



Faculty Name

Kandil M. Kandil

Location

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Education

PhD.	Optoelectronics of Semiconductors, Paris VI Univ., France & Ain Shams Univ., Egypt	1992
MSc.	Physics of Semiconductors, Ain Shams Univ., Egypt	1985
BSc.	Physics, Ain Shams Univ., Egypt	1979

Academic Experience

1999 – Present	Associate Professor, CTS (PAAET), Kuwait
1993 – 1998	Assistant Professor, Ain Shams Univ., Egypt
1990 – 1992	Honorary PhD Research in Paris IV Univ., France
1986 – 1990	Teaching & Research Assistant, Ain Shams Univ., Egypt
1981 – 1985	Administrator & Research Assistant, Ain Shams Univ., Egypt

Current Membership

- Member of the Institute of Physics (IOP)
- Member of the American Physical Society (APS)

Service Activities

- Reviewer in the International Journal of Materials Engineering Innovation, (2013 – present)
- Departmental Committee Memberships:
 - Finance Support Committee (2008 – Present)
 - Lab. Development Committee (2010 – Present)
 - Head of Research Committee (2025/2026)

Conferences

1. First Arab Conference On “Materials Science”. Irbid - Jordan 1985.
2. Fourteenth International Conference on “Amorphous Semiconductors-Science and Technology”, Garmisch-Partenkirchen, Federal Republic of Germany 19–23 August 1991.
3. Fifteenth International Conference on “Amorphous Semiconductors-Science and Technology”, December 1993, Cambridge, UK
4. Ninth International Conference on “Liquid and Amorphous Metals “ October 1996, Los Angeles, USA
5. Fourth International Conference for “Solar Energy and photochemistry”, Cairo Egypt 1997,
6. Kuwait International Nanotechnology Conference and Exhibition (9-11 Feb.) 2016, Kuwait University, Kuwait 2016.
7. Heading Global Nov. 14-16, 2016, Public Authority for Applied Education and Training (PAAET), Kuwait 2016.
8. International Conference on Renewable Energy and Energy Conversion Devices (ICREECD-24), 9th - 10th August 2024 Las Vegas, USA

Publications

9. IEEE the 14th International Conference on Smart Energy Grid Engineering (SEGE 2026)
1. M. F. Kotkata & K. M. Kandil, “ **Study of the Electrical conductivity of Amorphous – Crystalline Selenium Mixtures**”, Mater. Sci. Eng. 95 (1987) 287.
2. P.H. Fang, M.F. Kotkata, K.M. Kandil. ‘**Analysis of an electrical conductivity formula for an amorphous-crystalline selenium mixture**’, Journal of Non-Crystalline Solids Volume 89, Issues 1–2, January 1987, Pages 107–109
3. M.L. Theye, M.F. Kotkata, K.M. Kandil, A. Gheorghiu, C. Senemaud³, J. Dixmier⁴, F. Pradal⁵. ‘**Studies of evaporated amorphous GeSe₂ films as a function of annealing**’, Journal of Non-Crystalline Solids, Volumes 137–138, Part 2, 1991, Pages 963–966.
[https://doi.org/10.1016/S0022-3093\(05\)80281-9](https://doi.org/10.1016/S0022-3093(05)80281-9)
4. M.F. Kotkata, K.M. Kandil, M.L. Theye, ‘**optical studies of disorder and defects in amorphous Ge_xSe_{1-x} films as a function of composition**’ Journal of Non-Crystalline Solids, Volumes 164–166, Part 2, 2 December 1993, Pages 1259–1262.
[https://doi.org/10.1016/0022-3093\(93\)91230-Z](https://doi.org/10.1016/0022-3093(93)91230-Z)
5. Marie-Luce Theye, Adriana Gheorghiu, Christiane Senemaud, Mohamed F. Kotkata & Kandil M. Kandil, ‘**Studies of short-range order in amorphous Ge_xSe_{100-x} compounds by X-ray photoelectron spectroscopy**’, Philosophical Magazine Part B, Volume 69, Issue 2, 1994, pages 209–222.
<https://doi.org/10.1080/01418639408240104>
6. K. M. Kandil, M. F. Kotkata, M. L. Theye, A. Gheorghiu, C. Senemaud, and J. Dixmier, ‘**Chemical and structural studies of disorder and defects in a-GeSe₂ films as a function of thermal annealing**’, *Phys. Rev. B* 51, 17565 (1995) - Published 15 June 1995.
<https://doi.org/10.1103/PhysRevB.51.17565>
7. M.F. Kotkata, , K.M. Kandil, M.H. El-Fouly, M.M. Ibrahim, ‘**Preparation and characterization of co-evaporated a-GaAs films**’ Journal of Non-Crystalline Solids, Volumes 205–207, Part 1, October 1996, Pages 176–179.
[https://doi.org/10.1016/S0022-3093\(96\)00226-8](https://doi.org/10.1016/S0022-3093(96)00226-8)
8. M.F. Kotkata, , K.M. Kandil, M.S. Al-Kotb, ‘**Electrical and optical studies on amorphous CuInSe₂ films**’ Journal of Non-Crystalline Solids, Volumes 205–207, Part 1, October 1996, Pages 180–183.
[https://doi.org/10.1016/S0022-3093\(96\)00227-X](https://doi.org/10.1016/S0022-3093(96)00227-X)
9. A. A. Sattar, A. H. wafik & K. M. Kandil, “Effect of sintering temperature on the microhardness and Barkhausen jump of Ni & mg ferrites”, J. Phys. D, 29 (1996) 25.
10. Adel A. Ghoneim, Kandil M. Kandil, Adel M. Mohammedein And Ibrahim M. Kadam, "Environmental Assessment of Solar Heating And Cooling Systeme In Kuwait Climate", Proceeding of the Global conferenve on Global Warming, 6-10 July Istanbul, Turkey 2008.
11. Adel M. Mohammedein, Adel A. Ghoneim, Kandil M.Kandil and Ibrahim M. Kadam. "Calculation of Ion Charge state distribuions After inner shell Ionizationin Xe atom", Intl. Conf. Neutron & X-Ray Scattering June 29 – 1 July , Malaysia, 2009.

12. A.A. Ghoneim; K.M. Kandil; A.Y. Al-Hasan; M. S. Altouq; A.M. Al-asaa; L. M.Alshamari; A. A. Shamsaldein, **“Analysis of Performance Parameters of Amorphous Photovoltaic Modules under Different Environmental Conditions”**, *Energy Science and Technology*, Vol. 2, No. 1, 2011, pp. 43-50
13. Kandil M. Kandil, Majida S. Altouq, Asma M. Al-asaad, Latifa M. Alshamari, Ibrahim M. Kadad, Adel A. Ghoneim, **“Investigation of the Performance of CIS Photovoltaic Modules under Different Environmental Conditions”**, *Smart Grid and Renewable Energy*, 2011, 2, 375-387
14. Ibrahim M. Kadad, Hany M. Shabana, Kandil M. Kandil, Adel M. Mohammedein, Adel A. Ghoneim, **“Inter-comparison of Solar UVB radiation, Global Radiation and UV Index measurements over Kuwait”**, *European International Journal of Science and Technology*, Vol. 3 No. 9, December, 2014
15. Adel A. Ghoneim, Adel M. Mohammedein, Kandil M. Kandil. "Performance Analysis of Parabolic Trough Collector in Hot Climate", *British Journal of Applied Science & Technology*, 4 (14):2038 – 2058, 2014.
16. Alzanki T., Kandil K .M., Bennett N., Sealy BJ, Alenezi M.R., Almeshal A., Jafar M. and Ghoneim A., **“Nanotechnology Investigation of Ultra-shallow Junctions of Antimony (Sb) Implants in Conventional Silicon (Si).”** (SOJ) *J. Mater. Sci. Eng.* 2, Iss 2 (2014) 1-6
17. Talal H. Alzanki, Kandil M. Kandil , Chris Jeynes , Brian J. Sealy , Mohammad R. Alenezil , Abdullah Almeshal1 , Naziha M. Aldukhanand1 and Adel Ghoneim2, **" High Resolution Medium Energy ion Scattering Analysis for Investigating UltraShallow Junction of Antimony Implanted in Conventional Silicon "**. *Journal of Materials Science and Engineering A* 6 (1-2) (2016) 17-22 doi: 10.17265/2161-6213/2016.1-2.002
18. Kandil K. M. & Ghoneim A. A. , **“Effect of Environmental Conditions on Device and Performance Parameters of a-Si:H Thin Film Photovoltaic Modules”**, *Kuwait International Nanotechnology Conference and Exhibition*, (9-11 Feb.) 2016.
19. Kandil K. M. & Ghoneim A. A. , **"Effect of Environmental Conditions on Device and Performance Parameters of Thin Film Photovoltaic Modules"**, *International Journal of Materials Engineering Innovation* (Accepted: Sun 18/12/2016)
20. Adel A. Ghoneim1, Kandil M. Kandil, Talal H. Alzanki, Mohammad R. Alenezi, **"Performance Analysis of High Concentrated Multi-Junction Solar Cells in Hot Climate"**, *International Journal of Sustainable Energy* (December 2016)
21. Talal H. Alzanki, Kandil M. Kandil, Mohammad R. Alenezi, Adel A. Ghoneim, **“Environmental Impacts of Grid Connected High Concentrated Photovoltaic Systems Adapted for Peak Load Minimization in Hot Climate”**, *Smart Grid and Renewable Energy*, 2018, 9, 237-258.
22. Kandil M. Kandil, Talal H. Alzanki, Ibrahim M. Kadad, **“Assessment of High Concentrated Photovoltaic / Thermal Collector in Hot Climate”**, *Grid and Renewable Energy*, 2019, 10, 119-140.
<https://doi.org/10.4236/sgre.2019.105008>
23. Kandil M. Kandil, Ibrahim M. Kadad, **“Optimization of the Performance of Hybrid High Concentrated Photovoltaic Solar Cells/ Thermal Collector in Hot Climate”**, to be published

24. Talal H. Alzanki, Kandil M. Kandil, “**Adapting Integrated High Concentrated PV Modules and Evacuated Tube Collectors to Minimize Building Energy Consumption in Hot Climate**”, *Smart Grid and Renewable Energy*, 2019, 10, 237-256.
<https://doi.org/10.4236/sgre.2019.1010015>
25. Ibrahim M. Kadad, Kandil M. Kandil, Talal H. Alzanki, “**Impact of UVB Solar Radiation on Ambient Temperature for Kuwait Desert Climate**”, *Smart Grid and Renewable Energy* ,Vol.11 No.8, August 2020 DOI: 10.4236/sgre.2020.118008
26. Ibrahim M. Kadad, Ashraf A. Ramadan, Kandil M. Kandil and Adel A. Ghoneim, “**Relationship between Ultraviolet-B Radiation and Broadband Solar Radiation under All Sky Conditions in Kuwait Hot Climate**”, *Energies* 2022, 15, 3130.
<https://doi.org/10.3390/en15093130>
27. Kandil M. Kandil, Ibrahim M. Kadad, Adel A. Ghoneim, Reem S. Al-tawash. “**Analysis of HCPV-LIB integrated hybrid system for renewable energy generation in Kuwait hot climate**”, *Sustainable Energy Technologies and Assessments*, Volume 53, Part B, October 2022, 102594.
28. Kandil M. Kandil, Haitham A. Alabdulali, Ibrahim M. Kadad, and Adel A. Ghoneim, “**Electric Vehicle Charging Station Utilizing Highly Concentrated Photovoltaic System Combined with Lithium-Ion Batteries**”. *European Journal of Sustainable Development* (2025), 14, 2, 266-292, ISSN: 2239-5938, Doi: 10.14207/ejsd. 2025.v14n2p266.
29. Kandil M. Kandil Haitham A. Alabdulali Ibrahim M. Kadad Adel A. Ghoneim. “**Grid-Interactive High-Concentrated Photovoltaic–Thermal Assisted Solar Heat Pump System for Near-Zero Energy Residential Buildings.**” 2026 IEEE the 14th International Conference on Smart Energy Grid Engineering (SEGE 2026)

Professional Development Activities

1. **Project Title:** Performance Analysis of Crystalline and Amorphous Silicon Solar Modules in Kuwait Climate.
Project No.: TS- 08- 01
Support Organization: Public Authority for Applied Education and Training (PAAET)
Period: 2008 – 2010
2. **Project Title:** Assessment of the Performance of Thin-Film PV Devices in Kuwait Climate
Project No.: TS- 08- 02
Support Organization: Public Authority for Applied Education and Training (PAAET),
Period: 2008 – 2010
3. **Project Title:** Assessment of Parabolic Trough Collector Performance in Kuwait Climate
Project No.: TS- 11- 09
Support Organization: Public Authority for Applied Education and Training (PAAET),
Period: 2012 –2014
4. **Project Title:** Optimal Electric Vehicle Fast Charging Station Utilizing High Concentrated Photovoltaic System Integrated with Storage Lithium-Ion Battery





Project No.: TS- 23- 04

Support Organization: Public Authority for Applied Education and Training (PAAET),

Period: 2023 –2024

5. **Project Title:** Performance and Economical Analysis of Solar-Assisted Heat Pump Operated by Hybrid High Concentrated Photovoltaic-Thermal Collectors in Hot Climate

Project No.: TS- 24- 11

Support Organization: Public Authority for Applied Education and Training (PAAET),

Period: 2024 – 2025.

Last Revised: May, 2026

