CURRICULUM VITAE

Mohammad Qasem Hameed Al-Owaidat

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PERSONAL

Place of Birth	Jordan
Date of Birth	Feb. 01, 1965
Marital Status	Married
Nationality	Jordanian
Work Address	Department of Physics, College of Science, Al-Hussein Bin Talal University, Ma′an, Jordan. Phone: +962-3-2179000, E-mail: Owaidat@ahu.edu.jo
Academic Rank (date)	Full Professor (2019)
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ACADEMIC QUALIFICATIONS

2006 - 2010	**Ph.D.,** Theoretical -Solid State Physics, University of Jordan, Amman, Jordan
1994 - 1996	**M.Sc.,** Physics, Central University of Hyderabad, Hyderabad, India
1983 - 1987	**B.Sc.,** Physics, Yarmouk University, Irbid, Jordan

SPECIALTY

General Specialization:	Physics
Specialization :	Theoretical -Solid State Physics(Condensed Matter Physics)

CAREER HISTORY

Sep.2019 -Present	**Full Professor,** Department of Physics**,** College of Science**,** Al-Hussein Bin Talal University, Ma'an, Jordan.

Sep.2015 – Aug.2019	**Associate Professor**, Department of Physics**,** College of Science, Al-Hussein Bin Talal University, Ma'an, Jordan
Sep.2012– Aug.2015	**Assistant Professor**, Department of Physics**,** College of Science, Al-Hussein Bin Talal University, Ma'an, Jordan
Sep.2011 – Aug.2012	**Full time lecurter**, Department of Physics**,** College of Science, Al-Hussein Bin Talal University, Ma'an, Jordan

ADMINISTRATIVE EXPERIENCE

Positions

Sep.2013 - Aug 2014	Chairman of Physics Department, College of Science, Al-Hussein Bin Talal University, Ma'an, Jordan

RESEARCH INTEREST

- Lattice dynamics
- Circuit theory
- Graph theory

PUBLICATIONS

Peer-reviewed journal articles

- M. Q. Owaidat, "The two-site resistance of the two-dimentional ruby lattice structure" , Eur. Phys. J. Plus.(2021).
- M. Q. Owaidat, "Determination of the vibrational frequencies of the decorated triangular and centered triangular lattices" , Eur. Phys. J. Plus.(2020.
- M. Q. Owaidat, J. H. Asad "Resistance determination of the decorated triangular and honeycomb lattices, "Indian Journal of Physics. (2020).
- M. Q. Owaidat, J. H. Asad "Resistance calculation of pentagonal lattice structure of resistors "Communications in Theoretical Physics. (2019)

- M. Q. Owaidat, "The vibrational frequencies of the diced and decorated honeycomb lattices" , International Journal of Modern Physics B.(2019)
- M. Q. Owaidat, R. S, Asad, Zhi-Zhong Tan " Resistance computation of generalized decorated square and simple cubic network lattices" ,Results In Physics. (2019)
- Zhen Tan , Z.-Z. Tan , J. H. Asad, and M.Q. Owaidat, "Electrical characteristics of the 2×n and □×n circuit network", Phyisca Scripta. (2019)
- M. Q. Owaidat, A. Al-Badawi, M. Abu-Samak, "The two-point resistance on the diamond cubic lattice", Eur. Phys. J. Plus. 133:199(2018).
- M. Q. Owaidat, A. A. Al-Badawi, J. H. Asad, Mohammed Al-Twiessi, "Two-Point Resistance on the Centered-Triangular Lattice", CHIN.PHYS. LETT. 35,2, 020502(2018).
- A. Al-Badawi and M. Q. Owaidat, The Dirac equation in Schwarzschild black hole coupled to a stationary electromagnetic field, Gen. Relativ. Gravit. 49:110(2017)
- Z.-Z. Tan, J.H. Asad, and M.Q. Owaidat, "Resistance formulae of a multipurpose n- step network and its application in LC network", Int. J. Circ. Theor. Appl. (2017
- A. Al-Badawi, M. Q. Owaidat and S. Tarawneh, "The geodesics structure of Schwarzschild black hole immersed in an electromagnetic universe". International Journal of Modern Physics D, 26 1750169(2017).
- M. Q. Owaidat, R. S, Asad and Zhi-Zhong Tan "On the perturbation of a uniform tiling with resistors" , International Journal of Modern Physics B,30,1650166 (2016).
- M. Q. Owaidat and R. S, Asad "Resistance calculation of three-dimensional triangular and hexagonal prism lattices" , Eur. Phys. J. Plus., 131 (2016).
- M. Q. Owaidat, "Determining the Resistance of a Full -Infinite Ladder Network Using Lattice Green's Function", Advanced Studies in Theoretical Physics, Vol. 9, no. 2, 77 - 83 (2015).
- M. Q. Owaidat, Ahmed H. Qwasmeh and Ayed Al e'damat, "Spanning trees on decorated centered cubic lattices", Applied Mathematical Sciences, Vol. 9, no. 25, 1235 –

1244(2015)

- M.Q. Owaidat, Hijjawi. R. S., & Khalifeh, J. M.: Perturbation theory of uniform tiling of space with resistors. Eur. Phys. J. Plus., 129, 29(2014)
- M.Q. Owaidat, Hijjawi, R. S, Asad, J. H & Khalifeh, J. H.: The two-point capacitance of infinite triangular and honeycomb networks. Eur. Phys. J. Appl. Phys. 68: 10102(2014)
- Jihad, H. A., Diab, A. A., Owaidat, M. Q, Khalifeh, J. M Perturbed Infinite 3D Simple Cubic Network of Identical Capacitors. APhysPolA.126, 777-781 (2014).
- Jihad, H. A., Diab, A. A., Owaidat, M. Q, Hijjawi. R. S., Khalifeh, J. M.: Infinite Body Centered Cubic Network of Identical Resistors. APhysPolA.125,60-64(2014)
- M. Q. Owaidat, J. H. Asad & J. M. Khalifeh, "Resistance calculation of the decorated centered cubic networks: Applications of the Green's function", Modern Physics Letters B, Vol. 28, No. 32 (2014) 1450252 (12 pages).
- M.Q. Owaidat, " Regular Resistor Lattice Networks in Two Dimensions (Archimedean Lattices)". Applied Physics Research; 6 (5), 100-108(2014).
- M.Q. Owaidat. Resistance calculation of the face-centered cubic lattice: Theory and Experiment. Am. J. Phys., 81, 918(2013).
- M.Q. Owaidat, Hijjawi. R. S, Asad, J. H, & Khalifeh. J. M. : Electrical networks with interstitial single capacitor. Mod. Phys. Lett. B, 27, 1350123(2013)
- M.Q. Owaidat, Hijjawi, R. S, & Khalifeh. J. M. : Network with Two Extra Interstitial Resistors. Int. J. Theor. Phys., 51, 3152 (2012).
- M.Q.Owaidat, Networks of Identical Capacitors with a Substitutional Capacitor. JJP, 5(3), 113-118(2012)
- M. Q. Owaidat, Hijjawi, R.S., Khalifeh, J.M.: Substitutional single resistor in an infinite square lattice application to lattice Green's function. Mod. Phys. Lett. B 19, 2057–2068 (2010)
- M. Q. Owaidat, Hijjawi, R.S., Khalifeh, J.M.: Interstitial single resistor in a network of resistors application of lattice Green's function. J. Phys. A, Math. Theor. 43,375204 (2010).

Books and book chapters

- N.A.

Patents

- N.A.

INTERNATIONAL REVIEWER

- International Reviewer for International Journal Circuit Theory and Applications (John Wiley & Sons Ltd).
- International Reviewer for Frontiers of Information Technology & Electronic Engineering-Springer.
- International Reviewer for Results in Physics(Science Direct)
- International Reviewer for Indian Journal of Physics- Springer.
- International Reviewer for Open Physics.
- International Reviewer for International Journal of Numerical Modelling: Electronic Networks, Devices (John Wiley & Sons Ltd).

CONFERENCES AND PROCEEDINGS

- International Conferences on Sciences, Al al –Bayt University Nov.20-22, 2012.

TEACHING

Courses Taught-undergraduate

- General Physics I.
- General Physics II.
- General Physics Lab. I
- General Physics Lab. II
- Mathematical Physics I.
- Mathematical Physics II.
- Statistical Mechanics.
- Modern Physics.
- Physics of Vibrations and Waves.
- Intermediate lab.

- Solid state physics.
- Quantum mechanics I.
- Quantum mechanics II.
- Heat and Waves.

Courses Taught-graduate

- Mathematical Physics
- Statistical Mechanics.

SKILLS

Languages

- Arabic (native)
- English (excellent)

Computer Programs

- Fortrane
- Mathematica