



Europass curriculum vitae Personal information

Surname(s) / First name(s)

Telephone(s)

Fax(es)

E-mail(s)

Website

Nationality(-ies)

Education

Dates

Title of qualification awarded

Name of awarding institution

Key features

Dates

Title of qualification awarded

Name of awarding institution

Key features

Dates

Title of qualification awarded

Name of awarding institution

Key features

Work experience

Dates

Employer Name

Occupation or position(s) held

Dates

Employer Name

Occupation or position(s) held

Dates

Employer Name

Occupation or position(s) held

Dates

Employer Name

Occupation or position(s) held

Main activities and responsibilities

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Academic Profile

Vryonides Photos

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eng.vp@frederick.ac.cy

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Cypriot

Sep 1999- Sep 2002

PhD in Electrical engineering and Electronics

University of Manchester Institute of Science and Technology (UMIST)

Work focused in the research and development of novel, planar low phase noise dielectric resonator oscillators for millimetre wave short range radar sensors for automotive and industrial applications.

Sep 1998- Sep 1999

Mphil in Electrical Engineering and Electronics

University of Manchester Institute of Science and Technology (UMIST)

Design of MMIC (Monolithic Microwave Integrated Circuits)

Sep 1995-Jun 1998

Beng (2.1 Class Hons) in Electrical and Electronic Engineering

University of Manchester Institute of Science and Technology (UMIST)

Programme comprehensively covered the foundations of Electrical and Electronic Engineering and included subjects in the area of electronics, power systems, communications and control.

Feb 2003-Sep 2007

Frederick Institute of Technology

Lecturer Electrical Engineering Department

Sep 2007- May 2016

Frederick University

Lecturer Electrical Engineering Department

May 2016-Sep 2018

Frederick University

Assistant Professor Electrical Engineering Department

Sep 2018-present

Frederick University

Assistant Professor Electrical and Computer Engineering and Informatics Department

Responsible for:

- Communications Lab
- Departmental Co-ordinator for Final Year Project allocation-manual-guidelines

For more information go to <http://europass.cedefop.eu.int>

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- Departmental Registration assistance
- My teaching focused in:
- Communication Systems
 - Electronics
 - Transmission Lines and Waves
 - Microwave Engineering

Professional Organisations

- ♦ Member of ETEK (since 1998)
- ♦ Member of IEEE

Awards SCHOLARSHIPS

- Scholarship for PhD tuition fees “Overseas Research Scholarship Scheme, (United Kingdom Scholarships for Overseas Research Students)”.
- Faculty of Engineering Scholarship, UMIST, UK.

Reviewer

IEEE Transactions on Circuits and Systems I, IEEE Transactions on Circuits and Systems II, IEEE Microwave and Wireless Components Letters, IET Microwaves Antennas & Propagation

Professional Contribution

Cyprus' Delegate in Management Committee of COST IC0803 RF/Microwave Communication Subsystems for Emerging Wireless Technologies Action
Cyprus' Delegate in Management Committee of COST CA18223 Future Communications with higher-symmetric engineered artificial materials

Service to the Institute

-Academic Committee
-Assistant in departmental registration-
-chair of the transfer credit committee

Research Projects

Duration, Funding Ag. and Funding	Nov 2019 – Oct 2022: European Cooperation in the Field of Scientific and Technical Research.
Title	Future Communications with Higher-Symmetric Engineered Artificial Materials COST CA18223
Role and Contribution	National representative of Cyprus in the scientific community
Title	Disturbed Ionospheric and geomagnetic conditions under the influence of solar activity
Role and Contribution	Project partner of the project to establish a collaboration between Cyprus and Romania to conduct mutual solar-terrestrial studies exploiting the expertise of the corresponding ionospheric research groups in the two countries. The collaboration will be very beneficial for both countries taking into account the complementary experience of the two research groups. Ionospheric monitoring and modeling in Cyprus and solar-magnetospheric-geomagnetic interactions in Romania.
Duration, Funding Ag. and Funding	Aug 2012-Aug 2014: Research Promotion Foundation. Total Funding: EUR 150,000
Title	Cyprus Ionospheric Forecasting service
Role and Contribution	Project partner of the project to establish a High Frequency (HF) operational service for real-time specification (now-casting) and short-term forecasting of the state of the ionosphere over the eastern Mediterranean region. This real-time service will be based on ionosonde measurements from Cyprus and will involve the application of existing modelling techniques and the development of mathematical methods and visualisation tools for the forecasting and regional mapping of ionospheric characteristics and provision of associated warning information to enhance HF communication systems operating in the region.
Duration, Funding Ag. and Funding	Apr 2011 – Oct 2013: Research Promotion Foundation. Total Funding: EUR 130,000

Title	Monitoring, modelling and prediction of HF Spectral Occupancy over Cyprus
Role and Contribution	Project partner of the project to establish a dedicated measurement system to provide effective measurement and analysis of HF spectral occupancy over Cyprus.
Duration, Funding Ag. and Funding	Jan 2009 – Jan 2011: Research Promotion Foundation. Total Funding: EUR 168,050
Title	Service for monitoring and evaluation of ionospheric effects on GNSS signals in the Cyprus region.
Role and Contribution	Project partner of the project to examine TEC (Total Electron Content) variation over Cyprus and to establish a service for allowing nowcasting and short-term forecasting of its effects on GNSS signals. (In collaboration with Haldera trading).
Duration, Funding Ag. and Funding	Jan 2009 – Jan 2010: Research Promotion Foundation. Total Funding: EUR 47,750
Title	Ionospheric modeling and prediction
Role and Contribution	Project partner of the project to establish a collaboration between a distinguished scientist (Dr Lilijana Cander, RAL) and the recently established ionospheric research group in Cyprus with the ultimate aim to develop models appropriate to describe ionospheric variability in the Cyprus region. In particular to develop models and algorithms for ionospheric specification, real-time construction, short-term forecasting and long-term prediction of ground based ionospheric parameters.
Duration, Funding Ag. and Funding	Nov 2009 – Oct 2012: European Cooperation in the Field of Scientific and Technical Research.
Title	RF/Microwave Communication Subsystems for Emerging Wireless Technologies COST IC0803
Role and Contribution	National representative of Cyprus in the scientific community aiming in enhancing knowledge in Ultra-wideband nonlinear circuits design. (oscillators, mixers, dividers).
Duration, Funding Ag. and Funding	Jan 2008 – Jan 2010: Research Promotion Foundation. Total Funding: EUR 12,000
Title	Monitoring of latitudinal variation of ionospheric disturbances over Africa and Europe
Role and Contribution	Project partner of the project to examine latitudinal variation of ionospheric disturbances over Africa and Europe in collaboration with Dr. Ayman M. Mahrour of Helwan University, Cairo, Egypt.
Duration, Funding Ag. and Funding	Dec 2006 – Dec 2010: Research Promotion Foundation. Total Funding: EUR 230,000
Title	Installation and operation of an ionospheric monitoring station
Role and Contribution	Project partner of the project for supporting the acquisition, elaboration, evaluation, dissemination and archiving of ionospheric observations above Cyprus.

Publications

Doctoral Thesis Comparative Study of Low Phase Noise Microwave Oscillators, PhD Thesis UMIST 2002

Book Chapters

Abdul Quddious, Marco A Antoniadis, **Photos Vryonides**, Symeon Nikolaou "Voltage-Double RF-to-DC Rectifiers for Ambient RF Energy Harvesting and Wireless Power Transfer Systems"- Wireless Energy Transfer Technology, 2019, DOI.10.5772/intechopen.89271

Journals

J11

S. Arain, **P. Vryonides**, A. Quddious, S. Nikolaou, "Reconfigurable BPF with Constant Centre Frequency and Wide Tuning Range of Bandwidth," *IEEE Transactions on Circuits and Systems II: Express Briefs*, (Early Access), 2019

J10

Abdul Quddious ; Muhammad Ali Babar Abbasi ; Farooq A. Tahir ; Marco A. Antoniadis ; **Photos Vryonides** ; Symeon Nikolaou , " UWB Antenna with dynamically reconfigurable notch band using rectenna and active booster," *IET Microwaves, Antennas & Propagation*, vol. 13, no. 12, pp. 2046-2052, Oct. 2019

J9

A. Saghir, A. Quddious, S. Arain, **P. Vryonides**, S. Nikolaou, "Single-/Dual- BPF Using Coupled-Line Stepped Impedance Resonators (CLSIR)," *IEEE Transactions on Circuits and Systems II: Express Briefs*, vol. 66, no. 9, pp. 1497-1501, Sep. 2019

J8.

A. Quddious, M. Ali Babar Abbasi, A. Saghir, S. Arain, , M. A. Antoniadis ,A.Polycarpou, **P. Vryonides**, S. Nikolaou, " Dynamically Reconfigurable SIR Filter using Rectenna and Active Booster," *IEEE Transactions on Microwave. Theory and Techniques*,vol. 67, no. 4, pp. 1504-1515, Jan. 2019

J7.

A. Quddious, M. A. B. Abbasi, M. H. Tariq, M. A. Antoniadis, **P. Vryonides**, and S. Nikolaou, "On the Use of Tunable Power Splitter for Simultaneous Wireless Information and Power Transfer Receivers," *International Journal of Antennas and Propagation*, vol. 2018, p. 12. Apr. 2018

J6.

S. Arain, **P. Vryonides**, M. Ali Babar Abbasi, A. Quddious, M. Antoniadis, S. Nikolaou "Reconfigurable Bandwidth Bandpass Filter With Enhanced Out-of-Band Rejection Using pi -Section-Loaded Ring Resonator", *IEEE Microw. Wireless Compon. Lett.*,vol. 28, no. 1, pp. 28-30, Jan. 2018.

J5.

Arain S, **Vryonides P**, Ali Babar Abbasi M, Quddious A, Antoniadis MA, Nikolaou S. Wideband BPF using quadruple-mode ring resonator loaded with short-circuited stubs and Γ -shaped band-stop sections. *Microw Opt Technol Lett.* 2017;59:2316–2320

J4.

M. Ali Babar Abbasi, S. Nikolaou, Marco Antoniadis, M. N. Stevanovic, **P. Vryonides**, "Compact EBG-Backed Planar Monopole for BAN Wearable Applications," *IEEE Transactions on Antennas and Propagation*, Vol.65, Iss. 2, pp.1 - 11, February 2017

J3.

P Vryonides, S Nikolaou, S Kim, MM Tentzeris "Reconfigurable dual-mode bandpass filter with switchable bandwidth using PIN diodes" *International Journal of Microwave and Wireless Technologies* 7 (06), 655-660 (2015)

J2.

P. Vryonides, H. Haralambous, Comparison of COSMIC measurements with the IRI-2007 model over the eastern Mediterranean region. *Journal of Advanced Research*, Volume 4, Issue 3, May 2013, Pages 297-301.

J1.

Hadjimitsis D.G Toullos L., **Vryonides P**, Papadopoulos P, Lazakidou A and Clayton C.R.I, "Satellite Remote Sensing for water quality assessment and monitoring-an overview on current concepts, deficits and future tasks", *WSEAS Transactions of Signal Processing* Issue 1, Vol. 3 pp 67-71 Jan 2007

Conferences

C48

Aqeela Saghir, Salman Arain, Abdul Quddious, Symeon Nikolaou, **Photos Vryonides**, "Wideband BPF for 5G mm-wave Applications with Detailed Extraction of Poles and Zeros" in 2019 IEEE USNC-URSI Radio Science Meeting (Joint with AP-S Symposium)

C47

Salman Zahid, Abdul Quddious, Farooq A Tahir, **Photos Vryonides**, Marco Antoniadis, Symeon Nikolaou, "Dual-Band Compact Antenna for UHF and ISM Systems", in 2019 13th European Conference on Antennas and Propagation (EuCap)

C46

Abdul Quddious, **Photos Vryonides**, Symeon Nikolaou, Marco A Antoniadis "Uniplanar Rectenna Designs Matched with either Active or Passive DC-to-DC Converter", in 2019 IEEE International Symposium on Antennas and Propagation

C45

S. Arain, A. Quddious, A. Saghir, S. Nikolaou, and **P. Vryonides**, "Reconfigurable BPF with Wide Tuning Bandwidth Range Using Open- and Short-Ended Stubs," in *2019 8th International Conference on Modern Circuits and Systems Technologies (MOCAST)*, 2019, pp. 1-4: IEEE. (Best paper Award on Communications)

C44

A. Quddious, M. Ali Babar Abbasi, Marco A. Antonides, **P. Vryonides** and S. Nikolaou "Reconfigurable Notch-Band UWB Antenna with RFTO-DC Rectifier for Dynamic Reconfigurability", in 2018 IEEE International Symposium on Antennas and Propagation

C43

P. Vryonides S. Arain, A. Quddious, Marco A. Antoniadis, and S. Nikolaou, "A Novel S-Band Bandpass Filter with Extremely Broad Stopband", in 48th European Microwave Conference (EuMC), Madrid Spain, September 2018

C42

Ali Babar Abbasi, A. Quddious, Marco A. Antonides, **P. Vryonides** and S. Nikolaou, "Wearable sensor for communication with implantable devices" In 2018 12th European Conference on Antennas and Propagation (EuCAP)

C41

Marco Antoniadis, M. Ali Babar Abbasi, S. Nikolaou, , M. N. Stevanovic, P. Vryonides, "Conformal Wearable Monopole Antenna Backed by a Compact EBG Structure for Body Area Networks, " EuCAP 2017, pages: 164-166 Paris, France, March 2017

C40

S. Arain, M. A. B. Abassi, S. Nikolaou and P. Vryonides, "A square ring resonator bandpass filter with asymmetrically loaded open circuited stubs," 5th International Conference on Modern Circuits and Systems Technologies (MOCAST), Thessaloniki, 2016, pp. 1-4

C39

MAB Abbasi, **P Vryonides**, S Nikolaou "Humidity Sensor using PEDOT:PSS" IEEE International Symposium on Antennas and Propagation&USNC/URSI National Radio Science Meeting, 1366-1367 (2015)

C38

S. Arain, M. Ali Babar Abassi, S. Nikolaou, and **P. Vryonides**, "A Reconfigurable Bandpass to Bandstop Filter Using PIN Diodes Based on the Square Ring Resonator", Accepted for PIERS Conference, Prague, Czech Republic, July 2015

C37

Muhammad Ali Babar Abbasi, Salman Arain, Photos Vryonides, and Symeon Nikolaou "Design and Optimization of Miniaturized Dual-band Implantable Antenna for MICS and ISM Bands" PIERS Proceedings, 738-741, July 6-9, Prague, (2015)

C36

H Haralambous, **P Vryonides** "HF interference temporal and spectral characteristics over the eastern Mediterranean", 10th Communications International Conference, in Bucharest, Romania May 2014

C35

H Haralambous, **P Vryonides**, T.Leontiou Comparison of reconstructed F2 layer peak parameters over Cyprus by slant TEC ingestion into the NeQuick model and manually scaled data, European Geosciences Union General Assembly (EGU2014) Vienna April 2014
C34

Haris Haralambous, **Photos Vryonides**, V. Dobrica, C. Demetrescu, G. Maris, D. Ionescu IRI STORM VALIDATION OVER EUROPE, European Geosciences Union General Assembly (EGU2014) Vienna April 2014.
C33

H Haralambous, **P Vryonides** A comparison between automatically and manually scaled ionospheric characteristics over Cyprus from 2009 to 2012 *International Association of Geomagnetism and Aeronomy IAGA 12th Scientific Assembly* August 2013 Yucatan, Mexico.
C32

H Haralambous, **P Vryonides**, T.Leontiou A five year validation study of the IRI-STORM model *International Association of Geomagnetism and Aeronomy IAGA 12th Scientific Assembly* August 2013 Yucatan, Mexico.
C31

H. Haralambous, L. Economou, **Vryonides P** Diurnal and seasonal variability of HF Spectral Occupancy over the eastern Mediterranean, *APS/URSI Symposium* Orlando USA 2013.
C30

H. Haralambous, L. Economou, H Papadopoulos, **Vryonides P** Modelling HF Spectral Occupancy over the eastern Mediterranean, *APS/URSI Symposium* Orlando USA 2013.
C29

H. Haralambous, L. Economou, **Vryonides P** Monitoring of HF Spectral Occupancy over the Eastern Mediterranean, *APS/URSI Symposium* Chicago 2012
C28

P. Vryonides, H. Haralambous, C Tomouzos, G Pelopidas Investigation of Ionospheric Slab Thickness and Plasmaspheric TEC Using Satellite Measurements *Progress in Electromagnetic Research Symposium (PIERS 2012)*, August 2012 Moscow.
C27

P. Vryonides, Ionospheric Behaviour over Europe driven by moderate geomagnetic Storms in 2012, 9th *European Space Weather Week (ESWW9)* November 2012 Brussels.
C26

Haralambous H, S. Anaksagora, L. Economou , **P. Vryonides**, **Comparison of GPS-derived vTEC over Cyprus with IRI-2007** XXX URSI General Assembly and Scientific Symposium of International Union of Radio Science August 2011 Istanbul.
C25

P. Vryonides, H. Haralambous, M. Fragoudi **Spread F Observations during Low Solar activity over Cyprus** XXX URSI General Assembly and Scientific Symposium of International Union of Radio Science August 2011 Istanbul.
C24

S. Nikolaou, M. Davidovic, and **P. Vryonides**, "Triple notch UWB antenna controlled by three types of resonators", Proc. of IEEE AP-S Conference, Spokane, WA, USA, July 2011
C23

Symeon Nikolaou, Miloš Davidović, Marija Nikolić, **Photos Vryonides**, "Resonator Type and Positioning Study for the Creation of a Potentially Reconfigurable Frequency Notch in a UWB Antenna Return Loss", EuCAP 2011, Rome.
C22

P. Vryonides , L. Economou , Haralambous H, A study of sporadic E layer characteristics over Cyprus. *Progress in Electromagnetic Research Symposium (PIERS 2011)*, March 2011 Marrakesh, Morocco
C21

Haris Haralambous, **Photos Vryonides**, Lefteris Economou, Luigi Ciralo, Ljiljana Cander Ionospheric response to the major geomagnetic storm during maximum solar activity, *European Geosciences Union General Assembly (EGU2010)* Vienna 2010.
C20

Haralambous H, L. Economou , **P. Vryonides**, Comparison of foF2 values extracted from DIAS maps and ionosonde measurements at Nicosia during low solar activity 7th *European Space Weather Week (ESWW7)* November 2010 Brugges.
C19

H Haralambous , A. Mahrous , **P Vryonides** , A Shemis Multi-instrument ionospheric disturbance detection over the Eastern Mediterranean region, *IEEE Geoscience and Remote Sensing Symposium (IGARSS2010)* pp 3541-3544 Hawaii August 2010.
C18

- M. D. Davidovic, S. Nikolaou, **P. Vryonides**, M. Nikolic, "UWB antenna with a WiMAX frequency notch caused by a novel stepped U shaped slot that suppresses the parasitic notches" [Antennas and Propagation Society International Symposium \(APSURSI\), 2010 IEEE](#), pp. 1-4, July 2010, Toronto
C17
- P. Vryonides**, S. Nikolaou, H. Haralambous "24 GHz Low Phase Noise HBT Dielectric Resonator Oscillator", Proc. of the IEEE WAMICON conference, Melbourne Beach, FL, USA, pp 1-4 April 2010.
C16
- M. D. Davidovic, S. Nikolaou, **P. Vryonides**, M. Nikolic, and B. Kolundzija, "Reconfigurable UWB Antenna Operating in Two Different Sub-bands", Proc. of EuCAP 2010, pp 1-5, Barcelona, Spain, April 2010.
C15
- Haralambous H, **P. Vryonides**, L. Economou, Papadopoulos H, A local Total Electron Content Neural Network model over Cyprus *4th International Symposium on Communications, Control and Signal Processing (ISCCSP 2010)* March 2010 Limassol pp 1-5.
d.o.i:10.1109/ISCCSP.2010.5463306
C14
- S. Nikolaou, **P. Vryonides**, D. E. Anagnostou, M. Al-Tarifi, "Development of an Ultra Compact Dual Band Antenna on a One Cubic Centimeter (1 cm³) Surface", Proc. of IEEE AP-S conference, Charleston, SC, USA, June 2009
C13
- Haralambous H, **P. Vryonides**, L. Economou **First Results from the Cyprus Digisonde**, IET *11th International Conference on Ionospheric Radio Systems and Techniques (IRST)* pp 9-13 May 2009 Edinburgh.
C12
- S. Nikolaou, B. Kim, **P. Vryonides**, 'Reconfiguring Antenna Characteristics using PIN diodes' Proc. of EuCAP 2009, pp.3748 – 3752, Berlin, Germany, March 2009
C11
- H Haralambous, A. Mahrous, **P Vryonides**, A Shemis, A Cyprus-Egypt initiative for monitoring of Ionospheric Weather Over the eastern Mediterranean region *IAGA International Symposium on Solar Wind-Space Environment Interaction* pp 193-196 Cairo, Egypt December 2009.
C10
- Haralambous H, **P. Vryonides**, L. Economou, Enhancements in the critical frequency foF2 over Cyprus during a low solar activity period in the absence of pronounced geomagnetic activity *6th European Space Weather Week (ESWW6)* November 2009 Bruges.
C9
- C. Damianou, K. Ioannides, V. HadjiSavas, N. Milonas, A. Couppis, D. Iosif, M. Komodromos, **P. Vryonides**, 'Thermal ablation system using high intensity focused ultrasound (HIFU) and guided by MRI', *12th World Congress of the World Federation for Ultrasound in Medicine and Biology*, Sydney, Australia, 30 August – 3 September 2009
C8
- H Haralambous, A. Mahrous, **P Vryonides**, A Shemis, Monitoring of Ionospheric Weather Over Cyprus and Egypt first results *International Association of Geomagnetism and Aeronomy IAGA 11th Scientific Assembly* August 2009 Sopron.
C7
- P. Vryonides**, S. Nikolaou, C. Themistos, M. Komodromos "Low Phase Noise HBT DRO", IEEE Mediterranean Microwave Symposium, Damascus, Syria, pp. 247-250, October 14-16, 2008
C6
- C. Damianou, K. Ioannides, V. HadjiSavas, N. Milonas, A. Couppis, D. Iosif, M. Komodromos, **P. Vryonides**, 'Thermal ablation system using high intensity focused ultrasound (HIFU) guided by MRI', *8th International Symposium on Therapeutic Ultrasound*, Mineapolis, USA, September 10-13, 2008
C5
- S. Nikolaou, **P. Vryonides**, D.E. Anagnostou, "Dual-Band Microstrip-Fed Monopole on RO4003 Substrate", Proc. of 2008 IEEE-APS Symposium, pp.1-4, Digital Object Identifier 10.1109/APS.2008.4619886, San Diego, CA, July 2008.
C4
- Haralambous H, G. Dekoulis, **P. Vryonides**, Operation of a new fully automated digisonde (DPS-4D) in Cyprus *12th International Symposium on Equatorial Aeronomy (ISEA12)* May 2008 Crete.
C3
- H Haralambous, A. Mahrous, **P Vryonides**, A Shemis Monitoring of Ionospheric Weather Over Cyprus and Egypt *12th International Symposium on Equatorial Aeronomy (ISEA12)* May 2008 Crete.
C2
- Hadjimitsis D.G, **Vryonides P**, Themistokleous, K., Toullos L., and Clayton C.R.I, " Satellite- derived determination of aerosol optical thickness for air pollution monitoring: A simplified Algorithm", Fifteenth

International Conference on Modelling, 6th International Conference on Air Quality Cyprus, 27-29 March 2007

C1

Hadjimitsis D.G, **Vryonides P**, Themistokleous, K., Toullos L., and Clayton C.R.I, “ Applications of Satellite Remote Sensing & GIS Urban Air-Quality Monitoring in Cyprus: Potential Solutions and Suggestions” ,Fifteenth International Conference on Modelling, 6th International Conference on Air Quality Cyprus, 27-29 March 2007