



CURRICULUM VITAE



PERSONAL DATA:

NAME: Dr. Sanaa Mahmoud Metwally Shanab

Date of Birth: 1/ 3 / 1949

Place of Birth: El-Sharkya-Egypt

Marital status: widow of Prof. Dr. Mahmoud Hafez Mahmoud Abdel-Rahman, with 4 children.

E-mail: sanaashanab@sci.cu.edu.eg

Scholar: <http://scholar.cu.edu.eg/drsanaashanab>

Linkedin: <https://www.linkedin.com/in/sanaashanab>

Research gate: https://www.researchgate.net/profile/Sanaa_Shanab

Google scholar: <https://scholar.google.com.eg/citations?user=btwapj4AAAAJ&hl=en>

Office No.: (02)35673527

Mobile No.: (02)01005174413

EDUCATIONAL BACKGROUND:

1. B.Sc. (Chem. / Bot.) (1971) - Botany Department - Faculty of Science-Cairo University – very good with the 2nd honor degree.
2. Diploma in Deep Studies of Phycology (1977) - Pierre and Marie Curie - Faculty of Science – Paris / France.
3. Doctorat d'Etat in Phycology (1985) - Pierre and Marie Curie - Faculty of Science – Paris / France.

OCCUPATIONS HISTORY:

1. Demonstrator (1.10.1971 to 29.10.1985) - Botany Department - Faculty of Science - Cairo University.
2. Lecturer (30.10.1985 to 26.6.2002) - Botany Department - Faculty of Science - Cairo University.
3. Associate Professor of Phycology (26.6.2002 to 26.12.2007) - Botany Department - Faculty of Science - Cairo University.
4. Professor of Phycology (since 26.12.2007) - Botany Department - Faculty of Science - Cairo University.

EDUCATIONAL ACTIVITIES and TEACHING EXPERIENCES:

Teaching courses in Botany Department - Faculty of Science - Cairo University:

- 1st year students (Biology), Systematic Botany (1989, for 2 years)
- 1st year students (Chemistry), Physiology of Microorganisms (1993, for 2 years)
- Preparatory year students of Pharmacy, Plant Anatomy (1995, for 7 years)
- 1st year students (Biology), Plant Anatomy (2003, for 3 years)
- 3rd year students (Chemistry/Biology) old system, Systematic of Phycology (2005, until now)
- Diploma of Microbiology (credit hours system), Algae and Physiology of Algae (2005, for 3 years)
- Diploma of Microbiology (credit hours system), Water Biology (2014)
- Pre-master, Seaweeds (Marine Algae) (2007-2008, 2014-2015)
- 3rd year students (Chemistry/Biology) credit hours system, Systematic of Phycology (2006, until now)
- 1st year students (Botany) credit hours system, Plant Anatomy (2003, for 3 years)
- 2nd year students (Botany) credit hours system, Plant Anatomy (2003, 2013, 2014)
- Pre-doctorat Algal Secondary metabolites, credit hour system (2011-2012, 2013-2014)
- Pre-doctorat Physiology of Algae, credit hour system (2013-2014, 2014-2015)
- Pre-doctorat Fine structure of algal cell, credit hour system (2013-2014, 2014-2015)

Teaching courses in Botany Department - Faculty of Science - Helwan University:

- 2nd year students Biology Science, Systematic of Phycology (one term)
- 2nd year Education Science students, Systematic of Phycology (one term)

Teaching courses in Om El-Kora University, Kingdom of Saudi Arabia:

- 3rd year Biology students, Ecosystem (1990, for 3 years)
- All year students, Ecoculture (1990, for 3 years)
- 3rd year Biology students, Archegoniate (1990, for 3 years)
- 3rd year Biology students, Systematic of Phycology (1990, for 3 years)
- 3rd year Biology students, Taxonomy of flowering plants (1990, for one year)
- 1st year Biology students, Biology (101) (1990, for 3 years)

- Academic Advisor for undergraduate students (2007 until now): 2hr/week

- رحلات علميه و جمع عينات و تعريفها مع طلاب الدراسات العليا : 2 ساعه اسبوعيا

SCIENTIFIC AND EXPERIENCE ACTIVITIES:

1. MEMBERSHIP OF SCIENTIFIC SOCIETIES:

Active member in the following scientific societies:

1. Egyptian Journal of Botany
2. Cryptogamie
3. Arab Journal of Biotechnology
4. Egyptian Journal of Phycology
5. Journal of Union of Arab Biologists
6. Journal of Applied Microbiology
7. Egyptian Journal of Natural toxins
8. Egyptian Journal of Experimental Biology

2. SCIENTIFIC COMMITTEES: (in the Department)

- Post graduate committee
- Committee of arrangement and decoration of the scientific lockers in the department (Head)
- Committee of Environment and Social services

3. TRAINING COURSES ATTENDED:

1. Training course in "Limnology" in Austria (February-October 1975).
2. Training course in "Pollution as poisons"- Research center of poisons and narcotics (RCPN) - Department of Zoology- Faculty of Science- Cairo University (10-20 / 12 / 1994).
3. Training course in " Modern methods in plant Molecular Biology and Biochemistry" – Plant cell and tissue culture department and Agricultural analysis unit – faculty of Agriculture- Cairo University (14-24 / 3 / 1998).
4. Research sharing in the National project of planting Damsessa (*Ambrosia maritima*) from 1999 to 2001 and presented a scientific article in the conference of Medicinal and Aromatic plant, July 2000 Chania, Greece.
5. Assistance in the 1st International Symposium of Phycology – Faculty of Science- Suez Canal University (21-22 / 10 / 2000).
6. Training course in program titled 'Decision making and Problem solving'– Faculty and Leadership Development Project (FLDC) - 25-28 / 6 / 2005.

7. Training course in program titled 'New Trends in Teaching' – Faculty and Leadership Development Project (FLDC) – 2-5 / 7 / 2005.
8. Training course in “Biosorption/Biological treatment of heavy metals from water and waste water effluents” – National Research Center (16-20 / 7 / 2005).
9. Training course in program titled 'Effective Presentation Skills' – Faculty and Leadership Development Project (FLDC) – (7-10 / 8 / 2005).
10. Basic training course in Computers and Information Technology (100 hours) includes Basic IT Skills and Internet – Scientific Computation Center – Cairo University (11-6 to 13-7 / 2006).
11. Training course in program titled “teaching assessment”- Faculty and Leadership Development Project (FLDC) – (31-7 to 2-8 / 2006).
12. Training course in program titled “Use of Technology in Teaching” – Faculty and Leadership Development Project (FLDC) – (7-9 / 8 / 2006).
13. Training course in program titled “Economy, Marketing and Funding Scientific researches”– Faculty and Leadership Development Project (FLDC) – (21-23 / 8 / 2006).
14. Training course in “Applications of Genetic Engineering and Biotechnology and Isotopes in Biological and Agricultural fields”- Middle Eastern Radioisotope Center for the Arab countries (5-16 / 11 / 2006).
15. Training courses in the French language organized by French Center of culture and cooperation – Embassy of France in Egypt (1995-1996, 2005-2006, 2012).
16. Training course in program titled' Quality Standards in Teaching' – Faculty and Leadership Development Project (FLDC) – (28-30 / 7 / 2008).
17. Assistance of a talk about European Union's Research Program FP7 (2007-2013) in Ibn Sina hall, Faculty of Science Cairo University in 8-9/ 10/ 2008 titled "European union's research framework' followed by an enlarged talk about Research Development and Innovation Program' (Mobility day of RDI) in the conference hall, Student Hostel, Cairo University.
18. Nanobiotechnology Workshop Program- Ibn Sina hall- Faculty of Science – Cairo University (8 / 11 / 2008).
19. Attending a Talk about Foreigners in the Egyptian University, in 15/12/2008, Ibn Sina Hall, Faculty of Science, Cairo University in the occasion of its first University Festivals (1908-2008)
20. Egyptian-Swedish Symposium Commemorating Vivi Tackholm's, 110th Birthday “Taxonomic research: Future applications on the Egyptian Flora”- Ibn Sina hall - Faculty of Science – Cairo University (12 / 2008).

- 21- Attending a Talk about “Sciences in old Egyptian Civilization”, Ibn Sina Hall, Faculty of science-Cairo University, 23/2/2009, as part of the workshop of the center of scientific heritage studies of cairo university.
- 22- Attend a lecture in quality standard in presence of follow-up committee and technical support, ministry of high education for the 3rd quarter (29-3-2010) in Ibn Sina hall.
- 23- Attend a lecture in” Preservation of nature and eco-system for the coming generations” throughout the 6th awareness week of the environment, 30-3-2010, in Ibn Sina hall.
- 24- Attending a Talk about “limitation of private courses” (specific for the program of quality accrilidation), 2010, Faculty of science-Cairo university.
- 25- Attending a Talk about “The Nile challenges and visions” by Deaa El-kossy (highest expert of irrigation-Ministry of Agriculture).
- 26- Attending the ceremony of awards distribution of international research publication, Hall of Ceremony-Cairo university (5th year), 30-5-2011.
- 27- Attending the workshop of the National Academic Reference Standard (NARS), Faculty of veterinary, Cairo University 2-1-2012.
- 28- Attending the ceremony of awards distribution of international research publication, Hall of Ceremony-Cairo university (6th year), 2012-2013.
- 29- Reviewing students’ practical and professional skills development innovative project (SSDIP)- Ministry of higher Education during 2013-2014.
- 30- International Cairo Science and Engineering fair of Cairo Educational Directorate-Ministry of Education, 2014-2015, presented by Ministry of Education Dr. Mahmoud Abo El Nasr.
- 31- Attending the ceremony of awards distribution of international research publication, Hall of Ceremony-Cairo university (7th year), 2014.
- 32- Attending the ceremony of awards distribution of international research publication, Hall of Ceremony-Cairo university (8th year), 31/5/2015

4. SHAIRING IN SCIENTIFIC CONFERENCES:

1. Attendance in the 1st International Symposium of Phycology - Faculty of Science - Suez Canal University-Egypt (21-22 October 2000).
2. Attendance in the 8th Conference of Union of Arab Biologists- Fayoum-Egypt (3-7 November 2001).
3. Attendance in the One day Conference “Bioremediation of Environmental pollution” – Botany Department – Tanta University-Egypt (22 December 2008).
4. Attendance of the 1st Conference about’ Project of continuous upgrading andaccreditation, Ibn Sina hall- Faculty of Science – Cairo University (8/12/2009).

5. Attendance in the 5th Conference of Egyptian society of Experimental Biology - Faculty of Science - Tanta University-Egypt (28 February 2009).
6. Attendance of International conference on modern trends in Botany and Microbiological researches-faculty of science, Suez canal University, Port Saied (28-29th October, 2009).
7. Attendance and participation in the activities of the 7th International Conference of Egyptian Society of Experimental Biology (ESEB-Egypt) – Faculty of Science-Cairo University-Egypt (3-6 April 2010).
8. Attendance in the 4th International Conference on Natural toxins-Esmailia-Suez canal University-Egypt (20-22th December 2010).
9. 2nd International Conference in Phycology titled: Limnology and water science, Faculty of Science, Suez Canal University, Port Saied (14-15 February 2010)
10. Attendance in the 1st International Biotechnology Innovation Conference (IBIC), “Innovation Investment, a bridge between science and business, Cairo University Conference Center-Egypt (21-23 November 2010).
11. International Conference in Biology, Biochemistry and Biotechnology-Roma-Italy (28-30 April 2010) presented and published paper titled: Enhancement of biodiesel production from Microalgae.
12. Attendance in the 8th International Conference of Egyptian Society of Experimental biology (ESEB-Egypt 2012), Faculty of Science, Cairo University, Cairo, Egypt (25 - 28 February 2012)
13. Attendance the workshop concerning the new law of Universities-A Future Vision-Ibn Sena (13/3/2012)
14. 2nd International conference of Egyptian society of Botany in Faculty of Science Elmenia University (29-30 April 2012) in Physiology, Microbiology and Ecological Plant sciences (PMEPS II).
15. Attendance of International Conference of Bioscience, Biochemistry and Bioinformatics in Phoket/Thayland, September 2012, present an article titled: The first record of Biological activities of the red alga *Compsopogon helwanii*
16. Attendance of the 3rd Conference of Biotechnology and Applications of Egyptian Society of Botany in the department of Botany and Microbiology, Faculty of Science, Helwan University (17-18/4/2013).
17. Attendance of the 4th International Conference of Botany and Microbiological sciences. Suez Canal University, Ismailia, 23-24 April 2014.

18. Attendance of Egyptian Botanical Society, the 5th International conference on Biotechnological applications and their relations to food and drugs in Botany and Microbiology sciences, Faculty of science, Zagazig University, 15-16 April 2015.
19. Attendance of 1st International Conference on Applied Microbiology (ICAM-2016), Biotechnology and its applications in the field of sustainable agricultural department/soil, water and environment research institute/Agriculture research center which was held in Food and Feed Institute 1-3 March 2016.
20. Attendance in the 1st International Conference of Genetic Engineering and Biotechnology: Integrative Science and Biotechnology organized by Genetic Engineering and Biotechnology Research Institute (GEBRI), University of Sadat City which was held in Sharm El Sheikh, Egypt during the period 26 - 29 April 2016.
21. Attendance of the 6th International Conference of the Egyptian Botanical Society which was held in Faculty of Science, Menoufeya University during the period 11-12 Mai 2016.

5. PUBLICATIONS:

- 8 published research articles from the Ph.D. in 2 international journals (1984-1989).
- 10 published research articles for the degree of Associate Professor of Phycology in 7 national and Arabian journals (1998-2002).
- 9 published research articles for the degree of Professor of Phycology in 5 national and International journals (2003-2007).
- 3 published research articles (2010) after the degree of Professor all in International journals.
- 3 published research articles (2011) after the degree of Professor in International journals.
- 4 published research articles (2012) after the degree of Professor in International journals (with IF).
- 2 published research articles (2013) after the degree of Professor in International journals (with IF).
- 5 published research articles (2014) after the degree of Professor in International journals (with IF).
- 1 published research articles (2015) after the degree of Professor in International journals (with IF)
- 1 published book (2015) after the degree of Professor in Saarbrucken, Deutschland, Lambert Academic Publishing.
- 1 published research articles (2016) after the degree of Professor in International journals (with IF)

List of all publications:

1. **Shanab, S. et Magne, F., 1984.** Influence de la lumière et de la pesanteur sur la morphogénèse du thalle de *Bachelotia antillarum* (phéophycée, Ectocarpacée). *Cryptogamie : Algologie*, 5 (4): 155-166.
2. **Shanab, S. M. M. (1985):** Contribution à la connaissance de la morphogénèse du thalle d'une Phéophycée filamenteuse *Bachelotia antillarum* (Grunow) Gerloff (Ectocarpale), Doctorat d'Etat Thesis in Phycology (1985) - Pierre and Marie Curie - Faculty of Science – Paris / France.
3. **Shanab, S. , Jaques, R. et Magne, F., 1988.** Croissance et ramification du thalle de *Bachelotia antillarum* cultivé en éclairagements monochromatiques. *Plant Physio. Biochem.*, 26 (3): 303-311.
4. **Shanab, S. et Abdel-Rahman, M. H., 1988.** Action de la photopériode sur la croissance de la phéophycée *Bachelotia antillarum* . *Cryptogamie : Algologie*, 9 (2): 87-100.
5. **Shanab, S. et Abdel-Rahman, M. H., 1988.** Action de la photopériode et de la température sur la ramification chez *Bachelotia antillarum* (phéophycée, Ectocarpacée). *Cryptogamie : Algologie*, 9 (3): 183-193.
6. **Shanab, S, 1989.** Recherche des corrélations dans le thalle de la phéophycée *Bachelotia antillarum*.1. Corrélations au sein du système rampant. *Cryptogamie : Algologie*, 10 (1): 57-68.
7. **Shanab, S. et Abdel-Rahman, M. H., 1989.** Recherche des corrélations dans le thalle de la phéophycée *Bachelotia antillarum*. 2. Corrélations entre les différents segments d'un même filament. *Cryptogamie : Algologie*, 10 (2): 153-169.
8. **Shanab, S. et Abdel-Rahman, M. H., 1989.** Recherche des corrélations dans le thalle de la phéophycée *Bachelotia antillarum*. 3. Corrélations entre le système rampant et les filaments dressés, et discussion générale sur les corrélations. *Cryptogamie: Algologie*, 10 (4): 273-288.
9. **A. M. M. Abdel-Halim, Sanaa Shanab and M. Abdel Tawwab (1998):** Evaluation of *Azolla pinnata* meal as an ingredient in diet for *Tilapia zillii* Fry. *Egypt. J. Agric. Res.* 76 (3) : 1307-1316.
10. **Mahmoud M. Saker, Sanaa M. M. Shanab, Mahmoud Dessouky and Mortda R. Khater (2000):** *In Vitro* studies on *Ambrosia maritima*: II-Fungal elicitor enhances sesquiterpene lactones accumulation. *Arab J. Biotechn.* Vol. 3(2) :225-232.
11. **Sanaa M. M. Shanab (2000):** Glycoalkaloids affect pigment content of some fresh water algae. 1st Int. Symp. Phycol. (ISP) during the period 21-22 October 2000 (Fac. Sci. Suez Canal Univ.). *Egypt. J. Phycol.* Vol 1 : 33-44.

12. **Mahmoud M. Saker, Sanaa M. M. Shanab and Mortda R. Khater (2000):** *In Vitro* Studies on *Ambrosia maritima*: I-Morphogenic Responses and Algal Toxins Elicitation. Breeding Research on Medicinal and Aromatic plants, July 2000 Chania, Greece. Arab J. Biotechn. Vol 3 (2) : 217-224.
13. **Sanaa M. M. Shanab (2001):** Effect of fresh water Cyanobacterial extracts on alkaloid production of the *in vitro* *Solanum elaeagnifolium* tissue culture. Arab J. Biotechn. 4 (1): 129 – 140.
14. **Sanaa M. M. Shanab (2001):** Effect of light on growth and pigment biosynthesis in some fresh water green and blue green algae. Az. J. Microbiol. Vol 53 : 91-107.
15. **Mahmoud H. M. Abdel Rahman, Sanaa M. M. Shanab, Effat F. Shabana, Shaalan N. Shaalan and Mohsen A-T. I. Abdel Tawwab (2001):** The Effect of Different Percentages of *Azolla* cover on Water Quality, Phytoplankton and Fish Production in Fish Ponds. The 8th International Conference of Arab Biologists, 3-7 November 2001 (Fayoum). J. Union Arab Biol. Vol 8 (B).
16. **Mahmoud H. M. Abdel Rahman, Sanaa M. M. Shanab, Effat F. Shabana, Shaalan N. Shaalan and Mohsen A-T. I. Abdel Tawwab (2001):** The Effect of different nitrogen and phosphorus concentrations on growth of *Azolla pinnata* during different incubation periods. Egypt. J. Biomed. Sci. Vol 8 : 79-95.
17. **Tarek A. A. Moussa and Sanaa M. M. Shanab (2001):** Impact of Cyanobacterial toxicity stress on the growth activities of some phytopathogenic *Fusarium spp.* Az. J. Microbiol. Vol 53: 267-282.
18. **Mahmoud H. M. Abdel Rahman, Sanaa M. M. Shanab, Effat F. Shabana, Shaalan N. Shaalan and Mohsen A-T. I. Abdel Tawwab (2002):** *Azolla* performance and the effect of its natural cover on water quality and phytoplankton abundance in Abbasa area – Sharkia governorate (Egypt). Egypt. J. Biotechnol. Vol (11); 365-383.
19. **Sanaa M.M. Shanab, Mahmoud M. Saker and Mahmoud H.M. AbdelRahman (2003):** Crude extracts of some fresh water cyanobacteria have auxin-like activity on potato tissue culture. Arab J. Biotechn. 6(2): 297-312.
20. **Faiza M. El-Assal, Sanaa M.M. Shanab, Amin A. Abou El-Hassan and Kadria M.A. Mahmoud (2005):** Effect of some algal species on the snail intermediate hosts of Schistosomiasis in Egypt. II. Growth, infection and mortality rates. Egypt J. Phycol. 6: 93-110.
21. **Sanaa M.M. Shanab, Faiza M. El-Assal, Amin A. Abou El-Hassan and Kadria M.A. Mahmoud (2005):** Effect of some algal species on the snail intermediate hosts of Schistosomiasis in Egypt. I. survival, fecundity and net reproductive rates. Egypt J. Phycol. 6: 73-92.

22. **Sanaa M.M. Shanab (2006):** Algal flora of Ain Helwan II. The soil algae. Egypt J. Phycol. 7(2): 211-225.
23. **Sanaa M.M. Shanab (2006):** Algal flora of Ain Helwan I. Algae of the warm Spring. Egypt J. Phycol. 7(2): 187-209.
24. **Sanaa M.M. Shanab (2007):** Antioxidant and antibiotic activities of some seaweeds (Egyptian isolates). Int. J. Agr. Biol. 9(2): 220 – 225.
25. **Sanaa M.M. Shanab (2007):** Bioactive allelochemical compounds from *Oscillatoria* species (Egyptian isolates). Int. J. Agr. Biol. 9(4): 617 - 621.
26. **Sanaa M.M. Shanab and Hamdy R.M. Galal (2007):** The interactive effect of salinity and urea on growth, some related metabolites and antioxidant enzymes of *Chlorella sp.* and *Scenedesmus sp.* New Egypt J. Microbiol. 17: 53-64.
27. **Shanab, S. M., and A. M. Essa (2007):** Heavy Metal Tolerance, Biosorption And Bioaccumulation By Some Microalgae (Egyptian Isolates)", N. Egypt. J. Microbiol. 17:76-88.
28. **Abd El-Moneim M. R. Afify, Emad A. Shalaby and Sanaa M. M. Shanab (2010):** Enhancement of biodiesel production from different species of algae. Grasas y aceites, 61 (4), 416-422.
29. **Sanaa M. M. Shanab, Emad A. Shalaby, David A. Lightfoot, Hany A. El-Shemy (2010):** Allelopathic Effects of Water Hyacinth [*Eichhornia crassipes*]. PLoS ONE 5(10): 1-8.
30. **Emad A. Shalaby, Sanaa M. M. Shanab and Vikramjit Singh (2010):** Salt stress enhancement of antioxidant and antiviral efficiency of *Spirulina platensis*. Journal of Medicinal Plants Research Vol. 4(24), pp. 2622-2632.
31. **Sanaa M.M. Shanab, Emad A. Shalaby and Eman A. El-Fayoumy (2011):** *Enteromorpha compressa* Exhibits Potent Antioxidant Activity Journal of Biomedicine and Biotechnology, Volume 2011, Article ID 726405, 11 pages
32. **M. A. Ameer, A.M. Fekry and S.M.Shanab (2011):** Electrochemical Behavior of Titanium Alloy in 3.5% NaCl Containing Natural Product Substances. *Int. J. Electrochem. Sci.*, 6: 1572 – 1585
33. **S.M.M.Shanab, M. A.Ameer, A. M. Fekry, A. A. Ghoneim, and E. A. Shalaby (2011):** Corrosion Resistance of Magnesium Alloy (AZ31E) as Orthopaedic Biomaterials in Sodium Chloride Containing Antioxidantly Active Compounds from *Eichhornia crassipes*. *Int. J. Electrochem. Sci.* 6:3017 – 3035
34. **Shanab, S. M. M., S. S. M. Mostafa, E. A. Shalaby, and G. I. Mahmoud (2012):** Aqueous extracts of microalgae exhibit antioxidant and anticancer activities. Asian pacific journal of tropical biomedicine 608-615

35. **Shanab, S. M. M., E. Shalaby, and A. Essa (2012):** Bioremoval capacity of three heavy metals by some microalgae species (Egyptian Isolates). *Plant signaling and behavior* 7(3):1-8
36. **Shanab, S. M. M., and E. Shalaby (2012):** The First Record of Biological Activities of the Egyptian Red Algal Species *Compsopogon helwanii*. *International Journal of Bioscience, Biochemistry and Bioinformatics* 2(4): 291-296.
37. **Sanaa M.M. Shanab, Emad A. Shalabi (2012):** Review. Biological activities and Anticorrosion efficiency of water hyacinth (*Eichhornia crassipes*). *Journal of Medicinal Plant Research* 6(23): 3950-3962.
38. **Shalaby, E. A., and S. M. M. Shanab (2013):** Review-Antioxidant compounds, assays of determination and mode of action, *Afr. J. Pharm. Pharmacol.*7(10):528-539.
39. **Shalaby, E. A., and S. M. M. Shanab (2013):** Antiradical and Antioxidant Activities of Different *Spirulina platensis* Extracts against DPPH and ABTS Radical Assays. *Journal of Marine Biology and Oceanography* 2:1-8
40. **Ahmed M Aboul-Enein, Sanaa MM Shanab, Emad A Shalaby, Malak M Zahran, David A Lightfoot and Hany A El-Shemy (2014):** Cytotoxicity and antioxidant capacity of *Eichhornia crassipes* (water hyacinth) extracts. *BMC Complementary and Alternative Medicine* 14:397-408.
41. **Ali, H.E.A; Sanaa Mahmoud Metwally Shanab, Mervat Aly Mohamed Abo-State, Emad Ahmed Ahmed Shalaby, Usama Mohamed Nour El Demerdash, Mohd Azmuiddin Abdullah (2014):** Screening of Microalgae for Antioxidant Activities, Carotenoids and Phenolic Contents. *Applied Mechanics and Materials* 625: 156-159.
42. **Ali, H.E.A; Sanaa Mahmoud Metwally Shanab, Mervat Aly Mohamed Abo-State, Emad Ahmed Ahmed Shalaby, Usama Mohamed Nour El Demerdash, Mohd Azmuiddin Abdullah (2014):** Evaluation of Antioxidants, Pigments and Secondary Metabolites Contents in *Spirulina platensis*. *Applied Mechanics and Materials* 625: 160-163.
43. **Ali, H.E.A; Sanaa Mahmoud Metwally Shanab, Mervat Aly Mohamed Abo-State, Emad Ahmed Ahmed Shalaby, Usama Mohamed Nour El Demerdash, Mohd Azmuiddin Abdullah (2014):** Determination of Antioxidant Activities and Total Phenolic Contents of Three Cyanobacterial Species. *Applied Mechanics and Materials* 625: 826-829; abstracted in the International Conference on Process Engineering and Advanced Material, ICPEAM 2014, 3-5th June (2014), KLCC, Kuala Lumpur, p134, titled "Antioxidant potentials of selected *Cyanobacterial* species and the relations to their phycobiliproteins and phenolic contents" by M.A. Abdullah, Hamdy El-Sayed, Sanaa M.M. Shanab, Mervat Abo-State, Usama M. Nour Eldemerdash, Emad A. Shalaby.

44. **Sanaa M. M. Shanab, Eman A. Hanafy, Emad A. Shalaby (2014):** Biodiesel Production and antioxidant activity of Different Egyptian Date Palm seed cultivars. *Asian J. Biochemistry* 1-12.
45. **Abo-State, M. A. M., S. M. M. Shanab, H. E. A. Ali, and M. A. Abdullah, (2015):** screening of antimicrobial activity of selected Egyptian Cyanobacterial Species", *Journal of Ecology of Health and Environment*, 3(1): 7-13.
46. **Shanab, S. M., E. Atef, and E. A. Shalaby (2015):** Biological activities of active ingredients from green macroalga *Enteromorpha* sp., Shanab, S.M. (ed.), Saarbrucken, Deutschland, Lambert Academic Publishing, pp. 117.
47. **Abdullah, M. A., A. Ahmad, S. M. U. Shah, S. M. M. Shanab, H. E. A. Ali, M. A. M. Abo-State, and M. F. Othman (2016):** Review Integrated Algal Engineering for Bioenergy Generation, Effluent Remediation, and Production of High-value Bioactive Compounds, *Biotechnology and Bioprocess Engineering* 21:236-249.
48. **Sanaa M. M. Shanab, Emad A. Shalaby, Eman A. Hanafy (2015):** Biofuel Production from the seasonally collected water hyacinth (*Eichhornia crassipes*) invaded River Nile and its canals. (under publication).

6. BOOKS AND NOTEBOOKS:

Book name: Archegoniates

Published by: Faculty of Science – Fayoum branch.

Editors: Prof. Dr. Mahmoud H. M. Abdel Rahman / Dr. Sanaa M. M. Shanab

Date of Publication: 1997-1998.

Note book: Phycology (Algae)

Published by: Faculty of Science – Fayoum branch.

Editors: Prof. Dr. Mahmoud H. M. Abdel Rahman / Dr. Sanaa M. M. Shanab

Note book: The uses of seaweeds in medicine and pharmaceuticals

Published by: Faculty of Science – Fayoum branch.

Editors: Prof. Dr. Mahmoud H. M. Abdel Rahman / Dr. Sanaa M. M. Shanab

Note book: Protista

Published by: Botany Department - Faculty of Science – Cairo University.

Editors: Prof. Dr. Effact Shabana, Prof. Dr. Zeinab Khalil, Prof. Dr. Sanaa Shanab, Prof. Dr. Sakina Tawfik and Dr. Hoda Senosi.

7. SUPERVISION OF SCIENTIFIC THESES:**Theses awarded the degree of Ph. D. of Science:****1. Name: Mohsen Abdel Tawab Ibrahim**

Title: Ecophysiological studies on Azolla plant and its relation with phytoplankton and fish production

Registration: 20-11-1994

Award: 26-10-1998

Supervisors: Prof. Dr. Effat Fahmy Shabana (Botany- Faculty of Science- Cairo Uni.)

Dr. Mahmoud H. M. Abdel Rahman (Faculty of Education- Fayoum)

Dr. Sanaa M. M. Shanab (Botany- Faculty of Science- Cairo Uni.)

Prof. Dr. Shaalan Nasr Shaalan (Agriculture research center)

2. Name: Kadria Mahmoud Ali Mahmoud

Title: Effect of some algal species on the snail intermediate hosts of Schistosomiasis in Egypt.

Registration: 22-4-1997

Award: 4-11-2003

Supervisors: Prof. Dr. Faiza M. El Assal (Zoology- Faculty of Science- Cairo Uni.)

Dr. Sanaa M. M. Shanab (Botany- Faculty of Science- Cairo Uni.)

Prof. Dr. Amin A. Abou-El-Hassan (Theodore Belhars)

Thesis awarded for the degree of M.Sc.:

Name: Eman Atif Ibrahim

Title: Antioxidant activity of some Egyptian Seaweeds species.

Registration: 14-12-2008

Award: 2012

Supervisors: Prof. Dr. Sanaa M. M. Shanab (Botany- Faculty of Science- Cairo Uni.)

Dr. Emad Ahmed A. Shalaby (Biochemistry- Faculty of Agriculture- Cairo Uni.)

Thesis registered for the degree of M.Sc.:**1. Name: Mai Mostafa Mohamed El Abhar (Biochemistry Dept.-Fac. Agriculture-Cairo Uni.)**

Title: Biochemical studies on some algal extracts as food additives

Registration: 2013

Supervisors: Prof. Dr. Sanaa M. M. Shanab (Botany- Faculty of Science- Cairo Uni.)
 Dr. Sayed Abdel Kader Sayed (Biochemistry Dept.-Fac. Agriculture-Cairo Uni.)
 Dr. Gada Ibrahim Mahmoud(Biochemistry Dept.-Fac. Agriculture-Cairo Uni.)

1. Name: Yasmine Ashraf Abbass

Title: Study of Antimicrobial activity of some plants against bacterial wound infections

Registration: 4/5/2014

Supervisors: Prof. Dr. Sanaa M. M. Shanab and Dr. Nagwa Mohamed Atef (Botany and Microbiology Dept. - Faculty of Science- Cairo Uni.)

Dr. Sahar Ismael Mohamed Negm (research institute of ophthalmology)

Thesis awarded for the degree of PhD.:

1. Name: Hamdy El-Sayed Ahmed Ali

Title: Enhancement of lipid production from microalgae for different application using gamma radiation

Registration: 13/10/2014

Supervisors: Prof. Dr. Sanaa M. M. Shanab (Botany- Faculty of Science- Cairo Uni.)

Prof. Dr. Mervat Ali Mohamed Abou-State (Microb Dept., National center for radiation research and technology atomic energy authority)

9. REVIEWING OF SCIENTIFIC PUBLICATIONS AND THESES:

REVIEWING ARTICLES:

- Reviewing many articles and abstracts (online).
- (February 2008) titled: Morphological and taxonomical studies of certain diatom species belonging to family Naviculaceae. For publishing in Egypt. J. Phycol.
- (Mars 2008) titled: Mathematical models application to optimize phycocyanin production in *Spirulina platensis*. For publishing in Egypt. J. Biotechnol.
- (July 2008) titled: Phytochemical studies on *Ulva lactuca* (L.) Thuret from Red Sea Coast of Jeddah Saudi Arabia. For publishing in Egypt. J. Phycol.
- (January 2009) titled: Epiphytic microalgae and water quality interaction at North Delta-Egypt. For publishing in Egypt. J. Phycol.
- (online) titled: Diversity and novelty among biocidal molecules of cyanobacteria-genes and their regulation in Critical Reviews in Biotechnology BBTN-2011-0045

- International scholars-journal (online) titled: Effects of growth regulators 6-Benzylaminopurine (BAP) and 2-Naphthalene Acetic acid (NAA) on the *in vitro* shoot multiplication from nodal segment of *Medinilla nandrakensis* (Melastomataceae).
- Journal of Genetic Engineering and Biotechnology (6-4-2013) titled: Efficient effect of Cyanobacterial extracellular products on shoot elongation and root formation of *in vitro* regeneration of *Gossypium hirsutum* by P. Gurusaravanan, S. Vinoth, M.Satheesh Kumar, N. Thajuddin and N. Jayabalan (India).
- (10/5/2013) titled: Production of Bioethanol from macrogreen-algae by Ragaa A. Hamouda, Mervat H.Hussein, Hanafy A. Hamzah and Dalia S. Yeheia.
- Assiut University Journal of Botany (19-5-2013) titled: Spatial and temporal variations of phytoplankton community structure and their related parameters along El-Arish Coast, North Sinai, Egypt.

REVIEWING THESISSES (16 MSc & 2 PhD)

- Ph.D. thesis of **Abla Abdel-Mawgoud Mohamed Fargaly**, Faculty of Science- Qena- South Valley University (19-5-2008) titled: Physiological studies of some selected soil algae in Qena.
- M.Sc. thesis of **Soha Abdel Monaem Mohamed**, Botany Dept. - Faculty of Science – Benha University (9-4-2009) titled: Biological studies on the blue green alga, *Spiroolina*.
- M.Sc. thesis of **Faten Nasr El-Din Ibrahim**, Botany Dept. - Faculty of Science - Qena- South Valley University (28-4-2009) titled: Comparative studies of *Chlorella* and wheat under salt stress and salicylic acid treatment.
- M.Sc. thesis of **Hoeida Ali Badr Badr**, Botany Dept. - Faculty of Science –Sohag University (2009) titled: Ecological and physiological studies on some algal flora isolated from sewage water in Sohag Governorate.
- M.Sc. thesis of **Emad Yousri Rizk Johny**, Botany and Microbiology department- Faculty of Science- Helwan University (2009) titled: Effect of heavy metals on one freshwater algae.
- M.Sc. thesis of **Mostafa El-Sayed Elbahay El Shoubary**, Botany and Microbiology department- Faculty of Science-Tanta University (6-3-2010) titled: The antimicrobial activities of some Seaweeds collected from Alexandria coast.
- M.Sc. thesis of **Sayeda Mohammed Abdou Youssif**, Botany and Microbiology department- Faculty of Science (Girls branch) -Al-Azhar University (9-2010) titled: Detection of biological effects of selected freshwater algal culture.

- M.Sc. thesis of **Emad Abdel Aziz Fadel Ahmed**, Botany department- Faculty of Science-Sohag University (3-10-2010) titled: Physiological response to heavy metals in some algae isolated from soil at Sohag district.
- M.Sc. thesis of **Saad Salah Hussein**, Biotechnology department- Institute of Graduate studies and research University of Alexandria (9-10-2010) titled: Isolation and characterization of Biopolymers from Brown Algae and some possible Applications.
- M.Sc. thesis of **Eman Abdelaty Hassan**, Botany Dept. - Faculty of Science- Qena- South Valley University (7-2011) titled: Using of Marine algae extracts as bio-fertilizers and to alleviate the salt stress to some commercial plants.
- M.Sc. thesis of **Nehal Abdel Hamid Kamel Osman**, Botany Dept. - Faculty of Science- Suez canal University (10-2011) titled: Evaluation of the Nutritional composition and antioxidants of some Seaweeds from Red Sea.
- M.Sc. thesis of **Fayza Mohamed Ahmed Akl**, Biological and geological Dept. - Faculty of Education- Alexandria University (3-2012) titled: Responses of some algae to ultraviolet radiation.
- M.Sc. thesis of **Asmaa Bakr Ahmed Mohamed**, Demonstrator in Botany Department, Faculty of Science, Sohag University (3-4-2012) titled: Ecological and physiological studies on algal flora of El-Dare wastewater treatment plant at Sohag District.
- M.Sc. thesis of **Fatma Hassan Ahmed Negm El-Deen**, Faculty of Science, El Mansoura University (2014) titled: The use of marine and freshwater species of *Chlorella* for wastewater treatment and evaluate the biofuel potential algal biomass.
- Ph.D. thesis of **Eman Abdel Aty Hassan**, Assistant Lecturer in Botany (Microbiology), Faculty of Science, Quina, South Valley University (2014) titled: Studies on the efficiency of some fresh and marine algae as a biological cleaners.
- M.Sc. thesis of **Maysa Mohamed Fouad El-Nagar**, Faculty of Science, Tanta University (26-6-2014) titled: Using Some Cyanobacterial and fresh water algal species as safeners against the toxic action of herbicides on the host plants, 27 pp.
- M.Sc. thesis of **Walaa Salah El Din Abdel Monsef Ali**, Demonstrator in Biochemistry Dept. Faculty of Agriculture, Cairo University (29-10-2014) titled: Biochemical studies on some aquatic organisms for Bioremediation of organic and inorganic water contaminants. 110 pp.
- M.Sc. thesis of **Suzy Nabil Hanna Abdelmesih**, Botany and Microbiology Department, Faculty of Science, Helwan University (April 2015) titled: Screening for antimicrobial activity of some microalgae strains in freshwater and soil.

REVIEWING RESEARCH PROJECTS

- Evaluation and reviewing research projects: Programme de bourses (Doctorates and post-doctorates) funded by L'institut Francais d'Egypt, Feb. 2012 (محمد الجندى- محمد يوسف البروث) (بنوره-احمد بدر)
- Reviewing the Bachelot project of Biotechnology/Biomolecular chemistry program students (BioT 413) as partial fulfillment in requirement for Baccalaureate degree in 30/6/2012-titled: Production of Transgenic plant tolerant to water stress (*Lycopersicum esculentum* and *Nicotiana tabaccum*).
- Reviewing and evaluating the scientific projects (7-9 proposals) funded by Science and Technology Development Fund (STDF) in 19/7/2012, capacity Building Panel Grant Call.
- Reviewing projects of Ministry of higher education (council of higher education) in 2012 and 2014.

REVIEWING QUALITY ASSURANCE:

- Reviewing El-Ahram project of young researchers (12-17 years old) representing different preparatory and secondary school students in Cairo governorate 2014.
- External reviewer of program of biology, Faculty of Science, Hail University, Kingdom of Saudi Arabia (26-4-2015).