



Date Palm Research Center of Excellence

Dr. Maged Elsayed Ahmed Mohamed



Permanent address:

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Education:

February, 2006 To April, 2011: **Ph.D.** (Agriculture Engineering),

Department of Agriculture Engineering, Faculty of Agriculture,
Minoufiya University, Shibin El-Kom, Egypt

Title of Thesis

(Engineering Studies on Grading Machinery for Some Fruits and Vegetables)

October, 2000 To October, 2004: **M.Sc.** (Agriculture Engineering),

Department of Agriculture Engineering, Faculty of Agriculture,
Minoufiya University, Shibin El-Kom, Egypt

Title of Thesis

(Study on Performance of Prototype for Sunflower Seeds Hulling)

October, 1995 To June, 1999: **B.Sc.** (Agriculture Engineering), Department of Agriculture Engineering, Faculty of Agriculture, Minoufiya University, Shibin El-Kom, Egypt

Professional Experience:

July, 2000 to October 2004

Demonstrator: Department Of Agriculture Engineering, Faculty of Agriculture, Minoufiya University, Shibin El-Kom, Egypt.

October 2004 to Mai 2011

Assistant Lecturer: Department Of Agriculture Engineering, Faculty of Agriculture, Minoufiya University, Shibin El-Kom, Egypt.

Mai 2011 to October 2011

Lecturer: Department Of Agriculture Engineering, Faculty of Agriculture, Minoufiya University, Shibin El-Kom, Egypt.

October 2011 until Now

Assistant Professor: Date Palm Research Center, King Faisal University, Al-Hassa, Kingdom of Saudi Arabia.

Research Career:

Agriculture Engineering offers answers to many serious problem of modern Agriculture and is an essential component in the development of sustainable Agriculture capable of containing without interruption diminution.

Language Skills

Mother language: Arabic

English Very good written & good spoken

Computer Skills:

Professional in dealing with Computer Software & Hardware especially

- Matlab
- Autocad
- Autocad Electric
- DIALUX Software for Simulation of Lighting Systems
- Electronics Work bench
- Circuit Maker
- National Instruments (Multisim)
- Image J
- HOMER Renewable Energy Microgrid Software
- Programmable logic controller (PLC Systems)
- Expert Design
- SPSS

Major Subjects:

- Processing of Digital Image
- Processing of Digital Signal
- Micro-Controller and Micro-Processor
- Analog and Digital Electronics
- Operating System
- Design of Digital Logic Control
- Engineering of Software
- Design of Machine
- Design of Solar Energy System
- Design of Electronic Circuits (Analog and Digital)
- Fuzzy Logic Control
- Simulation of Light System
- Statistics Analysis

List of Publication

- 1- Aboamera, M. A., Gamea, G. R. and **Mohmed, M. E.** (2011). Onion grading prototype based on the dimensions of the bulb using photoresistor. *Misr j. Agr. Eng.*, 28(2):505-523.
- 2- Gamea, G. R., Aboamera, M. A.* and **Mohmed, M. E.** (2011). Design and manufacturing of prototype for orange grading using phototransistor. *AJAE* 2(3):74-81.
- 3- Amer E. A., Gamea, G. R., Aboamera, M. A. and **Mohamed, M. E.** (2012). Design and manufacturing of prototype for orange grading using phototransistor. *Int. J Latest Trends Agr. Food Sci.* Vol-2 No 1 March 2012.
- 4- Gamea, G. R and **Mohmed, M. E.** (2011). Design and manufacturing of a prototype for sunflower seeds hulling. *Misr j. Agr. Eng.*, 28(2):468-486
- 5- **Mohamed M. E.**, Amer Eissa A. H., Aleid S. M. (2015) Application of Pulsed Electric Field for Microorganisms Inactivation in Date palm Fruits (Submitted to journal of food process engineering) Manuscript ID: JFPE-2015-APR-0155
- 6- **Mohamed M. E.**, Effect of Pulsed Electric Field (PEF) on Some Physiochemical Characteristics of Date Palm Fruits (Ready for submission)

Book chapter

Mohamed M. E., and Eissa A. H. A (2012). Pulsed Electric Fields for Food Processing Technology, Structure and Function of Food Engineering, Prof. Ayman Amer Eissa (Ed.), ISBN: 978-953-51-0695-1, InTech, DOI: 10.5772/48678.

Available from: <http://www.intechopen.com/books/structure-and-function-of-food-engineering/pulsed-electric-fields-for-food-processing-technology>

Patents

- 1- System and Method for Sorting Fruit. US Patent and Trademark Office. Docket No. 32150.03 (Pending).
- 2- Novel red palm weevil trap supporting with Electronic counting system (Ready for submission)

Research Projects

Current Research Projects

- 1- Design of solar disinfestation system as an alternative to methyl bromide for controlling date moth, *Ephestia cautella* in Date Storehouses

Investigators:

Dr. Maged E. A. Mohamed (P-I.)

Dr. Abd Elkader A. Sallam (CO-I., 1)

Ibrahim Boukhoh (Co-I., 2)

- 2- Sustainable Production system of fish and plant (Aquaponic), with water recycling as a friend of the environment

Investigator:

Prof. Adel A. T. Amer (P-I.)

Dr. Mohamed S. Al-Saikhan (CO-I., 1)

Dr. Maged E. A. Mohamed (Co-I., 2)

- 3- Design of a novel solar powered insect trap for IPM program of major date palm insects

Investigators:

Dr. Maged E. A. Mohamed (P-I.)

Dr. Hamadttu A. El-Shafie (Co-I)

Completed Research Projects:

- 1- Image processing system for sorting dates

Investigators

Dr. Maged E. A. Mohamed (P-I.)

Prof. Ayman Amer Eissa (CO-I., 1)

Dr. Abdulrhman Uthman Alghannam (Co-I., 2)

- 2- Using applications of pulsed electric fields technology to control microbial contamination on dates

Investigators

Dr. Maged E. A. Mohamed (P-I.)

Prof. Ayman Amer Eissa (CO-I., 1)

Prof. Salah Mohammed Al-Eid (Co-I., 2)

- 3- Design of a novel red palm weevil trap supporting with Electronic counting system

Investigators

Prof. Mahmmoud M. Abou- El-saad (P-I.)

Dr. Maged E. A. Mohamed (CO-I.)

Small Research Projects (Current and Completed)

- 1- Development of automatic control humidity system for plant tissue culture room
- 2- Design and implementation of controlled light systems electronically light time and intensity for the room of plant biotechnology.
- 3- Design and implementation of automatic control system for air moisture content
- 4- Design and implementation of an electronic system to simulate light to sunlight for automatic control of lighting intensity
- 5- The industry improvement of picking dates in khalal stage

Submitted Research Proposals

- 1- Innovative Subsoil Irrigation System for Water Conservation in Date Palm Cultivation: Design and Evaluation.

Investigators

Prof. Mohammed E. Mozib (P-I.)

Dr. Maged E. A. Mohamed (CO-I., 1)

Dr. Mohammed Bin Refdan Al-Hajhoj (Co-I., 2)

- 2- Design and evaluation of solar-powered drip irrigation electronic system for date palm

Investigators

Dr. Assad Derbala (P-I.)

Dr. Maged E. A. Mohamed (CO-I., 1)

Dr. Abdelkader sallam (Co-I., 2)

Future Research Projects

- 1- Using Applications of Ohmic Heating and Pulsed Electric Field for Microorganisms Inactivation of Water use in Dates processing Factories
- 2- Design and Evaluation of a Soil Moisture Sensor

- 3- Engineering Description for Mechanical Damage resulting from stalk borer of date palm

Teaching Activities

1. Mathematics
2. Algebra and analytical geometry
3. Calculus
4. Physics
5. Workshops and production technology
6. Theory of machines
7. Differential equations and integrals
8. Mechanics
9. Agricultural Engineering
10. Pre-harvest machines
11. Properties and testing of materials
12. Animal Production and Poultry Farms machines
13. Processing Engineering of Agriculture Products
14. Food and Dairy Plant Engineering
15. Agricultural machinery
16. Machines of Farms and Animal Production
17. Measuring devices and control
18. Maintenance of tractors and agricultural machinery
19. Industrial Security
20. Agricultural Buildings
21. Applied Mathematics
22. Heat Transfer
23. Design of food factories machines
24. Food Engineering
25. Engineering and technology of grain products
26. Design of farm buildings
27. Generate of new energy farm
28. Cleaning and grading grain Engineering
29. Handling and transportation of agricultural products
30. Mechanical and physical properties of agricultural products
31. Engineering of Packaging Materials
32. Engineering of Quality and Control Systems
33. Research Methodology