

WALEED AL-MASOUD

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. (2016, Now)

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 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- 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.
- Wind tunnel modeling for ventilation, cooling and heating systems.
- Agricultural buildings structure.

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 (2015-2016)

Courses Taught

- **Design and Plan for Agricultural Structures:**
Theory of construction, loads, buildings materials and thermal insulations. Transparent materials, thermal blankets. Planning of animal structures (dairy, sheep, and poultry). Planning of plants structures (greenhouses and nursery). Field trips.

- **Environment Control for Animal and Plant:**

Effect of environment on farm animal and plants. Heat and mass balances for animal structures and greenhouses. Ventilation, cooling, and heating. Evaporative cooling. Application of automatic control in animal and plant environment.

- **Heat and Mass Transfer in Biological Systems:**

Transport phenomena, steady and unsteady state heat conduction, radiation, free and forced convection, mass transfer, psychometrics, thermodynamics of biological processes. (Taught at University of Florida)

Participate in teaching

- **Heat Transfer in Bio-systems:**

Theory of heat transfer by conduction, convection, and radiation. Steady and unsteady state heat transfer. Heat exchangers. Heat transfer applications in food, bio-systems, and agricultural structures.

- **Engines and Agricultural Tractor:**

Analytical study of engines (engine cycles and types, engine components, engine power estimations, combustion, engine-assisting systems). Powertrains. Tractor power usage. Tractor power distribution and prediction. Tractor stability.

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 in King Saud University:**
 - 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)

Inventions and 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

Professionals and Students 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)

Committees 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)
- President of the Mentor and Mentees Committee, University of Florida. (2017-now)

Workshops and Participations

- Attendance and participation 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).
- Participation in the organization of the private corner of King Saud University in Riyadh Flower Festival, Riyadh, Saudi Arabia, (2011).

Languages

- Arabic.
- English.