

# C.V

## **HOME ADDRESS**

**Tulkarem**

**Palestine**

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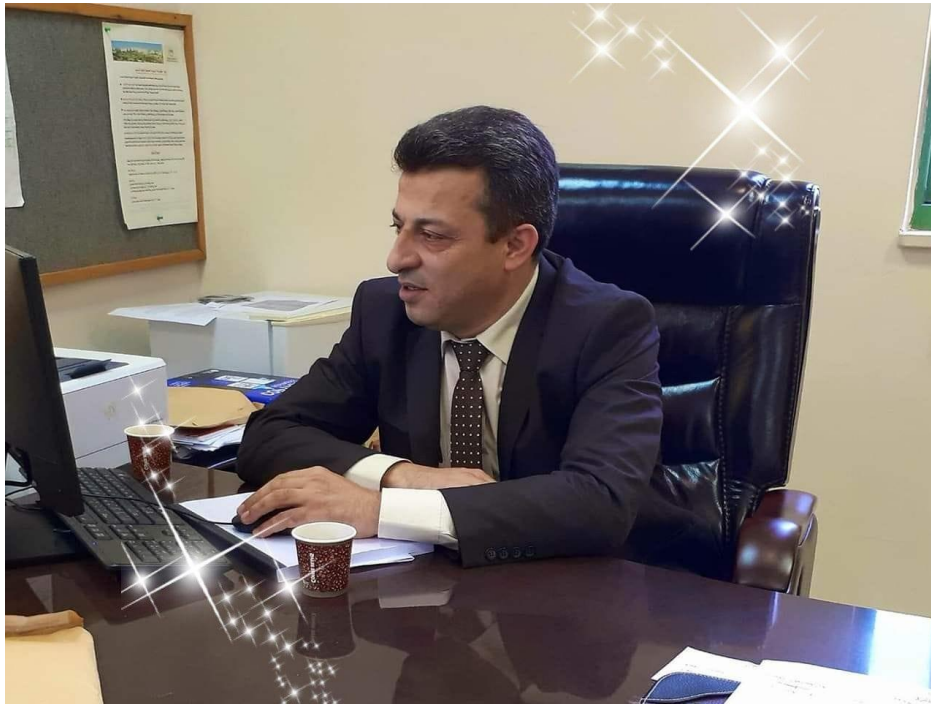
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## **WORK ADDRESS**

**AAUP-Physics Department**

**Palestine**

**Phone ++972-4-2510801/165**



**MUAYAD ABU SAA**

## **PERSONAL INFORMATION**

**Marital status: Married**

**NATIONALITY: Palestinian**

**DATE OF BIRTH: 17/01/1970**

**PLACE OF BIRTH: Nablus - West Bank – Palestine**

## **EDUCATION**

**2009-2015**

**Brussels/Belgium**

**Vrije Universiteit Brussel**

**PhD of Physics/Laser Physics**

**1993-1995**

**Famagusta/ North Cyprus**

**Eastern Mediterranean University**

**M.SC. Of physics / Solid State Physics (CGPA 3.96)**

**1988- 1992**

**Yarmouk University**

**Irbid - Jordan**

**B .SC OF Physics**

## **PROFESSIONAL EXPERIENCE**

**1993-1995**

**Eastern Mediterranean University**

**Famagusta - North Cyprus**

**Teacher & lab Coordinator as a full time assistant**

**Duties: Tutorial of Physics 101 & 102 courses and Lab coordination of the first year labs of physics.**

**1996 - 2009**

**Al - Quds Open University**

**Tulkarm Directorate -P.N. A**

**Part - Time lecturer of physics, methods of teaching sciences and math courses**

**1995 - 2003**

**Ministry of Education**

**Tulkarm Directorate - P.N.A**

**1- Teacher of physics, Chemistry, General Sciences & mathematics  
– All school levels.**

**2- Trainer of Physics teachers.**

**2003-2006**

**Arab American University/Jenin**

**Full-Time instructor of physics**

**2006-1/4/2009**

**Arab American University/Jenin**

**Full-Time lecturer of physics**

**1/4/2009- 1/1/2011**

**VUB/ Belgium**

**PhD student**

**1/2/2011-15/5/2015**

**Arab American University/Jenin**

**Full-Time lecturer of physics**

**17/9/2015- Present**

**Arab American University/Jenin**

**Full-Time Assistant Professor of physics**

### COURSES TAUGHT: GRADUATE

1. Advanced Statistical Mechanics.
2. Advanced Classical Mechanics
3. Laser Design and Technology.
4. Laser Dynamics.

### COURSES TAUGHT: UNDER GRADUATE

- 1- General Physics 101(Mechanics)
- 2- General Physics 102(Electricity & Magnetism)
- 3- General Physics Lab 105(Mechanics)
- 4- General Physics Lab 106(Electricity & Magnetism)
- 5- Classical Mechanics I
- 6- Classical Mechanics II
- 7- Solid State Physics I
- 8- Statistical Mechanics
- 9- Mathematical Phys I
- 10- Mathematical Phys II
- 11- Thermodynamics
- 12- Optics and Lasers
- 13- Laser Design and Technology
- 14- Astronomy
- 15- Modern Physics.
- 16- Physics for Medical Students
- 17- Physics Lab for Medical Students
- 18- Physics for IT (information technology)
- 19- Physics Lab for IT
- 20- Vector Analysis
- 21- Methods of teaching sciences
- 22- General math courses
- 23- Introduction to Mathematical Physics and Software Packages
- 24- Fundamentals of Research Methods

### RESEARCH INTERESTS

- 1- Laser dynamics
- 2- Quantum Dot Lasers modeling.
- 3- Two state operation in Quantum Dot Lasers.
- 4- Optoelectronic devices.
- 5- Thin films.

### PUBLICATIONS

1. **PhD thesis** of (Simultaneous two state operation in Quantum Dot Lasers). Physics Department – Vrije Universiteit Brussel, Belgium.
2. **Ms thesis** of (Two Interacting Electrons In a Parabolic Quantum Dot In The Presence of Magnetic Field). Physics Department - Eastern Mediterranean University, North Cyprus.

3. " The Energy Spectra of Two Interacting Electrons In a Parabolic Quantum Dot In The Presence of a Magnetic Field ; Interpolation Approach ". Co-authored by M. Elsaid. [Physica Scripta](#). Vol. 54 / 309 -311 / 1996.
4. "Interacting Electrons in Quantum Dot in The Presence of a magnetic Field" Co-authored by M. Elsaid. [Phys .Stat. Sol. \(b\)](#) 203 / 357. 1997.
5. "The energy spectra of GaAs / ALx Ga1-x As Quantum Dots" Co-authored by M. Elsaid. ([Tr.J.of Physics](#) 22(1998) , 885-894).
6. "Stability properties of a dual wavelength operation in quantum dot lasers " Co-authored by E.A.Viktorov, T.Erneux, J.Danckaert. [Laser Optics-2012 Conference](#), (St.Petersburg, Russia; June 25-29, 2012).
7. " Two-state operation in quantum dot lasers " Co-authored by E.A.Viktorov, T.Erneux, J.Danckaert. [Third Palestinian Conference on Modern trends in Mathematics and Physics](#), (Palestine Polytechnic University, Hebron/Palestine; July 16-18, 2012).
8. " Impact of gain factor on simultaneous two-state operation in quantum dot lasers " Co-authored by E.A.Viktorov, T.Erneux, J.Danckaert. [2012 Annual Symposium of the IEEE Photonics Society Benelux Chapter](#), (Mons, Belgium; June 29-30, 2012).
9. " Nonlinear pulse shaping in pulsed quantum dot lasers" Co-authored by Grigorii S. Sokolovskii *et al.* 21st Int. Symp. "Nanostructures: Physics and Technology" [Saint Petersburg, Russia](#), June 24–28, 2013 © 2013 St Petersburg Academic University.
10. " Intradot time scales strongly affect the relaxation dynamics in quantum dot laser" Co-authored by E.A.Viktorov, T.Erneux, J.Danckaert. [Phys .Rev . A](#). 87. 063827(2013).
11. "The effect of slow passage in the pulse-pumped quantum dot laser" Co-authored by Grigorii S. Sokolovskii *et al.* [SPIE Photonics Europe, Brussels](#), 14-17/April/2014, Belgium (2013/2014) (2013/2014).
12. "The effect of slow passage in the pulse-pumped quantum dot laser", Co-authored by Grigorii S. Sokolovskii *et al.* Accepted for oral presentation on the [Fourth Palestinian Conference on Modern trends in Mathematics and Physics](#) (Al Quds University, Palestine), August 11-13, (2014).
13. "Two state QD laser turn on: slow passage effects" Co-authored by Grigorii S. Sokolovskii *et al.* [2015 European Conference on Lasers and Electro-Optics - European Quantum Electronics Conference](#), ( Munich, Germany), June 2015.
14. "Dropout dynamics in pulsed quantum dot lasers due to mode jumping" Co-authored by Grigorii S. Sokolovskii *et al.* [App. Phys. Lett.](#) 106, 261103 (2015).

- 15., “Temperature effects on the physical parameters of Yb/MgO/C MSM devices”, Co-authored by Sundos K. M. Kabaha, Hazem K. Khanfar. Accepted for poster presentation on the [Second Palestinian International Conference on Material Science and Nanotechnology](#) ( An-Najah National University, Palestine), March 23-24, (2016).
16. “Au/InSe interface designed as resonators for optical communications”, Co-authored by Alaa A. Ikmail, Hazem K. Khanfar. Accepted for poster presentation on the [Second Palestinian International Conference on Material Science and Nanotechnology](#) ( An-Najah National University, Palestine), March 23-24, (2016).
17. “Dynamical and thermal properties of 850 nm VCSEL”, accepted for oral presentation on the [Fifth Palestinian Conference on Modern trends in Mathematics and Physics](#) (AAUJ, Palestine), July 31-August 2, (2016).
18. “Analysis of the Current-Voltage Characteristics of the Yb/TlInSe<sub>2</sub>/C interfaces ”, Co-authored by Reham M. Kmeil, Hazem K. Khanfar and A.F. Qasrawi accepted for oral presentation on the [Fifth Palestinian Conference on Modern trends in Mathematics and Physics](#) (AAUJ, Palestine), July 31-August 2, (2016).
19. “Stability properties of optically injected single-mode quantum dash laser”, Co-authored by Waed Eghbari, and Iyad Swan, accepted for oral presentation on the [Fifth Palestinian Conference on Modern trends in Mathematics and Physics](#) (AAUJ, Palestine), July 31-August 2, (2016).
20. “Exploring Demarcation levels in Laser excited photodiode arrays ”, Co-authored by Sufyan R. S. Shehada, Hazem K. Khanfar and A.F. Qasrawi, accepted for oral presentation on the [Fifth Palestinian Conference on Modern trends in Mathematics and Physics](#) (AAUJ, Palestine), July 31-August 2, (2016).
21. “Fabrication and Characterization of Wide Band Photo-conductor Array ”, Conference Paper · April 2017 ”, Co-authored by Sufyan R. S. Shehada, Hazem K. Khanfar and A.F. Qasrawi, accepted for oral presentation on the [The Second Palestinian International Graduate Conference on Natural, Medical and Health Sciences and Humanities \(SPIGCNMHSH 2017\)](#), (An-Najah National University, Nablus-Palestine), April, (2017).
22. “Lasing due to the excited state in quantum dot lasers” Conference Paper ”, Co-authored by Jan Danckaert, and E. A. Viktorov, accepted for oral presentation on [Frontiers in Theoretical and Applied Physics](#) , (American university of Sharjah, UAE), February, (2017).
23. “Lasing due to the excited state in quantum dot lasers ”, Co-authored by J. Danckaert, and E. A. Viktorov, [Journal of Physics. Conference Series](#) 869(1):012008 · July 2017 DOI: 10.1088/1742-6596/869/1/012008 ·

24. “Dynamical and Thermal Properties of 850 nm Vertical Cavity Surface Emitting Laser (VCSEL)”, **Journal of the Arab American University**. December, (2017).

25. “Dielectric and Optoelectronic Properties of InSe/CdS/CdSe heterojunctions”, **Journal of Electronic Materials**. August, (2018).

26. “Post annealing effects on the structural and optical properties of MoO<sub>3</sub> sandwiched with indium slabs”, **Materials Research Express**. October 2019.

### **BOOKS:**

Lab manual: (Physics lab for medical students)  
Co-authored by Muayad Abu Saa and Anan Hussein.  
AAUJ. Jenin/Palestine

### **PROFESSIONAL MEMBERSHIPS:**

1. Member of the Palestinian Physical Society
2. Palestine Academy for Science and Technology

### **COMMITTEES:**

- 1) Faculty of Science council, member (2006-2007) & (2008-2009). (2016-2019)
- 2) University schedule committee (2004-2006).
- 3) Quality Assurance Committee, member (2004-2005).
- 4) University Council, member (2007-2008). (2012-2013). (2016-2017). (2017-2018). (2018-2019). (2019-2020)
- 5) Deans Council, member (2017-2018). (2018-2019). (2019-2020)
- 6) Curriculum Committee, member (2016-current).

### **ADMINISTRATIVE EXPERIENCE:**

1. Physics Department Coordinator (2006-2007) & (2008-2009).
2. Head of Physics Department (2016-2019).
3. Coordinator of Master Program in Physics (2016-2019).
4. Dean of Faculty of Sciences (2017-2019)
5. Vice president for academic affairs (2019-current)

### **PRESENT POSITION:**

Vice president for academic affairs – AAUP- Palestine.

### **MASTER THESES:**

I have supervised the following Master theses:

1. Sufyan Shehada "Fabrication and Characterization of Wide Band Photoconductor Array". AAUP- 2017.
2. Haifaa Kamil "Design and Characterization of Indium sandwiched Molybdenum Trioxide thin films". AAUP- 2018.
3. Masa Daraghme "Enhancement of electrical performance of MoO<sub>3</sub> films via Indium nano sandwiching ". AAUP- 2018.
4. Batool Asaad " Effect of Au layer on the performance of ZnS/CdS heterojunctions ". AAUP- 2019.

### **LANGUAGES**

Arabic: Mother tong

English: Reading & Writing (Excellent)

### **HOBBIES:**

Reading, Travelling, and Athletics.

### **REFEREES:**

- 1- Prof.Dr. Jan Danckaert (VUB) [jandan@vub.ac.be](mailto:jandan@vub.ac.be)
- 2- Prof.Dr. Evgeniy Viktorov(ULB) [evviktor@ulb.ac.be](mailto:evviktor@ulb.ac.be)
- 3- Prof.Dr. Thomas Erneux(ULB) [terneux@ulb.ac.be](mailto:terneux@ulb.ac.be)
- 4- Dr. Adli Saleh(AAUJ) [asaleh@aaup.edu](mailto:asaleh@aaup.edu)

**N.P** All documents are available under request.