 academic year for “Thermodynamics Optimization of Solar Thermal Power Tower Systems with Thermal Storage,” project May 1, 2013-Dec 31, 2014.

Professional Membership

- Member of the Association of Energy Engineers (AEE) and Vice President of Saudi Chapter.
- Member of the International Association for Energy Economics (IAEE).
- Member of the Saudi Association for Energy Economy.
- Member of the Technical Committee for the Standards of the Solar Photovoltaic Systems, Saudi Standards Metrology, and Quality Organization (SASO).
- Member of the Board of Directors Center of Excellence in Energy Efficiency and Chairman of Executive Committee.
- Member of the Steering Committee for the collaboration between KFUPM and KACARE.
- Ex-Member of the Projects Management Institute (PMI).
- Ex-member of the International Solar Energy Society.
- Ex-member of Toastmaster International.
- Ex-member of the American Society of Mechanical Engineers.

COMMITTEES

Year	Committees and Roles	Serving
2021-2022	Energy Innovation Plan, Ministry of Energy, member	National
2021-Now	Advisory Committee, Energy Engineering Program, Imam Abdulrahman bin Faisal University, member.	National
2020-2021	Development of new concentration on Intelligent Energy Systems Management, ad-hoc committee, <u>chairman</u> ,	University
2020- 2020	KFUPM Transformation Taskforce for Research Sector, in collaboration with Strategy&- pwc Consulting, member	University
2019-present	KFUPM Collaboration with King Abdullah City for Atomic and Renewable Energy, Steering Committee, member	National
2019- 2019	Procurement Committee for Applied Research Projects, member	Research Institute
2018-2019	Review of Personnel Incentives in the Research Institute, ad-hoc committee, <u>chairman</u>	Research Institute
2018-2019	Establishment the Collaboration between KFUPM and King Abdullah City for Atomic and Renewable Energy, ad-hoc committee, member & coordinator	University

2018-2019	Development of new Minor in Energy, ad-hoc committee, <u>chairman</u> ,	College of Engineering
2018-2019	Development of Graduate Program in Renewable Energy, ad-hoc committee, <u>chairman</u> ,	College of Engineering
2018-present	Member of several promotion committees	University
2018-present	Research Institute Council, member	Research Institute
2018-present	Research Institute Policy & Planning Committee, member	Research Institute
2017-present	Research Institute Personnel Committee, member	Research Institute
2017-present	National Technical Committee for Solar System Standards (by Saudi Standard, Metrology, and Quality Organization (SASO)), member	National
2016- present	Center of Excellence in Energy Efficiency, Member of the Board of Directors	National
2016- present	<u>Chairman</u> of the Executive Committee, Center of Excellence in Energy Efficiency,	University
2016-2018	Scientific Research Committee, standing committee, member	University
2016-2017	Unified Financial Office for Research Sector, ad-hoc committee, member	University
2015-2016	Desalination Research Direction Team, ad-hoc committee	Research Institute
2015-2016	Course Development “Fundamentals of Energy Efficiency”, ad-hoc- committee, member	University
2015-2016	Research Support and Assessment of Research Programs Committee, member	University
2015-2016	Sponsoring FT Ph.D. Student from Research Institute Centers, ad-hoc committee, member	University
2015-2016	Faculty Affairs Committee, Standing Committee, member	University
2014-2015	New Research Institute Building, ad-hoc Committee, member	Research Institute
2014-2015	Research Institute Personnel Committee, member	Research Institute
2014-2015	Housing Committee, Standing Committee, member	University
2014-present	Research Institute Communications Committee, member	Research Institute
2013-2014	Textbook sub-committee, <u>Chairman</u> ,	ME Department
2013-2014	Ad hoc, U-Multirank System, member	ME Department
2013-2014	Faculty Hiring, Ad hoc, member	ME Department
2013-2014	Academic Affairs & Curriculum Committee, member	ME Department
2012-2013	Development of ME 452 lab handouts – Ad hoc, member	ME Department
2012-2013	Graduate /Doctoral Committee – member	ME Department
2012-2013	Build Leadership Research in Energy and Petrochemicals – Ad hoc committee, member	University
2012-2013	Academic Development Committee (ADC), member	University
2010-2011	ME Promoting & Industrial Relations Committee, member	ME Department
2006-2008	Vice President for Finance and Social Affairs, Saudi Students Club, Canada	Saudi Student Club
2004-2004	Students’ Academic Guidance Center, Student Affairs, member (<u>volunteer</u>)	University
2004-2004	Course & Teaching Evaluation Committee, member	ME Department
2001-2004	Public Relations Committee, member	ME Department

LIST OF UNDERGRADUATE AND GRADUATE COURSES AND LABS TAUGHT AT KFUPM

- 1) ARE495: Fundamental of Energy Efficiency (taught one module of the course)
- 2) ME 203: Thermodynamics-I
- 3) ME 204: Thermodynamics-II
- 4) ME 315: Heat Transfer
- 5) ME 316: Thermo-fluids Laboratory
- 6) ME 411: Senior Project I (instructor)
- 7) ME 412: Senior Project II (instructor)
- 8) ME 414: Senior Project I for AME (instructor)
- 9) ME 416: Senior Project II for AME (instructor)
- 10) ME 413: Systems Dynamics & Control lab
- 11) ME 432: Internal Combustion Engines lab
- 12) ME 439: Solar Energy Conversion
- 13) ME 495: Directed Research/BS Research
- 14) ME 539: Solar Energy Utilization (graduate course)
- 15) ME 606: Independent Research (graduate research MS course)
- 16) ME 701: Directed Research I (graduate research Ph.D. course)
- 17) ME 702: Directed Research II (graduate research Ph.D. course)

LIST OF SHORT COURSES TAUGHT

- 1- Introduction to Solar Energy, organized by KFUPM
- 2- Introduction to Energy Auditing, organized by Center of Excellence in Energy Efficiency
- 3- Certified Energy Manager (CEM) by the Association of Energy Engineers (AEE); Certified Trainer by AEE.
- 4- Renewable Energy Systems Design and Application.

SKILLS

<u>Leadership</u>	Leader of two Centers and one office, project manager, initiator, and pro-active, negotiator, and professional speaker and writer.
<u>Language skills</u>	Fluent in Arabic and English. Competent Communicator Award (English), 2018; Toastmasters International
<u>Computer skills</u>	EES, MATLAB, MATHEMATICA, FLUENT, ProE, CFX, ICEM, Latex, Homer, and TecPlot software; and familiar with some other conventional programs.

PROGRAMS DEVELOPMENT, COURSES DEVELOPMENT, AND COURSE COORDINATION

- Chairman of an ad-hoc committee to develop a new MS program in Renewable Energy under the College of Engineering. The program proposes two streams: Master of Engineering and Master of Science.
- Chairman of an ad-hoc committee to develop a new minor in Energy under the College of Engineering.
- Chairman of an ad-hoc committee to develop a new concentration on Intelligent Energy Systems Management.
- Proposed new concentration program on energy for BSs students.
- Member of the committee to develop a new multi-disciplinary course: ARE495: Fundamentals of Energy Efficiency (undergraduate). In addition, I taught one module of the course (2017).
- Proposed one new undergraduate course with one of my colleagues: ME429 Energy Auditing (2018).
- Proposed one new graduate course together with one of my colleagues: ME540 Energy Management (2018).
- Developed a one-day short course in Energy Auditing together with one of my colleagues (2018)
- ME204 Thermodynamics – II, Semester 121; 2012, (Course Coordinator).

TEACHING AND RESEARCH LAB DEVELOPMENT

- For the Center of Excellence in Energy Efficiency: Developed a complete lab including instrumentation/tools required to be used as the Energy Efficiency Lab (2016-present). Fully responsible for the total establishment of the lab (identifying requirements, selection of items, procurement, and testing).
- For the Interdisciplinary Research Center for Renewable Energy and Power Systems: assessed and monitored the status of existing labs, reviewed procurement requests, safety, and quality assurance (Aug 2014-present).
- ME 452 Measurement and Lab Project (New Lab Manual), member of the ad-hoc committee, 2013.
- ME 432 Internal Combustion Engines Lab, (introduced new material to the manual entitled "International Codes of Performance Testing of Engines (one lab session), 2004.

SELECTED SHORT COURSES AND WORKSHOPS ATTENDANCE:

Attended more than 60 short courses in leadership, general management, projects management, policy, strategic planning, and soft & hard skills, including courses from Harvard University, MIT, Saïd Business School at Oxford University, INSEAD, LSE, Wharton School of the University of Pennsylvania, and many from KFUPM and others; only selected are listed below, and the full list is available upon request.

1. Certificate: Oxford Executive Leadership Programme from Saïd Business School, University of Oxford. A program for organizational leadership.
2. Certificate: Negotiation Mastery, Harvard Business School.
3. Certificate: Entrepreneurship, Harvard Business School.
4. Certificate: Disruptive Strategy, Harvard Business School.
5. Certificate: Leadership Communication with Impact from INSEAD.
6. Executive Leadership Program: Leading in a Transforming World, INSEAD
A special professional program for leaders and senior managers that develops the leadership skills needed today to succeed in a transforming disruptive landscape. The program includes three courses:
 - Strategy in the Age of Digital Disruption
 - Leading Organisations in Disruptive Times
 - Innovation in the Age of Disruption
7. Completed at MIT: two short courses in leadership and one in public speaking while attending workshops on developing unique ideas to patents and commercial products, professional writing of technical reports, and presentation for business; during my post doct at MIT.
8. Management Development Program, Wharton School of the University of Pennsylvania, (June 2020-Jan 2021); courses include: Managing People, Stakeholder Management, Accounting, Finance, Marketing, Operations & Strategy, Managing Yourself, and capstone projects.
9. Certificate: Public Policy Analysis, The London School of Economics and Political Science (LSE)
10. Certificate: Regulation: Theory, Strategy, and Practice, The London School of Economics and Political Science (LSE).
11. Leadership in the 21st Century: Activating the Power within, Aligning with the Possibilities Ahead, by Partha Ghosh, 2012, MIT.
12. Public Speaking, by Bill Hoogterp and Michael Balaoing, 2012, MIT.
13. Leadership Skills for Engineering and Science Faculty, by Dr. Charles E. Leiserson and Dr. Chuck McVinney, 2012, MIT.
14. Leadership Skills, 25-26 Aug 2020, KFUPM, Dr. Jeffery Buller.

15. Project Management Professional (PMP), Tenstep, Feb 9 - 13 2020, Mr. Christopher Bragg.
16. Manager as Coach, KFUPM, Sept 19-20, 2018, Mr. Iftikhar Nadeem.
17. Lean process improvement: eight-step model and Lean in action, KFUPM, 26-27 Aug., 2019, by Mark Robinson.
18. Trends and Practices of Training Undergraduates on Research Skills, Aug 14, 2018, KFUPM, Dr. Lee Phillips.
19. Academic Leadership, Aug 6, 2018, KFUPM, Dr. William Bernhard.
20. Managing Faculty Governance/Planning, Aug 8, 2018, KFUPM, Dr. William Bernhard.
21. Department Climate and Difficult Faculty, Aug 7, 2018, KFUPM, Dr. William Bernhard.
22. Energy Leadership Performance, May 9, 2018, KFUPM, Mr. Iftikhar Nadeem.
23. Decision making and problem-solving, Nov 26, 2017, Academic Leadership Center, Dr. Jeffery Buller.
24. Smart Goals Setting Workshop for Leaders, Oct 23, 2017 KFUPM.
25. Energy Audit Seminar, FLUKE, Corey W. Glassman (Global Training Manager), March 22, 2017.
26. Energy Leadership Program Assessment & Coaching, iPEC, 2017.
27. 360 Leadership Assessment, Continuous Assessment & Coaching, Marshall Goldsmith Stakeholder Centered Coaching, 2017- 2019.
28. Certified Energy Auditor, Nov 13-17, 2016, Association of Energy Engineers.
29. Certified Energy Manager, Oct 16-20, 2016, Association of Energy Engineers.
30. LEAN in Higher Education, Aug 23-24, 2016, Dr. William K. Balzer.
31. Engineering Design, Aug 22, 2016, Dr. Steve Lambert.
32. Principles and Particles of Intellectual Asset Management, Licensing Executives Society International (LES), Dhahran Techno Valley (DTV), May 23- 26 2016.
33. Project Management for Professional, Mind-Merge, KFUPM, by Ahmed El Qutob, December 20 - 24 2015.
34. Evaluating Higher-Order Thinking Skills, Aug 19, 2015, Dr. Kurt Geisinger.
35. Designing Instructional Strategies that Incorporate Student Teams, Aug 17, 2015, Dr. Jeffrey E. Froyd.
36. Designing an Instructional Plan Incorporating Research-based Instructional Strategies, Aug 17, 2015, Dr. Jeffrey E. Froyd.
37. Negotiation Skills for Managers, Integrated for Training, Mr. Kal Peter Shadid, June 02, 2015.
38. Promoting Innovation in Higher Education, Academic Leadership Center, Ministry of Education, February 15-16 2015.
39. Bedrock Programs of Academic Entrepreneurship and Their Role in Next Generation Innovation, Nov 5, 2014, Dr. J. Pekny, KFUPM.
40. Mentoring the Entrepreneurial CEO, KFUPM, November 04, 2014.
41. Research Management for KFUPM Executives, Oct 19, 2014, KFUPM.
42. Workshops and tours on Atomic Energy Sector in France, EDF, 2014.
43. Certificate for Attending Workshop for Getting Started with Blackboard 91.1, KFUPM, e-Learning Center, Deanship of Academic Development KFUPM, August 26, 2013.
44. Teaching Professional Skills, Aug 24, 2013, By Dr. William Charles Oakes, KFUPM.
45. Student Motivation, Feb 24, 2013, by Dr. Saad Al-Aiban and Dr. Salih Duffuaa KFUPM.
46. Leadership Skills for Engineering and Science Faculty, June 18-19, 2012, MIT, Cambridge, USA, by Dr. Charles E. Leiserson and Dr. Chuck McVinney.
47. Public Speaking, May 8, 2012, MIT, Cambridge, USA, by Bill Hoogterp and Michael Balaoing from BluePlanet.
48. Leadership in the 21st Century: Activating the Power within, Aligning with the Possibilities Ahead, Jan 23- Jan 27, 2012, MIT, Cambridge, USA, by Partha Ghosh.
49. Teaching methods to inspire students; May 23-25, 2011. KFUPM, by Dr. David Wallace, MIT.

50. Workshop: hands-on experience in project-centric engineering design education, May 15-19, 2011, KFUPM, By Dr. David Wallace, MIT.
51. Solar Cell Day, May 8, 2011, KFUPM.
52. Workshop on Cooperative Learning: Team-Based Learning, April 19, 2011, KFUPM.
53. Leadership for Today and Tomorrow: The Dynamics and the Details, April 3, 2011, KFUPM.
54. Scientific publishing, DSR, KFUPM, March 22, 2011.
55. Service-Learning: Enhancing Learning, Developing Civic Responsibility, and Strengthening Communities, March 8-9, 2011.
56. Participatory classrooms, KFUPM, March 6, 2011.
57. Recent Advances in Solar Energy Utilization, Jan. 23, 2011.
58. Certificate in University Teaching Skills, October 19 - 23, 2009, Canada.
59. Communication Workshop for Engineering Reports and Dissertation (summer clinic), Canada, 2009.
60. Communication Workshop for Graduate Engineering Students, Canada, 2008.
61. Short course on Vibration in Rotating Machinery: Basics, Measurements & Balancing, Dec 20-24, 2003.
62. Short course on HVAC and Refrigeration, Analysis and Design, Oct 18-22, 2003.
63. Certificate for attending a workshop entitled Effective Presentation Workshop, KFUPM, Dr. Sultan H. Al- Hazmi, July 27 - 29 2003.
64. Workshop on Safe Lab Environment, June 8, 2003.
65. Short course on Essentials of Turbines and Compressors Maintenance and Operations, Oct 26-30, 2002.
66. Short course on Vibration Measurement and Diagnostics with a concentration on rotating equipment, Aug 10-14, 2002.

List of selected research projects

Project Title and Tenure	Budget SR	Funding Agency	Investigator	Dept. ¹	Project Role ²
Thermodynamic Optimization of a Novel Solar-Trigeneration Plant Using Hybrid Steam and Organic Rankine Cycles; June 1, 2011 - May 1, 2012		DSR, KFUPM	F. A. Al-Sulaiman	ME	PI
Seawater Desalination using Thermal, Solar, and Hybrid Systems, including Humidification Desalination; 1 August 2008 – 31 July 2014		Center for Clean Water and Clean Energy, MIT- KFUPM	J. H. Lienhard V	ME(MIT)	PI-1
			M.A. Antar	ME	PI-2
			S. M. Zubair	ME	Co-I
			M.H. Sharqawy	ME	Co-I
			F. A. Al-Sulaiman	ME	Co-I
			H. Abualmahayel	ME	Co-I
			A. M. Al-Qutub	ME	Co-I
			P. Gandidasan	ME	Co-I
Thermodynamics Optimization of Solar Thermal Power Tower Systems with Thermal Storage; 1 May 2013- 31 Dec. 2014		SABIC	F. A. Al-Sulaiman	ME	PI
		SABIC	Abdul Khaliq	ME	PI

Investigation of Solar Energy Driven Combined Power and Cooling Thermodynamic Cycle, 1 Dec. 2011- 30 May 2015			F. A. Al-Sulaiman	ME	Co-I
Development and Assessment of a New Water Humidifier for Water Desalination Applications, 1 June 2014-30 May 2017		DSR, KFUPM	F. A. Al-Sulaiman	ME	PI
			M. A. Antar	ME	Co-I
Investigation of Photovoltaic Panels Subjected to Uniform Cooling, 13 Mar. 2013 – 28 Feb. 2015		KACST	H. Bahaidrah	ME	PI
			P. Gandhidasan	ME	Co-I
			F. A. Al-Sulaiman	ME	Co-I
Application of Photovoltaic-Thermal Hybrid Solar Collector System in Saudi Arabia, 1 March- 2014- 28 Feb 2016		NSTIP	A. Z. Sahin	ME	PI
			F. A. Al-Sulaiman	ME	Co-I
برنامج توعية المجتمع حول ترشيد استهلاك الطاقة وأهمية الطاقة المتجددة Community Awareness about Energy Conservation and the Importance of Renewable Energy Program (1 Sept 2014-1 Aug 2015)		Ministry of Higher Education	E Mukheimer S. Said F. A. Al-Sulaiman M. A. Habib K. Soufi	ME ME ME ME RI	PI Co-I Co-I Co-I Co-I
Applications of Solar Chimney in Saudi Arabia, 1 April 2015 31 March 2017		DSR, KFUPM	F. A. Alsulaiman	ME	PI
Experimental and modelling development of an optical filter based two-channel hybrid PV/T solar collector using nanofluids April 2017- March 2020		DSR, KFUPM	F. A. Alsulaiman M. M. Islam M. K. Hossain	ME CoRERE CORERE	PI Co-I Co-I
Advanced Heliostat Electrical Drive System (Solar Thermal Power), 1 Jan 2018.		GTEC- KFUPM	M Abdio F. A. Alsulaiman etc	EE ME	PI Co-I
Innovative Sustainable Water Desalination hybrid system, 1 Sept 2016; Aug 2019		DISC- KFUPM,	M. A Antar Syed Zubair Atia Ismail F. A. Alsulaiman	ME ME ME ME	PI Co-I Co-I Co-I
Energy Auditing of ARASCO Facility, completed, 2019		(Client Funded Proposal)	E. Mokheimer F. A. Alsulaiman Firoz Ahmed Md. Shafiallah Jamilu Adam	ME ME CER CoRERE CEEE	PI Co-I Co-I Co-I Co-I
Energy Auditing of Academic Buildings (63), completed, 2018		CEEE	F. A. Al Sulaiman Esmail Mokheimer Adel Abdou	ME ME ARE	PI Co-I Co-I
Energy Auditing of Saudi Steel Pipe Manufacturing Facility, completed, 2018		CEEE	Esmail Mokheimer F. A. Al Sulaiman I Elamin	ME ME EE	PI Co-I Co-I

Energy Auditing of Academic Buildings KFUPM: (Building 76), completed, 2018		CEEE	Adel Abdou F. A. Al-Sulaiman Hassan Khan	ARF ME	PI Co-I Co-I
Development of Strategic plan for KCAARE, advisory on the project Nov 2019, in progress.		KACARE	Member of the project		Co-Advisor
Assessment of desalination integrated systems driven by different solar thermal systems		SWCC			PM
Energy Auditing for KFUPM mosques; Completed 2021		CEEE			PM
Solar Air-conditioned Bus Stop Station		CEEE			Coordinator
Assessment of Small PV System Initiative, Completed 2021		GCC Lab			PM
Renewable Energy Incubator; Ongoing 2021		NIDL			PM
Installation of solar air conditioning system to KFUPM bus stop stations Ongoing 2021		CEEE			PM
Development of sustainable and energy efficiency system for mosque. (Ongoing)		CEEE			PM
Assessment of Water Treatment in a Model Wildlife Reserve (Uruq Bani Ma'Arif)		National Center for the Development of Wildlife			PM
Renewable Energy Project in the Model Reserve (Uruq Ubani Maarid Reserve)		National Center for the Development of Wildlife			PM

¹ **ME: Mechanical Engineering, RI: Research Institute**

² **PI: Principle Investigator, Co-I: Co-Investigator**

³ **PM Project manager**

DSR: Deanship of Scientific Research

RESEARCH AND PUBLICATIONS

Updated list and citations are in Google Scholar

https://scholar.google.com/citations?hl=en&user=a2c7JYwAAAAJ&view_op=list_works

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List of Book Chapter

1. Al-Ahmed A, Khan F, **Al-Sulaiman, F.A.**, "Paraffin Wax and Fatty Acid-Based Passive Temperature Management of PV Modules: An Overview", Book Chapter, Green Energy and Technology, 2022.
2. Al-Ahmed A, Khan F, **Al-Sulaiman, F.A.**, "The Effects of Dust and Heat on Photovoltaic Modules: Impacts and Solutions", Book Editor Green Energy and Technology, 2022.
3. Ibrahim NI, **Al-Sulaiman, F. A.**, Farid Nasir Ani, "Energetic Performance Optimization of a H₂O-LiBr Absorption Chiller Powered by Evacuated Tube Solar Collector", Book Chapter, Renewable Energy and Sustainable Buildings pp 363-377, Online ISBN 978-3-030-18488-9, Springer.
4. Chauhan A, Tyagi VV, Anand S, Pandey AK, Sari A, **Al-Sulaiman, F. A.**, Energy Storage by PCM for Building Applications, Handbook of Energy Systems in Green Buildings, 1-29.
5. Atif M , **Al-Sulaiman, F. A.**, Supercritical Carbon Dioxide Brayton Cycles Driven by Solar thermal Power Tower System, Advanced Materials Research 1116, 94-129.

List of Conference Papers

1. Ali, A.,**Al-Sulaiman, F.A.**, Irshad, K., Shafiullah, M., Malik, S.A.,Memon, A.H., "Renewable Portfolio Standard from the Perspective of Policy Network Theory for Saudi Arabia Vision 2030 Targets", 2021 4th International Conference on Energy Conservation and Efficiency, ICECE 2021 - Proceedings
2. Ali A., Hussain M., **Al-Sulaiman F.A.**, Tahir S., Irshad K., Zahir M.H., Malik M.Z., "Techno-economic study on grid-connected PV system for major cities in Saudi Arabia", E3S Web of Conferences, 2020
3. Ibrahim N.I, **Al-Sulaiman, F.A.*.**, Nasir FA, "Energetic performance optimization of a H₂O-LiBr absorption chiller powered by Evacuated tube solar collector", 18, World Renewable Energy Congress, UK, 2018.
4. Hasan Zahir, Md., Allihyani, S., Hossain, M.M., **Al-Sulaiman, F.A.**, MgO and/or Mg(OH)₂-blended poly ethylene glycol composites as a shape-stabilized phase change material for solar thermal energy storage", 2018, King Fahd University of Petroleum and Minerals, Research Institute - Annual Catalysts in Petroleum Refining and Petrochemicals Symposium Papers
5. Hussain, F.M., Abd-Elrazik, **Al-Sulaiman, F.A*.**, "Enhanced Performance Analysis of Solar Chimney Power Plant Aided with Reflectors", Solar Thermal Collectors, Solar Word Congress, International Solar Energy Society, 2017, Abu Dhabi, UAE
6. Abd-Elrazik, A.S., **Al-Sulaiman, F.A.*.**, Ben Mansour R., Rahman, S, "Analytical Study on the Effect of Optical Filtration and NANOPCM on the Performance of PV/T Solar Collectors", PVT Systems, Solar Word Congress, International Solar Energy Society, 2017, Abu Dhabi, UAE
7. Linjawi MT, Talal Q, **Al-Sulaiman, F.A.*.**, "Evaluation of solar thermal driven cooling system in office buildings in Saudi Arabia", World Renewable Energy Congress, 2016, Bahrain, 23, 05001.
8. Hussain FM, **Al-Sulaiman, F.A.*.**, "Exergy Analysis of Solar Chimney for Saudi Arabian Weather Conditions, ASME 2016 10th International Conference on Energy Sustainability collocated
9. Ibrahim NI, **Al-Sulaiman, F.A.*.**, Rahman S, "Thermodynamic Analysis of a Mini Hybrid Solar Driven Cooling-Desalination System", ASME 2016 10th International Conference on Energy Sustainability collocated.
10. Abd-ur-Rehman HM, **Al-Sulaiman, F.A*.**, Antar MA, "Experimental Analysis of Solar Driven Bubble Column Humidifier for Humidification-Dehumidification (HDH) Water Desalination System", (2015), International Solar Energy Society.

11. **Al-Sulaiman, F.A.***, Atif M, Abd-Ur-Rahman H, "Performance Analysis of Solar Tower Power Plants Driven Supercritical Carbon Dioxide Recompression Cycles for Six Different Locations in Saudi Arabia", (2015), International Solar, International Solar Energy Society
12. Hossain MK, Salhi B, Mukhaimer AW, **Al-Sulaiman, F.A.**, "Silicon Nanowire as an Effective Absorber for Solar Cell Application: Fabrication and Numerical Simulation", (2015), Nanotech France.
13. Abd-ur-Rehman HM, **Al-Sulaiman, F.A.***, Budaiwi Ismail M, Shakir Sahar, "Energy Conservation Measures and Solar Energy Integration in Hot Climate Residential Buildings", Recent Advances in Renewable Energy Sources
14. Hussain F., **Al-Sulaiman, F.A.***, "Performance Analysis of Solar Chimney for Saudi Arabia Weather Conditions", (2015), SolarPACES..
15. Almahmoud, H., **Al-Sulaiman, F.A.***, Abd-Ur-rehman, H., "Techno-economic evaluation of Solar Water Heating applications at hospitals in Saudi Arabia", (2015), International Solar Energy Society.
16. Hafiz, A. and **Al-Sulaiman, F. A. ***, "Mathematical Modeling of Bubbler Humidifier for Humidification-Dehumidification (HDH) Water Desalination System", 6th International Conference on Fluid Mechanics and Heat & Mass Transfer, Kuala Lumpur, Malaysia, 23-25 April 2015.
17. Hafiz, A M.; **Al-Sulaiman, F. A. ***, Budaiwi I.M., Shakir, S., "Energy Conservation Measures and Solar Energy Integration in Hot Climate Residential Buildings", 9th International Conference on Renewable Energy Sources, Kuala Lumpur, Malaysia. 23-25 April 2015.
18. Abd-ur-Rehman HM, **Al-Sulaiman, F.A.***, "Techno-economic evaluation of different types of solar collectors for water heating application in domestic sector of Saudi Arabia", IEEE, 5th International Renewable Energy Congress (IREC), 2014
19. Maimoon A, **Al-Sulaiman, F.A.***, "Performance analysis of supercritical CO 2 Brayton cycles integrated with solar central receiver system", IEEE, 5th International Renewable Energy Congress (IREC), 2014.
20. Maimoon A, **Al-Sulaiman, F.A.***, "Time Instant Optimization of a Heliostat Field Using a Heuristic Algorithm", ASME 2014 8th International Conference on Energy Sustainability 2014
21. **Al-Sulaiman, F.A.***, Sahin AZ., "Energy Analysis of a New Solar Thermal System Using Combined Steam and Organic Rankine Cycles", American Solar Energy Society, Denver, CO, USA, 2012.
22. **Al-Sulaiman, F. A. ***, Hamdullahpur, F., Dincer, I., "Exergy and Environmental Impact Assessments of an Integrated Organic Rankine Cycle with a Biomass Combustor for Combined Production of Cooling, Heating and Power", (2010), International Green Energy Conference (IGEC-V), Waterloo, ON, Canada.
23. **Al-Sulaiman, F. A.***, Hamdullahpur, F., Dincer, I., "Energy and Exergy Assessments of a New Trigeneration System Based on Organic Rankine Cycle and Biomass Combustor", (2010), Proceedings of ASME 2010 4th International Conference on Energy Sustainability, ES2010-90258, Phoenix, AZ, USA.
24. **Al-Sulaiman, F. A. ***, Dincer, I. Hamdullahpur, F., "Energy analysis of a trigeneration plant based on solid oxide fuel cell and organic Rankine cycle", Proceedings of the International Conference on Hydrogen Production, Oshawa, ON, Canada
25. **Al-Sulaiman, F. A.*** Hamdullahpur, F., Dincer, I., "Efficiency and environmental impact assessments of a trigeneration plant using SOFC and ORC", (2009), Proceeding of the Global Conference on Global Warming, Istanbul, Turkey.
26. **Al-Sulaiman, F.A.*** Al-Qutub Amro M, "Design of Small Centrifugal Compressors Performance Test Facility", (2004), ASME Turbo Expo 2004: Power for Land, Sea, and Air.

List of Technical Reports from projects

1. Thermodynamic Optimization of a Novel Solar-Trigeneration Plant Using Hybrid Steam and Organic Rankine Cycles; June 1, 2011 - May 1, 2012, Principle Investigator and project manager.
2. Seawater Desalination using Thermal, Solar, and Hybrid Systems, including Humidification Desalination; 1 August 2008 – 31 July 2014, Co-Investigator.
3. Thermodynamics Optimization of Solar Thermal Power Tower Systems with Thermal Storage; 1 May 2013- 31 Dec. 2014, Principle Investigator and project manager.
4. Investigation of Solar Energy Driven Combined Power and Cooling Thermodynamic Cycle, 1 Dec. 2011- 30 May 2015, Co-Investigator.
5. Development and Assessment of a New Water Humidifier for Water Desalination Applications, 1 June 2014-30 May 2017, Principle Investigator and project manager.
6. Investigation of Photovoltaic Panels Subjected to Uniform Cooling, 13 Mar. 2013 – 28 Feb. 2015, Co-Investigator.
7. Application of Photovoltaic-Thermal Hybrid Solar Collector System in Saudi Arabia, 1 March- 2014- 28 Feb 2016, Co-Investigator.
8. برنامج توعية المجتمع حول ترشيد استهلاك الطاقة وأهمية الطاقة المتجددة Community Awareness about Energy Conservation and the Importance of Renewable Energy Program (1 Sept 2014-1 Aug 2015), Co-Investigator.
9. Applications of Solar Chimney in Saudi Arabia, 1 April 2015- 31 March 2017, Principle Investigator and project manager
10. Energy Auditing of ARASCO Facility, Co-Investigator.
11. Energy Auditing of Academic Buildings (63), Principle Investigator and project manager.
12. Energy Auditing of Saudi Steel Pipe Manufacturing Facility, Co-Investigator.
13. Energy Auditing of Academic Buildings KFUPM: (Building 76), Co-Investigator.

Students Supervision

UNDERGRADUATE STUDENTS ADVISING

Undergraduate (COOP Training)	Advisor
	(102-103) Abdulmajid M AlQahtani,
	(113-121) Omair M Siddiqui,
	(113-121) Ibrahim Ma'moun H Tahboub,
	(122-123) Ismael A Tombakti,
	(122-123) Marwan H Al-Towairqi,
	(123-131) Ahmad S Al-Zahrani,
	(132-133) Ba-Abdullah, Omar
	(132-133) Al-Hashem, Mahdi
	(133-141) Al-Garni Saad
	(133-141) Bukahmseen, MA,

	<p>(142-151) Al-Jasham A. G.;</p> <p>(152-153) Almansour, Ali,</p> <p>(153-161) Alfaraj, M. ,</p> <p>(162-163), Alruhaili, Faisal,</p> <p>(163-171), Alhrthi Rakan,</p> <p>(172-173) Alserhan, Saeed,</p> <p>(173-181) Alqahtani, Meshari,</p> <p>(182-183) Alsaaran, Abdulaziz</p> <p>(182-183) Alsaidlani, Osamah</p> <p>(183-191) Alsaad,M. A.</p> <p>(183-191) Ashams, M. M.</p> <p>(192-193) Alqusaibi, M.</p> <p>(202-203) Alshomrani, A</p> <p>(202-203) Alshareef, A</p> <p>(203-211) Alshaqaq, M</p>
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SENIOR DESIGN PROJECTS SUPERVISION

122-131	<p>Hamad Abd Ul Rahman Abd-Ullah S., Al-Zahrani Abdul-Majeed Saeed Abdullah,, Al-Sowaij Abd Al-Hakim,</p> <p>Project Title: "Development of a Convergent Channel for Photovoltaic Cooling", Advisor.</p>
122-131	<p>Ba-Sharahel Abdul-Rahman Bader, Al-Meshal Mohammad Abdul-Aziz Sula, Al-Juhani Mohammad Hulail, Project Title: "Development of a Solar Humidifier for Water Desalination", Advisor.</p>
131-132	<p>Al-Ghamdi Abdul-Majeed M, Al-Mousa Fahad A, Al-Dajaani Ahmad A,</p> <p>Project Title: "Development of Solar Dehumidifier for Water Desalination", Advisor.</p>
131-132	<p>Faisal Al-Amer, Al-Jaed Abdul-Aziz Awdh, Al-Ajmi Mohammad, Ba-Dugaish Ziyad Saleh,</p> <p>Project Title: "Development of Water Jet System for Photovoltaic Cooling", Co-Advisor.</p>
132-141	<p>Al-Shahrani Yasser Mohammad, Al-Tamimi Qusay Mhmoud, Al-Mutairi Turki Hamoud, Project Title: "Development of an Improved Solar Humidifier for Water Desalination", Advisor.</p>
142-151	<p>Al-Khaldi Nasser Abdullah,Al-Hazzaa Mohammad Saud, Al-Shamrani, Abdul-Khaliq Mesfer,</p> <p>Project Title: "Applications of Novel Solar Chimney in Saudi Arabia", Advisor.</p>
152-161	<p>Almutlaq Abdullah, Al Blushi Ali,</p> <p>Project Title: "Development of a New Solar Chimney with reflectors", advisor.</p>
152 & 162	<p>Sait Sohaib, Abdulkhaliq Saeed, Almousa , Fares,</p> <p>Project Title: "Development of a PV thermal cooling system", advisor.</p>

152 & 162	Al-Shehry Abdullah, Al-Onaizan Osamah, Al-Owaishez Abdullah, Project Title: "Development of Integrated Solar Thermal Collector and PV/Thermal System", advisor
172 & 182	Abdruhaman A Alkhateeb, Osamah Alsubhi, Osamah Almadani Project Title: "Development of a New Passive Cooling System", advisor
191-192	Turki Almadi, Fawaz Alhomaiddan, Tameem Alkhudairi, Moataz Alahmadi Project title: "Solar Thermal Heating of Water under Asphalt.
192-222	Tahir Alsuhami, Tariq Alotaibi, Khalid Alqhatani, Abdulaziz Alsulaimn Project title: "Portable Solar Water System.

UNDERGRADUATE STUDENTS COOP AND SENIOR DESIGN PROJECT EXAMINATION

- Committee member for COOP student's presentation, on the average four students in each semester.
- Committee member for senior design projects presentation, on the average nine students in each semester.

GRADUATE STUDENTS THESIS SUPERVISION AND COMMITTEE MEMBERSHIP

Advisor	<p>MS, Atif Maimoon, Thesis Title: "Optimization and Thermal Performance Analysis of Supercritical Carbon Dioxide Brayton Cycles Driven by Solar Thermal Power Tower Systems," completed, Oct. 2014.</p> <p>MS, Amin Kouta (Part time), Thesis Title: "Optimization and Thermal Performance Analysis of Solar Driven Combined Power and Water desalination System Using Supercritical Carbon Dioxide Brayton Cycles," completed, May 2015.</p> <p>MS, Hafiz Abd-ur-Rehman, Thesis Title: "Experimental and Thermal Investigation of Water Humidifier Driven by Solar Energy," completed, Dec 2015.</p> <p>MS, Faisal Moiz Hussain, Thesis Title: "Experimental and Thermal Investigation of Solar Chimney Under Saudi Arabia Weather Conditions," completed, May 2017.</p> <p>MS, M Faisal Musa, Thesis Title: "Renewable energy-powered hybrid NF/FO/RO membrane system for brackish water desalination" completed, May 2018.</p> <p>MS, A K Alrubayan, "Performance and Cost Analyses of Hybrid Diesel-PV Powered Small Brackish Water Systems in Saudi Arabia" completed, Dec 2018.</p> <p>MS, Hamad A Al-Mahmoud, "Solar-Driven Combined Ejector Refrigeration and Humidification Dehumidification Desalination System", completed Apr. 2019.</p> <p><u>Ph.D.</u>, Ahmed S Soliman, "Experimental and numerical study of the performance enhancement of hybrid PV/T solar system under usage of optical filtration nanofluid and nano-PCM", completed Dec. 2019,</p>
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	<p>MS, Faisal Almutairi, "Solar Driven Air Conditioning System using a Novel pre-Cooling System", completed Nov. 2020.</p> <p>MS, Abdulaziz Alghatmi, "Innovative Cooling System for PV Systems", completed.</p> <p>MS, Faisal Alsuwailem "Development of Solar Air Conditioning Systems", in progress.</p>
Committee member	<p>MS, Ahmer B Baloch, "Numerical and Experimental Investigation of Uniform Cooling Techniques for Photovoltaic Panels," completed Dec. 2014.</p> <p>MS, Mohamed Ifraz Zubair, "Performance Assessment of Humidification-Dehumidification Water Desalination System with Storage Option Using Solar Energy," completed, 2016.</p> <p>MS, Suhaib M Ahmed. "Air and Water Gap Multistage Membrane Distillation Systems for Water Desalination, Completed, Jan 2017.</p> <p>MS, Ahmed S Abuelyamen, "Computational Fluid Dynamic and Heat Transfer Modeling of Stirling Engine", completed, Jan 2017.</p> <p>MS, Hamza K. A Mukhtar, "Transient Thermodynamic Analysis of Generator in a Solar Absorption System Designed for Hot and Humid Regions", completed, Jan 2017.</p> <p>MS, Ahmed Abdalmonem, "Solar Powered Multistage Direct Contact Membrane Distillation System for Water Desalination", completed, May 2017.</p> <p>MS, Muhammad O Lari, "Design and economic analysis of nanofluid based photovoltaic thermal (PVT) system with thermal storage", completed, May 18, 2017</p> <p>MS, Khalid M Almutairi, "Experimental Study of a New Humidification Dehumidification Desalination System", completed Dec 2017.</p> <p>MS, Qazi Talal, "Modeling and Numerical investigation of a falling film liquid desiccant dehumidifier with nanoparticles", completed May 2018.</p> <p><u>PhD</u>, Muhammad Younas, "Fabrication of perovskite & dye sensitized solar cells and their parametric optimization", completed April 2019.</p> <p><u>Ph.D.</u>, Dahiru Umar Lawal, "Heat Pump Operated Humidification-Dehumidification Desalination System", Completed April 2019.</p> <p><u>Ph.D.</u>, M. Hamdy Abdelraheem, "Investigation of ITM In-Situ combustion for thermal Enhanced Oil Recovery", Completed Sept. 2020.</p> <p><u>Ph.D.</u>, Waleed M A Hamanah, "Advanced Heliostat Electrical Drive System for Solar Power Tower Technology", in progress.</p>

Ph.D., Ghassan H Abdelmagid, “Water Droplet Behavior On Inclined Dusty Hydrophobic Surface: Dust Characteristics and Droplet Dynamics”, completed Jun. 2020.

Ph.D., Suhaib Ahmed, “Membrane Distillation for Water Desalination-Theoretical and Experimental Investigations”, completed Jan. 2017.

**MEng
Graduation
Committee
Member**

I was a committee member for the graduation project for 20 students as part of their graduation requirements for MEng Degree in Sustainable Energy offered by KFUPM.