CURRICULUM VITAE

NIKOLAOS ANTONIADIS

Education

Education

University of Michigan, Ann Arbor, MI 48109, USA.

1992   Ph. D. in Electrical Engineering: Systems

Dissertation title: Time Delay Estimation for Inhomogeneous Poisson Processes in the Presence of Gaussian noise.

Supervisor: Assistant Professor Alfred O. Hero.

1990   Master of Science (M. Sc.) in Bioengineering

Thesis title: Correlation Analysis for Abnormal Cardiac Signals

Supervisor: Assoc. Professor Janice Jenkins.

1989   Master of Science (M. Sc.) . in Electrical Engineering: Systems

Supervisor: Assistant Professor Alfred O. Hero.

Aristotle University of Thessaloniki

1986   Diploma in Electrical Engineering

Diploma thesis title: Myoelectrical Signal Processing

Supervisor: Assistant Professor Stavros Panas

Professional experience

10/00   - today   Professor at TEI of Epirus, Dept. Of   Informatics   and   Telecommunications Technology

7/97-10/00   National Telecom Organization of Greece. S.A. Telecom Engineer, Planning Department. Broadband networks and services, SDH rings, wireless links. Representative at the ADSL Forum

7/96-
          7/97   ATTIKO METRO S.A. Network management, application d evelopment, electronic services, workgroup for development of an Electronic Document Processing (EDP) system

1994   Military Service at the Geographic Military Service. Satellite Image Processing, GIS, extensive use of packages ERDAS and Arc/Info.

1/94-5/94   HITEC S.A: Image Processing, robotics, algorithm development (Project Robofish, funded by the European Union)

Teaching

- Advanced   Internet   Services. Graduate   Program   "Telecom Applications". University of Ioannina (2005-2006)

TEI of Epirus, Dept. of Informatics and Telecom Technology

- Database Systems I. 2000-today
- Cellular Mobile Communications. 2001-2002

- Project Management. 2006-2008
- Technical Writing. 2002-today

University of Michigan, Dept. of Electrical Engineering: Systems

- Probability and Random Processes. 1991-1992
- Introduction in Signal Processing. 1987-1988

Administration

- Head of Department of Informatics and Telecommunication Technology, TEI of Epirus (2000-2001, 2002-2003, 2008-today)
- Member of the technical Board of TEI of Epirus (2005-2008)
- Head of the Technical Board of TEI of Epirus (2008-2010)
- Head of the Informatics Sector, Department of Informatics and Telecommunication Technology, TEI of Epirus (2006-2008)

Journal papers

1. A. O. Hero, N. Antoniadis, N. Clinthorne, W. L. Rogers, G. D. Hutchins, "Optimal and Suboptimal Timing Estimators for PET", *IEEE Trans. on Nuclear Science*, pp. 725-729, Vol. NS-37 (2), January 1990.

2. N. Antoniadis and A. O. Hero, "Time Delay Estimation for Filtered Poisson Processes Using an EM-Type Algorithm", *1992 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP-92),* pp. 289 – 292, vol.5, 23-26 March 1992.

3. N. Antoniadis and A. O. Hero, "Time Delay Estimation for Filtered Poisson Processes Using an EM-Type Algorithm", *IEEE Trans. on Signal Processing*, pp. 2112 – 2123, Vol. SP-42 (8), August 1994.

4. C. Kyritsis and N. Antoniadis, "Option Pricing Based on the Concept of Insurance Market Models-Free Methods that Give as Special Case the Black-Scholes Option Pricing", *Review of Economic Sciences*, pp. 177-190, 8, 2005.

References

Publication 1:

1. C Morelli *et al*., "Hidden Markov Models for Radio Localization in Mixed LOS/NLOS Conditions", to appear in *IEEE Trans. on Signal Processing*, 2007

2. W. C. Karl *et al*., "High-resolution biosensor spectral peak shift estimation", *IEEE Trans. on Signal Processing*, pp. 4631-4639, Vol. SP-53 (12), December 2005.

3. M. Gkizeli *et al*., "Blind iterative recovery of spread-spectrum steganographic messages", *Proceedings of Intl. Conf. on Image Processing 2005 (ICIP 2005)*, pp. 1098-1101, Vol. 2, Genova, Italy, September 2005.

4. A. O. Hero, "On the problem of granulometry for a degraded Boolean image model", *Proceedings of Intl. Conf. on Image Processing 1999 (ICIP 1999)*, pp. 16-20, Vol. 2, Kobe, Japan, October 1999.

5. T. F. Li, "Multipath time delay estimation using regression stepwise procedure", *IEEE Trans. on Signal Processing*, pp. 191-195, Vol. SP-46 (1), January 1998.

6. R. E. Sequeira and JA Gubner, "Blind intensity estimation from shot-noise data", *IEEE Trans. on Signal Processing*, pp. 421-433, Vol. SP-45 (2), February 1997

7. T. K. Moon, "The Expectation-Maximization Algorithm", *IEEE Signal Processing Magazine*, pp. 47-60, November 1996.

8. Y.-T. Huang, "Application of EM Algorithm to Image Processing", M. Sc. Thesis, Natl. Sun Yat-Sen University, June 1996.

9. C. L. Chan and A. K. Katsaggelos, "Iterative maximum likelihood displacement field estimation inquantum-limited image sequences", *IEEE Trans. on Image Processing,* pp. 743-751, Vol. 4 (6), June 1995

10. A. O. Hero and J. A. Fessler, "Convergence in norm for alternating Expectation-Maximization (EM) type algorithms", *Stat. Sinica,* pp. 41-54, Vol. 5 (1), January 1995

Publication 3:

1. Y.P. Shao, "A new timing model for calculating the intrinsic timing resolution of a scintillator detector", *Physics in Medicine and Biology*, pp. 1103-1117, Vol. 52 (4), February 2007.

2. D. M. Binkley, "Optimization of scintillation detector timing systems using Monte Carlo analysis", *IEEE Trans. on Nuclear Science,* pp. 386-393, Vol. 41 (1) Part 2, February 1994

3. N. Petrick *et al.*, "Least-squares arrival time estimators for single and piled up scintillation pulses", *IEEE Trans. on Nuclear Science,* pp. 1026-1030, Vol. 40 (4) Part 1, August 1993

4. N. Petrick *et al.*, "Least-squares arrival time estimators for photons detected using a photomultiplier tube", *IEEE Trans. on Nuclear Science,* pp. 738-741, Vol. 39 (4), August 1992

5. N. Petrick *et al.*, "1st photoelectron timing error evaluation of a new scintillation detector model", *IEEE Trans. on Nuclear Science,* pp. 174-177, Vol. 38 (2), Part 1, April 1991

6. A. O. Hero *et al.*, "A lower bound on PET timing estimation with pulse pileup", *IEEE Trans. on Nuclear Science,* pp. 709-712, Vol. 38 (2), Part 1, April 1991

7. A. O. Hero, "Timing estimation for a filtered Poisson process in Gaussian-noise", *IEEE Trans. on Information Theory,* pp. 92-106, Vol. 37 (1), January 1991

8. N. Clinthorne *et al.*, "A Method For Improving Time-of-arrival Estimation For Weak Optical Signals With Applications To Scintillation Detectors", *Nuclear Science Symposium 1990*, Conference record, October 1990.

Publication 4:

1. L. Zarangas, "Stock Market Prices, Mean Reversion and Capital Breaks: Evidence from Emerging Markets", *Review of Economic Sciences*, pp. 125-140, 9, 2006

Conference Papers

1. A. O. Hero, N. Antoniadis, N. Clinthorne, W. L. Rogers, G. D. Hutchins, "Optimal and Suboptimal Timing Estimators for PET", *Nuclear Science Symposium*, San Francisco, California, January 1990.

2. N. Antoniadis and A. O. Hero, "Time Delay Estimation for Filtered Poisson Processes Using an EM-Type Algorithm", *Intl. Conference on Acoustics, Speech and Signal Processing*, San Francisco, California, March 1992.

3. A. Lambros and N. Antoniadis, «Use of Mobile Phones by Students», *9th Panhellenic Congress of the Union of Greek Physicists*, Chios, November 1-4, 2001

4. A. Lambros, N. Antoniadis, G. Stylios, M. Lambrou «Impact of the Use of Mobile Phones to Young People», *10th Panhellenic Congress of the Union of Greek Physicists*, Loutraki, January 28-31, 2004

5. N. Antoniadis, P. Kostarakis, V. Raptis, N. Stavrou, G. Tatsis, I. Marmorkos «M-ary Digital Signal Modulation and Digital Signal Transmission », *10th Conference of the Union of Greek Physicists and the Union of Cypriot Physicists, Kerkyra*, March 1-4 2007.