جامعة عجمان
AJMAN UNIVERSITY

Konstantinos Aidinis

Academic Rank

Professor

Qualifications

- Bachelor of Science (Honors) Electrical and Electronic Engineering
  Newcastle University

- Master of Science (Microwaves and Modern Optics)
  University College London, Department of Electronic and Electrical Engineering

- Master of Science in Engineering (Semiconductor Devices and Integrated Circuits)
  University of Michigan, Ann Arbor, Department of Electrical Engineering

- Ph.D. in Electrical Engineering
  Imperial College London, Department of Electrical Engineering

Research field(s)

- Optoelectronics and Optical Communications
- Nanotechnology and Nanofabrication
- Materials Science and Devices

Publications *(Last five years)*

- G.K. Varotsos, H.E. Nistazakis, K. Aidinis, F. Jaber, M.Nasor, K.M. Rahman, Error Performance Estimation of Modulated Retroreflective Transdermal Optical Wireless Links with Diversity under Generalized Pointing Errors, Telecom, Vol: 2, pp.167 - 180, Apr 2021
- B. Drlja, S.Savovic, M.S.Kovacevic, A.Simovic L.Kuzmanovic, A.Djordjevich, K.Aidinis, G.Yussupova, R.Min, Investigation of bandwidth in multimode W-type microstructured plastic optical fibers, Optik, Vol: 271, Nov 2022
- G.K. Varotsos, K. Aidinis, H.E. Nistazakis, Average BER Performance Estimation of Relayed THz Links with Losses, Molecular Attenuation, Adverse Weather Conditions, Turbulence and Generalized Pointing Errors, Photonics, Vol: 9, Sep 2022

- B.Drljaca, S. Savovic, M.S.Kovacevic, A.Simovic, L.Kuzmanovic, A.Djordjevich, K.Aidinis, R.Min, Wavelength dependent equilibrium mode distribution and steady-state distribution in double-clad W-type microstructured polymer optical fibers, Results in Physics, Dec 2022
- S.Savovic, A.Djordjevich, K.Aidinis, R.Min, Influence of the Width of Launch Beam Distribution on the Transmission Performance of Seven-Core Polymer-Clad Silica Fibers, Photonics, Vol: 9, Sep 2022
- A.Fakharuddin, K.K. Armadorou, L. P. Zorba, M. Tountas, T. Seewald, A. Soultati, P. Tsipas, E. R. Schütz, N. Tzoganakis, S. Panagiotakis, K. Yannakopoulou, A. Dimoulas, V. Psycharis, E. Kymakis, A. R. bin Mohd Yusoff, K. Aidinis, L. Schmidt-Mende, G. C. Vougioukalakis, M. Khaja Nazeeruddin, M. Vasilopoulou, A Triethyleneglycol C60 Mono-adduct Derivative for Efficient Electron Transport in Inverted Perovskite Solar Cells, Chinese Journal of Chemistry, Vol: 41, pp.431 - 442, Oct 2022
- Varotsos G.K. Chatzikontis E.V. Nistazakis H.E. Aidinis K. Tsigopoulos A.D. Christofilakis V., Gamma Gamma Turbulence and Nonzero Boresight Spatial Jitter Influence at the Outage Performance of THz Links, 2022 International Conference on Broadband Communications for Next Generation Networks and Multimedia Applications, CoBCom 2022, Graz
- Varotsos G.K.,Chatzikontis E.V., Kapotis E., Nistazakis H.E., Aidinis K., Christofilakis V., THz Links Performance Study for Gamma Turbulence Links with Path Loss and Pointing Errors, 2022 11th International Conference on Modern Circuits and Systems Technologies, MOCAST 2022, Bremen
- Gripeos, P.J., Kriempardis, D., Aidinis, K., Nistazakis, H.E., Outage Probability and BER Estimation for FSO Links with Truncated Normal Time Jitter and Longitudinal Gaussian Pulse Propagation in Dispersive Media, Electronics, Sep 2022
- Sienkiewicz A., Kusiak-Nejman E., Wanag A., Aidinis K., Piwowarska D., Morawski A.W., Guskos N., High-temperature treated TiO2 modified with 3-aminopropyltriethoxysilane as photoactive nanomaterials, Reviews on Advanced Materials Science, Aug 2022
- S. Savović, W. Dai, A. Djordjevich, K. Aidinis, Z. Li, R. Min, Influence of launch beam distribution on power flow and angular division multiplexing in seven-core silica optical fibers, Frontiers in Physics, Sep 2022
- Guskos N. Zolnierkiewicz G. Kusiak-Nejman E. Guskos A. Aidinis K. Bobrowska M. Berczynski P. Pelech I. Narkiewicz U. , Magnetic Resonance Studies of Hybrid Nanocomposites Containing Nanocrystalline TiO2 and Graphene-Related Materials, Materials, Mar 2022
- K. Varotsos, K. Aidinis, H. Nistazakis, On the Outage Capacity of Transdermal Optical Wireless Links with Stochastic Spatial Jitter and Skin-Induced Attenuation, Photonics, Dec 2021
- Analytical design of tunable disk, patch and ribbon-patterned graphene absorbers in the terahertz spectrum, K.Aidinis, O.M. Daraei, K. Goudarzi, Photonics and Nanostructures - Fundamentals and Applications 46, 2021
- Design of planar waveguide directional couplers with arbitrary modal electric field, A. Boucouvalas, K. Angelis, K. Aidinis, M.Zhan, D. Wang, IET Optoelectronics, 16 July 2021
- All-optical 1 × 2 decoder based on the self-collimated beam method in 2D photonic crystals K.Aidinis, O.M. Daraei, K. Goudarzi, Photonics and Nanostructures - Fundamentals and Applications, 43, #100880, 2021
- Magnetic moment centers in titanium dioxide photocatalysts loaded on reduced graphene oxide flakes, N.Guskos, G.Zolnierkiewicz, A.Guskos, K. Aidinis, A.Wanag, E.Kusiak-Nejman, U. Narkiewicz, A.W. Morawski Reviews on Advanced Materials Science, 60(1), 2021
- Transdermal subcarrier L-PSK or DBPSK optical wireless links with time diversity, skin attenuation and spatial jitter G.Varotsos, H.E. Nistazakis, K.Aidinis, F. Jaber, K.K.M Rahman Journal of Modern Optics,67(14),2020
- Optical sensor based on two-dimensional photonic crystals for measuring glucose in urine K. Aidinis, K. Goudarzi, A.H. Esmaeili Optical Engineering, 59(5), 2020
- Design of optical fibre coaxial couplers with arbitrary modal electric field K. Aidinis, K. Angelis, A.C. Boucouvalas IET Optoelectronics,14(2), 2020
- Signal Intensity Estimation in Transdermal Optical Wireless Links with Stochastic Pointing Errors Effect G. Varotsos, H.E. Nistazakis, K. Aidinis, F. Jaber, K.K.M. Rahman Technologies 8(4), 60,2020
- Transdermal optical wireless links with multiple receivers in the presence of skin-induced attenuation and pointing errors, G.Varotsos, H.E.Nistazakis, K.Aidinis, F.Jaber, K.M.M.Rahman, Computation, Volume 7, Issue 3, 2019
- EPR and Magnetometry of Mixed Phases in FeVO4 –Co3V2O8 System N. Guskos G. Zolnierkiewicz, M.Pilarska, J. Typek, P. Berczynski, A. Blonska-Tabero, K. Aidinis, Applied Magnetic Resonance Volume 50, Issue 6, 2019
- Magnetic frustration in lyonsite-type vanadates in FeVO4 -Co3V2O8 system, N.Guskos, G.Zolnierkiewicz, M.Pilarska, J.Typek, A.Blonska-Tabero, K.Aidinis, EPJ Applied Physics Volume 84, Issue 2, 2018
- Magnetic characterization of mixed phases in FeVO 4 – Co 3 V 2 O 8 system, N. Guskos, G. Zolnierkiewicz, M. Pilarska, J. Typek, P. Berczynski, A. Blonska-Taberob, K. Aidinis. Journal of Physics and Chemistry of Solids 115, 2018

- A sensor monitoring system for telemedicine, safety and security applications, Vlissidis, N., Leonidas, F., Giovanis, C., Marinos, D.b, Aidinis, K., Vassilopoulos, C., Pagiatakis, G. , Schmitt, N., Pistner, T., Klaue, J. International Journal of Electronics Volume 104, Issue 2, 2017

Courses Taught *(Last five years)*

- Electronic Devices and Circuits
- Circuit Analysis
- Logic Design
- Optoelectronics
- Nanotechnology
- Solid State Electronics
- Sensors and Instrumentation
- Probability and Random Variables

Professional Experience

- 2016 – present Associate Professor / Professor Department of Electrical and Computer Engineering, Ajman University
- 1991 – 2016 Associate Professor, Department of Electronics, Computers, Telecommunications and Control, University of Athens
- 1991 – 1997 National Center for Scientific Research, Institute of Microelectronics. Associate Research Scientist.
- 1990 Display and Imaging Group, Hirst Research Centre, General Electric Company, London, U.K. Principal Research Scientist.
- 1985 – 1989, Department of Electrical Engineering, Imperial College London. Research Fellow

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Committees Work

Ajman University:

- International academic Affairs Committee, 2019 - present
- College of Engineering and IT Research Committee 2018 - present
- “New Vision” committee for the restructuring of the EE undergraduate program 2020-2021
- ECE Department Laboratory Committee 2019-2021
- Electronics and Communications Curriculum Sub-committee 2017-present
- ECE research coordinator 2019 - present

University of Athens:

- Graduate Programs Committee, 1997–2001, 2010-2016
- Special Committee for the Joint Master's Degree Program in Telecommunications and Electronics 2008-2016.
- Special Committee for the Joint Master's Degree Program in Microelectronics 2001-2016
- Internal Evaluation Committee, 2009-2016
- Academic Representative for the "ERASMUS" exchange program, 2013-2016

Honors and Awards

- "A.S. Onassis Foundation" Scholarship, 1982-84
- Imperial College Bursary, 1984-85
- Imperial College Honorary Diploma in Materials Science, 1987

Other Contributions and Achievements

Externally Funded Research and Development Projects

- *Inorganic electron beam lithography for VLSI fabrication*
  Alvey Research Directorate (1985 - 1988)
- *Polymeric media for information storage*
  BRITE / Advanced Materials Technologies (1990)
- *Fast reticle equipment for Europe*
  ESPRIT 2 / Microelectronics and Peripherals (1991 - 1994)
- *Nanofabrication using chemicaly amplified resists*
  ESPRIT 4 / Long Term Research – Reactiveness to Industrial Needs (1996 - 2000)
- *Special Action in Microelectronics for Greece: Hellenic Design and Prototyping Environment – Phase II*
  ESPRIT 2 / Microelectronics and Peripherals (1994-1995)
- *Nexustask, Development of microfabricated pressure sensors*
  Human Capital and Mobility (1995)
- *Development of Microelectronic Industry Products*
  General Secretariat of Research and Technology, Operational Program in Recearch and Technology II (1995-1997)
- *Study of thin silicon oxide layers*
  General Secretariat of Research and Technology, Development of Research Potential '96 (1996 – 1997)
- *Fabrication and architecture of single electron memories*
  ESPRIT 4 / Long Term research – Proactiveness (1997- 2000)

- *Development of metal/SiGe/Si heterostructures for the detection of infrared radiation*

General Secretariat of Research and Technology, Development of Research Potential '99, Special Action 612 (1999-2001)

- *Application of Ion Beams in Materials Research (AIM)*
  Rossendorf –Dresden Research Center, Institute of Ion Beam Physics and Materials Research, Large Scale Facility (1999- 2003)
- *Advanced Technologies for Networking in Avionic Applications (ATENAA)*
  6th EU Framework: Specific Targeted Research / Innovation (2004 –2007)
- *Mid-Term Networking Technologies In-Flight and Rig Validation for Avionic Applications (MINERVAA)*
  6th EU Framework: Specific Targeted Research / Innovation (2007-2012)

Affiliations

- Founding Member of the National Scientific Organization of Microelectronics and Nanotechnology
- Institute of Electrical and Electronic Engineers
- Centre of Medical and Bio-allied Health Sciences Research
- Hellenic Technical Chamber

Languages

- Greek: Native
- English: Fluent
- German: Fluent
- French: Advanced