



C.V.

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Personal details:

- **Name** : Khaled Abdel Salam El-Sayed Metwally
- **Nationality** : Egyptian
- **Place and date of birth** : Abuo Kabeer, Sharkia , (30/10/1982)
- **Home address** : Manshet Abaza, Zagazig, Sharqia Governorate, Egypt.
- **Sex** : Male
- **Family status** : Married and have 3 kids (Marwan – Ahmed - Hana)
- **Military service** : Final exempted
- **Passport number** : **P - EGP – A21074373**

Particulars of education and qualifications :

- **Ph.D.** Agricultural engineering, faculty of agriculture, Zagazig University, 2014.
- **M.Sc.** Agricultural engineering, faculty of agriculture, Zagazig University, 2010.
- **B.Sc.** Agricultural engineering, faculty of agriculture, Zagazig University, 2005 .with general grade Excellent (86.08 %).
- **High school certificate** from Abou Kabeer military secondary school, Abuo Kabeer, Sharkia.

Details of present employment:

- **Job title** : Associate Professor
- **Work address:** Agricultural engineering, soil and water sciences department, faculty of technology and development, Zagazig University, Egypt. 44519.
- **Work phone** : +2-055-228-2360, Fax: +2-055-2287567

Details of employment : Past

- **Lecturer-** Agricultural engineering, soil and water sciences department, faculty of technology and development, Zagazig University, Egypt. 44519.
- **Lecturer-** Agricultural engineering department, faculty of agriculture, Zagazig University, Egypt. 44511.
- **Assistant Lecturer-** Agricultural engineering department, faculty of agriculture, Zagazig University, Egypt. 44511.
- **Demonstrator** - Agricultural engineering department, faculty of agriculture, Zagazig University, Egypt. 44511.
- **Agricultural Specialist** - Agricultural engineering research institute, agricultural research center, ministry of agriculture, Egypt. from 2/7/2006 to 31/1/2007
- **Agricultural Engineer** - a private farm. from 7/2005 to 6/2006

Languages known:

- **Arabic:** (Native Language).
- **English :** Good
- **Francis :** Fair
- **German:** Fair
- **Chinese:** Fair

Computer skills:

- **Smart systems and IoT hardware and software** (Arduino boards and sensors integrated circuits, python and IDE) from personal learning
- **Integrated Training Courses for University Graduates of Computer Skill** (Computer Introduction / Windows XP, Win Word / Excel, Power Point / SPSSWIN).
- **Digital Literacy (D.L.)** Microsoft. (From 14/4/2008 to 30/4/2008)
- **E- Content** (Microsoft). (From 14/7/2008 to 24/7/2008)
- **Adobe Photoshop** from supreme council of universities-Egypt from 21/2/2013 to 13/3/2013 (28 hours).
- **Adobe flash** from supreme council of universities-Egypt from 21/2/2013 to 13/3/2013 (28 hours).
- **AutoCAD** from personal learning.

and appreciation certificates: Experiences

- **Teaching** advanced internal combustion engines, farm tractors, farm machinery, physics and metrology, design of farm buildings and greenhouses engineering courses.
- **Deputy Director** of the measurement and evaluation unit in faculty of agriculture, Zagazig University
- **Deputy Coordinator of the standard of scientific research and other scientific activities**, one of the accreditation institutional standards 2015.
- **A leading of agricultural engineering students' horde**, Faculty of Agriculture - Zagazig University for the academic year 2014/2015 and - 2015/2016.
- **Deliver lectures** for students to define the institutional quality and accreditation standards in higher education institutions.
- **Team member implementing the Biogas units**, Faculty of Agriculture, Zagazig University.
- **Certificate of appreciation**, from Faculty of Agriculture, Zagazig University for excellence in B.Sc 2006.
- **Certificate of appreciation**, from the scientific society for the Abuo Kabeer sons in universities 2010.
- **Certificate of thanks and appreciation**, from the Faculty of Agriculture, Zagazig University to contribute to the development of your plan notes and viewings for the staff members and their assistants 2013.
- **Certificate of appreciation**, from the union of students - Faculty of Agriculture - University of Zagazig. For the academic year 2013/2014 to participate in student activities.
- **Certificate of Appreciation**, from the Union of Students of the Faculty of Agriculture, Zagazig University to participate in student activities 2014.
- **A certificate of thanks and appreciation**, from ELHANA Cooperative Association for the production of eggs and poultry fattening to build and operate the developed unit of Biogas to benefit from the poultry farm waste 2015.

- **Appreciation Certificate**, from Faculty of Agriculture, Zagazig University to regulate the activities of the second forum staffing 2014.
- **A certificate of thanks and appreciation**, from Quality Management unit, Faculty of Agriculture, Zagazig University to work as a member of the team coordinator for the figures accreditation visit by the National Authority for Quality Assurance and Accreditation 2015.
- **Appreciation Certificate**, from the Quality Management unit, Faculty of Agriculture, Zagazig University for effort Savior and outstanding performance in carrying out quality in the department of agricultural engineering 2015.
- **Appreciation Certificate**, Faculty of Agriculture, Zagazig University as a leader for a horde of agricultural engineering students for active participation of the horde in organizing the activities undertaken by the college during the academic year 2014/2015
- **Appreciation Certificate**, from society of development association EL-NAMROUT - Sharkia governorate province 'to contribute for preparing the development programs to promote the development of rural village - 2016.
- **Coordinator of Biogas Technology training workshop in titled "Methane producing bacteria - Construction, operating and maintenance of Biogas Units"** Faculty of Agriculture, Zagazig University, Egypt.

"Training courses" Professional development programs

- **Teletraining co-organized by the Sahra and Sahel Observatory (SSO) and the European commission Joint Reseach Center (JRC) as apart of GMES&Africa on title the use of the crop growth monitoring system statistical tool (CST) for yield forecasting. 4-8/3/2024 Tunis.**
- **The universal design learning. U.S. –Egypt higher education initiative puplic university scholarships program Amideast/Egypt 11th September 2023.**
- **Online Courses of “Travel to Qingdao, Experience the Culture of Agricultural Machinery” - “Chinese Bridge” Online Group Program held by Qingdao Agricultural University on December 15 to 24, 2022**
- **E-learning: from "National Center For Faculty and Leadership Development (NCFLD) Zagazig University" 16- 17/7/2017 (15hrs)**
- **Training of trainers (TOT): measurement and evaluation center Zagazig University during 26-30/4/2017 (24hrs)**
- **Basic training course in measurement and evaluation: from measurement and evaluation center Zagazig University during 2-11/3/2017 (24hrs)**
- **Electronic tests: Measurement and evaluation center (MAC) - Development projects management unit - Ministry of Higher Education during 5-6 / 4/2017 (12hrs)**
- **Skills and Good Practice Course for External Review in Pre-University Education Institutions Advanced Course: National Authority for quality assurance and accreditation (NAQAAE) 11-13/03/2017 (24hrs)**
- **External review course for Pre-university education institutions: (NAQAAE) 23-26/02/2017 (32hrs)**
- **Evaluation of learning outcomes and curriculum maps for pre-university education institutions: (NAQAAE) 16-19/02/2017 (324hrs)**
- **Self-assessment course and quality assurance for pre-university education institutions: (NAQAAE) 9-12/02/2017 (32hrs)**
- **Advanced statistical analysis methods: (MAC) - Development projects management unit - Ministry of Higher Education during 1-6 / 2/2017(24hrs)**

- **Banks Questions:** (MAC) - Development projects management unit - Ministry of Higher Education during 29-30 /1/2017 (12hrs)
- **Evaluation methods and tests preparation:** (MAC) - Development projects management unit - Ministry of Higher Education during 20-22 / 12/2016 (18hrs)
- **GIS in agriculture workshop:** National center for researches, Ministry of Higher Education during 15/08/2016 (6hrs)
- **Modeling, data preparation, handling and manipulation** "the climate change information center and renewable energy CCICRE 7-9/7/2015 (18hrs)
- **Renewable Energy use as an alternative to conventional energy in the different agricultural activities** CCICRE 26-28/5/2015 (18hrs)
- **An intensive workshop entitled in Nanotechnology Application** university projects management unit UPMU - Zagazig University 19.04.2015 (6hrs)
- **External review of institutions of higher education** "NAQAAE" 28-30/03/2015 (18 hrs)
- **Strategic planning for higher education institutions** "NAQAAE" 28/2-1/03/2015 (12 hrs)
- **Programs and courses characterization and evaluation of learning outcomes for higher education institutions** "NAQAAE" 17-19/02/2015 (18 hrs)
- **Self-evaluation of higher education institutions** NAQAAE 20-22/12/2014 (18 hrs)
- **Integrated benefits from agricultural residues:** "Sharkia Youth Association for Development 22-23 / 11/2014 (12 hrs)
- **Training program in electronic correct:** from measuring and assessment center - Zagazig University 8/6/2014 (6hrs)
- **Personal strategic planning:** Development of Arab Ambassadors (Sofaratanmia) 18-19/4/2014 (12 hrs)
- **Teambuilding for team members:** German academic exchange service DAAD (19/3/2014) (6hrs).
- **Project management:** DAAD (24/9/2013) (6hrs).
- **International publishing:** DAAD (7/7/2013) (6hrs).
- **Proposal writing:** DAAD (24/6/2013) (6hrs).
- **Egypt evapotranspiration training workshop:** in STDF-ID 3864 project "new approach for measuring crop evapotranspiration and updating crop coefficient in Egypt" June 16-20, 2013 Cairo – Egypt.
- **Endnote:** from supreme council of universities-Egypt from 21/2 to 13/3/2013 (12 hrs).
- **International networking:** DAAD (25/2/2013) (6hrs).
- **Research management:** DAAD (6 hours 21/11/2012) (6hrs).
- **Management the dialogue and the debate** from Zagazig University in collaboration with British council (19/11/2012) (8 hours)
- **Agricultural machines:** Agricultural research center (ARC) (From 21- 25/8/2011).
- **Total station, auto level and Pythagoras:** Cairo engineering and manufacturing Company (13- 18/8/2011).
- **Design of modern irrigation networks:** MICOLAND for Modern Irrigation Systems (3- 4/8/2011) (8 hours).
- **Successful interview gold certified:** Microsoft and Hi-Qacademy. (6hrs)
- **Removing and installing the engine:** Buildings equipment training center, Egypt 12-14/12/2010 (18 hrs)
- **Operating earth moving machines:** Buildings equipment training center, Egypt 5-6/12/2010 (12 hrs)

- **Management of the research team:** NCFLD 11- 12/3/2014 (15 hrs)
- **Scientific research ethics:** NCFLD 17- 18/7/2011 (15 hrs)
- **International publishing of research:** NCFLD 12- 13/7/2011 (15 hrs)
- **Time management and meetings:** NCFLD 29- 31/1/2011 (15 hrs)
- **Student evaluation and examinations techniques:** NCFLD 5- 6/7/2011 (15 hrs)
- **Preparation of university lecturer:** NCFLD 14- 29/9/2010 (72 hrs)
- **How to complete for a research fund:** NCFLD 2- 4/3/2010 (15 hours)
- **Using technology in education:** NCFLD 23- 25/2/2010 (15 hrs)
- **Effective communication skills:** NCFLD 13- 15/2/2010 (15 hrs)
- **The credit hours systems:** NCFLD 9- 11/2/2010 (15 hrs)
- **Strategic management.** NCFLD 6- 8/2/2010 (15 hrs)
- **Financial and legal sides in university:** NCFLD 16- 18/2/2010 (15 hrs)

Scientific journals membership

- **Member** of the Egyptian Society of Agricultural Engineering, Egypt.

Societies membership

- **Member** of the scientific universities for the Abuo Kabeer sons, Abuo Kabeer, Sharkia, Egypt.
- **Vice Chairman of the Board** Community Development Association of El-Ghaba Elmahata, Abuo Kabeer, Sharkia, Egypt.
- **Member** of the faculty society club - Faculty of Agriculture - University of Zagazig

Conferences

- **Organizer and speaker of the conference of water and soil sciences department, faculty of technology and development, Zagazig university, Egypt 10/9/2023**
- **18th international conference of Misr Society of Agricultural Engineering, Al-Azhar University, Egypt (2010).**
- **19th international conference of Misr Society of Agricultural Engineering, El-Mansoura University, Egypt (2012).**
- **Video Conference** to provide support and respond to inquiries form to apply for competitive projects for Excellence in Higher Education Institutions. First cycle Zagazig University, Egypt (11/9/2013).
- **National Forum for staff members and their assistants in universities and institutes of higher education** (Roles and new visions for the future orientalism) in the city youth of in Alexandria during the period of 4-9/7/2014 sponsored by the Institute for Leadership Development in Helwan.
- **A scientific symposium** entitled to sustainable development comprehensive vision, solutions and applications "Agency of Middle East for training and consulting Arab Economic Unity Council 28/04/2015"
- **A scientific symposium** entitled to environmental changes and their impact on Agriculture " Faculty of Agriculture - Kafr el-Sheikh University (Scientific Society for Environmental Protection) 06/04/2015 "
- **10th International Conference on Environmental Science** entitled to Renewable Energy and Sustainable Development to Preserve the Environmental "Faculty of Science, University of Zagazig 25/07/2015"
- **20th international conference of Misr Society of Agricultural Engineering, El-Banha University, Egypt (2015).**

List of publications

- Study the effect of some operational factors on hammer mill. *Misr Journal of Agricultural Engineering*, 27(1), 54-74. <https://doi.org/10.21608/mjae.2010.106853>
- Development of a harvesting machine for faba bean (*Vicia faba L.*) crop. *Misr Journal of Agricultural Engineering*, 31(3), 1223-1242. <https://doi.org/10.21608/mjae.2014.99153>
- Technical Education Roll in Labor Market And Development of Human Resources (A Comparative Study Between Egypt And Japan). *Egyptian. J. of Appl. Sci.*, 32 (12)
- Manufacturing and evaluation of a local shredding unit attached with a carriage irrigation machine. *Misr Journal of Agricultural Engineering*, 36(2), 411-426. <https://doi.org/10.21608/mjae.2019.94628>
- Effects of dietary biological or chemical-synthesized nano-selenium supplementation on growing rabbits exposed to thermal stress. *Animals*, 10(3), 430. <https://doi.org/10.3390/ani10030430>
- Lighting programs as an appliance to improve growing New Zealand white rabbit's performance. *International Journal of Biometeorology*, 64(8), 1295-1303. <https://doi.org/10.1007/s00484-020-01906-z>
- Methane production enhancement of a family-scale biogas digester using cattle manure and corn stover under cold climates. *Sustainable Energy Technologies and Assessments*, 45, 101163. <https://doi.org/10.1016/j.seta.2021.101163>
- Environmental heat stress in rabbits: implications and ameliorations. *International Journal of Biometeorology*, 66, 1-11. <https://doi.org/10.1007/s00484-021-02191-0>
- Use of available crop by-products as alternative bedding materials to wheat straw for rearing broilers. *Animal*, 15(7), 100260. <https://doi.org/10.1016/j.animal.2021.100260>
- Effects of ecofriendly synthesized calcium nanoparticles with biocompatible *Sargassum latifolium* algae extract supplementation on egg quality and scanning electron microscopy images of the eggshell of aged laying hens. *Poultry Science*, 100(2), 675-684. <https://doi.org/10.1016/j.psj.2020.10.043>
- Impact of Die Surface Holes Distribution Patterns of Fish Feed Extruder on Performance Indicators and Pellets Quality. *Journal of Soil Sciences and Agricultural Engineering*, 12(5), 337-343. <https://dx.doi.org/10.21608/jssae.2021.178990>
- Detecting the Performance of Centre Pivot Irrigation System Using DEPIVOT Simulation Model. *NVEO-NATURAL VOLATILES & ESSENTIAL OILS Journal*| NVEO, 1785-1793. <https://www.nveo.org/index.php/journal/article/view/661>
- Performance of Linear Move Irrigation System under Egyptian Conditions. *Egyptian Journal of Chemistry*, 65(5), 1-2. <https://doi.org/10.21608/ejchem.2021.103323.4780>
- Effects of lighting source as an environmental strategy for heat stress amelioration in growing Californian rabbits during summer season. *Animal Biotechnology*, 33(1), 159-166. <https://doi.org/10.1080/10495398.2021.1895186>
- Biogas manufacture from co-digestion of untreated primary sludge with raw chicken manure under anaerobic mesophilic environmental conditions. *Saudi Journal of Biological Sciences*, 29(4), 2969-2977. <https://doi.org/10.1016/j.sjbs.2022.01.016>
- Evaluation of The Drying Process of Paddy Rice with a Biogas Continuous Rotary Dryer. *Misr Journal of Agricultural Engineering*. 74-59 (1)40 . <https://doi.org/10.21608/mjae.2022.176707.1092>
- Effect of using a new automatic heating system powered by renewable energy on poultry houses. *Zagazig J. Agric. Res.*, Vol. 50 No. (1). <http://dx.doi.org/10.21608/ZJAR.2023.180473.1094>

- Effects of Machine Feeding Rate and Formula Fineness Degree of Ring Die Pellet Mill on Mechanical Property, Physical Quality, Energy Requirements, and Production Cost of Poultry Diets. *Int. J. Agric. & Biol. Eng.* 2023; 16 (3); 30-36
- Design and Validation of a Variable-Rate Control Metering Mechanism and Smart Monitoring System for a High-Precision Sugarcane Transplanter. *Agriculture*, 2023, 13, 2218. <https://doi.org/10.3390/agriculture13122218>
- Impact of soil mechanical impedance and polyacrylamide on physical and chemical root-soil interactions for maize hybrids (*Zea mays* L.). *IJCBS*, 24(12) (2023): 643-654
- Minimizing harmful effect of soil mechanical impedance on some soil physio-chemical properties and growth parameters for maize hybrid (*Zea mays* L.). *J. Product. & Dev.*, 29,3:157-180 (2024)
- The Mathematical Modeling, Diffusivity, Energy, and Enviro-Economic Analysis (MD3E) of an Automatic Solar Dryer for Drying Date Fruits. *Sustainability* 2024, 16, 3506. <https://doi.org/10.3390/su16083506>
- Assessment the impacts of land cover and climate changes on rainwater harvesting systems using remote sensing and runoff model in some Wadis of West Matrouh – Egypt. *HydroResearch* 7 (2024) 301–314
- Assessment of a LPG hybrid solar dryer assisted with smart air circulation system for drying basil leaves. *Scientific reports* (2024) 14:23922. <https://doi.org/10.1038/s41598-024-74751-4>
- Drying kinetics and thermo-environmental analysis of a PV-operated tracking indirect solar dryer for tomato slices. *PLOS ONE*. 19(10): e0306281. <https://doi.org/10.1371/journal.pone.0306281>
- ***Last update 10/2024***