

Dr. **WALEED A. ALMASOUD**

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Education

- Bachelor of Science, Agricultural Engineering Department, King Saud University — Riyadh, Saudi Arabia. (2002-2007)
- Masters of Science, Agricultural and Biological Engineering Department, University of Florida, Gainesville, Florida, USA. (2014, 2016)
- Ph.D., Agricultural and Biological Engineering Department, University of Florida, Gainesville, Florida, USA. (2017, 2020)

Work Experience

- An agricultural engineer at the General Department of Environmental Health (GDEH) for six months, Riyadh Municipality, Saudi Arabia (2007).
- A vice head of the Environmental Protection Department at (GDEH) for a month (2008).
- Teaching Assistant at the Agricultural Engineering Department, College of Food and Agriculture Science, King Saud University. Riyadh, Saudi Arabia (2008-2020).
- Assistant Professor at the Agricultural Engineering Department, College of Food and Agriculture Science, King Saud University. Riyadh, Saudi Arabia (2021-Present).
- Manager of the Agricultural Research Center, College of Food and Agriculture Science, King Saud University. Riyadh, Saudi Arabia (2023-Present).
- Chair of Coop-Training Unit, College of Food and Agriculture Science, King Saud University. Riyadh, Saudi Arabia (2024-Present).

Areas of interest

- Environmental control systems for agricultural structures including greenhouse, dairy and poultry houses, and storages of agricultural products.
- Greenhouse systems design for optimum production, water and energy efficiency.
- Computational Fluid Dynamics (CFD) applications and computer simulations for cooling and ventilation systems.
- Renewable energy applications in agricultural facilities and greenhouses.

Research

- The Impact of using the Ionian motivation device to detect salt water leakage in soil. King Saud University, Riyadh, Saudi Arabia (2006).
- Comparative study on plastic pads and corrugated cellulose pads used in the evaporative cooling systems in greenhouses. King Saud University, Riyadh, Saudi Arabia (2007).
- Controlling Temperature and Relative Humidity in Greenhouses Using a Liquid Desiccant Dehumidification System. University of Florida, Florida, USA (2015-2016).
- Evaluating the Impact of Various Shading Materials on Cattle Heat Stress. University of Florida, Florida, USA (2018).
- Improving Greenhouse Cooling Efficiency Through the Use of a Liquid Desiccant and Regeneration System. University of Florida, Florida, USA (2017-2020).

Courses Taught

- **AGENG 453: Design and Plan for Agricultural Structure.**
- **AGENG 351: Environmental Control for Animal and Plant.**
- **AGENG 202: Computer Programing in Biological Systems.**

Guest Lecture:

- **AGENG 311: Heat Transfer in Bio-systems (Two lectures at the Agricultural Engineering Department, King Saud University).**
- **AGENG 325: Engines and Agricultural Tractor (Three lectures at the Agricultural Engineering Department, King Saud University).**
- **ABE 3612C: Heat and Mass Transfer in Biological Systems. (Six lectures, grading, and lab assistant at the Agricultural and Biological Engineering Department, University of Florida).**
- **ABE 4932: Fundamentals and Applications of Solar Energy. (One lecture at the Agricultural and Biological Engineering Department, University of Florida).**

Training

- Computer skills (Microsoft Office + Photoshop) for six weeks at Gulf Institute, Riyadh, Saudi Arabia. (2003)
- An agricultural engineering for three months, NAFA AGRICULTURE Company, Riyadh, Saudi Arabia. (2006)
- **In 2009 at King Saud University, Riyadh, Saudi Arabia:**
 - English language.
 - Scientific research skills.
 - Computer skills (Microsoft Office).
 - Communication skills.
 - Scientific research skills.
 - Scientific research ethics.
 - Time management skills.
 - Writing research plan for the Masters and Ph.D.
 - Scientific research - concepts and mechanisms.
 - Skills of research through the Internet and databases.
 - Programming, writing, and classifying the scientific references.
 - Effective communication skills.
 - Skills of preparation and writing papers and scientific reports.
 - Research writing skills.
- English Language, the English Language Institute (ELI), University of Florida, Gainesville, Florida, USA. (2013-2014)
- **In 2017 at the teaching center, University of Florida, Gainesville, Florida, USA:**
 - Creating a Teaching Portfolio.
 - Creating a Syllabus.
 - How to be a Great Online/Hybrid TA.
 - Diversity in the Classroom.
 - Basic Principles of Learning.
 - Oral Presentation Skills and Planning Your Lecture.
 - Learning Outcomes in e-Learning.
 - Using Streaming Media & Web Conferencing with Your Course.
 - Testing and Grading.
- **Since 2021 at King Saud University, Riyadh, Saudi Arabia:**
 - Course Design and Construction.
 - Effective University Teaching.
 - Evaluation of Learning Outcomes and Electronic Exams.
 - The Use of Modern Technologies in Teaching.
 - Micro-Teaching and Peer Counseling.
 - Managing Work Stress.
 - Using infographics in presentations.
 - Preparing the quality Practitioner and Quality Accreditation.
 - Board of Assessors (BOA)

- **Since 2022 LinkedIn Learning:**
 - Author Workshop for Early Researchers.
 - How to Turn Your Thesis into An Article?
 - Measuring Learning Effectiveness.
 - Google Forms Essential Training.
 - 20 Habits of Executive Leadership.
 - 10 Mistakes Leaders Should Avoid.
 - Writing a Cover Letter.
 - Improving Your Focus.
 - Overcoming Cognitive Bias.
 - Critical Thinking.
 - The Three Pillars of Effective Communication.
 - Nano Tips to Stop Overthinking with Shade Zahrai.
 - Memorization and Rehearsal Tips for Public Speaking.
 - Nano Tips for Communicating with Confidence with Selena Rezvani.
 - Speaking Confidently and Effectively.
 - Learning MATLAB.
 - Reduce Tension with Breathwork.
 - Critical Thinking for Better Judgment and Decision-Making.
 - The 3-Minute Rule: Say Less to Get More.

Awards

- The first place in the competition of the best pioneering project, with an invention named "Isolating the Vehicle's Structure from the Surrounding Environment During Shutdown," Prince Salman Bin Abdul-Aziz Institute, King Saud University, Riyadh, Saudi Arabia. 2012

Professional and Student Societies

- The American Society of Agricultural and Biological Engineering (ASABE). (2014- Present)
- The American Society of Heating, Refrigerating, and Air-conditioning Engineers (ASHRAE). (2017-Present)
- Alpha Epsilon - The Honor Society of Agricultural, Biological & Food Engineering. (2015- Present)
- The University of Florida Alumni Association. (2016 - Present)
- Golden Key International Honor Society. (2018 - Present)

Committee Memberships

- Member of the Plant Systems Committee(PAFS-30) - American Society of Agricultural and Biological Engineering. (2014- Present)
- Member of the scientific research committee - Department of Agricultural Engineering (AGENG), College of Science Food and Agriculture, King Saud University. (2010-2013)
- Member of the management of quality assurance committee, AGENG. (2010- 2013)
- Member of the public relation and media committee, AGENG. (2010-2013)
- Member of the Agricultural Engineering Department website committee, AGENG. (2011- 2013)
- Member of graduate studies committee, AGENG, (2011-2013).
- Member of faculty and staff employment processes committee, AGENG. (2011- 2013)
- Member of the facilities and equipment committee, AGENG. (2011-2013)
- Vice president of the Mentor and Mentees Committee, University of Florida. (2016)
- Member of the Mentor and Mentees Committee, University of Florida (2015-2019).
- Chair of the Mentor and Mentees Committee, University of Florida (2017-2018).
- Chair of the cultural affairs - Saudi Student Association at the University of Florida (2017-2018).
- Treasurer - Saudi Student Association at the University of Florida (2019-2020).
- Member of the management of quality assurance committee, AGENG. (2022- present)
- Member of the Agricultural Engineering Department website committee, AGENG. (2021- present)
- Member of the public relation and media committee, AGENG. (2021-present)
- Chair of the statistics and learning sources committee, AGENG. (2021- 2022)
- member of the statistics and learning sources committee, AGENG. (2022- 2023)
- Chair of the graduation projects and training committee, AGENG. (2022- 2024)
- Member of the graduation projects and training committee, AGENG. (2024- Present).
- Member of the Standing Committee for Supervising the Implementation of the Governance Mechanism at the College of Food and Agricultural Science (2024-Present).

- Member of the Advisory Committee of the Agricultural Extension Center, College of Food and Agricultural Science (2024-Present).

Workshops and Conferences

- Attending and participating in a workshop of “Analyzing Strengths, Weaknesses, Opportunities, and Threats (SWOT) of King Saud University”, Riyadh, Saudi Arabia, (2008).
- “Diversity in the Classroom” workshop, Gainesville, FL. USA, (2017)
- “Basic Principles of Learning” workshop, Gainesville, FL. USA (2017).
- Participating in organizing the private corner of King Saud University at Riyadh Flower Festival, Riyadh, Saudi Arabia (2011).
- Attendance at Saudi Green Initiative Forum 2022, Riyadh, Saudi Arabia, (2022).
- Attending the Solar & Storage Live Exhibition and Conference, Riyadh, Saudi Arabia (2024).
- Attending the Agro-environmental Applications of Biochar in Saudi Arabia workshop, The National Center for Research and Development of Sustainable Agriculture, Riyadh, Saudi Arabia (2024).
- Attending the 41st Saudi Agriculture Exhibition, Riyadh, Saudi Arabia (2024).
- Organizing and managing an open dialogue on the Role of the Agricultural Development Fund in Agricultural Financing (2024).
- Attending an open dialogue on the Sustainable Environmental Strategies.

Presentations

- Bin Masoud, W., Bucklin, R., Porter, W., Zhao*, X., Lane, P., Correll, M. (2017). Controlling Temperature and Relative Humidity in Greenhouses Using a Liquid Desiccant Dehumidification System. (Poster). Florida Section ASABE 2017 Annual Conference, Jupiter, FL.
- Bin Masoud, W., Bucklin, R., Porter, W., Zhao, X., Correll, M. (2018). Controlling Temperature and Relative Humidity in Greenhouses Using A Liquid Desiccant Dehumidification System (Poster). ABE Poster Symposium, Department of Agricultural and Biological Engineering, University of Florida.
- Served as a judge at the 56th Florida Regional Junior Science, Engineering, and Humanities Symposium, the University of Florida (2019).
- Bin Masoud, W., Bucklin, R., Porter, W., Zhao, X., Ingley, H., Correll, M. (2019). Developing a low-cost regeneration component

of the liquid desiccant system (Poster). ABE Poster Symposium, Department of Agricultural and Biological Engineering, University of Florida.

- Bin Masoud, W., Bucklin, R., Porter, W., Zhao, X., Ingley H., Correll, M. (2020) Improving the Efficiency of a Fan-And-Pad Evaporative Cooling System in Humid Climates Using a Liquid Desiccant System. (Poster). ASABE AIM 2020, Virtual.
- Bin Masoud, W., Bucklin, R., Porter, W., Zhao, X., Ingley H., Correll, M. (2020) Improving the Efficiency of a Fan-And-Pad Evaporative Cooling System in Humid Climates Using a Liquid Desiccant System. (Poster). ABE Virtual Poster Symposium, Department of Agricultural and Biological Engineering, University of Florida.

Publications

- Bin Masoud, W., Bucklin, R., Porter, W., Zhao, X., Lane, P., Correll, M. (2017). Controlling Temperature and Relative Humidity in Greenhouses Using a Liquid Desiccant Dehumidification System. Paper presented at the ASABE, Florida section 2017, Jupiter, FL.
- Bucklin, R. A., Schueller, J. K., Zhang L., Vijayakumar, V., Chiputula, J., Ajayi, E. S., Bin Masoud, W. (2019). Sensor-Based Automatic Retractable Cattle Shades. Written for presentation at the 2019 ASABE Annual International Meeting, Boston, Massachusetts.
- Rashwan, M. A., Al-Helal, I. M., Al-Showaiman, S. S., Fickak, A. A., Almasoud, W. A., Alkoaik, F. N., & Ibrahim, M. N. (2024). Increasing The Productivity And Quality Of Cucumber Crop by Improving the Performance of the Evaporative Cooling System. Heliyon, 10(17), e36997.

Manuscripts in Preparation

- Almasoud, W. A., Bucklin, R., Porter, W., Zhao, X., Ingley, H., Correll, M. (2025). Improving the Efficiency of a Fan-And-Pad Evaporative Cooling System by Integrating a Liquid Desiccant Dehumidifying Component.
- Almasoud, W. A., Bucklin, R., Porter, W., Zhao, X., Ingley, H., Correll, M. (2025). CFD Model and Experimental Study of The Impact of Condensed Droplets on The Productivity of a Passive, Single Slope Solar Still.

Languages

- Arabic.
- English.