GEORGE OTHON GLENTIS

PROFESSOR, UNIVERSITY OF PELOPONNESE

George-Othon Glentis received the B.Sc. degree in Physics in 1987 and the Ph.D degree in Informatics in 1991, both from the University of Athens. From 1988-1991, he held a four years research fellowship from the Institute of Informatics of the National Center for Physical Science, DEMOCRITOS. From 1993-1995, he was with the Electrical Engineering Department of the University of Twente, The Netherlands, and with the Faculte des Sciences Appliquees, Universite Catholique de Louvain, Belgium, as a EU HCM research fellow. From 1996-1997 he was with the Department of Informatics, University of Athens, as a EU TMR research fellow. From 1998- 2005 he was an associate professor at the Department of Electronics, Technological Education Institute of Crete, Chania, Greece. In summer 2011 he was with the Spectral Analysis Laboratory, University of Florida, as a visiting associate professor. He is currently a Professor at the Department of Informatics and Telecommunications, University of Peloponnese, Tripolis, Greece.

He has more than 30 years of research experience, focusing on the development of efficient algorithms for digital signal processing (adaptive filtering and system identification, algorithms for 1D and 2D Wiener filters, identification of nonlinear systems), featuring reduced computational complexity, high degree of parallelism and pipelining, stability and robustness, with applications in the estimation and equalization of telecommunication channels, in the design of adaptive arrays, in spectral analysis and in SAR imaging. He has published over 120 papers in major journals and conferences.

His current research work is focused on the development of high performance, computationally affordable and implementable using the currently available software and hardware technology, theory, methods and algorithms for spectral analysis with applications in SAR imaging, digital signal processing for channel estimation and equalization for wireless and optical communications, hardware architectures for high speed and real time signal processing applications, signal processing for leak detection and localization in metallic piping systems for the transport of liquid and gaseous petroleum products, and algorithms for high resolution optical coherence tomography imaging.

He has long experience in the deployment and the management of research projects. He has been Principal Investigator, Project Leader and Team Leader in research and development projects funded by the E.U. or co-financed by E.U. and Greek national funds. Recent activity is given below.

[P1] “Protomi - Adaptive Technology in Optical Transmission” (GR/EU - MIS 377322). Role: Principal Investigator. Research project co-financed by E.U. and Greek national funds within the framework of the THALES program: "Reinforcement of the interdisciplinary and/or inter-institutional research and innovation". Duration: 44 months (04/2012 - 11/2015). Budget: € 587.664,00.

[P2] “Esthisis - Smart sensor system for leakage detection in pipes carrying oil products in noisy environment”. Role: Team Leader (University of Peloponnese, Team Budget € 168.000,00)
Research project within the framework of the Single RTDI State Aid Action “RESEARCH - CREATE - INNOVATE”, funded by the Operational Programme Competitiveness, Entrepreneurship and Innovation 2014-2020 (EPAnEK). Duration: 48 months (July 2018-June 2022). Budget: € 972.715,00 €. Partners: Aristotle University of Thessaloniki (Dept. of Physics (PI) and Dept. of Mechanical Engineering), University of Peloponnese, Hellenic Petroleum and PRISMA

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[J3] **Nanou, M., Politi, C. T., Stavdas, A., Glentis, G. O., Georgoulakis, K., Emeretlis, A., & Theodoridis, G**. (2016). Cost-effective optical transponders for deployed metropolitan area networks. Optics Communications, 380, 201-213.

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[J11] **Glentis, G.O.; Jakobsson, A**.; "Superfast Approximative Implementation of the IAA Spectral Estimate," *IEEE Transactions on Signal Processing*, vol.60, no.1, pp.472-478, Jan.2012

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[C2] **C. Angelopoulos**, **K. Georgoulaki, and G.O. Glentis,** 'Evaluating the impact of spectral estimators on frequency domain feature classification applications for pipe leakage detection,' submitted IEEE International Instrumentation and Measurement Technology Conference, I2MTC 2022

[C3] **G.O. Glentis and K. Angelopoulos**, 'Using Generalized Cross-Correlation estimators for leak signal velocity estimation and spectral region of operation selection,' submitted IEEE International Instrumentation and Measurement Technology Conference, I2MTC 2022

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[C5] **K. Angelopoulos and G.O. Glentis,** 'Nonparametric Spectral Estimation - An overview,' In 25th Pan-Hellenic Conference on Informatics 2021.

[C6] **J. de Wit, K. Angelopoulos, J. Kalkman and G.O. Glentis**, 'Axial super-resolution for optical coherence tomography with the iterative adaptive approach,' to appear in 2021 OSA Imaging and Applied Optics Congress, July 19-23.

[C7] **K. Angelopoulos and G.O. Glentis**, 'Performance assessment of correlation methods for the velocity estimation of vibro-acoustic signals propagating in fluid-filled pipelines', to appear in 10th International Conference on Circuits and Systems Technologies (MOCAST 2021), 5-7 July, IEEE.

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