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Employment

Research

Department of Engineering
School of Sciences and Engineering
15 Sept 2008 → present

Research outputs

Cyprus Surface Water Area Variation Based on the 1984–2021 Time Series Built from Remote Sensing Products

Costa, D. D. A., Bayissa, Y., Lugon Junior, J., Yamasaki, E. N., Kyriakides, I. & Silva Neto, A. J., Nov 2023, In: Remote Sensing. 15, 22, 5288.

AN ASSESSMENT OF RELATIVE POTENTIAL IMPACTS TO CYPRUS' SHORELINE DUE TO OIL SPILLS IN THE EASTERN MEDITERRANEAN SEA

de Souza, N. G. S., Lugon, J., Yamasaki, E. N., Kyriakides, I. & Silva Neto, A. J., Jun 2023, In: Journal of Integrated Coastal Zone Management. 23, 1, p. 29-42 14 p.

Identifying Metrics for an IoT Performance Estimation Framework

Alexopoulos, I., Neophytou, S. & Kyriakides, I., 7 Jun 2021, *2021 10th Mediterranean Conference on Embedded Computing, MECO 2021*. Institute of Electrical and Electronics Engineers Inc., 9460212. (2021 10th Mediterranean Conference on Embedded Computing, MECO 2021).

Modeling the Operating Characteristics of IoT for Underwater Sound Classification

Constantinou, C. C., Michaelides, E., Alexopoulos, I., Pieri, T., Neophytou, S., Kyriakides, I., Abdi, E., Reodica, J. & Hayes, D. R., 27 Jan 2021, *2021 IEEE 11th Annual Computing and Communication Workshop and Conference, CCWC 2021*. Paul, R. (ed.). Institute of Electrical and Electronics Engineers Inc., p. 1016-1022 7 p. 9376070. (2021 IEEE 11th Annual Computing and Communication Workshop and Conference, CCWC 2021).

Agile Edge Classification of Ocean Sounds

Neophytou, S., Tsiantis, P., Alexopoulos, I., Kyriakides, I., Veyrac, C. D., Abdi, E. & Hayes, D. R., 28 Oct 2020, *2020 11th IEEE Annual Ubiquitous Computing, Electronics and Mobile Communication Conference, UEMCON 2020*. Paul, R. (ed.). Institute of Electrical and Electronics Engineers Inc., p. 343-348 6 p. 9298142. (2020 11th IEEE Annual Ubiquitous Computing, Electronics and Mobile Communication Conference, UEMCON 2020).

An IoT framework for Edge Processing of Ocean Sounds

Neophytou, S., Alexopoulos, I., Kyriakides, I., Tsiantis, P., Abdi, E. & Hayes, D. R., Aug 2020, *2020 International Conference on Omni-Layer Intelligent Systems, COINS 2020*. Institute of Electrical and Electronics Engineers Inc., 9191401. (2020 International Conference on Omni-Layer Intelligent Systems, COINS 2020).

Environmental hydrodynamic modeling applied to extreme events in Caribbean and mediterranean countries

Lugon, J., Juliano, M. M., Kyriakides, I., Yamasaki, E. N., Rodrigues, P. P. G. W. & Neto, A. J. S., Aug 2020, In: Desalination and Water Treatment. 194, p. 315-323 9 p.

Preface

Dionysiou, I., Kyriakides, I. & Tsapatsoulis, N., 28 Nov 2019, In: ACM International Conference Proceeding Series.

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Dionysiou, I., Kyriakides, I. & Tsapatsoulis, N., 28 Nov 2019, In: ACM International Conference Proceeding Series.

Identifying floating plastic marine debris using a deep learning approach

Kylili, K., Kyriakides, I., Artusi, A. & Hadjistassou, C., 1 Jun 2019, In: Environmental Science and Pollution Research. 26, 17, p. 17091-17099 9 p.

Maritime vehicle tracking using underwater gliders and particle filters

Kyriakides, I., Abdi, E. & Hayes, D., 15 Nov 2016, *2016 4th International Workshop on Compressed Sensing Theory and its Applications to Radar, Sonar and Remote Sensing, CoSeRa 2016*. Institute of Electrical and Electronics Engineers Inc., p. 51-55 5 p. 7745698

Multiple target tracking using thermal imaging and radar sensors

Kyriakides, I., 15 Nov 2016, *2016 4th International Workshop on Compressed Sensing Theory and its Applications to Radar, Sonar and Remote Sensing, CoSeRa 2016*. Institute of Electrical and Electronics Engineers Inc., p. 158-162 5 p. 7745720

3D Localization and Frequency Band Estimation of Multiple Unknown RF Sources Using Particle Filters and a Wireless Sensor Network

Gotsis, K. A., Kyriakides, I. & Sahalos, J. N., 1 Oct 2016, In: Wireless Personal Communications. 90, 4, p. 1889-1902 14 p.

Target tracking using adaptive compressive sensing and processing

Kyriakides, I., 1 Oct 2016, In: Signal Processing. 127, p. 44-55 12 p.

Processing and communications rate requirements in sensor networks for physical thread assessment

Kyriakides, I., Neophytou, S., Kounoudes, A., Michail, K., Argyrou, Y. & Wieland, T., 2016, *Critical Information Infrastructures Security - 9th International Conference, CRITIS 2014, Revised Selected Papers*. Springer Verlag, Vol. 8985. p. 31-36 6 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 8985).

Ambiguity function surface when using prior information in compressive sensing and processing

Kyriakides, I., 16 Nov 2015, *2015 3rd International Workshop on Compressed Sensing Theory and its Applications to Radar, Sonar, and Remote Sensing, CoSeRa 2015*. Institute of Electrical and Electronics Engineers Inc., p. 80-84 5 p. 7330268

Localization of multiple unknown RF sources by combining a power monitoring network and a guided moving sensor under constraints

Kyriakides, I., Gotsis, K. A. & Sahalos, J. N., 27 Aug 2015, *2015 9th European Conference on Antennas and Propagation, EuCAP 2015*. Institute of Electrical and Electronics Engineers Inc., 7228576

Design of sparse-signal processing in radar systems

Pribić, R. & Kyriakides, I., 2014, *2014 IEEE International Conference on Acoustics, Speech, and Signal Processing, ICASSP 2014*. Institute of Electrical and Electronics Engineers Inc., p. 5008-5011 4 p. 6854555

Localization of unidentified RF sources using a moving and a network of stationary sensors

Gotsis, K. A., Kyriakides, I., Najjar, H. & Sahalos, J. N., 2014, *8th European Conference on Antennas and Propagation, EuCAP 2014*. Institute of Electrical and Electronics Engineers Inc., p. 3466-3470 5 p. 6902574

Monte Carlo parametric modeling for predicting biomass calorific value

Christoforou, E. A., Fokaides, P. A. & Kyriakides, I., 2014, In: Journal of Thermal Analysis and Calorimetry. 118, 3, p. 1789-1796 8 p.

Sampling size in Monte Carlo Bayesian compressive sensing

Kyriakides, I. & Pribić, R., 2014, *2014 IEEE 8th Sensor Array and Multichannel Signal Processing Workshop, SAM 2014*. IEEE Computer Society, p. 397-400 4 p. 6882424

Bayesian compressive sensing using Monte Carlo methods

Kyriakides, I. & Pribic, R., 2013, *2013 Proceedings of the 21st European Signal Processing Conference, EUSIPCO 2013*. European Signal Processing Conference, EUSIPCO, 6811591

GRID matching in Monte Carlo Bayesian compressive sensing

Kyriakides, I., Pribic, R., Sar, H. & At, N., 2013, *Proceedings of the 16th International Conference on Information Fusion, FUSION 2013*. p. 2103-2109 7 p. 6641266

Adaptive compressive sensing and processing of delay-Doppler radar waveforms

Kyriakides, I., Feb 2012, In: *IEEE Transactions on Signal Processing*. 60, 2, p. 730-739 10 p., 6064909.

A configurable compressive acquisition matrix for radar tracking using particle filtering

Kyriakides, I., 2012, *European Microwave Week 2012: "Space for Microwaves", EuMW 2012, Conference Proceedings - 9th European Radar Conference, EuRAD 2012*. p. 103-106 4 p. 6450646

Adaptive highly localized waveform design for multiple target tracking

Kyriakides, I., Morrell, D. & Papandreou-Suppappola, A., 2012, In: *Eurasip Journal on Advances in Signal Processing*. 2012, 1, 180.

Configurable compressive sensing and processing using tracking information for delay-Doppler radar applications

Kyriakides, I., 2012, *2012 IEEE Radar Conference: Ubiquitous Radar, RADARCON 2012 - Conference Program*. p. 263-268 6 p. 6212148

Adaptive compressive sensing and processing for radar tracking

Kyriakides, I., 2011, *2011 IEEE International Conference on Acoustics, Speech, and Signal Processing, ICASSP 2011 - Proceedings*. p. 3888-3891 4 p. 5947201

Ambiguity functions of compressively sensed and processed radar waveforms

Kyriakides, I., 2011, *2011 IEEE International Conference on Acoustics, Speech, and Signal Processing, ICASSP 2011 - Proceedings*. p. 4256-4259 4 p. 5947293

Radar tracking performance when sensing and processing compressive measurements

Kyriakides, I., 2010, *13th Conference on Information Fusion, Fusion 2010*. 5711929

Monte Carlo matching pursuit decomposition method for damage quantification in composite structures

Das, S., Kyriakides, I., Chattopadhyay, A. & Papandreou-Suppappola, A., Apr 2009, In: *Journal of Intelligent Material Systems and Structures*. 20, 6, p. 647-658 12 p.

Sequential Monte Carlo methods for tracking multiple targets with deterministic and stochastic constraints

Kyriakides, I., Morrell, D. & Papandreou-Suppappola, A., Mar 2008, In: *IEEE Transactions on Signal Processing*. 56, 3, p. 937-948 12 p.

Multiple target tracking using particle filtering and adaptive waveform design

Kyriakides, I., Trueblood, T., Morrell, D. & Papandreou-Suppappola, A., 2008, *2008 42nd Asilomar Conference on Signals, Systems and Computers, ASILOMAR 2008*. p. 1188-1192 5 p. 5074603

Using a configurable integrated sensing and processing imager to track multiple targets

Kyriakides, I., Morrell, D. & Papandreou-Suppappola, A., 2008, *2008 IEEE Aerospace Conference, AC*. 4526446

Target tracking using particle filtering and CAZAC sequences

Kyriakides, I., Konstantinidis, I., Morrell, D., Benedetto, J. J. & Papandreou-Suppappola, A., 2007, *2007 International Waveform Diversity and Design Conference, WDD*. p. 367-371 5 p. 4339445

Adapting matching pursuit dictionaries to waveform structure using particle filtering

Kyriakides, I., Papandreou-Suppappola, A. & Morrell, D., 2006, *2006 IEEE Sensor Array and Multichannel Signal Processing Workshop Proceedings, SAM 2006*. p. 561-565 5 p.

Particle filter based matching pursuit; decomposition for damage quantification in composite structures

Das, S., Kyriakides, I., Chattopadhyay, A. & Papandreou-Suppappola, A., 2006, *Collection of Technical Papers - 47th AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics and Materials Conference: 14th AIAA/ASME/AHS Adaptive Structures Conference, 8th AIAA Non-deterministic App*. Vol. 9. p. 6180-6191 12 p.

Threshold optimization for distributed detection using particle filtering methods

Kyriakides, I. & Cochran, D., 2006, *2006 IEEE Sensor Array and Multichannel Signal Processing Workshop Proceedings, SAM 2006*. p. 481-485 5 p.

A particle filtering approach to constrained motion estimation in tracking multiple targets

Kyriakides, I., Morrell, D. & Papandreou-Suppappola, A., 2005, *Conference Record of The Thirty-Ninth Asilomar Conference on Signals, Systems and Computers*. Vol. 2005. p. 94-98 5 p. 1599709

Multiple target tracking with constrained motion using particle filtering methods

Kyriakides, I., Morrell, D. & Papandreou-Suppappola, A., 2005, *IEEE CAMSAP 2005 - First International Workshop on Computational Advances in Multi-Sensor Adaptive Processing*. Vol. 2005. p. 85-88 4 p. 1574190