

# **Prof. Salah Eldin Abdel-Sattar Mohamed**



**Professor**

**Electrical Engineering Department**

**Faculty of Engineering**

**Assiut University, Egypt**

**Previously, Taif University, Saudi Arabia**

## **Contact Information**

Phone	+20 88 2362305 (Home) +20 88 2411052 (Office) +20 1223971426 (Mobile)
Fax	+20 88 2332553
E-mail	<a href="mailto:sabdelsattar@yahoo.com">sabdelsattar@yahoo.com</a>
Address	P.O. Box 71516, Assiut University, Electrical Engineering Department, Assiut, Egypt.

## **Education**

- Ph. D. degree in Electric Power Engineering, Assiut University, Assiut, Egypt, 1982.. Ph. D. thesis entitled "Environmental Impact of HVDC Transmission Lines".
- M. Sc. in Electric Power Engineering, Assiut University, Assiut, Egypt, 1978. M. Sc. thesis entitled "Thermal Characteristics of HV Cables Under Different Loading Conditions".
- B.Sc. in Electrical Engineering, "Distinction with Honor's Degree", with a rate of appreciation, Assiut University, Assiut, Egypt, 1975. Senior project: "Design of High Voltage Overhead Transmission Lines".

## **Positions Held**

Jan. 1993 to present:

With the Electrical Engineering Department, Faculty of Engineering, Assiut University, Assiut, Egypt. As Full Professor.

2016 to 2018:

With Higher Institute of Engineering and Technology, Luxor, Egypt as Full Professor and Faculty Dean.

2006 to 2012:

With the Electrical Engineering Department, Faculty of Engineering, Taif University, Al-Taif, Saudi Arabia. As Full Professor.

2006 to 2009:

With the Electrical Engineering Department, Faculty of Engineering, Taif University, Al-Taif, Saudi Arabia as Full Professor and Department Head.

2006 to 2008:

With the Faculty of Engineering, Taif University, Al-Taif, Saudi Arabia as Full Professor and Faculty Dean.

Jan. 1993 to present:

With the Electrical Engineering Department, Faculty of Engineering, Assiut University, Assiut, Egypt. As Full Professor.

Nov. 1990 to Dec. 1992:

With the Electrical Engineering Department, Faculty of Engineering, Assiut University, Assiut, Egypt, as Associate professor.

Sept. 1988. To Nov. 1990:

With Technical University Hamburg-Harburg, Germany as a visiting research fellow and as Alexander Von Humboldt Foundation fellow.

Sept. 1986 to Aug. 1988:

With the Electrical Engineering Department, Faculty of Engineering, Assiut University, Assiut, Egypt, as Associate professor.

Jun 1985 to Aug. 1986:

With the Electrical Engineering Department, Faculty of Engineering, Assiut University, Assiut, Egypt, as Assistant professor.

Jun 1984 to May 1985:

With General Electric Company, High Voltage Transmission Research Facility, Pittsfield, Mass., USA, as a visiting research fellow.

Dec. 1982 to May 1984:

With the Electrical Engineering Department, Faculty of Engineering, Assiut University, Assiut, Egypt, as Assistant professor.

June 1978 to Dec. 1982:

With the Electrical Engineering Department, Faculty of Engineering, Assiut University, Assiut, Egypt, as Lecturer.

Oct. 1975 to May 1978:

With the Electrical Engineering Department, Faculty of Engineering, Assiut University, Assiut, Egypt, as Assistant Lecturer and Research assistant..

## Honors and Awards

- 1971-1975 Assiut University Study prize, Egypt.
- 1975-1978 Assiut University Award (for academic excellence), Egypt.
- 1978-1982 Assiut University Scholarship, Egypt.
- 1984-1985 Assiut University Award, Egypt for postdoctoral at General Electric Company, USA.
- 1988-1990 Alexander von Humbolt Foundation Award, Germany.

- 2001-2002 The excellence prize of research from Assiut University in 2002.
- 2001-2002 The excellence prize of research from Faculty of Engineering, Assiut University in 2002.

### **Professional Membership**

- Senior Member, Institute of Electrical & Electronics Engineers (SMIEEE).
- Member, Alexander von Humbolt Foundation, Germany.
- The Egyptian Engineering Syndicate, Cairo, Egypt.
- Member, Journal of Electrostatics Reviewer, USA.
- Member, IET Reviewer, UK.

### **University, College and Department Selected Committees**

- Chairman of College Board, Higher Institute of Engineering and Technology, Luxor, Egypt.
- Chairman of Engineering College Board, Taif University, Saudi Arabia.
- University President Consultant, Taif University, Saudi Arabia.
- University Consultation Committee, Taif University, Saudi Arabia.
- Chairman of Engineering College Programs Committee, Taif University, Saudi Arabia.
- Laboratory Supervision and Development Committee.
- Graduate Admission Committee.
- Departmental Services Committee.
- Student Advising Committee.
- Faculty Library Committee.
- Curriculum Committee.
- Faculty Student Affairs Committee.
- Faculty Research Committee.

- University Receipt Building Committee.
- University Future Education Planning Committee.
- Chairman of Engineering Laboratory Board for creation and design, Taif University, Saudi Arabia.

## Publications

- ✓ **Published about eighty-five research papers in international scientific conferences and journals.**
  - ✓ **جوجل سكولار Google Scholar:**  
<https://scholar.google.com/citations?user=bcqqpsYAAAAJ&hl=en>
  - ✓ **Researchgate**  
[https://www.researchgate.net/profile/Salah\\_Abdel-Sattar2](https://www.researchgate.net/profile/Salah_Abdel-Sattar2)
1. M. K. El-Sherbiny, M. Abdel-Salam and S. Abdel-Sattar, "Digital Study Heat Flow Closely Spaced Underground Power Transmission Cables Using Simulation Technique", IEEE PES paper No. A- 78553-0, 1978 (Scopus Paper).
  2. S. Abdel-Sattar, "Thermal Characteristics of Cables Under Different Loading Conditions", M. Sc. Thesis, Assiut University, Assiut, Egypt, 1978.
  3. M. Abdel-Salam and S. Abdel-Sattar, Discussion on paper No. 80 SM 712- 0, IEEE Trans., Vol. PAS-100, P.2090,1981.
  4. M. Abdel-Salam, M. Farghally and S. Abdel-Sattar, Discussion on paper No. 82 WM 1985-6, IEEE Trans., Vol. PAS-101, p. 4047, 1982.
  5. S. Abdel-Sattar, "Environmental Impact of HVDC Transmission Lines", ph. D. Thesis, , Assiut University, Assiut, Egypt, 1982.
  6. M. Abdel-Salam, M. Farghally and S. Abdel-Sattar, "Monopolar Corona on Bundle Conductors", IEEE Transactions on Power Apparatus and Systems, PAS-101 (10), pp. 4079-4089, 1982 (Scopus Paper).
  7. M. Abdel-Salam, M. Farghally and S. Abdel-Sattar, "Monopolar Corona on Bundle Conductors", IEEE Power Engineering Review, PER-2 (10), pp. 59-60, 1982 (Scopus Paper).
  8. M. Abdel-Salam, M. Farghally and S. Abdel-Sattar, "DC Corona Discharge on Monoplar Bundle wires", Acta physica Hungarica, 54 (3-4), pp. 313-331, 1983 (Scopus Paper).
  9. M. Abdel-Salam, M. Farghally and S. Abdel-Sattar, "Finite Element Solution of Monopolar Corona Equations", EEEE

- Transaction on Electrical Insulation, vol. EI-18 (2), pp. 110-119, 1983 (Scopus Paper).
10. M. Abdel-Salam, M. Farghally and S. Abdel-Sattar, "Corona on Bundle Conductors of Bipolar Transmission Lines", Jordan International Electrical and Electronic Engineering Conference, Amman, Jordan, pp. 135-145, April 25-28, 1983.
  11. M. Abdel-Salam, M. Farghally and S. Abdel-Sattar, "On the Environmental Impact of HVDC Transmission Lines", Jordan International Electrical and Electronic Engineering Conference, Amman, Jordan, pp. 150-154, April 25-28, 1983.
  12. M. Farghally and S. Abdel-Sattar, "Losses Charts for Determination of Power Transformer Energy Losses", paper No. 13-6, presented at the 19 Th University Power Engineering Conference, University of Dundee, United Kingdom, April 10-12, 1984.
  13. G. Girgis and S. Abdel-Sattar, "Transient Behavior and Design for On-Load Tap Changing Transformer Loaded with Capacitive and Inductive Loads", paper No. 10-2, presented at the 19 Th University Power Engineering Conference, University of Dundee, United Kingdom, April 10-12, 1984.
  14. M. Abdel-Salam, M. Farghally, S. Abdel-Sattar, and D. Shamloul, "Analysis of Ac Corona Power Loss for Single phase Transmission Lines", proceeding of the Fourth International Symposium on Gaseous Dielectrics, Knoxville, Tennessee, USA, pp. 492-497, April, 29 to May 3, 1984 (Scopus Paper).
  15. M. Abdel-Salam, and S. Abdel-Sattar, "Negative Corona Inception as Influenced by Steepness of the Applied Impulse Waves", Proceeding of the Fourth International Symposium on Gaseous Dielectrics, Knoxville, Tennessee, USA, pp. 370-375, April 29 to May 3, 1984 (Scopus Paper).
  16. M. Abdel-Salam, S. Abdel-Sattar, H. Abdellah and M. Farghally "Corona on Thin wires as Influenced by wind", Conference Record of IEEE International Symposium on Electrical Insulation, pp. 243-246 (Conference of the 1984 International Symposium Electrical Insulation, Montreal Canada, pp. 243-246, June 12-13), 1984 (Scopus Paper).
  17. S. Abdel-Sattar, and M. Abdel-Salam, "Corona Current form a Needle as Influenced by Transverse Wind", Proceedings of the International AMSE Conference (Modeling and Simulation). Athens, Greece, Vol. 2. 1, pp. 109-117, June 27-29, 1984.
  18. S. Abdel-Sattar, "Effect of Wind on Corona Current Over the Ground Plane Underneath Monopolar System with Bundle Wires", Proceedings of the International AMSE Conference (Modeling and

- Simulation). Athens, Greece, Vol. 2. 1, pp. 93-102, June 27-29, 1984.
19. M. K. El-Sherbiny, M. Farghally S. Abdel-Sattar, and G. Girgis, "An Accurate Calculation and Method of Prediction of Energy Losses of Power Transformer Along its Lift Time", proceeding of the IEEE International Conference (LATINCON 84), pp. 188-192, Mexico city July 9-13, 1984.
  20. M. K. El-Sherbiny, M. Farghally S. Abdel-Sattar, and G. Girgis, "An Accurate Calculation and Method of Prediction of Energy Losses of Power Transformer Along its Lift Time", Modelling, Measurement and Control A, 5(1), pp. 17-29, 1985 (Scopus Paper).
  21. S. Abdel-Sattar, M. K. El-Sherbiny, and M. Abdel-Salam, " Effect of Environment and Geometry on Maximum Current Carrying Capacity and Method of Improving", Proceeding of the IEEE International Conference (LATINCON 84), pp. 215-218, Mexico city July 9-13, 1984.
  22. S. Abdel-Sattar, "Induced Currents and Voltage of Isolated Objects Underneath HVDC Transmission Lines with Bundle Conductors", Proceeding of the IEEE International Conference (LATINCON 84), pp. 117-120, Mexico city July 9-13, 1984.
  23. S. Abdel-Sattar, "Monopolar Corona on Bundle Wires as Influenced by Wind", The IEEE/IAS Annual Meeting (Industry Applications Society), pp. 986-991, Chicago, 11 Iinois, USA, Sept. 30 to Oct. 4, 1984 (Scopus Paper).
  24. S. Abdel-Sattar, "Effect of Geometric Parameters on the Corona Profiles Underneath Vertical Bipolar HVDC Line with Bundle Conductors", Jordan International Electrical and Electronic Engineering Conference, Amman, Jordan, pp. 365-371, April 28 to May 1985.
  25. M. Abdel-Salam, S. Abdel-Sattar, "Optimization HVDC Transmission Line Geometries by Minimizing their Corona Profiles at Ground Surface", Proceedings of the Seventeenth Annual Midwest Power Symposium, IEEE Power Engineering Society, Houghton, USA, Oct. 3-4,1985.
  26. S. Abdel-Sattar, "Corona Current and Field Profile Underneath Vertical Bipolar HVDC Lines with Bundle Conductors", IEEE Transactions on Electrical Insulation, EI-21(2), pp. 197-204, 1986 (Scopus Paper).
  27. S. Abdel-Sattar, "Numerical Method to Calculate Corona Profiles at Ground Level and Underneath Monopolar Lines as Influenced by Wind", IEEE Transactions on Electrical Insulation, EI-21(2), pp. 205-211, 1986 (Scopus Paper).

28. S. Abdel-Sattar, and A. A. Ibrahim, "On the Wire-Duct Electrostatic Precipitator", The EEEE/IAS Annual Conference, Denever, Colorado, USA, (Cat. No.86CH2272-3), pp. 1113-1118, Sept. 28 to Oct. 3, 1986 (Scopus Paper).
29. S. Abdel-Sattar, and A. A. Ibrahim, "Wire-Duct Electrostatic Precipitator Efficiency (Effect of Geometrical Parameters)", Modelling, Measurement and Control A, 15(1), pp. 17-27, 1988 (Scopus Paper).
30. A. Ibrahim, and S. Abdel-Sattar, "Positive Corona Pulse Repetition Rate on Bundle Wires", Modelling, Measurement and Control A, 14(4), pp. 7-15, 1987 (Scopus Paper).
31. S. Abdel-Sattar, "Monopolar Corona on Bundle Wires as Influenced by Wind", IEEE Transactions on Industry Applications, IA-23(6), pp. 984-989, 1987 (Scopus Paper).
32. M. Abdel-Salam, H. Abdellh S. Abdel-Sattar, and M. Farghally "Positive Corona in Point-Plane Gaps as Influenced by Wind", IEEE Transactions on Electrical Insulation, Vol. EI-22, No. 6, pp. 775-786, 1987 (Scopus Paper).
33. S. Abdel-Sattar, "Ions Trajectory Lines Emanating form or Terminating to HVDC Transmission Lines with Bundle Conductors", Modelling, Measurement and Control A, 18(3), pp. 45-54, 1988 (Scopus Paper).
34. S. Abdel-Sattar, and H. Singer, "Fast Estimation of the Electrical Profiles at Ground Surface and Underneath HVDC Lines", AMSE periodicals, Modeling, Simulation and Control, A. Vol. 30, No. 3, pp. 19-31, 1990.
35. M. Farghally, and S. Abdel-Sattar, "Losses Charts for Determination of Power Transformer Energy Losses", AMSE periodicals, Modeling, Simulation and Control, A. Vol. 30, No. 2, pp. 55-63, 1990.
36. M. Abdel-Salam, S. Abdel-Sattar, "Calculation of Corona V-I Characteristics of Monopolar Bundles Using the Charge Simulation Method", IEEE Trans. On Electrical Insulation, Vol. EI-24, No. 4. pp.669-679, 1989 (Scopus Paper).
37. S. Abdel-Sattar, "Induced Currents and Voltages of Isolated Object Underneath HVDC Transmission Lines with Bundle Conductors", AMSE periodicals, Modeling, Simulation and Control, A. Vol. 30, No. 3, pp. 33-44, 1990.
38. S. Abdel-Sattar, "Influence of Geometrical Parameters Upon Electrostatic Precipitator Efficiency", COMPEL - The international journal for computation and mathematics in electrical and electronic engineering, 10(1), pp. 27-43 (Scopus Paper).



39. A. Ibrahim, and S. Abdel-Sattar, "Electric Field Calculation on Six phase Overhead Transmission Lines", *Modelling, Measurement and Control A*, 24 (4), pp. 31-38, 1989 (Scopus Paper).
40. S. Abdel-Sattar, and G. Girges, "Transient Behavior and Design for On-Load Tap Transformer Loaded with Capacitive and Inductive Loads", *Modeling, Simulation, and Control, A*. Vol. 32, No. 3, pp. 37-50, 1991.
41. S. Abdel-Sattar, and H. Singer, "Saturated Corona Profiles at Ground Surface and Underneath HVDC Lines", *IEEE Trans., on Electrical Insulation*, Vol. EI-25 No.6, pp. 1138-1144, 1990 (Scopus Paper).
42. S. Abdel-Sattar, and H. Singer, "Electrical Condition in Wire-Duct Electrostatic Precipitators", *Journal of Electrostatics*, 26 (1), pp. 1-20, 1991 (Scopus Paper).
43. S. Abdel-Sattar, "An Estimation of the Wire-Duct Electrostatic Precipitator Efficiency", *Journal of Electrostatics*, 26 (2), pp. 99-114, 1991 (Scopus Paper).
44. S. Abdel-Sattar, "On the Saturated Corona profiles at Ground Surface Underneath HVDC Lines", *Acta Physica Hungarica, Hungary*, Vol. 67, No. 3-4, pp. 401-405, 1990 (Scopus Paper).
45. S. Abdel-Sattar, and H. Singer, "Simple and Fast Method for Calculating Saturated Monopolar Corona profiles Underneath HVDC Lines", *proceeding of the International AMSE Conference (Signals & Systems), CETINJE, Montenegro, Yugoslavia, Sept. 3-5, 1990 Vol. 1*, pp. 223-237.
46. K. G. Mahmoud and S. Abdel-Sattar, " Finite Element Thermal Analysis of Closely Spaced Underground Power Cables", *Proceedings of the Fifth European Conference on Mathematics in Industry, 1991. (WEB OF SCIENCE)*.
47. S. Abdel-Sattar, "Electrical Characteristics of Duct Electrostatic Precipitators as Influenced by Bundled Discharge Electrodes", *COMPEL- The international journal for computation and mathematics in electrical and electronic engineering*, 10(3), pp. 153-177, 1991 (Scopus Paper).
48. S. Abdallah and S. Abdel-Sattar, "Effect of the Cross Magnetizing Phenomenon on the Transient performance of a Saturated Synchronous Machine under Three-phase Short Circuited", *Bulletin of the Faculty of Engineering, Assiut University, Assiut, Egypt*, Vol. 20, pt. 2, pp.41-50, 1992.
49. S. Abdallah and S. Abdel-Sattar, "Effect of the cross-magnetizing phenomenon on the transient performance of a saturated synchronous machine under three-phase short circuited",

- Modelling, Measurement, and Control A, 53 (3), PP. 41-54, 1993 (Scopus Paper).
50. S. Abdel-Sattar, and K. G. Mahmoud, "Temperature Distribution Around HV Power Cables as Influenced by Different Parameters Using Finite Elements Method", Bulletin. of the Faculty of Engineering, Assiut University, Assiut, Egypt, Vol. 20, pt. 2, pp.5967, 1992.
  51. M. Abdel-Salam, S. Abdel-Sattar, A. A. Ibrahim and M. AbdelAzim "Successive Imaging Technique for Field Distribution Around Conductors Above a Two-Layer Earth", IEEE-IAS 33 Annual Meeting '98, St. Louis, Missouri, USA, Vol. 3, pp. 1998-2004, October 1998 (Scopus Paper).
  52. S. Abdallah, S. Abdel-Sattar, and M. Abdel-Salam "Human Body Exposure to Electric and Magnetic Fields Radiated from TVs and PCs", Presented at the Middle East Power System Conference MEPCON 2000 , March 7-9, 2000, Cairo, Egypt.
  53. S. Abdel-Sattar, M. Abdel-Salam and A. S. Abdallah, "Extremely Low Frequency Electromagnetic Fields in Buildings Near HV Transmission Lines", ICEL 2000 International Conference on Electrotechnics University of Sciences and Technology of Oran U.S.T. Oran, Algeria, Nov. 13-15, 2000.
  54. M. Abdel-Salam and S. Abdel-Sattar, Y. Sayed and M. Ghaly, "Early Detection of Weak Points in MEEC Distribution System", Conference Record - IAS Annual Meeting (IEEE Industry Applications Society), 4, pp. 2541-2545 (Scopus Paper).
  55. M. Abdel-Salam, S. Abdel-Sattar, A. A. Ibrahim and M. AbdelAzim "Magnetic Field Distribution Around a Current-Carrying Conductor Above a Two-Layer Ground", Electric Power Systems Research, Vol. 58, No. 3, pp. 197-203, July 2001 (Scopus Paper).
  56. S. Abdel-Sattar, "Power Frequency Electromagnetic Pollution (Review Paper)", Presented at the International Conference for Development and the Environment in the Arab World, Assiut University, Assiut, Egypt, March 26-28, 2002.
  57. A. S. Abdel-Sattar أ. د. صلاح الدين عبد الستار محمد " الزحف العمراني والتلوث الكهرومغناطيسي بالمباني لقريبة من خطوط الجهد العالي بمدينة أسبوط بجمهورية مصر العربية" مجلة 2001, 21-1, صفحات 2001 يوليو 21 أسبوط للدراسات البيئية, العدد
  58. A. M. Abdel-Salam, S. Abdel-Sattar, A. A. Ibrahim and M. AbdelAzim, "Successive Imaging Technique for Field Distribution Around Conductors Above a Two-Layer Earth", Electric Power Components and Systems, Vol. 30, No. 7, pp. 723-739, July 2002 (Scopus Paper).

59. A S. Abdel-Sattar "التوسع العمراني والتلوث الكهرومغناطيسي في المباني" ندوة التأثيرات البيولوجية للموجات الكهرومغناطيسية - كلية العلوم - 2002 جامعة أسيوط - أسيوط - مصر - أبريل
60. A M. Abdel-Salam and S. Abdel-Sattar, Y. Sayed and M. Ghaly, "Early Detection of Weak Points in MEEC Electrical Power Network", Presented at the 17th International Conference on Electricity Distribution, (CIRED), Barcelona, 12-15 May 2003.
61. S. Abdel-Sattar "التلوث المحمول والتلوث الكهرومغناطيسي" مجلة أسيوط 58 للدراسات البيئية - العدد الخامس والعشرون - جامعة أسيوط - أسيوط - مصر - يوليو 2003 صفحات 89 - 120
62. S. Abdel-Sattar, "Indoor Electromagnetic Pollution", Presented at the Second International Conference for Development and the Environment in the Arab World, Assiut University, Assiut, Egypt, March 23-25, 2004.
63. M. Abdel-Salam, Y. M. Y. Hasan, M. Sayed, S. Abdel-Sattar, "Partial Discharge Classification Through Wavelet Packets of Their Modulated Ultrasonic Emission", Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics), 3177, pp. 540-545, Presented at the Fifth International Conference on Intelligent Data Engineering and Automated Learning (IDEAL 04), Exeter, UK, August 25-27, 2004 (Scopus Paper).
64. M. Abdel-Salam, Y. Hasan, M. Sayed, S. Abdel-Sattar, "Neural Networks Recognition of Weak Points in Power Systems Based on Wavelet Features", IEE Conference Publication, 1(2005-11034), pp. 591-595 (Scopus Paper).
65. M. Abdel-Salam, S. Abdel-Sattar, A. S. Abdallah, and A. Al-Shakiri, "Corona in Point – Plane Gaps as Influenced by a Surrounding Dielectric Enclosure", Presented at the Middle East Power System Conference MEPCON 2005 , Dec. 7-9, 2005, Port said, Egypt.
66. M. Abdel-Salam, S. Abdel-Sattar, A. S. Abdallah and H. Ali, " Symmetrical Component Analysis of Multi-Pulse Converter Systems ", Electric Power Components and Systems, Volume 34, Number 8, pp. 867-888, 2006 (Scopus Paper).
67. S. Abdel-Sattar, " On the Mitigation of Electromagnetic Pollution in Buildings ", Presented at the International Conference for Development and the Environment in the Arab World, Assiut University, Assiut, Egypt, March 21-23, 2006.
68. M. Abdel-Salam, S. Abdel-Sattar, A. Sayed, H. Ali, "Digital Symmetrical Analysis of AC/DC Interactions and Harmonic Mitigations for Multi-pulse Converter Systems", Electric Power

Components and Systems, Volume 35 (3), pp. 299–318, 2007 (Scopus Paper).

69. S. Abdel-Sattar,  
أ. د. صلاح الدين عبد الستار محمد "نحو بحث علمي لعصر العلم والتكنولوجيا (رؤية ميدانية)",  
المؤتمر الثاني لتخطيط وتطوير التعليم والبحث العلمي في الدول العربية , جامعة الملك فهد  
للبيترول والمعادن , السعودية , 2008.
70. S. Abdel-Sattar, "Electromagnetic Pollution and its Mitigation",  
The 2nd Symposium on Environmental Pollutants: Analysis and  
Control, Madinah Muunawarah Municipality and Taibah  
University, April 2009.
71. S. Abdel-Sattar, "Our Use of Electric Power Could be Injurious to  
our Health", The Conference of Topic in Electrical Circuits and  
System, Power systems as conference scope of the 5th Congress of  
Scientific Research Outlook & Technology Development in the  
Arab World (SRO5), Moroko, 2008.
72. S. Abdel-Sattar and Kamel A. Shoush, " review of modern references to  
resolve the issue of electrical energy use impact on electromagnetic  
pollution around us", Al-Azhar Engineering tenth International  
Conference, 24-26 Dec. 2008, Al-Azhar University, Egypt.
73. S. Abdel-Sattar et. al. "Effect of magnetic field on the friction and wear  
caused by the scratch of high density polyethylene", 7<sup>th</sup> International  
Engineering Conference, 23-28 March 2010, Mansoura University,  
Egypt..
74. S. Abdel-Sattar, "Human Exposure to Electromagnetic Fields Radiated  
from High Voltage Transmission Lines", Paper no. 101402, The Fifth  
Libyan Arab International Conference on Electrical and Electronic  
Engineering (LAICEEE), Oct. 23 – 26 2010, Tripoli, Libya, 2010.
75. S. Abdel-Sattar, et al., " The Quality of Engineering Education to Meet  
the Requirements of the Labor market as Perceived by Graduates جودة  
التعليم الهندسي لتلبية متطلبات سوق العمل كما يراها الخريجون  
Journal of Alamelgawda, Electronic Journal, Egypt, No. 3, 2011.
76. S. Abdel-Sattar, " Engineering Education and Labor Market  
Requirements متطلبات سوق العمل ", Paper No. 1156, The 2nd  
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77. S. Abdel-Sattar, " Codify the Values of Magnetic Fields near Sources of  
Electromagnetic Pollution تقنين قيم المجالات المغناطيسية بالقرب من مصادر التلوث  
الكهرومغناطيسي ", Paper No. 1156, The 2nd International Engineering  
Sciences Conference (IESC2011), May 24-26, 2011, Aleppo, Syria,  
2011.
78. S. Abdel-Sattar, et al., " Human Exposure to Electromagnetic Fields  
Emitted from the Transmission Line with a High Voltage تعرض الإنسان

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79. Abdel-Sattar S., Alahmady A. and Ali W. Y., "Effect of Magnetic Field on Friction Coefficient Displayed by Rolling Bearings", Journal of the Egyptian Society of Tribology (EGTRIB Journal), Volume 8, No. 3, July 2011, 27-39.
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83. Shoush K. A., Ali W. Y., Abdel-Sattar S. and El-Lithy F. M., "Influence of Magnetic Field on the Friction and Wear Caused by the Scratch of Oil Lubricated High Density Polyethylene", Journal of the Egyptian Society of Tribology (EGTRIB Journal), Volume 9, No. 2, April 2012, 1-14.
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86. Sherif Salama, Salah AbdelSattar and Kamel O. Shoush, " Comparing Charge and Current Simulation Method with Boundary Element Method for Grounding System Calculations in Case of Multi-Layer Soil", International Journal of Electrical & Computer Sciences IJECS-IJENS Vol:12 No:04, 17-24, 2012.
87. Mohamed, M K; Alahmady, A; Ali, W Y; Abdel-Sattar, S " Effect of magnetic field on the friction and wear displayed by the scratch of oil lubricated steel", INT J ENG TECHNOL, Vol. 12, pp. 137-143, 2012. (Cited).

88. S. Abdel-Sattar, " Engineering education and the job market as seen by graduates "التعليم الهندسي وسوق العمل كما يراه الخريجون", First International Conference on Engineering education: Present and Future, Assiut University, Assiut, Egypt, 29 Sept. – 1 Oct., 2020.
89. S. Abdel-Sattar, " Extremely Low Frequency Electromagnetic Fields in Egyptian Buildings Near High Voltage Transmission Lines" 2nd International Symposium of Scientific Research and Innovative Studies, (ISSRIS'22), Bandırma Onyedi Eylül University, Turkey, 2-5 March 2022.
90. S. Abdel-Sattar, "On the Building Shielding from Outside Power Frequency Electromagnetic Fields", Will be Published.
91. S. Abdel-Sattar, "Indoor Electromagnetic Pollution", Part 2, Will be Published.
92. S. Abdel-Sattar, "On the Mitigation of Electromagnetic Pollution in Buildings ", Will be Published.

### Basic Research

- Conducted research on corona power loss associated with bundled transmission lines in fair and rainy conditions.
- Conducted research on power loss associated with transmission lines and load management.
- Conducted research on high voltage Engineering.
- Conducted research on dielectric materials.
- Conducted research on electromagnetic pollution
- Conducted research on air pollution control by electrostatic precipitators.

### Referee Activities

Reviewed many technical papers related to the fields of high voltage engineering, dielectric materials, and electrical power systems. Reviewed articles for:

- International and national Conferences and Meetings.
- Arabian Journal for Science & Engineering.
- Journal of Electrostatics, USA.
- The Institute of Engineering and Technology Generation, Transmission and Distribution, UK.

- European Transmissions on Electrical Power (ETEP), John Willy.
- Micro & Nano Letters from the Institution of Engineering and Technology (IET).
- The Kuwait Journal of Science and Engineering, Kuwait.
- International Journal of Control, Automation and Systems (IJCAS).
- الإدارة العامة لمنح البحوث, مدينة الملك عبد العزيز للعلوم والتقنية, السعودية
- معهد البحوث العلمية, جامعة أم القرى, وزارة التعليم العالي, السعودية

## M. Sc. Thesis Supervision

Some of M. Sc. Thesis, Assiut University, Egypt.

## Ph. D. Thesis Supervision

Some of Ph. D. Thesis, Assiut University, Egypt.

## Short Courses Activities

Main lecturer in the following short courses:

- Performance of High Voltage Insulators.
- Dielectric Materials.
- Power System Protection.
- Power System Operation.
- High Voltage Engineering on Power Systems.
- Power system substations.

- Power System Electromagnetic Fields.
- Electric Circuits.
- Power System Analysis.
- Electrostatic Precipitations.

## FUNDED PROJECTS

- Finite Element Computation of Corona Power Loss on Bundled Bipolar Transmission Lines, Assiut University, Egypt.
- Management of Cement Dust Generated at Assiut Cement Factory, Egypt.
- Study of Heat Transfer in Underground High Voltage Cables.
- Feasibility Study for Establishing an Electrical Testing Laboratory.
- Environmental Effects on Dielectric Insulators Properties, Egypt Electricity Company.
- Electromagnetic Pollution Around Us, Taif University, Saudi Arabia.
- Effect of Work Market on the Engineering Education Programs, Taif University, Saudi Arabia .
- Friction and Wear of Materials under the Effect of Magnetic Field, Taif University, Saudi Arabia .
- Effect of Variable Magnetic Field on the Friction of Rolling Bearings lubricated by oils filled by metallic and polymeric powders, Taif University, Saudi Arabia .
- Investigation the Performance of Grounding Systems in Two Layered of Soil, Taif University, Saudi Arabia .
- Design of the Plan study and the Study Program of the Proposed Biomedical Engineering Department, Taif University, Saudi Arabia .
- Design of the Plan studies and the Study Programs of the Undergraduate studies, Faculty of Engineering, Taif University, Saudi Arabia .
- Design of the Plan study and the Study Program of the Proposed Biomedical Engineering Department, Taif University, Saudi Arabia .



- Participate in the Design Labs and Workshops of Faculty of Engineering and the Electrical Engineering Department and Supervise its Inception, Taif University, Saudi Arabia .

## Courses Teaching

- Electric Circuits.
- Electric Energy Engineering.
- Electric Machines .
- Power Transmission .
- High Voltage Engineering .
- Power System Protection .
- Power Systems Planning .
- High Voltage Engineering .
- Power System Operation and Control .
- Performance of High Voltage Insulating Materials.
- Dielectric Materials.
- Power system substations.
- Power System Electromagnetic Fields.
- Power System Analysis.
- Electrostatic Precipitations.

## B. Sc. Degree Projects Supervised by

- Design and optimization of solar pump system for irrigation in Egypt (2021).
- Measurement of corona power loss for bundled transmission lines under rainy conditions (1982).
- Measurement of HVDC corona power loss under rain.
- Measurement of corona power loss in HVDC transmission lines under rainy conditions.
- Design and construction of a measuring device for the measurement of corona current in HVDC transmission line conductors.

- Measurement of corona power loss around bundled high voltage direct current transmission lines.
- Study of losses of Assiut power station tapped transformer and its minimization.
- Monopolar corona on HVDC bundle wires.
- Study of electric power systems in Egypt and Jordan.
- Design of power transformer.
- Electrification of an Egyptian city.
- Electrification of an Industrial zone.
- Electric and magnetic fields underneath high voltage transmission line.
- Indoor and outdoor measurements of power frequency fields and high frequency radiations.
- Performance of power systems as influenced by static var compensators.
- Optimum shunt capacitor location and size enlargement of power distribution feeders.
- Detection and Discrimination of Weak Points in Power Systems Using Ultra probe 2000.
- Design and Implementation of Field Meter.
- Design and Construction of Magnetic Field Meter with a Digital Display. Assiut University Electrical Power Distribution Network.
- Study of Assiut Western Distribution Network.

## **Conferences, Workshops and Symposiums Attended or Participated**

- IEEE PES Summer Meeting, Los Angeles, CA, USA, July 16-21, 1978.
- IEEE PES winter Meeting, New York, New York, USA, Jan. 3 1 -Feb. 5, 1982.
- Jordan International Electrical. And Electronic Engineering conference, Amman, Jordan, April 25-28, 1983.
- Second Symposium on power Generation and Networks, Assiut University, Faculty of Engineering, Assiut, Egypt, Jan. 11-13, 1983.

- The 19 The University power Engineering conference, University of Dundee, United kingdom, April 10-12, 1984.
- The Fourth International Symposium on Gaseous Dielectrics, Knoxville, Tennessee, USA, April 29 to May 3, 1984.
- The 1984 International, Symposium on Electrical Insulation, Montreal, Canada, June 11-13, 1984.
- International AMSE Conference, Athens Greece, June 27-29, 1984.
- IEEE International Conference (LATINCON), Mexico city, Mexico July, 9-13, 1984.
- The IEEE/IAS Annual Conference, Chicago, 11 I inols, USA, Sept. 30 to Oct. 4, 1984.
- Jordan International Electrical and Electronic Engineering Conference, Amman, Jordan, April 28 to May 1, 1985.
- The IEEE Seventeenth Annual Midwest power Symposium, Michigan, USA, Oct. 3-4,1985.
- General Electric Company Seminar, Pitsfild, Mass., USA, 1985.
- The IEEE/IAS Annual Conference, Denver, Colorade, USA, Sept. 28 to Oct. 3, 1986.
- Alexander von Humboldt Foundation Annual Meeting, Bonn, Germany, 1989.
- International AMSE Conference, Cetinje, Montenegro, Yugoslavia, Sept. 3-5, 1990.
- The Fifth Annual Conference of the European Consortium for Mathematics in Industry (ECMI 90), Lahti,. Finland, June 6-9, 1990.
- Alexander von Humboldt Foundation Annual Meeting, Bonn, Germany, 1990.
- Middle East Power System Conference (MEPCON 92), Assiut, Egypt, Jan. 6-9, 1992, (As Conference Organizer).
- EEEE/IAS Conference, Saint Louis, MO, USA, Oct. 12-15, 1998.
- Middle East Power System Conference (MEPCON 2000), Cairo, Egypt, March 2000,

- Second International Conference on Electrotechnics (ICEL'2000), Oran, Algeria, November 13-15, 2000.
- The International Conference for Development and the Environment in the Arab World, Assiut University, Assiut, Egypt, March 26-28, 2002.
- The Second International Conference for Development and the Environment in the Arab World, Assiut University, Assiut, Egypt, March 23-25, 2004.
- Middle East Power System Conference (MEPCON 2005), Port Said, Egypt, Dec. 12-15, 2005.
- The International Conference for Development and the Environment in the Arab World, Assiut University, Assiut, Egypt, March 21-23, 2006.
- Workshop on Research Management Training, SRI International, Saudi Society for Technology Development and Transfer, Dmam, Saudi Arabia, December. 10-12, 2007.
- The Second Conference on Planning and Development of Education and Scientific Research in the Arab States "Towards Building a Knowledge Society", King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia, Feb. 24-27, 2008.
- Workshop on Leadership in Scientific Research, King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia, Feb. 24, 2008.
- Workshop on Entrepreneurship, Marketing, Business model and Start-up, King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia, Feb. 24, 2008.
- Workshop on Research Management in the Modern University, King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia, Feb. 23, 2008.
- 1st International Conference on Engineering Education: Present and Future, Assiut, Egypt, 29 Sept. 2020.
- The 22nd International Middle East Power System Conference (MEPCON 2021), Assiut, Egypt, Dec. 14-16, 2021.
- The 2nd International Symposium of Scientific Research and Innovative Studies, (ISSRIS'22), Bandırma Onyedi Eylül University, Turkey, 2-5 March 2022.

- 11<sup>th</sup> International Conference for Development and Environment in the Arab World (Challenges and Solutions), 20-22, February, 2022, Assiut.