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Publons / Web Of Science ResearcherID: AAC-5703-2021

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Education Information

Doctorate, University of London-Imperial College of Science, Technology and Medicine, Electrical Engineering, United Kingdom 1979 - 1982

Postgraduate, University of California, Berkeley, Electrical Engineering, United States Of America 1977 - 1979

Undergraduate, Istanbul Technical University, Elektrik-Elektronik Fakültesi, Elektronik Ve Haberleşme Mühendisliği Bölümü, Turkey 1973 - 1977

Dissertations

Doctorate, Stability, stabilisation and design of multidimensional recursive digital filters, University Of London-Imperial College Of Science, Technology And Medicine, Electrical Engineering, 1982

Research Areas

Engineering and Technology

Academic Titles / Tasks

Professor, Istanbul Technical University, Elektrik-Elektronik Fakültesi, Elektronik Ve Haberleşme Mühendisliği Bölümü, 1993 - Continues

Associate Professor, Istanbul Technical University, Elektrik-Elektronik Fakültesi, Elektronik Ve Haberleşme Mühendisliği Bölümü, 1987 - 1993

Assistant Professor, Istanbul Technical University, Elektrik-Elektronik Fakültesi, Elektronik Ve Haberleşme Mühendisliği Bölümü, 1985 - 1987

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Fully Orthogonal 2-D Lattice Structures for Quarter-Plane and Asymmetric Half-Plane Autoregressive Modeling of Random Fields**
Kayran A. H., CAMCIOĞLU E.
IEEE TRANSACTIONS ON SIGNAL PROCESSING, vol.67, no.17, pp.4507-4520, 2019 (SCI-Expanded)
- II. **ARMA-cepstrum recursion algorithm for the estimation of the MA parameters of 2-D ARMA models**

- Kizilkaya A., Kayran A. H.
MULTIDIMENSIONAL SYSTEMS AND SIGNAL PROCESSING, vol.16, no.4, pp.397-415, 2005 (SCI-Expanded)
- III. Estimation of 2-D ARMA model parameters by using equivalent AR approach**
Kizilkaya A., Kayran A. H.
JOURNAL OF THE FRANKLIN INSTITUTE-ENGINEERING AND APPLIED MATHEMATICS, vol.342, no.1, pp.39-67, 2005 (SCI-Expanded)
- IV. Matrix-based computation of the exact Cramer-Rao bound for the ARMA parameter estimation realized with relatively short data records**
Kizilkaya A., Kayran A. H.
FREQUENZ, vol.58, no.11-12, pp.278-281, 2004 (SCI-Expanded)
- V. Decision feedback equalisation with complete lattice orthogonalisation**
Ozden M., Kayran A. H.
ELECTRONICS LETTERS, vol.37, no.14, pp.923-925, 2001 (SCI-Expanded)
- VI. Adaptive Volterra channel equalisation with lattice orthogonalisation**
Ozden M., Kayran A. H., Panayirci E.
IEE PROCEEDINGS-COMMUNICATIONS, vol.145, no.2, pp.109-115, 1998 (SCI-Expanded)
- VII. Adaptive identification and equalization of magnetic recording channels**
Ozden M., Kayran A. H., Panayirci E.
EUROPEAN TRANSACTIONS ON TELECOMMUNICATIONS, vol.9, no.2, pp.203-208, 1998 (SCI-Expanded)
- VIII. Improved 2D joint process lattice for adaptive restoration of images**
Kayran A. H.
ELECTRONICS LETTERS, vol.34, no.4, pp.350-351, 1998 (SCI-Expanded)
- IX. Two-dimensional schur algorithm**
Kayran A. H., Kucuk U., Parker S.
MULTIDIMENSIONAL SYSTEMS AND SIGNAL PROCESSING, vol.9, no.1, pp.7-37, 1998 (SCI-Expanded)
- X. Optimum quarter-plane autoregressive modeling of 2-D fields using four-field lattice approach**
Kayran A. H., Parker S.
IEEE TRANSACTIONS ON SIGNAL PROCESSING, vol.45, no.9, pp.2363-2373, 1997 (SCI-Expanded)
- XI. Identification of nonlinear magnetic channels with lattice orthogonalisation**
Ozden M., Panayirci E., Kayran A. H.
ELECTRONICS LETTERS, vol.33, no.5, pp.376-377, 1997 (SCI-Expanded)
- XII. 2D Schur algorithm using a new generator matrix**
Kayran A. H.
ELECTRONICS LETTERS, vol.32, no.22, pp.2044-2045, 1996 (SCI-Expanded)
- XIII. Adaptive Volterra filtering with complete lattice orthogonalization**
Ozden M., Kayran A. H., Panayirci E.
IEEE TRANSACTIONS ON SIGNAL PROCESSING, vol.44, no.8, pp.2092-2098, 1996 (SCI-Expanded)
- XIV. 2D ARMA lattice modelling using two-channel AR lattice approach**
Kayran A. H.
ELECTRONICS LETTERS, vol.32, no.16, pp.1434-1435, 1996 (SCI-Expanded)
- XV. 2D maximum likelihood spectrum estimation using orthogonal 2D lattice filters**
Kayran A. H.
ELECTRONICS LETTERS, vol.32, no.15, pp.1339-1340, 1996 (SCI-Expanded)
- XVI. Two-dimensional orthogonal lattice structures for autoregressive modeling of random fields**
Kayran A. H.
IEEE TRANSACTIONS ON SIGNAL PROCESSING, vol.44, no.4, pp.963-978, 1996 (SCI-Expanded)
- XVII. Satellite channel identification with lattice orthogonalisation**
Ozden M., Kayran A. H., Panayirci E.
ELECTRONICS LETTERS, vol.32, no.4, pp.302-304, 1996 (SCI-Expanded)
- XVIII. FURTHER IMPROVED 2-D LATTICE FILTER STRUCTURE EMPLOYING MISSING REFLECTION COEFFICIENTS**

- ERTUZUN A., KAYRAN A. H., PANAYIRCI E.
CIRCUITS SYSTEMS AND SIGNAL PROCESSING, vol.14, no.4, pp.473-494, 1995 (SCI-Expanded)
- XIX. AN IMPROVED 2-D LATTICE FILTER AND ITS ENTROPY RELATIONS
ERTUZUN A., KAYRAN A. H., PANAYIRCI E.
SIGNAL PROCESSING, vol.28, no.1, pp.1-24, 1992 (SCI-Expanded)
- XX. STABLE QUARTER-PLANE 2-D LATTICE FILTERS
ERTUZUN A., KAYRAN A. H., PANAYIRCI E.
ELECTRONICS LETTERS, vol.26, no.12, pp.806-807, 1990 (SCI-Expanded)

Refereed Congress / Symposium Publications in Proceedings

- I. Implementation Aspects for Interference Alignment
Yetis C. M., Anand K., Kayran A. H., Guan Y. L., Gunawan E.
IEEE International Conference on Digital Signal Processing (DSP), Singapore, Singapore, 21 - 24 July 2015, pp.580-584
- II. Spectrum Estimation using New Efficient 2-D AR Lattice Modeling of Random Fields
Camcioglu E., Kayran A. H.
AFRICON Conference, Pointe aux Piments, Mauritius, 9 - 12 September 2013, pp.604-609
- III. Stationary wavelet transform for fault detection in rotating machinery - art. no. 67630A
Seker S., Karatoprak E., Kayran A. H., Senguler T.
Conference on Wavelet Applications in Industrial Processing V, Massachusetts, United States Of America, 11 - 12 September 2007, vol.6763
- IV. Estimation of the 2-D ARMA model parameters based on the equivalent MA approach
Kizilkaya A., Yetis C. M., Kayran A. H., Seker S.
4th IASTED International Conference on Circuits, Signals, and Systems, San-Francisco, Costa Rica, 20 - 22 November 2006, pp.263-265
- V. Multi-resolution wavelet analysis for detection of potential defects in motor bearings using vibration signals
Seker S., Ozturk A., Ayaz E., Upadhyaya B. R., Kayran A. H.
4th IASTED International Conference on Circuits, Signals, and Systems, San-Francisco, Costa Rica, 20 - 22 November 2006, pp.254-255
- VI. Lattice-ladder structure for 2D ARMA filters
Eksioglu E. M., Kayran A. H.
30th IEEE International Conference on Acoustics, Speech, and Signal Processing, Pennsylvania, United States Of America, 19 - 23 March 2005, pp.101-104
- VII. Location dependent and rotated group space-time block codes
Yetis C., Kayran A. H.
IEEE 12th Signal Processing and Communications Applications Conference, Kusadası, Turkey, 28 - 30 April 2004, pp.526-529

Supported Projects

- Kayran A. H., Project Supported by Higher Education Institutions, Predictive and adaptive channel estimation models for cooperative wireless communication systems, 2015 - 2018
- Kayran A. H., Project Supported by Higher Education Institutions, Girişim Hızalamada Gerçeklemenin İncelenmesi, 2015 - 2018
- Kayran A. H., Project Supported by Higher Education Institutions, 2- Boyutlu AR Kafes Algoritması Kullanarak Spektrum Kestirimi, 2013 - 2018
- Kayran A. H., Project Supported by Higher Education Institutions, 2-Boyutlu Dik Kafes Sözgeç Yapısı Kullanarak Doğrusal

Metrics

Publication: 93

Citation (WoS): 293

Citation (Scopus): 327

H-Index (WoS): 10

H-Index (Scopus): 9