

# **MOHAMED OKIL SHAWKY ABDEL-WAHAB**

Assistant Professor, Benha Faculty of Engineering, Benha University

## **PERSONAL INFORMATION**

---

- **Scientific Name:** Mohamed Okil & M. Okil
- **Marital Status:** Married
- **Military Status:** Completed
- **Address:** Diarb Negm, Al Sharqia, Egypt
- **Mobile:** 002 012 8458 0168 & 002 010 6209 0206
- **ORCID:** <https://orcid.org/0000-0003-3816-3756>
- **Official E-mail:** [mohamed.okil@bhit.bu.edu.eg](mailto:mohamed.okil@bhit.bu.edu.eg)
- **Alternative E-mail:** [mohamedokil37@gmail.com](mailto:mohamedokil37@gmail.com)



## **PERSONAL CHARACTERISTICS**

---

- Quick learner.
- Leadership skills.
- Good communication skills.
- Ability to work within a team.

## **EDUCATIONAL QUALIFICATIONS**

---

- **Ph.D. in Engineering Physics**, " Novel Multi-Junction Solar Cell Structures Based on Silicon Substrates ", Benha Faculty of Engineering, Benha University, September 2023.
- **M.Sc. in Engineering Physics**, " Synthesis and Investigation of Physical Properties of Some Nanocomposites ", Benha Faculty of Engineering, Benha University, May 2019.  
([University Award for M.Sc. Theses in Engineering Sciences Field, 2020/2021](#))
- **High Diploma in Engineering Physics**, Benha Faculty of Engineering, Benha University, June 2015.  
**Grade:** Excellent.
- **B.Sc. of Engineering & Technology in Electrical Engineering Technology**, Benha Faculty of Engineering, Benha University, June 2011.  
**Grade:** Very good with Honors (83.86%).  
**Graduation Project Grade:** Excellent.

## **PROFESSIONAL ASSOCIATION**

---

- Member of Egyptian Syndicate of Engineers, 2012.

## WORK EXPERIENCES

---

- **Assistant Professor** of Engineering Physics, Basic Engineering Sciences Department, Benha Faculty of Engineering, Dec. 2023 – Present.
- **Assistant Lecturer** of Engineering Physics, Basic Engineering Sciences Department, Benha Faculty of Engineering, July 2019 – Dec. 2023.
- **Demonstrator** of Engineering Physics, Basic Engineering Sciences Department, Benha Faculty of Engineering, Feb. 2013 – July 2019.

## TEACHING EXPERIENCES

---

I have experience in teaching or assisting in teaching the following subjects:

- **Modern physics**, Benha Faculty of Engineering, Sep. 2016 – Present.
- **Engineering physics**, Benha Faculty of Engineering, Sep. 2014 – Present.

## PUBLISHED PAPERS (H-INDEX = 8, CITATIONS = 297)

---

1. M.S. Salem, A. Shaker, A.N. Aledaily, A. Alanazi, K. A Al-Dhlan, **M. Okil**, *Comprehensive design and analysis of thin film  $Sb_2S_3$  /CIGS tandem solar cell: TCAD simulation approach*, Phys. Scr. 99 (2024) 075511. [Q2]  
<https://doi.org/10.1088/1402-4896/ad514a>.
2. T.I. Alanazi, A. Shaker, M. Gad, **M. Okil**, *Optimization of all-polymer/ $Sb_2Se_3$  tandem solar cells for enhanced efficiency: a comprehensive TCAD modeling approach*, Phys. Scr. 99 (2024) 065516. [Q2]  
<https://doi.org/10.1088/1402-4896/ad4315>.
3. M.S. Salem, **M. Okil**, A. Shaker, M. Abouelatta, A.N. Aledaily, K.A. Al-dhlan, M.T. Alshammari, M.M. Salah, M. El Sabbagh, *Optimizing Transport Carrier Free All-Polymer Solar Cells for Indoor Applications : TCAD Simulation under White LED Illumination*, Polymers. 16 (2024) 1412. [Q1]  
<https://doi.org/10.3390/polym16101412>.
4. S.M.H. Qaid, A. Shaker, **M. Okil**, C. Gontrand, M. Alkadi, H.M. Ghaithan, M.M. Salah, *Optoelectronic Device Modeling and Simulation of Selenium-Based Solar Cells under LED Illumination*, Crystals. 13 (2023) 1668. [Q2]  
<https://doi.org/10.3390/cryst13121668>.
5. S.M.H. Qaid, A. Shaker, **M. Okil**, M. Alkadi, A.A.A. Ahmed, W. Zein, *Optimizing CBTSSe solar cells for indoor applications through numerical simulation*, Opt. Quantum Electron. 55 (2023) 1245. [Q2]  
<https://doi.org/10.1007/s11082-023-05541-x>.
6. T.I. Alanazi, O.I. Eid, **M. Okil**, *Numerical study of flexible perovskite/Si tandem solar cell using TCAD simulation*, Opt. Quantum Electron. 55 (2023) 1152. [Q2]  
<https://doi.org/10.1007/s11082-023-05320-8>.
7. M.S. Salem, **M. Okil**, A. Shaker, A. Albaker, M. Alturki, *Design of n-i-p and p-i-n  $Sb_2Se_3$  solar cells: role of band alignment*, J. Phys. Energy. 5 (2023) 045007. [Q1]  
<https://doi.org/10.1088/2515-7655/acf688>.

8. **M. Okil**, A. Shaker, M.M. Salah, T.M. Abdolkader, I.S. Ahmed, *Investigation of Polymer/Si Thin Film Tandem Solar Cell using TCAD Numerical Simulation*, *Polymers*. 15 (2023) 2049. [Q1]  
<https://doi.org/10.3390/polym15092049>.
9. **M. Okil**, A. Shaker, I.S. Ahmed, T.M. Abdolkader, M.S. Salem, *Evaluation of a proposed barium di-silicide tandem solar cell using TCAD numerical simulation*, *Opt. Quantum Electron.* 55 (2023) 475. [Q2]  
<https://doi.org/10.1007/s11082-023-04734-8>
10. **M. Okil**, A. Shaker, I.S. Ahmed, T.M. Abdolkader, M.S. Salem. Design and Analysis of Sb<sub>2</sub>S<sub>3</sub>/Si Thin Film Tandem Solar Cell. *Sol. Energy Mater. Sol. Cells* 253 (2023) 112210. [Q1]  
<https://doi.org/10.1016/j.solmat.2023.112210>
11. **M. Okil**, M.S. Salem, Tarek M. Abdolkader, A. Shaker, *From Crystalline to Low-cost Silicon-based Solar Cells: a Review*, *Silicon* (2021) 1-17. [Q3]  
<https://doi.org/10.1007/s12633-021-01032-4>
12. M.M. ElFaham, **M. Okil**, A.M. Mostafa, *Effects of post-laser irradiation on the optical and structure properties of Al<sub>2</sub>O<sub>3</sub> nanoparticles produced by laser ablation*, *J. Appl. Phys.* 128, 153104 (2020). [Q2]  
<https://doi.org/10.1063/5.0022554>
13. M.M. ElFaham, **M. Okil**, A.M. Mostafa, *Fabrication of magnesium metallic nanoparticles by liquid-assisted laser ablation*, *J. Opt. Soc. Am. B.* 37(2020)2620. [Q2]  
<https://doi.org/10.1364/JOSAB.398543>
14. **M. Okil**, M.M. ElFaham, S.I. El-dek, *Fascinating thermo-mechanical features of layered hydroxides/MWCNTs nanocomposites*, *J. Alloys Compd.* 788 (2019) 912–924. [Q1]  
<https://doi.org/10.1016/j.jallcom.2019.02.218>
15. M.M. ElFaham, **M. Okil**, A.M. Mostafa, *Limit of detection and hardness evaluation of some steel alloys utilizing optical emission spectroscopic techniques*, *Opt. Laser Technol.* (2018). [Q2]  
<https://doi.org/10.1016/j.optlastec.2018.07.022>
16. M.M. ElFaham, **M. Okil**, N.M. Nagy, *Optical emission spectroscopy for concrete strength evaluation utilizing calcium lines*, *Opt. Laser Technol.* 106 (2018) 69–75. [Q2]  
<https://doi.org/10.1016/j.optlastec.2018.03.018>

## WEBSITES, PROFILES

---

- **Official Page:** <https://bu.edu.eg/staff/mohamed.okil>
- **ORCID:** <https://orcid.org/0000-0003-3816-3756>
- **Scopus:** <https://www.scopus.com/authid/detail.uri?authorId=57201472644>
- **Google Scholar:** <https://scholar.google.com.eg/citations?user=FkasjLQAAAAJ&hl=en>
- **Research Gate:** [https://www.researchgate.net/profile/Mohamed\\_Okil](https://www.researchgate.net/profile/Mohamed_Okil)

## COMPUTER SKILLS

---

- Have the **ICDL** certificate, 2012.
- Professional user using solar cell simulation programs " **SCAPS**, and **Silvaco Atlas** ".

- Professional user using technical software programs " **MATLAB, LIBS++**, **Origin**, and **Gwyddion** ".

## LANGUAGE SKILLS

---

- **Arabic:** Native
- **English:** Fluent in reading and writing  
Intermediate in speaking and listening

## REFERENCES

---

- **Prof. Dr. Tarek Mohamed Abdolkader Hasan** (*Ph.D. Research Work Supervisor*)  
*Professor of Engineering Physics, Benha Faculty of Engineering, Benha University.*  
**Official E-mail:** [tarek.Abdolkader@bhit.bu.edu.eg](mailto:tarek.Abdolkader@bhit.bu.edu.eg) **Mobile:** 002 015 5167 8999
- **Prof. Dr. Ahmed Shaker Ahmed Ali Ghazala** (*Ph.D. Research Work Supervisor*)  
*Professor of Engineering Physics, Faculty of Engineering, Ain Shams University.*  
**Official E-mail:** [ahmed.shaker@eng.asu.edu.eg](mailto:ahmed.shaker@eng.asu.edu.eg) **Mobile:** 002 012 2248 1434
- **Prof. Dr. Samaa Imam Mahmoud El-Dek** (*M.Sc. Research Work Supervisor*)  
*Professor of Materials Science and Nanotechnology, Faculty of Post Graduate Studies for Advanced Sciences, Beni-Suef University.*  
**Official E-mail:** [didi5550000@gmail.com](mailto:didi5550000@gmail.com) **Mobile:** 002 010 2920 0873
- **Prof. Dr. Mohamed Mostafa ElFaham** (*M.Sc. Research Work Supervisor*)  
*Professor of Engineering Physics, Benha Faculty of Engineering, Benha University.*  
**Official E-mail:** [dr.mmostafa.elfaham@bhit.bu.edu.eg](mailto:dr.mmostafa.elfaham@bhit.bu.edu.eg) **Mobile:** 002 011 4996 3330