Dr. Basma Talaat Abd-Elhalim

Microbiology Department

Faculty of Agriculture

Ain Shams University



PERSONAL INFORMATION

Name: Basma Talaat Abd-Elhalim.

Gender: Female.

Date of Birth: 24/12/1988.

Nationality: Egyptian.

Marital Status: Married.

National ID: 28812240103028.

Passport ID: A11488174.

CONTACT INFORMATION

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Scopus Author ID: 57194947515

Web of Science Researcher ID: IWU-5300-2023

Google scholar: https://scholar.google.com/citations?hl=en&user=jEOrjcsAAAAJ

Web of science: https://www.webofscience.com/wos/author/record/IWU-5300-2023

Research gate: https://www.researchgate.net/profile/Basma-Abd-Elhalim

LinkedIn: https://www.linkedin.com/in/basma-t-abd-elhalim-9a7545109/

Academia: https://shams.academia.edu/BasmaTalaat

Live DNA: https://livedna.net/?dna=20.41904

Authorea: https://www.authorea.com/users/879022-basma-t-abd-elhalim

ACADEMIC INFORMATION AND OCCUPATIONAL FIELD

- Bachelor degree Faculty of Agriculture (2009), Agriculture Microbiology Department, Ain shams University (Excellent with honor).
- M.Sc. in Agricultural Microbiology (2015), Agriculture Microbiology Department, Faculty of Agriculture, Ain shams University.
- Ph.D. in Agricultural Microbiology (2020), Agriculture Microbiology Department, Faculty of Agriculture, Ain shams University.

CARRER

- Demonstrator of Agriculture Microbiology (2010-2015), Department of Agricultural Microbiology, Ain shams University.
- Lecturer assistant of Agriculture Microbiology (2015-2020), Department of Agricultural Microbiology, Ain shams University.
- Lecturer of Agriculture Microbiology, Department of Agricultural Microbiology, Ain shams University (2020-2025).
- Associate Professor of Agriculture Microbiology, Department of Agricultural Microbiology, Ain shams University (2025-till now).

JOB RESPONSIBILITIES

- Teaching, supervision, and research activities.
- Participation in control work and organizing examinations.
- Coordinator of the Financial Resources Standard in the Department of Agriculture Microbiology in the Biotechnology Program
- Coordinator of the leadership and organization standard for the Department of Agriculture Microbiology in the Biotechnology Program.

ACTIVITIES DESCRIPTION

- Contributed at the 2nd Annual Ain Shams University innovation competition 2021, with project and poster entitled with "Biological synthesis of copper nanoparticles using *Pseudomonas silesiensis* Cell-free extract and its application as antimicrobial and antitumor agents".
- Contribution in Literacy project at Faculty of Agriculture Ain Shams University, 2023.
- Selected as a candidate of "Against plastic campaign" by the Ministry of Environment, 2022.
- Contributed at the Made in Ain Shams University innovation competition 2025, with 3 projects "Ecozyme", "Nanova", and "Bio cover for meat products".
- Supervisor for ASU strategic projects for project entitled "Production of Extracellular Biopolymers by Bacteria using Agro-industrial Wastes for Edible Film and Coating Applications".
- Foundation of Under the Microscope Scientific Campaign.
- Trainer at the Literacy Unit, Faculty of Agriculture, Ain Shams University.
- Lecturer at the Biotechnology Unit as part of the FAO Model Agricultural Summer Training Program, August 2024.
- Delivering a seminar on recycling waste and converting it into fertilizers and agricultural fertilizers at Directorate of Agriculture in Beni-Suef Governorate, November 2022.
- Delivering a seminar on "Nanotechnology and sustainable Agriculture future in Egypt" at plant protection department Faculty of Agriculture Ain Shams University, October 2025.
- A reviewer in International Journal of Microbiology and Biotechnology(IJMB).
- A reviewer in 3 Biotech journal.
- A reviewer in BMC Microbiology.

- A reviewer in BMC Biotechnology.
- A reviewer in Egyptian Journal of Chemistry.
- A reviewer in Biological and Biomedical journal (BBJ).
- A reviewer in Food Science and Engineering.
- A reviewer in Scientific reports.
- A reviewer in the International Journal of Research and Scientific Innovation (IJRSI).
- A reviewer in the International Journal of Research and Innovation in Applied Science (IJRIAS).
- A reviewer in AIMS Microbiology.
- A reviewer in Nanotechnology, Science and Applications (Dove Medical Press).
- A reviewer in Bioresources and Bioprocessing.
- A reviewer in Nutrie.
- A reviewer in Archives of Microbiology.
- A reviewer in Discover Food.
- A reviewer in American journal of Microbiology.
- Trainer at the Literacy Unit, Faculty of Agriculture, Ain Shams University.
- Trainer at Biotechnology module in Agri summer training program, August 2024.

TEACHING COURSES

1. General bacteriology and immunology Code: MIC312 Theoretical course at Veterinary college, Ain Shams University.
2. Systematic bacteriology and Mycology Code: MIC322 Theoretical course at Veterinary college, Ain Shams University.
3. Agriculture Microbiology course Code: COL (211) New programs, Faculty of Agriculture, Ain Shams University.
4. Microbiological tests Code: (QLT 310) New programs, Faculty of Agriculture, Ain Shams University.
5. Microbial fermentation for undergraduate students (Practical and theoretical).
6. Bacteria physiology for undergraduate students (Practical and theoretical).
7. Algae and fungi physiology for undergraduate students (Practical and theoretical).
8. Agricultural microbiology for undergraduate students (Practical and theoretical).
9. Environmental microbiology for undergraduate students (Practical).
10. Soil microbiology for undergraduate students (Practical and theoretical).
11. General microbiological test for undergraduate of new programs students (theoretical).
12. Agricultural microbiology for undergraduate of new programs students (Practical and theoretical).
13. Applied microbiology for undergraduate students (Practical and theoretical).
14. Applied microbiology for undergraduate students of new programs students (Practical and theoretical).
15. Introduction in biotechnology for undergraduate students (Practical and theoretical).
16. Taxonomy of bacteria for undergraduate students (Practical).
17. General microbiology for undergraduate students (Practical and theoretical).
18. Applications in the biotechnology for undergraduate students (Practical and theoretical).
19. Microbial food spoilage and toxicity for undergraduate students (Practical and theoretical).
20. Medical microbiology for undergraduate students (Practical).
21. Bacteria physiology (a) for post graduate students (Practical and theoretical).
22. Bacteria physiology (b) for post graduate students (Practical and theoretical).
23. Microbial growth and nutrition for post graduate students (Practical and theoretical).
24. Agriculture Microbiology (123) for Blended Learning (theoretical).

PUBLICATIONS

1. Abd-Elhalem, B. T., El-Sawy, M., Gamal, R. F., & Abou-Taleb, K. A. (2015). Production of amylases from *Bacillus amyloliquefaciens* under submerged fermentation using some agro-industrial by-products. Annals of Agricultural Sciences, 60(2), 193-202. https://doi.org/10.1016/j.aoas.2015.06.001
2. F.G. Rawia, Khadiga Abou-Taleb, Basma T. Abd-Elhalim (2017). Isolation, Identification and Production of Amylases from Thermophilic Spore Forming Bacilli Using Starch Raw Materials Under Submerged Culture. The American Association for Science and Technology (AASCIT), 3, 52-63.
3. Abd-Elhalim B.T., Gamal R.F., Abou-Taleb Kh.A., Haroun A.A. (2019). Biosynthesis of Copper nanoparticles using bacterial supernatant optimized with certain agro-industrial byproducts. Novel Research in Microbiology Journal, 3(6), 558-578. http://doi:10.21608/nrmj.2019.66748
4. Gehan F. Galal, Basma T. Abd-Elhalim, Khadiga A. Abou-Taleb, Ahmed A. Haroun, Rawia F. Gamal (2021). Toxicity assessment of green synthesized Cu nanoparticles by cell-free extract of Pseudomonas silesiensis as antitumor cancer and antimicrobial. Annals of Agricultural Sciences, 66(1), 8-15. https://doi.org/10.1016/j.aoas.2021.01.006
5. Basma T. Abd-Elhalim (2022). *Moringa oleifera* leaf as a natural water purifier and causes decontamination of fecal-coliform bacteria. Novel Research in Microbiology Journal, 6(6), 1783-1800. http://doi:10.21608/nrmj.2022.273230
6. Mohamed Ali, F., Abdelhafez, A., Hassan, E., & Abd-Elhalim, B. (2023). Isolation and Characterization of Probiotics from Various Food Products as Potential Human Food Additives. Arab Universities Journal of Agricultural Sciences, 31(1), 63-80. http://doi:10.21608/ajs.2023.173367.1503
7. Basma T. Abd-Elhalim, Bahaa A. Hemdan, Salwa M., Mahgoub A. Ahmed, Sodaf A. Maan, and Samah H. (2023). Enhancing durability and sustainable preservation of Egyptian stone monuments using metabolites produced by *Streptomyces exfoliatus*. Sci Rep 13, 9458. https://doi.org/10.1038/s41598-023-36542-1
8. Maryam Amr, Samah H. Abu-Hussien, Radwa Ismail, Asmaa Aboubakr, Rahma Wael, Mariam Yasser, Bahaa Hemdan, Salwa M. El-Sayed, Ashraf Bakry, Naglaa M. Ebeed, Hesham Elhariry, Ahmed Galal & Basma T. Abd-Elhalim (2023). Utilization of biosynthesized silver nanoparticles from *Agaricus bisporus* extract for food safety application: synthesis, characterization, antimicrobial efficacy, and toxicological assessment. Sci Rep 13, 15048. https://doi.org/10.1038/s41598-023-42103-3
9. Alshaymaa I. Ahmed, Khadiga A. A. Abou-Taleb & Basma T. Abd-Elhalim (2023). Characterization and application of tannase and gallic acid produced by co-fungi of *Aspergillus niger* and *Trichoderma viride* utilizing agro-residues substrates. Sci Rep 13, 16755. https://doi.org/10.1038/s41598-023-43955-5
10. Lopna H. Ezz, Sawsan F. Shehata, Basma T. Abd-Elhalim (2023). Sustainable Wastewater Purification and Microbial Decontamination for Aquaculture and Agriculture Using Eggshell Waste. Egyptian Journal of Aquatic Biology and Fisheries, 27(5), 615-632. doi: 10.21608/ejabf.2023.321101
11. Tokaa Mansour, Wafaa H. Radwan, Menna Mansour, Mohamed Gomaa, Farouk Farouk, Mohamed Shepl, Ahmed G. Soliman, Basma T. Abd-Elhalim, Mohamed M. K. El-Senosy, Ashraf Bakry, Naglaa M. Ebeed, Neima K. Alsenosy, Hesham Elhariry, Ahmed Galal, Salwa M. El-Sayed, Eslam Adly & Samah H. Abu-Hussien (2023). Larvicidal potential, toxicological assessment, and molecular docking studies of four Egyptian bacterial strains against *Culex pipiens* L. (Diptera: Culicidae). Sci Rep 13, 17230. https://doi.org/10.1038/s41598-023-44279-0
12. Salma M. Farouk, Samah H. Abu-Hussien, Basma T. Abd-Elhalim, Reham M. Mohamed, Naira M. Arabe, Ahmed A. T. Hussain, Mostafa E. Mostafa, Bahaa Hemdan, Salwa M. El-Sayed, Ashraf Bakry, Naglaa M. Ebeed, Mahmoud Salah, Hesham Elhariry & Ahmed Galal (2023). Biosynthesis and characterization of silver nanoparticles from *Punica granatum* (pomegranate) peel waste and its application to inhibit foodborne pathogens. Sci Rep 13, 19469. https://doi.org/10.1038/s41598-023-46355-x

13. Basma T. Abd-Elhalim, Rawia F. Gamal, Salwa M. El-Sayed & Samah H. Abu-Hussien (2023). Optimizing alpha-amylase from *Bacillus amyloliquefaciens* on bread waste for effective industrial wastewater treatment and textile desizing through response surface methodology. Scientific Reports, 13. https://doi.org/10.1038/s41598-023-46384-6
14. H., Samah, Bahaa Hemdan, Basma T., Mohamed M. Aboul Fotouh, Ahmed G. Soliman, Youssef K. Ghallab, Eslam Adly, and Salwa M. Larvicidal Potential, Antimicrobial Properties and Molecular Docking Analysis of Egyptian Mint (*Mentha rotundifolia*) against Culex Pipiens L. (Diptera: Culicidae) and Midgut-borne Staphylococcus Aureus. Scientific Reports 14, no. 1 (2024): 1-16. Accessed February 25, 2024. https://doi.org/10.1038/s41598-024-51634-2
15. Ashour, Mona A., and Basma T. Abd-Elhalim. Biosynthesis and Biocompatibility Evaluation of Zinc Oxide Nanoparticles Prepared Using *Priestia megaterium* Bacteria. Scientific Reports 14, no. 1 (2024): 1-10. Accessed February 25, 2024. https://doi.org/10.1038/s41598-024-54460-8.
16. Gomaa, H. H., Amin, D. Y., Ahmed, A. R., Ismail, N. A., El Dougdoug and Basma T. Abd-Elhalim. (2024). Antimicrobial, antibiofilm, and antiviral investigations using egyptian *phoenix dactylifera* L. Pits extract. AMB Express, 14(1), 1-11. https://doi.org/10.1186/s13568-024-01695-3
17. Abdelhai, Mostafa F., Romisaa H. Shabaan, Noha M. Kamal, Esraa A. Elemary, Basma T., and Enas A. Hassan. Copper Nanoparticles Biosynthesis by *Stevia rebaudiana* Extract: Biocompatibility and Antimicrobial Application. AMB Express 14, no. 1 (2024): 1-15. Accessed May 19, 2024. https://doi.org/10.1186/s13568-024-01707-2
18. Mohamed, Salma H., Badawi A. Othman, Basma T. Abd-Elhalim, and Mohammed N. Seada. Copper Nanoparticles Biosynthesis by *Priestia megaterium* and Its Application as Antibacterial and Antitumor Agents. Scientific Reports 14, no. 1 (2024): 1-14. Accessed October 17, 2024. https://doi.org/10.1038/s41598-024-72598-3
19. Ali E., Abu-Hussien S. H., Hesham E., Ahmed S., Mostafa H., Gamal A., M. El-Sayed S., Hemdan B., Bakry A., Ebeed N. M., Elhariry H., Galal A. & Abd-Elhalim B. T. Compatibility and antimicrobial activity of silver nanoparticles synthesized using *Lycopersicon esculentum* peels. AMB Expr 14, 120 (2024). https://doi.org/10.1186/s13568-024-01774-5
20. El-Bana, G. G., Abd-Elhalim, B. T., ElSayed, A. F., & Abdel-Ghani, G. E. (2025). New acetophenone scaffolds: Synthesis, antifungal activities, biocompatibility, molecular docking, ADMET analysis and dynamic simulations. Journal of Molecular Structure, 1322, 140452. https://doi.org/10.1016/j.molstruc.2024.140452
21. Mwaheb, M. A., El-Aziz, B. M. A., Abd-Elhalim, B. T., El-Kassim, N. A., & Radwan, T. E. E. (2025). Study of Different Cultivated Plants Rhizosphere Soil Fungi-Mediated Pectinase: Insights into Production, Optimization, Purification, Biocompatibility, and Application. Microbial ecology, 87(1), 165. https://doi.org/10.1007/s00248-024-02474-0
22. Abd-Elhalim, B.T., Gideon, M., Anton, K. et al. Impact of dumpsite compost on heavy metal accumulation in some cultivated plants. BMC Res Notes 18, 20 (2025). https://doi.org/10.1186/s13104-025-07083-9
23. Abd-Elhalim, B., El-Bana, G., El-Sayed, A. et al. (2025). Antifungal activity and biocompatibility assessment with molecular docking and dynamic simulations of new pyrazole derivatives. BMC Biotechnol 25, 15. https://doi.org/10.1186/s12896-025-00948-8
24. Mohamed, Mai H., Ahmed N. Abdelhamid, Mahmoud A. Ali, Abd-Elhalim, B. T., Awaad M. Kandeel, and Karim M. Hassan (2025). Influence of Exogenously Applied K-carrageenan at Various Concentrations on Plant Growth, Phytochemical Content, Macronutrients, and Essential Oils of *Ocimum Basilicum*. Scientific Reports 15, 1, 1-11. https://doi.org/10.1038/s41598-025-93479-3
25. Hosny, A., Wael, N., Hossam, M.A., M. Abdelmonem, S.M. El-Sayed, S. H. Abu-Hussien & B. T. Abd-Elhalim. Eggshell waste as a bioremoval agent for potentially toxic elements/metals and microbial contaminants from raw water of the Nile River in Egypt. BMC Res Notes 18, 171 (2025). https://doi.org/10.1186/s13104-025-07199-y
26. Salwa M. El- Sayed, Basma T. Abd-Elhalim, Khalid A. El-Dougdoug, Rawia F. Gamal, Ghada G. El-Bana, Nesma Nabil Ibrahim Mohamed. In vitro Investigation of *Mangifera indica* L. Peel Extracts: Antibacterial, Antioxidant, and Docking Studies (2025). AMB Expr 15, 73 (2025). https://doi.org/10.1186/s13568-025-01882-w
27. Abd-Elhalim, B.T., Mohamed, S.H., Othman, B.A. et al. Utilization of agro-industrial wastes and by-products by Bacillus subtilis for the biogenic synthesis and In-Depth characterization

and cytotoxicity assessment of silver nanoparticles. BMC Microbiology 25, 291 (2025). https://doi.org/10.1186/s12866-025-03998-22
28. K., M., Hassan, K. M., Abd-Elhalim, B.T., Kucher, D. E., Rebouh, N. Y., Ansabayeva, A., Abdelkader, M., Ali, M. A., & Nasser, M. A. (2024). The Emerging Roles of Nanoparticles in Managing the Environmental Stressors in Horticulture Crops—A Review. Plants, 14(14), 2192. https://doi.org/10.3390/plants14142192
29. Abd-Elhalim, B.T., Mohamed, E. S., Gamar, G. M., & Moawad, H. (2025). Biological activities and application of *Rosmarinus officinalis* extract to improve the preservation and microbial qualities of some local meat products. Scientific Reports, 15(1), 1-16. https://doi.org/10.1038/s41598-025-14247-x
30. El-Sayed, O., Abd-Elhalim, B.T., Mosa, M.A. et al. Characterization and optimization of biogenic copper nanoparticles synthesized by *Pseudomonas putida* with cytocompatibility investigation. Sci Rep 15, 32504 (2025). https://doi.org/10.1038/s41598-025-17705-8
31. Abdelhamid, A.N., Nasser, M.A., Helmy, L.M. et al. Adjusting planting distance plus mineral fertilization to boost growth, yield, and some active ingredients of Moringa stenopetala. Sci Rep 16, 6353 (2026). https://doi.org/10.1038/s41598-026-37068-y
32. Salma T. Alghali, Ghada G. El-Bana, Basma T. Abd-Elhalim, Ahmed F. El-Sayed, Ghada E. Abdel-Ghani. Synthesis, biological evaluation, DFT, docking and dynamics simulations of Imino and Oxo-Chromene derivatives as antimicrobial agents, Journal of Molecular Structure, 1373, (2026). https://doi.org/10.1016/j.molstruc.2026.146676
33. Mathew Gideon, Basma T. Abd-Elhalim, Nathan A. Dikko. Antibacterial potency of biosynthesized aluminum–potassium hybrid nanoparticles using Polyalthia longifolia leaf extract against multidrug-resistant clinical isolates. INNOSC Theranostics and Pharmacological Sciences 026140011, (2026). https://doi.org/10.36922/ITPS026140011
34. Abd-Elhalim, B.T., Ashour, M.A. Harnessing shrimp shell waste: enhanced chitinase production through optimization techniques for ecofriendly solutions using bacteria. Biotechnol. Biofuels Bioprod. 19, 73 (2026). https://doi.org/10.1186/s13068-026-02808-9

SUPERVISION OFACADEMIC THESIS

- **Supervisor of 4 philosophy degree Thesis (Ph.D.) and 2 Master of science Thesis (MSc.):**
  1- "Evaluation of Some Bacteria and Yeast For Production of Probiotic" Ph.D. Thesis.
  2- "Microbial Synthesis of Nanoparticles for Biofertilizing and Suppressing Foliar Pathogens of Maize and Sorghum Plants" Ph.D. thesis.
  3- "Biological Treatment of Some Industrial Wastes" Ph.D. thesis.
  4- "Biological Synthesis of Copper Nanoparticles Using Bacteria and its Application As Antimicrobial and Antitumor agents" MSc. thesis.
  5- "Reducing of Biofilm Formation by Food Spoilage Bacteria during Handling of some Processed Meat" MSc. thesis.
  6- "Ecological and Biological Studies on Protozoan Diseases in Egyptian Apiaries" .Ph.D. thesis.

SUPER VISOR OF FACULTY GARADUATION PROJECTS

- **Supervisor of 4 graduation project teams during (2022-2023):**
  1- Utilization of biosynthesized silver nanoparticles from *Agaricus bisporus* extract for food safety application: synthesis, characterization, antimicrobial efficacy, and toxicological assessment.
  2- Biosynthesis and characterization of silver nanoparticles from Punica granatum (pomegranate) peel waste and its application to inhibit foodborne pathogens. Wins fund from STDF for graduation projects support.
  3- Biosynthesis and characterization of silver nanoparticles from Tomato peels waste and its application to inhibit foodborne pathogens.
  4- Application of Eggshell waste in bioremediation and Decontamination of The Nile raw water in Egypt.

- **Supervisor of 4 graduation project teams during (2023-2024):**
  1- Microbial Production and optimization of natural-ecofriendly pigments utilizing various agro-industrial wastes as sustainable substrates and their characterization, biocompatibility, and application.
  2- The Decomposition of plastics using Marine fungi and its toxicity assessment for possible environmental reuse.
  3- The Potential of Waxworms (*Galleria mellonella*) gut microbiota in the degradation of Plastics with biodegradation mechanism study and optimization.
  4- Green-ecofriendly synthesis of Selenium nanoparticles using Lemon (*Citrus Aurantiifolia*) Peels and their cytotoxicity, antioxidant, antibiofilm, and cells antiproliferative activities assessment and application on Poultries healthy and nutritional enhancement.

- **Supervisor of 3 graduation project teams during (2025-2026):**
  1- Production of nanoparticles Hydrogel cellulosic dressing with antimicrobial and wound healing properties.
  2- Using azolla and microalgae for production of sustainable and ecofriendly plastic as alternative of the harmful nondegradable plastic.
  3- Production of edible and ecofriendly food coatings with contamination biosensors.

MEMBERSHIP

- Member of the UNESCO Organization For Women In Science For The Developing World (OWSD). Member ID: 17233
- Member of the American Society of Microbiology.
- Member of the Egyptian Scientific Society of Moringa.
- Member in IFAD Scientific digital platform.
- Member of the Egyptian Society of Biological and Biomedical Sciences.

AWARRDS AND REWARDS

- International publication reward for 29th cycle, July 2021, Ain Shams university.
- AIN SHAMS INCENTIVE AWARD, May 2024, Ain Shams university in the field of Advanced Technology Sciences in Agricultural Sciences.
- International publication reward for 32 **nd** cycle, May 2025, Ain Shams university.
- International publication reward for 3**3 rd** cycle, May 2025, Ain Shams university.
- International publication reward for 3**4 th** cycle, May 2025, Ain Shams university.
- International publication reward for 3**5 th** cycle, May 2025, Ain Shams university.

TRAINNGS AND COURSES

- International Computer Driving License (ICDL) certified from UCQ /2010.
- Effective Presentation Skills certified from FLDP, Ain Shams University / 2010.
- Phlebotomy and Medical Analysis Course, Cairo University, 2010.
- Communication skills certified from MBA Egypt / 2011.
- Organizing scientific conferences certified by FLDP Ain Shams University / 2011.
- Financial and legal aspects certified from FLDP Ain Shams University / 2015.

- Time and meetings Management certified from FLDP Ain Shams University / 2015.
- Practical preparation of Nanomaterials, Naqaa foundation, 2018.
- Online Information protection and security from FLDP Ain Shams University / 2020.
- Creating and developing online courses from FLDP Ain Shams University / 2020.
- Introduction to the Modern Knowledge Cycle, Researcher Academy On Campus, Elsevier /2020.
- Microsoft teams platforming and online signature from FLDP, Ain Shams University / 2020.
- Test of English as a Foreign Language (TOEFL), Ain Shams University, with score 600.
- Moodle platform construction, Ain Shams University /2021.
- POWERAPPS platforming, Ain Shams University /2021.
- Stream deck, Digital library, Ain Shams university /2022.
- Nanocarriers of Drug delivery, The National Committee of Biochemistry and Molecular Biology of the Academy of Scientific Research and Technology /2022.
- Digital library and scientific research pauses with citations and the 14th session of promotions, Beni-Suef University / 2022.
- Statistics and Publication Tips and Tricks: Few Steps Towards Achieving a Better Presentation of the Research Results, National Research Center (NRC), 2022.
- Training of Trainers TOT, Ain Shams University/ 2022.
- ChatGPT, Ain Shams University, Digital library/ 2023.
- World water organization (WWO) global water challenges/ 2023.
- Carbon footprint calculation and water regulation /2023.
- Introduction of modern technologies of artificial intelligence /2023.
- How to deal with household water purification filers scientifically/ 2023.
- Determination of Alum and chlorine Dosage in drinking water plants /2023.
- Start learning AI easily /2023.
- How NEOM is changing the way we think about water industry /2023.
- Building informational modeling (BIM) and artificial intelligent (AI), Sohag Engineering Syndicate / 2023.
- Quality control and Assurance Systems in water analysis laboratories / 2023.
- Introduction to solar energy systems components / 2023.
- Green Building Systems (LEED) / 2023.
- Usage of Atomic Absorption and Ion Chromatography Devices in Laboratories / 2023.
- Solar Energy Systems and Their Application in Water Pumping Systems /2023.
- Advanced Technologies of Giant Boiler Water Treatment With UF & RO Systems / 2023.
- Diagnostic Molecular Microbiology for Pathogen Detection in Aquaponic Systems to Meet the Rising Demand for Fresh water and Safe food, STDF project No. 45895 / 2023.
- Bioinformatics for Microbiology 19-24 August 2024
- Focus on Peer Review A Nature Masterclasses course / 2025.
- Research Integrity: Publication Ethics A Nature Masterclasses course / 2025.
- Fundamentals of Generative AI in Higher Education [Egypt] / 2025.
- Introduction to DeepSeek and Practical Applications in Teaching [Egypt] / 2025.

- Remark office 12: Enhancing Paper Exam Grading with Artificial Intelligence 10-9-2025.
- Certified Peer Reviewer Course Elsevier research Academy 25 September 2025.
- The Code of Life: Practical Bioinformatics For Modern Research 26 October 2025.
- Mind's Barriers in Scientific Research 11 October, 2025.
- Scientific Research Methods: Fields and Characteristic 23 November, 2025.
- How To Choose The Appropriate Methodology in Scientific Research 6 December, 2025.
- Egyptian Knowledge Bank (EKB) Training held by the digital library of Ain Shams University 18 November 2025.
- The Use Of Artificial Intelligence in Scientific Research (Opportunities And Risks) as a Part of the digital library of Ain Shams University trainiing18 November 2025.

- How To Choose The Appropriate Methodology In The Scientific Research, 06 December 2026.
- AI for Researchers: Leap Space & Elsevier AI policies Ain Shams University training, 05 April 2026.

CONFERENCES

- The 14th Annual Faculty of Agriculture Ain Shams University Conference (17/18-3-2019).
- The 14th Annual Conference of The Egyptian Society of Applied Microbiology (18/20-112019).
- The 8th Annual Ain Shams University International Conference (1/3-4-2019).
- The 9th Annual Ain Shams University International Conference (6/8-4-2021).
- The impact of climate changes on food production dry areas, Faculty of Medicine, Ain Shams University (3/5-9-2022).
- The 2nd Annual Conference of the Scientific Society for Measurement and Evaluation, Association of Arab Universities (31-5-2023).
- The 2nd conference of Women's Scientific Research Association for Community Development (23-2-2025).