



CURRICULUM VITAE

ABU-SAFA , MUSTAFA ABDUL MAJEED

Personal Information:

Full Name : Mustafa Abdul Majeed Abu Safa.
Date of Birth : January 01, 1965.
Place of Birth : Deyr el-Ghusoun
Nationality : Palestinian

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Palestine Polytechnic University,
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Academic Qualifications:

- **Doctor of Philosophy** (Ph.D. in Physics), Plasma Physics .
Middle East Technical University (METU), Ankara-Turkey, May, 1993 .
- **Master of Science** (M. Sc. in physics), Plasma Physics .
Middle East Technical University (METU), Ankara-Turkey, Aug., 1989
- **Bachelor of Science** (B.Sc. in Physics/ major field, and Computer Science/ minor field.), Yarmouk University, Irbid- Jordan, June, 1987.
- **Tawjeehi General Exam** (Scientific Stream)
Attil Secondary School, Tulkarm, Palestine, 1983.

Work Experience:

- **Higher Education Reform Expert (HERE), 2015-**
- **Vice President for Academic Affairs, 2009- 2021**
Palestine Polytechnic University, Hebron, Palestine
- **Dean of the College of Applied Sciences, 2007 -2009**
Palestine Polytechnic University, Hebron, Palestine
- **Dean of the College of Applied Sciences, 2003 - 2005**
Palestine Polytechnic University, Hebron, Palestine
- **Teaching Staff Member (Assist. Professor), 1996 -**
Department of Applied Physics and Electronics, College of Applied Sciences,
Palestine Polytechnic University, Hebron, Palestine.
Courses: Quantum Mechanics, Field and Waves Electromagnetics,
Applied Electrodynamics, Modern Physics, Mechanics, Heat and
Thermal Properties of matter, Optics, Electricity and Magnetism, and
experiments in general physics.
- **Teaching Staff Member (Part time Lecturer), 1995 - 1996**
Alquds Open University, Palestine..
- **Teaching Staff Member (Lecturer), 1994 - 1995**
Department of Physics, Seventh of April University, Zawia city- Libya.
Courses: General Physics, Plasma Physics, Waves and Vibrations.
- **Teaching Assistant, 1988 -1994**
Department of Physics, METU, Ankara- Turkey.
Courses: General Physics (Freshman level lab, includes experiments on
mechanics, and electricity and magnetism).

Training Courses and Workshops:

- **ERASMUS+ Higher Education Reform Experts (HEREs) Seminar on Higher Education and Vocational Education and Training in the E+ partner countries.** Istanbul, Turkey 10-11 March 2015.
- **Training and workshops at Lund University Educational Development centers** , Lund, Sweden 01-05 September 2014.
- **ICED 2014, (Chairing a paper session) Educational Development in a Changing World**, Stockholm, Sweden 15-18, June 2014
- **Tempus Regional Seminar and Workshop on "Implementing Quality Assurance within Higher Education Institutions in the Tempus Partner Countries**, Zagreb, Croatia 12-13 June, 2014.
- **Tempus Regional Seminar and Workshop on Human Resource Management in Higher Education**, Nicosia, Cyprus 19-21 June, 2013.
- **Tempus Regional Seminar and Workshop on Research Based Education (Ph. D, M. Sc, B. Sc.)**, Yerevan, Armenia, 9/10 July 2012.
- **Going Global**, London, 10-12 March, 2012
- **Tempus Regional Seminar and Workshop on University Governance in the Southern Mediterranean Region**, Catania, Italy, 7/8 March 2011.
- **Training course and Workshop (AMIDEAST Higher Education Support Program PFDP) in:**
Enhancing The Student Experience In Higher Education: Innovation In Institutional Practices.
Central European University (CEU), Budapest, Hungary, June 2010.
- **Training course and Workshop (AMIDEAST Higher Education Support Program PFDP) in:**
Developing and Implementing Teaching and Learning Support for Your Faculty.
Central European University (CEU), Budapest, Hungary, June 2009.
- **Training course (180 hours training course) in: Senior Administration Excellence** , Maastricht School of Management, Netherlands, July 2008- April 2009
- **Training course (15 hours training course) in: LaTeX**
Palestine Polytechnic University, IT center, April/May 2009.
- **Training course (2 credit hours training course) in: e-learning**
Palestine Polytechnic University, IT center, e-learning unit, Spring 2006
- **Training course (24 hours training course) in: SPSS**
Palestine Polytechnic University, Spring 2005.
- **Training course (Certificate in a 20-hour training course) in:**

(Radioactive Sources and Protection of its Dangers) .

Nuclear Energy and Radiation Directorate, Palestinian Energy Authority-
Palestine. 26-29.8.2000.

- **Training course** (36 hours training course) in: **Upper Management and Strategic Planning I** , Palestine Polytechnic University, Spring 2005.
- **Training course** (36 hours training course) in: **Upper Management and Strategic Planning II**, Palestine Polytechnic University, Fall 2005.

Committees:

- **Head of the steering committee of the Center of Excellence in Teaching and Learning, PPU**
- **Member of the Conference Organizing Committee** Palestinian Conference on Modern Trends in Mathematics and Physics- Birzeit University, Palestine, July 30-31, 2022.
- **Member of the Hebron Governorate Experts committee for the strategic plan / Higher Education part.**
- **Head and member of different committees in formulating the college objectives, strategies, and plans, in addition to formulating many curricula's such as Applied Physics, Applied Electronics, and other programs.**
- **Member of the Conference Organizing Committee** Palestinian Conference on Modern Trends in Mathematics and Physics-III Palestine Polytechnic University, Hebron, Palestine, July 16-18, 2012.
- **Member of the Scientific and Expert Committee of The Third Palestinian Conference in Physics and Technology.** Al-Quds University, Palestine 21-22 April 2008.
- **Member of the Scientific Research Council.** Palestine Polytechnic University, 2007-2009
- **Member of the Conference Organizing Committee International Conference in Energy and Environmental Protection in Sustainable Development (ICEEP),** Palestine Polytechnic University, May 2007
- **Head of the Scientific and Expert Committee of The International Conference in Energy and Environmental Protection in Sustainable Development (ICEEP),** Palestine Polytechnic University, May 2007
- **Member of the Quality Assurance Unit committee,** 2005-2007 Palestine Polytechnic University, Hebron, Palestine
- **Member of the University Council, December 2000- 2005, 2007-** Palestine Polytechnic University, Hebron, Palestine
- **Member of the College of Applied Sciences Council,** 2001-2005, Palestine Polytechnic University, Hebron, Palestine
- **Jury member (External Examiner);** (M. Sc. Thesis in Physics/ Magnetocaloric Materials) ,May 2019. Alquds University + Jülich Centre for Neutron Science, Forschungszentrum Jülich, Germany, Palestine
- **Jury member (External Examiner);** (M. Sc. Thesis in Physics/ Magnetocaloric Materials) , June 2021. Alquds University + Jülich Centre for Neutron Science, Forschungszentrum Jülich, Germany, Palestine
- **Jury member (External Examiner);** (M. Sc. Thesis in Physics/ Biophysics- Gold nanoparticles), January 2018. Alquds University, Palestine

- **Jury member (External Examiner)**; (M. Sc. Thesis in Physics/ 2016, 2017, 2018, Arab American University, Palestine
- **Jury member (External Examiner)**; (M. Sc. Thesis in Physics/ Photovoltaic) ,January 2015. Alquds University, Palestine
- **Jury member (External Examiner)**; (M. Sc. Thesis in Physics/ Photovoltaic) ,January 2015. Alquds University, Palestine
- **Jury member (External Examiner)**; (M. Sc. Thesis in Physics/ Plasma Physics), July 2011. Alquds University, Palestine
- **Jury member (External Examiner)**; (M. Sc. Thesis in Physics/ Laser), July 2009. Alquds University, Palestine.
- **Jury member (External Examiner)**; (M. Sc. Thesis in Physics/ Laser), January 2007. Alquds University, Palestine.
- **Jury member (External Examiner)**; (M. Sc. Thesis in Physics/ Laser), January 2005. Alquds University, Palestine.
- **Jury member (External Examiner)**; (M. Sc. Thesis in Physics/ Laser), January 2002. Alquds University, Palestine.
- **Reviewer to number of papers in international journals in Physics.**
- **Reviewer to number of papers conferences in physics and energy.**
- **Thesis supervisor/ Renewable energy Master program**
- **Graduation projects supervisor/ Applied Physics Program**

Conferences and Seminars and workshops:

- *ICED 2014, (Chairing a paper session) Educational Development in a Changing World, Stockholm, Sweden 15-18, June 2014*
- IAEA, Scientific Visit; Supporting Education and Training in Radiation Protection and Medical Physics, German Cancer Research Center (DKFZ), Heidelberg, Germany, 01-15/9/2014
- The Third Palestinian Conference in Physics and Technology; April 21/22, 2008. Al-Quds University, Palestine.
- The International Conference in Energy and Environmental Protection in Sustainable Development (ICEEP), Palestine Polytechnic University, May 2007.
- The Conference on "Education of Engineering in Palestine" May 17/18, 2005. Palestine Polytechnic University, Palestine
- The Second Scientific Day in Physics; April 11/12, 2000. Alquds University, Palestine.
- The First Palestinian Environmental Symposium; March 28/29, 2000. Hebron, Palestine.
- The First Scientific Day in Physics; March 12, 1998. Alquds University, Palestine.

- The Second Palestinian Conference on Educational Physics; October 30/31, 1997. BirZeit University, Palestine.
- Seminar on " Free-Electron Lasers are new sources of radiation". October 1989. METU, Ankara, Turkey.

Publications in Reviewed Journals and Conferences:

- Sinan Bilikmen, **Mustafa Abu Safa**. "The nonlinear evolution of the free electron laser amplifiers with both tapered planar wiggler and axial guide magnetic fields." Tr. J. Phys. 16 (1992): 537.
- Sinan Bilikmen, **Mustafa Abu Safa**. "Chaotic Electron Trajectories in Quadrupole Wiggler Free Electron Laser". Physica Scripta; International Journal of Experimental and Theoretical Physics, 50 (1994): 125
- Imad Jaber, **Mustafa Abu Safa**. "The Dispersion Relation of The Dual Wiggler Free Electron Laser". Mu'tah Journal for Research and Studies (Natural and Applied Sciences Series), 11.6 (1996): 203.
- **Mustafa Abu Safa**, Imad Khatib, Akrum Tamimi . "Energy and Environmental Protection in Sustainable Development " . (ICEEP2007), Conference Proceedings Editor , Palestine Polytechnic University, Hebron, Palestine. ISBN: 978-9950-6-4,
- **Mustafa Abu Safa**. "Nonintegrable Hamiltonian and Chaotic Electron Trajectories in Quadrupole Wiggler Free Electron Laser with and without axial magnetic Field". Third Palestinian Conference in Physics and Technology. Al-Quds University, Palestine, April 21-22 ,2008.
- **Mustafa Abu Safa**. "Chaotic Behavior in The Quadrupole Wiggler Free Electron Laser Using Axial Guide Magnetic Field or Ion-Channel Guiding". Palestinian Conference on Modern Trends in Mathematics and Physics-II Palestine Polytechnic University, Hebron, Palestine, July 16-18, 2012.

- **Mustafa Abu Safa.** "Modifying the chaotic behavior in the quadrupole wiggler free-electron laser using ion-channel guiding." *International Journal of Physical Sciences* 9.21 (2014): 459-465.

Research Progress and Fields of Interest:

Chaos, the Hamiltonian integrability in the Free-Electron Lasers, chaotic trajectories and regular regions in the phase space Poincar'e maps, integrability of the Hamiltonian using the magnetic surface of helically symmetric wigglers and new contributions in the theory of chaotic Free-Electron Lasers and beam-wave interaction, are under investigations and of my present interest, all using different methods and simulations in Computational Physics. I am interested, too, on the industrial and biomedical applications of the FREE ELECTRON LASERS. I am working now on THE PLASMA APPLICATIONS IN THE PRODUCTION OF SOLAR CELL SYSTEMS

e-Learning experience:

- **Training course** (2 credit hours training course) in: **e-learning** Palestine Polytechnic University, IT center, e-learning unit, Spring 2006
- **Prepared e-Learning courses in:**
 1. General Physics I "Mechanics" activated since fall 2006 on <http://elearning.ppu.edu/moodle>
 2. Electromagnetic Theory: (*in progress*)
 3. General Physics II "Electricity and magnetism": (*in progress*)
- **Third VC Forum on e-Learning in Higher Education,** British Council, PPU, and other Palestinian Universities, Palestine Polytechnic University, e-learning unit, Palestine, 13 June 2006.
- **Fourth VC Forum on e-Learning in Higher Education,** British Council, PPU, and other Palestinian Universities, Palestine Polytechnic University, e-learning unit, Palestine, 4 September 2006.

Languages:

Arabic, excellent (written and spoken),
English, very good (written and spoken),
Turkish, good (spoken)

Computer Qualifications:

Computer languages: FORTRAN, COBOL, PASCAL, BASIC, and REDUCE.
 Software and other applications: Windows, WinWord, Excel, Latex, Chi writer.
 I worked on the following systems:

Personal Computer(PC's),
Unisys A9F system (Burroughs 6930),
Network and internet,
IBM(3090), VM/XA SP and CMS,
DEC station 3100, digital UNIX.