

Name: Ahmed Galal Elgharably

Date of birth: July 13th, 1976 **Place of birth:** Assiut, Egypt **Citizenship:** Egyptian **Marital status:** Married (2 sons)
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Mailing address: Department of Soils and Water, Assiut University, Assiut 71526, Egypt **Tel:** +20 100 5292725 (Cell)
Fax: +20 88 208 0384 **E-mail:** ahmed.elgharably@aun.edu.eg or aelgharably@hotmail.com
Academic field: Agriculture **Major:** Soil and Water **Research field:** Soil Fertility and Plant Nutrition

**Tertiary qualifications**

1. **PhD** - Soil Science (Soil Fertility and Plant Nutrition), 2005-2008. Thesis title "Nutrient Availability and Wheat Growth as Affected by Plant Residues and Inorganic Fertilizers in Saline Soils." **The University of Adelaide, Adelaide, Australia.**
2. **MSc** - Soil Science (Soil Fertility and Plant Nutrition), 1998-2002. Thesis title "Response of Corn and Wheat to Fertilization Mixtures of Certain Sugar Industry Wastes." **Assiut University, Assiut, Egypt.**
3. **MSc** - Organic Agriculture, 2000-2002. Thesis title "Improving Compost Quality for Organic Vegetable Production." **International Mediterranean Agronomic Institute of Bari (IAMB), Bari, Italy.**
4. **DSPU** (Diploma of Specialized Post-Graduate Studies) - Organic Farming, 2000-2001. Dissertation title "Impact of Organic Farming on Soil Fertility." **International Mediterranean Agronomic Institute of Bari (IAMB), Bari, Italy.**
5. **BSc** - Agriculture (Soil and Water Sciences), 1993-1997. **Assiut University, Assiut, Egypt.**

Professional positions

1. **Professor** (Jul 2021-present) - Discipline Soil Fertility and Plant Nutrition, Dept Soils & Water, Assiut University, Assiut, Egypt.
2. **Associate Professor** (Feb 2017-Jun 2021) - Discipline Soil Fertility and Plant Nutrition, Dept Soils & Water, Assiut University, Assiut, Egypt.
3. **Research Scholar** (Apr 2016-Feb 2017) - Department of Plant Science, California State University, Fresno, CA, USA.
4. **Assistant Professor** (Feb 2013-Mar 2016) - Discipline Soil Fertility and Plant Nutrition, Dept Soils & Water, Assiut University, Assiut, Egypt.
5. **Research Faculty Assistant** (Jul 2012-Jan 2013) - Department of Civil and Environmental Engineering, the University of Maryland, College Park, MD, USA.
6. **Research Scholar** (Jan-Jun 2012) - Environmental Management and By Product Utilization Lab, USDA, Beltsville, MD, USA.
7. **Lecturer** (Jul 2010-Dec 2011) - Discipline of Soil Fertility and Plant Nutrition, Department of Soils and Water, Assiut University, Egypt.
8. **Postdoctoral Fellow** (Oct 2009-Jun 2010) - Japan International Research Center for Agricultural Sciences, Tsukuba, Japan.
9. **Lecturer** (Dec 2008-Sep 2009) - Discipline of Soil Fertility and Plant Nutrition, Department of Soils and Water, Assiut University, Egypt.
10. **Head Agronomist** (Jun-Dec 2008) - ICM Agribusiness, Melbourne, Victoria, Australia.
11. **Lecturer Assistant** (Apr 2002-Jan 2005) - Department of Soils and Water, Assiut University, Egypt.
12. **Instructor** (Oct 1997-Mar 2002) - Department of Soils and Water, Assiut University, Egypt.

Publications (journal papers)

1. **Elgharably A, Abdel Mageed A** (2021) Wheat growth and heavy metals uptake in a sandy clay soil amended with compost of city trash, or sugar industrial wastes (In progress).
2. **Elgharably A, Allam N** (2021) Inoculation with *Arbuscular mycorrhizae*, *Penicillium funiculosum* and *Fusarium oxysporum* enhanced wheat growth and nutrient uptake in the saline soil. *Rhizosphere*, DOI:10.1016/j.rhisph.2021.100345
3. **Elgharably A, Benes S** (2021) Alfalfa biomass yield and nitrogen fixation in response to applied mineral nitrogen under saline soil conditions. *Journal of Soil Science and Plant Nutrition*, 21(1):744-755. DOI: 10.1007/s42729-020-00397-6
4. **Elgharably A** (2020) Effects of rock phosphate added with farm yard manure or sugar juice residues on wheat growth and uptake of certain nutrients and heavy metals. *Journal of Soils and Sediments*, 20:3931-3940. DOI: 10.1007/s11368-020-02683-3
5. **Elgharably A, Allam N** (2018) Mycorrhizal symbiosis and phosphorus fertilization effects on *Zea mays* growth and heavy metals uptake. *International Journal of Phytoremediation*, 20(9): 869-875. DOI: 10.1080/15226514.2018.1438358
6. Hassanien GH, Abd Allah MM, **Elgharably A, Bakr MA** (2018) Response of eggplant (*Solanum melongena* L.) to chicken manure and foliar application of some growth stimulating compounds in the clay soil. *Egyptian Journal of Applied Science*, 33(7): 318-335.
7. Swify S, Abd El-Aziz SH, Selmy SAH, **Elgharably A, Ragheb HM** (2017) Assessment and spatial variability mapping of soil available phosphorus and potassium of coarse-textured soils in New Valley, Egypt, using geostatistical technique. *Assiut Journal of Agricultural Sciences*, 48(5):255-274.
8. **Elgharably A, Mahmoud H** (2016) Heavy metals uptake by wheat, bean and onion and characterization of microorganisms in a long-term sewage wastewater treated soil. *Egyptian Journal of Soil Science*, 56(4):605-620. DOI: 10.21608/ejss.2016.3334
9. **Elgharably A, Youssef M, Elgharably G** (2015) Heavy metals uptake by several crops grown in soils irrigated with sewage wastewater in Assiut: case study. *Egyptian Journal of Soil Science*, 55(3):319-330. DOI: 10.21608/ejss.2015.898
10. **Elgharably A, Abdel Mageed A, Elgharably G** (2014) Status of heavy metals in soils of Assiut as affected by the long-term use of sewage water in crop irrigation: case study. *Egyptian Journal of Soil Science*, 54(4):289-304. DOI: 10.21608/ejss.2014.179
11. **Elgharably A** (2014) Soybean response to Mn added in EDTA- or CDTA-buffered nutrient solution. *Egyptian Journal of Soil Science*, 54(3):279-288. DOI: 10.21608/ejss.2014.135
12. **Elgharably A, Ito O** (2014) Available N and P and microbial activity and biomass in saline sandy and clayey soils amended with residues of wheat and alfalfa. *Communications in Soil Science and Plant Analysis*, 45(22): 2868-2877. DOI: 10.1080/00103624.2014.956880.
13. **Elgharably A, Allam N** (2013) Effect of arbuscular mycorrhiza on growth and metal uptake of basil and mint plants in a wastewater irrigated soil. *Egyptian Journal of Soil Science*, 53(4): 613-625. DOI: 10.21608/ejss.2013.195
14. Mostafa YY, Gameh MA, Abdel-Mawgoud ASA, **Elgharably A** (2013) Soil carbon dioxide flux following tillage systems in arid and semi-arid agro-ecosystems. *Assiut Journal of Agricultural Sciences*, 44(4): 60-72.

15. **Elgharably A**, Ito O (2013) Effects of dicyandiamide and methyl-p-hydroxyphenyl propionate on nitrification and N₂O emission under different soil moisture conditions. International Journal of Agronomy and Plant Production, 4(S): 3675-3680.
16. **Elgharably A** (2013) Induced Fe-deficiency-chlorosis severity in soybean using EDTA-buffered nutrient solutions. Egyptian Journal of Soil Science, 53(1):67-74. DOI: 10.21608/ejss.2013.141
17. **Elgharably A**, Marschner P (2011) Microbial activity and biomass and N and P availability in a saline sandy loam amended with inorganic N and lupin residues. European Journal of Soil Biology, 47(5):310-315. DOI: 10.1016/j.ejsobi.2011.07.005.
18. **Elgharably A** (2011) Wheat response to combined application of nitrogen and phosphorus in a saline sandy loam soil. Journal of Soil Science and Plant Nutrition, 57(3):396-402. DOI: 10.1080/00380768.2011.582588.
19. **Elgharably A**, Marschner P, Rengasamy P (2010) Wheat response to nitrogen form and application rate in a sandy loam soil under saline conditions. Plant and Soil, 328:303-312. DOI: 10.1007/s11104-009-0110-2.

Conferences & Presentations

1. **Elgharably A**, Allam N (2019) Effects of plant growth promoting microbes and mycorrhizal fungi on wheat growth in the saline soil. International Conference on Plant and Soil Science (ICPSS-19), Dec 11-13, New York, USA.
2. **Elgharably A**, Benes S, Zakeri H, Putnam D (2017) Response of alfalfa to nitrogen fertilization under saline conditions. Agricultural information overload-separating fact from fiction, California Plant and Soil Conference, Jan 31-Feb 1, California, USA.
3. **Elgharably A** (2015) Wheat Growth and Uptake of Cu, Zn, Cd and Pb in a Soil Amended with Rock Phosphate with City Trash, or Farm Yard Manure. 2015 International Conference on Sustainable Agriculture Technologies-ICSAT, Dec 25-26, Phuket, Thailand.
4. **Elgharably A**, Allam N (2014) Effect of arbuscular mycorrhizal fungi specie on maize growth and heavy metals uptake. The 11th International Phytotechnologies Conference, Sep 29-Oct 3rd Crete, Greece.
5. **Elgharably A** (2014) Growth of different wheat varieties as affected by P fertilization in saline-sodic soils. Third International Salinity Forum, June 16-18, Riverside, CA, USA.
6. **Elgharably A**, Allam N (2013) Basil and mint growth and metal uptake in wastewater irrigated soil inoculated with arbuscular mycorrhizae (*Glomus geosporum*). Urban Environmental Pollution: Creating Healthy, Liveable Cities, p 21.5, Nov 17-20, Beijing, China.
7. Chaney R, **Elgharably A**, Jennings C, Carrie G, Mahoney M, Sprenger M, Burns B (2012) Effect of plant root growth on Pb phytostabilization of East Helena, Mt, smelter contaminated soils. International Phytotechnologies Society Conference, Sep 10-14, Hasselt, Belgium.
8. **Elgharably A** (2011) Restoring ecosystem services in saline soils. Carbon Sequestration and Ecosystem Services, Institute for Advanced Sustainability Studies e.V., 26-28 Oct, Potsdam, Germany.
9. **Elgharably A**, Ito O (2011) Effects of nitrification inhibitors on N₂O emission from Andosol under temperature and moisture regimes. Wageningen Conference on Applied Soil Science, 'Soil Science in a Changing World', pp 20, Sep 18-22, Wageningen, The Netherlands. http://content.alterra.wur.nl/webdocs/Internet/Corporate/WageningenSoilMeeting/AbstractBookWageningenSoilMeeting2011_def.pdf_pp203.
10. **Elgharably A**, Ishikawa K, Ito (2010) Detection of nitrification inhibition through N₂O emission. Annual meeting of Japanese Society of Soil Science and Plant Nutrition, No 56, pp 55, Sep 7-9, Hokkaido, Japan.
11. Ishikawa T, Nakahara K, Notazawa A, **Elgharably A**, Kudo N, Ito O, Subbarao GV (2010) Mode of inhibitory action for 3-(4 hydroxyphenyl) propionate (MHPP) and sakuranetin, the biological nitrification inhibitors released from sorghum roots. The 1st International Symposium on the Nitrogen Nutrition of Plants, pp 146, Jul 26-31, Aichi, Japan. <http://www.agri.tohoku.ac.jp/cellbio/nitrogen2010/nitrogen2010.htm>
12. **Elgharably A**, Marschner P, Rengasamy P (2008) Separate and combined effects of P and N on salt-tolerance of wheat in a loamy-sand soil. Workshop Proceeding, Centre for Soil-Plant Interactions, University of Adelaide, South Australia, 8-10 Nov, Adelaide, Australia.
13. **Elgharably A**, Marschner P, Rengasamy P (2006) Separate and combined effects of P and N on salt-tolerance of wheat in a loamy-sand soil. Workshop Proceeding, Centre for Soil-Plant Interactions, University of Adelaide, South Australia, 8-10 Nov, Adelaide, Australia.
14. **Elgharably A**, Marschner P, Rengasamy P (2006) Changes in phosphorus availability following the application of plant residues in a saline sandy loam soil. ASSSI-ASPAC-ACMS National Soils Conference (Soil Science Solving Problems), 3-7 Dec, Adelaide, Australia. <http://www.asssi.asn.au/downloads/2006ASSSI-ASPAC-ACMS%20Abstracts.pdf>
15. **Elgharably A** (2003) Paramaterization of Agro-edaphic suitability. Young Scientists Summer Program. International Institute for Applied Systems Analysis, 15-18 Aug, Laxenburg, Austria.
16. Ghoneim MF, Hassanein HG, Attia KK, **Elgharably A** (2002) Response of Corn to Fertilization With Mixture of Certain Sugar Industry Wastes. The Third Scientific Conference of Agricultural Sciences, 20-22 Oct, Assiut, Egypt.
17. Hassanein HG; Ghoneim MF; Attia KK, **Elgharably A** (2002) Residual Effect of Different Fertilizer Mixtures of Certain Sugar Industry Wastes on Wheat Yield and Nutrient Content. The Third Scientific Conference of Agricultural Sciences, 20-22 Oct, Assiut, Egypt.

Membership in professional associations

1. Egyptian Soil Science Society
2. Former Trainees Network at CIHEAM
3. American Association for the Advancement of Science
4. Society For Developing Clean Farming Systems

Supervision of postgraduate students - Department of Soils and Water, Faculty of Agriculture, Assiut University

1. Samar Swify, 2018. Determining and mapping soil NPK content using geostatistical technique in El-Dakhla and El-Kharga Oases (M.Sc. Degree),
2. Ahmed Soliman, 2017. Rationalization of water requirements of maize, broad bean and sorghum crops under different irrigation systems in soils of Toshka (MSc Degree),
3. Mohamed Bakr, 2018. Growth and yield of eggplant (*Solanum melongena* L) as influenced by mineral nitrogen fertilizers, chicken manure and some growth promoters (PhD Degree),
4. Mostafa Younis, 2014. Soil- water management for atmospheric CO₂ sequestration (PhD Degree).

Projects & Research Grants

1. **Plant residues for wheat production and rehabilitation of salt affected soils in Egypt (2013-2015)**. Science and Technology Development Fund (STDF) - Young Research Grants, EGP 596,754,000 (Principal Investigator).
2. **Soil lab for analyses and technical consultation, Faculty of Agriculture, Assiut University (2013-2014)**. Ministry of higher Education and Research of Egypt - Higher Education Institutes Labs Certification/Accreditation Project, EGP 1,400,000 (Co-leader of technical group).
3. **Establishment of desert farming center at Assiut University, Assiut Governorate (2011-2014)**. Ministry of Higher Education and Research and Ministry of international Cooperation of Egypt, EGP 1,770,000 (team member).
4. **Better Management of Land and Water Resources in The New Valley Governorate (2011-2014)**. Ministry of Higher Education and Research and Ministry of international Cooperation of Egypt, EGP 1,060,000 (team member).
5. **Heavy Metals: Pollution and Remediation in Soils of Assiut, Egypt (2011-2015)**. Science and Technology Development Fund (STDF) - Basic and Applied Research Grants, EGP 949,690 (Co-Principal Investigator).

Experience and tasks in positions

1. **Feb 2017-Jun 2021** – Associate Professor - Discipline of soil fertility and plant nutrition, Department of Soils and Water, Assiut University, Assiut, Egypt.
 - Teaching under- and postgraduate soil science courses (eg. fundamentals of soil science, soil fertility and plant nutrition).
 - Co-supervising students for the MSc and PhD degrees.
 - Designing experiments for research studies on soil nutrient cycling, plant nutrition, remediation of heavy metals and saline soils, production of crops (wheat, maize and soybean) in problem soils, N₂O emission, soil respiration and microbial biomass.
 - Coordinating the research activities in the greenhouse and in the soil fertility lab and
 - Coordinating the seminar program of the department.
 - Leading the technical team of a commercial lab for analysis of soil, water and plant.
 - Writing project proposals seeking research funding.
2. **Apr 2016 - Feb 2017 – Research Scholar** – Department of Plant Science, California State University, Fresno, CA, USA
 - Conducting greenhouse experiments on N fixation by alfalfa under saline conditions, utilizing the labelled ¹⁵N technique,
 - Running analysis of soil, water and plant samples using special devices,
 - Preparing data for statistical analysis and presentation in international conferences,
 - Lecturing soil science classes to undergraduate students, and
 - Co-supervising research students (MSc degree).
3. **Feb 2013-Mar 2016** – Assistant Professor of soil sciences - Discipline of soil fertility and plant nutrition, Department of Soils and Water, Assiut University, Assiut, Egypt.
 - Teaching under- and postgraduate students soil science courses (eg. fundamentals of soil science, soil fertility and plant nutrition),
 - Co-supervising students for the MSc and PhD degrees,
 - Designing and running experiments for research studies on soil nutrient cycling, plant nutrition and remediation of heavy metals and saline soils,
 - Coordinating research and academic projects, and
 - Writing project proposals to secure funding in discipline of soil fertility and plant nutrition.
4. **Jul 2012-Jan 2013** - Research Faculty Assistant. Department of Civil and Environmental Engineering, the University of Maryland, College Park, MD, USA.
 - Coordinating research projects.
 - Writing experimental plans and research proposals.
 - Conducting greenhouse experiments to study the effect of P amendments on Pb bioaccessibility in contaminated soils and to study Mn nutrition of soybean in buffered-nutrient solutions.
 - Measuring nutrient concentrations in soil, water and plant samples using advanced analytical instruments.
 - Presenting research outcomes.
5. **Jan-Jun 2012** – Research visiting scientist to the Environmental Management and By Product Utilization Lab, USDA, MD, USA.
 - Writing research proposals,
 - Conducting greenhouse experiments for calibration of soybean response to EDTA-buffered nutrient solutions with varied activities of Fe and Mn, and
 - Measuring nutrient concentrations in soil, water and plant samples using advanced analytical instruments.
6. **Oct 2009-Jul 2010** - Postdoctoral Fellow at JIRCAS, Japan.
 - Writing experimental plans and research proposals,
 - Designing experiments and conducting greenhouse experiments to N uptake and assimilation in sorghum and to investigating efficiency of certain amendments in inhibiting nitrification and N₂O emission,
 - Measuring N₂O using the gas chromatography and NH₄ and NO₃ in soil extracts using the auto-analyser, and
 - Presenting the research outcomes and writing manuscripts for publications at international journals and conferences.
7. **Jun-Dec 2008** - Head Agronomist at ICM-Agribusiness.

I was assigned to introduce scientific, but cost-effective and applicable ideas, to solve environmental aspects including, but not limited to 1) management and use of saline water and fertilizers and nutrition of wheat, cotton, field pea and peas in saline, alkaline and sodic soils; 2) manure and waste water treatment and manipulation to reduce underground water contamination and recycle nutrients from ponds and lagoons to agriculture; 3) nutrient management in calcareous soils for citrus production; 4) setup of an agricultural system for organic citrus production.

8. **Feb 2005-Mar 2008** - PhD student at the University of Adelaide, Australia. I carried out a research project on effects of N and P from inorganic fertilizers and plant residues on microbial activity, nutrient availability and wheat growth in salt-affected soils. Part of the study was to investigate microbial activity and biomass C, N and P and availability of P and N (NH₄ and NO₃) in different textured-saline soils amended with plant residues. These studies also aimed to understand how addition of inorganic N and/or P can affect residue

decomposition and N and P availability in saline soils. The study included experiments conducted under controlled conditions (constant temperature room) for measurements of soil respiration, microbial biomass, nutrient availability and plant growth under saline soils.

9. **Sept 2002-Jul 2004**, Lecturer Assistant in the Department of Soils and Water, Faculty of Agriculture, Assiut University, Assiut, Egypt. I assisted in teaching the following courses: principals of soil science, water quality, soil chemistry, plant-soil-water relationships, fertilizer quality and fertilization. I also demonstrated the analytical methods of soil chemical and physical properties to undergraduate and graduate students in the laboratory. Meanwhile, I followed the PhD program with a study on Evaluation of Soil Supplying Power of Assiut Governorate.
10. **Jul-Sep 2003**, Young Scientists Summer Program (YSSP), International Institute for Applied Systems Analysis, Laxenburg, Austria. I developed a "MODEL" for the assessment methods of soil suitability for the agriculture of several crops in Uganda.
11. **Sep 2002-Sep 2003**, Assiut University, Egypt. I joined the project reclamation of 5000 ha of TOUSHKEY desert soils in Egypt.
12. **Sep 2001-Sep 2002**, M.Sc. degree in Organic Farming, Mediterranean Agronomic Institute in Bari (IAMB), Italy. The project was "Improving Compost Quality for Vegetable Production."
13. **Feb 1999-Sep 1999**, Assiut University, Egypt. I joined the project reclamation of 2000 ha of TOUSHKEY desert soils in Egypt. My general roles were to join the reconnaissance groups for soil classification (survey work) and to analyze the soil samples for assessment of soil suitability for cultivation with certain crops.
14. **Jan 1998-Jan 1999**, Assiut University, Egypt. I joined the project Ground Water Resource, Management and Land Use Evaluation in Wadi Elassiuti, Assiut, Egypt. The project aimed to assess the suitable soils for cultivation with certain crop.
15. **Mar 1998-Apr 1999**, Assiut University, Egypt. I joined the project Drip and Sprinkler Irrigation in the New Valley and assisted in the installation of the drip-irrigation system.
16. **Jan 1998-Apr 2002**, Assiut University, Egypt. Demonstrator in the Department of Soil & Water, Assiut University, Egypt. I was also a postgraduate student for the M.Sc. degree in a project entitled Response of Corn and Wheat to fertilization with Mixtures of Certain Sugar Industry Wastes. The study included extensive greenhouses and open field experiments as well as laboratory tasks.
17. **Mar 1997-Feb 1998**, Egyptian Army, Agricultural Team, Assiut, Egypt. I worked in the project of Protected Agriculture Under Greenhouse System. At the time of the project, I was serving in the Egyptian army. I partially involved in the establishment of the glasshouses and was responsible for the management of the cropping systems.
18. **Oct 1997-Oct 1999**, Assiut University, Egypt. I joined the project Utilization of Sugar Industrial Wastes for Fertilization of Wheat and Maize. The project was my study for the MSc degree.
19. **Jul-Oct 1996**, Internship program at the United States Department of Agriculture, MD, USA. The program included greenhouse and open field experiments, as well as laboratory duties using chelator-buffered nutrient solution to study screening methods for Fe chlorosis susceptibility. Tutorial lessons on heavy metals in the environment were developed at USDA, Beltsville, MD, USA.

Skills

- ◆ Language: English (fluent), Italian (fair), Arabic (native)
- ◆ Computer and network communication software certificate, UNESCO International Computer Driving License (ICDL)
- ◆ First Aid - Australian ambulance certificate
- ◆ Scientific instruments: GBC Model 300 Atomic Absorption, CO₂ gas analyzer, Gas chromatography, Auto-analyzer, Spectrophotometer, Flame photometer, Kjeldahle
- ◆ Analytical methods: Microbial biomass C, N and P, Resin P and Chemical analyses of soil, plant and water

Training programs

1. **Egypt**, 18-20 Apr 2021, "Research Publishing in International Journals", Faculty and Leadership Development Center, Assiut University
2. **Egypt**, 18-20 Apr 2021, "Teaching Quality Parameters", Faculty and Leadership Development Center, Assiut University
3. **Egypt**, 18-20 Apr 2021, "Communication Skills in Education", Faculty and Leadership Development Center, Assiut University
4. **Egypt**, 14-16 Mar 2021, "Fundamentals of IT", Faculty and Leadership Development Center, Assiut University
5. **Egypt**, 14-16 Mar 2021, "Mobile Applications", Faculty and Leadership Development Center, Assiut University
6. **USA**, 27 Apr 2016 - 8 Feb 2017, Postdoctoral project - Biological N fixation under saline conditions. California State University, Fresno, CA;
7. **Egypt**, 25-26 Mar 2018, "Funding Scientific Research & Fellowships", Faculty and Leadership Development Center, Assiut University
8. **Egypt**, 16-17 May 2017, "Statistical Analysis in Scientific Research", Faculty and Leadership Development Center, Assiut University
9. **Egypt**, 7-8 May 2017, "Research Ethics", Faculty and Leadership Development Center, Assiut University
10. **Turkey**, 7-11 Sep 2015, 3rd International Course on "Plant Nutrition and Soil Management", International Agricultural Research and Training Center (IARTC), Izmir;
11. **Egypt**, 27-28 Dec 2014, "University Administration", Faculty and Leadership Development Center, Assiut University
12. **Egypt**, 1-2 Dec 2014, "Legal and Financial Affairs of the University", Faculty and Leadership Development Center, Assiut University
13. **Egypt**, 28-31 Dec 2013, "Strategic Planning", Faculty and Leadership Development Center, Assiut University
14. **Egypt**, 20-22 Jul 2013, "Conference Organization", Faculty and Leadership Development Center, Assiut University
15. **Egypt**, 20-22 Jul 2013, "Use of Technology in Teaching", Faculty and Leadership Development Center, Assiut University
16. **USA**, 1 July 2012-31 Jan 2013, Postdoctoral project - New chelators-buffered nutrient solutions. University of Maryland, College Park, MD;
17. **USA**, 29 Jan-30 Jun 2012, Postdoctoral project - P fertilizers for remediation of Pb-contaminated soils. USDA, Beltsville, MD;
18. **Germany**, 26-28 Oct 2011, Restoring ecosystem services in saline soils. Carbon Sequestration and Ecosystem Services, Institute for Advanced Sustainability Studies e.V, Potsdam;
19. **Italy**, 28 Feb-13 Mar 2011, Advances in Organic Farming in Mediterranean and Balkan area with e-learning program. International Mediterranean Agronomic Institute of Bari (IAMB), Bari;
20. **Egypt**, 25-29 Sep 2011, Advances in heavy metals measurements & remediation of polluted soils. National Research Center (NRC), Cairo;
21. **Egypt**, 28-30 Dec 2010, E-Learning, Faculty and Leadership Development Center, Assiut University, Assiut;
22. **Egypt**, 16-18 Oct 2010, Research Team Management, Faculty and Leadership Development Center, Assiut University, Assiut;

23. **Egypt**, 2-4 Oct 2010, Credit Hour System, Faculty and Leadership Development Center, Assiut University, Assiut;
24. **Japan**, Oct 2009-Jul 2010, Postdoctoral project - Improvement of nitrogen uptake and assimilation efficiency in sorghum. Japan International Research Center for Agricultural Sciences (JIRCAS), Tsukuba;
25. **Spain**, 26-31 Oct 2009, Soil Salinity in Agricultural Systems: Impact and Management, International Centre for Advanced Mediterranean Agronomic Studies (CIHEAM), the Mediterranean Agronomic Institute of Zaragoza (IAMZ), Zaragoza;
26. **Australia**, Jun-Nov 2008, Fertilizers and nutrient management in problem soils, ICM Agribusiness Pty Ltd, Melbourne;
27. **Austria**, Jun-Sep 2003, Parametrization of agro-edaphic suitability. Young Scientists Summer Program (YSSP), Department of Land Use Cover and Change, International Institute For Applied Systems Analysis, Laxenburg;
28. **Turkey**, 15-22 April 2002, follow Up seminars on sustainable agriculture approaches (Organic Agriculture), Antalia;
29. **Egypt**, 20-30 Mar 2002, Organic Vegetable Production in the Mediterranean Basin, ARC Egyptian Ministry of Agriculture, Cairo;
30. **Italy**, Nov 2000-Jun 2001, DSPU-Diploma of Specialized Post-Graduate Studies in organic agriculture, International Mediterranean Agronomic Institute of Bari (IAMB), Bari;
31. **USA**, Jun-Oct 1996, **Internship** – Remediation of soils contaminated with heavy metals Dept of Environmental Chemistry, USDA, MD;
32. **Sultanate of Oman**, 1988-1990. Preparatory school, Muscat;
33. **USA**, 1979-1981. Family companion, Michigan.

General research interests & Long-term research goals

1. Deeper understanding of plant-soil-nutrients-microorganisms interactions;
2. Plant nutrition and fertilizer-N transformations in soils and plant N-use efficiency;
3. Soil management and salt tolerance of crops;
4. Organic matter (plant residue/litter) decomposition, microbial biomass and activity, and nutrient bioavailability and uptake;
5. Development of approaches for C sequestration, and minimization of CO₂ and N₂O emission and climate change;
6. Environmental and physiological controls over plant root respiration;
7. Development of cost-effective methods for remediation of heavy metals contaminated lands; and
8. Understanding of terrestrial C, N, S and P cycles and their interactions.

Reference list

1. **Prof. Dr. Sharon BENES**, Department of Plant Sciences, California State University, Fresno (CSUF), 2415 E. San Ramon Ave., M/S AS72 Fresno, CA 93740-8033. E-mail: sbenes@csufresno.edu Tel; +1-559-278-2255 Fax: +1-559-278-7413
2. **Prof. Dr. Nivien NAFADY**, Department of Botany and Microbiology, Faculty of Sciences, Assiut University, Assiut 71526, Egypt. E-mail: niviennafady@aun.edu.eg Tel. +20 100 622 1726
3. **Prof. Dr. Petra MARSCHNER**, Soil and Land Systems DP 636, School of Earth and Environmental Sciences, The University of Adelaide, SA 5005, Australia. E-mail: petra.marschner@adelaide.edu.au Tel. +61 8 8303 7379 Fax: +61 8 8303 6511.
4. **Dr. Eton COLDING**, USDA-ARS Environmental Management and By Product Utilization Lab., 10300 Baltimore Avenue, BARC-West, Bg. 007, Beltsville, MD 20705-2350, USA. E-mail: Eton.Colding@ars.usda.gov Tel. +1 301 504 5708 Fax: +1 301 504 5048 Mobile: +1 301 395 4852.
5. **Prof. Dr. Osamu ITO**, Institute for Sustainability and Peaces (UNU-ISP), United Nations University, 53-70, Jingumae 5-chome Shibuya-ku, Tokyo 150-8925, Japan. E-mail: oitou@unu.edu Tel. +81-3-5467-1294.
6. **Dr. Doug SHEARS**, ICM Agribusiness Pty Ltd, Level 2, 1 Collins Street, Melbourne, Victoria 3000, Australia. E-mail: DSS@icm.com.au Tel. +61 3 9661 8925; Fax: +61 3 9654 4041
7. **Prof. Dr. Galal ELGHARABLY**, Department of Soils and Water, Faculty of Agriculture, Assiut University, Assiut 71526, Egypt. E-mail: age@aun.edu Tel. +20 88 241 2524; Fax: +20 88 208 0384.