DEMOS DOUMENIS



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Experience

Hellenic Centre for Marine Research — 2019-Present

Designed and implemented a series of low cost sensor assemblies with their own data-logger and uploading key parameters to the Institute's cloud (e.g. pH, water temperature, water level, conductivity etc). This allows us to create alerts when variables are outside normal ranges and potentially inform the authorities.

Independent External Evaluation Expert, United Nations Industrial Development Organisation (UNIDO) — 2019

Currently performing an independent evaluation of Investment & Technology Promotion Office (ITPO) in Bahrain, to enable the Government of Bahrain and UNIDO to make informed decisions as to an extension and possible re-orientation of the ITPO, to identify best practices, bottlenecks and problem areas and make recommendations for a possible future project. The evaluation included field visits to Bahrain, Sudan and Morocco and extensive interviews with members of Government, Academia, Business Associations, NGOs etc to assess the interventions (technical and business) of ITPO Bahrain which is performing technology and investment promotion in 56 countries worldwide. The post is under assignment from the UNIDO Headquarters in Vienna and funded from the Bahrain Office budget provided by the Bahrain Ministry of Finance.

Chief Technical Officer — co-Founder, Quantimetrica, London, UK 2013 - Present

We provide miniature inexpensive solutions able to control any device by short voice commands. Now anyone can talk to their coffee machine, their light bulbs or their toaster without the entire world listening to their private conversations. I am leading the design and development teams, talk to investors, clients etc. More in www.quantimetrica.com

Adjunct Professor — <u>Hellenic American University</u>, Athens, GR — 2016 - Present Teaching electronics courses for the engineering faculty.

Founding Partner — Add 2 VALUE, Athens, GR 2013 - 2016

Add-2-Value offers result-oriented, tailor made quality business consultancy services to each client, while at the same time sharing the client's venture risk.

Freelance Telecommunications Contractor, Athens, GR — 2015 - Present

Undertakes and oversees medium to large Digital Communication projects with a team of well qualified interdisciplinary engineers. More in https://www.linkedin.com/in/ddoumenis/

Independent External Evaluation Expert, United Nations Industrial Development Organisation (UNIDO) — 2013 (report)

Carried out an independent evaluation of Investment & Technology Promotion Office (ITPO) Tokyo, leading the Evaluation Team to enable the Government of Japan and UNIDO to make informed decisions as to an extension and possible re-orientation of the ITPO, to identify best

practices, bottlenecks and problem areas and make recommendations for a possible future project.

Independent External Evaluation Expert, United Nations Industrial Development Organisation (UNIDO) — 2011 - 2012 (report)

Carried out an independent evaluation of Investment & Technology Promotion Office (ITPO) Rome to enable the Government of Italy and UNIDO to make informed decisions as to an extension and possible re-orientation of the ITPO, to identify best practices, bottlenecks and problem areas and make recommendations for a possible future project.

National Technology Promotion Officer, United Nations Industrial Development Organization (UNIDO) — 2006 - 2009

Analysed and promoted investment promotion between Greece and countries in the Middle East and North Africa. Have developed business plans, technical documents and facilitated business missions in Bahrain, Tunisia, Egypt etc

Chief Technical Officer, SignalGeneriX Ltd Cyprus — 2010 - 2013

Oversees technical activities of the Company and coordinates a team of engineers and contractors to develop most of the Company's products and services. More in www.signalgenerix.com

Hardware Development Manager, SignalGeneriX Ltd Cyprus — 2005 - 2010

Leads a strong team of engineers which has developed hardware and software solutions for many of the company's intellectual property and forthcoming products. More in www.signalgenerix.com

Digital Signal Processing (DSP) Laboratory Head, Intracom S.A Athens — 2000 - 2004

Created and led a strong and able team of exceptional system engineers who could tackle a broad range of baseband processing problems and have done so for the next generation of the company's wireless point to point and point to multi-point links. Followed a number of projects from algorithm selection/development to system simulation, integrated circuit (VLSI) design, prototype design (PCB etc) and final production. More in http://www.intracom-telecom.com/

Digital Signal Processing (DSP) System Design Engineer, <u>Intracom</u> S.A Athens — 1994 - 2000

Helped in the formation, recruitment etc. of the Laboratory. Have been involved in the programming of the ADSP-21xx and TMS320C5x families of DSP processors for speech and low bit-rate digital modems and applications. Developed and implemented the most part

of Intracom's 2-34 Mbps baseband for point to point and point to multi-point wireless links. Such systems included but were not limited to error correcting codes, Viterbi equalizers, digital filters etc. These were modelled in C/MATLAB/COSSAP and subsequently implemented in VHDL/Schematic entry for the Altera and Xilinx series of FPGAs. More in http://www.intracomtelecom.com/

Education

Imperial College, University of London — M.Sc. in Communications and Signal Processing, 1992

Imperial College, University of London — B.Eng in Electrical and Electronic Engineering, 1991

Athens College, Greece — Greek School Apolytirion, 1988

Patents

- EP1037439: "Receiver structure for offset differential quadrature phase shift keying" 20-09-2000.
- EP2178235: "Encryption of information signals" 17/10/2008

Selected Publications

Christos Ttofis, Agathoklis Papadopoulos, Theocharis Theocharides, Maria

Michael, Demosthenes Doumenis: An MPSoC-Based QAM Modulation Architecture with Run-Time Load-Balancing. EURASIP J. Emb. Sys. 2011(2011)

Κ.

Christos Ttofis,, Agathoklis Papadopoulos, Theocharis Theocharides, Maria K. Michael, Demosthenes Doumenis: A reconfigurable MPSoC-based QAM modulation architecture. VLSI-SoC 2010: 137-142

Tragas, P.; Kalis, A.; Papadias, C.; Ellinger, F.; Ussmuller, T.; Mosshammer, R.; Huemer, M.; Eickhoff, R.; Dabek, A.; Doumenis, D. & Kounoudes, A., "RESOLUTION: Reconfigurable Systems for Mobile Local Communication and Positioning", in Proceedings of the 16th IST Mobile and Wireless Summit 2007, 2007.

Ellinger, F.; Eickhoff, R.; Gierlich, R.; Hóttner, J.; Ziroff, A.; Wehrli, S.; Uímóller, T.; Carls, J.; Subramanian, V.; Krcmar, M.; Mosshammer, R.; Spiegel, S.; Doumenis, D.; Kounoudes, A.; Kurek, K.; Yashchyshyn, Y.; Papadias, C. B.; Tragas, P.; Kalis, A. & Avatagelou, E. (2007), "Local Positioning for Wireless Sensor Networks", in Proceedings of the IEEE Global Communication Conference (GLOBECOM), 2007.

Ellinger, F.; Carls, J.; Wehrli, S.; Jδckel, H.; Kromer, C.; Wiebking, L.; Dabek, A.; Hóttner, J.; Roskosch, R.; Gierlich, R.; Seisenberger, C.; Huemer, M.; Mosshammer, R.; U, T.; Weigel, R.; Subramanian, V.; Krcmar, M.; Bφck, G.; Doumenis, D.; Kounoudes, A.; Kurek, K.; Yashchyshyn, Y.; Szumny, R.; Kalis, A.; Avatagelou, E.; Garbi, A. & Spiegel, S., "EU PROJECT RESOLUTION:

Reconfigurable Systems for Mobile Local Communication and Positioning", in Proceedings of the International Conference on Wireless Information Networks and Systems, 2006.

- I. C. Panayiotopoulos, D. G. Doumenis and P. Constantinou, "Anti-Hangup Binary Quantized DPLL Technique for Timing Recovery in QAM Symbol Rate Sampled Receivers", IEEE Transactions on Communications, Volume: 49 Issue: 2, February 2001, pp. 360-374.
- E. Frantzeskakis, C. Papathanassiou, D. Doumenis, A. Posonidis, C. Kalatzis, V. Koratzinos and K. Aretos, "Single Chip OQPSK Modem Appropriate for Wireless Burst Data Communications". The International Conference on Signal Processing Applications and Technology, Orlando, Florida, Nov. 1999.
- I. C. Panayiotopoulos, P. Constantinou and D. G. Doumenis, "Performance Analysis of a Self Adaptive DPLL Symbol Synchronizer", Proceedings International Conference on Telecommunications, Porto Carras, Greece, June 1998 Vol. III pp. 336-340.
- K. Georgoulakis, D. G. Doumenis, G. Aggouras, E. Frantzeskakis, "VLSI Implementation of an Eight-State Clustering Based Sequence Equalizer", Proceedings 13th International Conference on Digital Signal Processing, Santorini, Greece, July 1997 Vol.2 pp. 1075-1077.
- E. Frantzeskakis, D. Doumenis, D. Tsimplis, H. Karathanasis, A. Theodorou and V. Kassouras, "Digital Implementation of Tamed Frequency Modulation for Medium Rate Radio Tranceivers", Proceedings of Telecom '96: Telecommunication Nets and Systems Development, Varna, Bulgaria, Oct. 1996