

Prof. UMUT ORGUNER

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International Researcher IDs

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Publons / Web Of Science ResearcherID: A-5234-2013

ScopusID: 6506245711

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Education Information

Doctorate, Middle East Technical University, Graduate School of Natural and Applied Sciences, Elektrik-Elektronik Mühendisliği (Dr), Turkey 2002 - 2006

Postgraduate, Middle East Technical University, Graduate School of Natural and Applied Sciences, Elektrik Ve Elektronik Mühendisliği (YI) (Tezli), Turkey 1999 - 2002

Undergraduate, Middle East Technical University, Faculty of Engineering, Elektrik-Elektronik Mühendisliği Bölümü, Turkey 1994 - 1999

Dissertations

Doctorate, Improved state estimation for jump Markov linear systems, Middle East Technical University, Graduate School of Natural and Applied Sciences, Elektrik-Elektronik Mühendisliği (Dr), 2006

Postgraduate, Evaluation of two new methodologies for maneuvering target tracking, Middle East Technical University, Graduate School of Natural and Applied Sciences, Elektrik Ve Elektronik Mühendisliği (YI) (Tezli), 2002

Research Areas

Electrical and Electronics Engineering, Engineering and Technology

Academic Titles / Tasks

Professor, Middle East Technical University, Faculty of Engineering, Department of Electrical and Electronics Engineering, 2019 - Continues

Associate Professor, Middle East Technical University, Faculty of Engineering, Department of Electrical and Electronics Engineering, 2014 - 2019

Assistant Professor, Middle East Technical University, Faculty of Engineering, Department of Electrical and Electronics Engineering, 2012 - 2014

Assistant Professor, Linköpings Universitet (Linköping University), Engineering, Department Of Electrical Engineering, 2009 - 2012

Lecturer PhD, Linköpings Universitet (Linköping University), Engineering, Department Of Electrical Engineering, 2007 - 2009

Research Assistant, Middle East Technical University, Faculty of Engineering, Department of Electrical and Electronics Engineering, 1999 - 2006

Advising Theses

Candan Ç., Orguner U., Performance prediction of implicitly defined estimators of non-random parameters, Doctorate, E.MEHMETCİK(Student), 2023

Orguner U., Expectation propagation for state estimation with discrete-valued hidden random variables, Doctorate, E.SARITAŞ(Student), 2023

Orguner U., Approximate methods for state estimation with nonlinear measurements and unknown noise covariances, Doctorate, E.LAZ(Student), 2023

ORGUNER U., Variational smoothing for extended target tracking with random matrices, Postgraduate, S.ERDEM(Student), 2022

ORGUNER U., A forward prediction based out of sequence measurement processing method for kalman and IMM filtering, Postgraduate, O.EREL(Student), 2022

ORGUNER U., Decorrelation approaches for distributed fusion with target tracking algorithms, Doctorate, D.ACAR(Student), 2021

Orguner U., Salor Durna Ö., Güç sistemlerinde optimizasyon algoritmaları ile geliştirilen yeni bir harmonik ve araharmonik kestirim yöntemi ve genlik kestirim algoritmaları için genel bir başarımlı kriteri önerisi, Doctorate, Ç.ALTINTAŞI(Student), 2020

Özkan E., ORGUNER U., Non-parametric sensor bias estimation using Gaussian process, Postgraduate, M.UFUK(Student), 2019

ORGUNER U., Interacting multiple model probabilistic data association filter using random matrices for extended target tracking, Postgraduate, E.ÖZPAK(Student), 2018

ORGUNER U., Satellite orbit estimation using kalman filters, Postgraduate, M.İPEK(Student), 2017

ORGUNER U., Parametric and posterior Cramér-Rao lower bounds for extended target tracking in a random matrix framework, Postgraduate, E.SARITAŞ(Student), 2015

ORGUNER U., Target tracking and sensor placement for doppler-only measurements, Postgraduate, S.AYAZGÖK(Student), 2015

YILMAZ A. Ö., ORGUNER U., INDOOR LOCALIZATION AND TRACKING BASED ON RSSI AND ACCELEROMETER MEASUREMENTS, Postgraduate, M.DOĞAN(Student), 2015

Orguner U., Demirekler M., Fusion of target density and intensity functions based on Chernoff fusion using sigma points, Doctorate, M.GÜNAY(Student), 2015

YILMAZ A. Ö., ORGUNER U., On localization and tracking using received signal strength measurements /, Postgraduate, A.YILMAZ(Student), 2015

ORGUNER U., Dynamic quantization for track fusion under communication constraints, Postgraduate, G.GÖK(Student), 2015

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Expectation Propagation with Context Adjustment for Smoothing of Jump Markov Linear Systems**
Sartas E., ORGUNER U.
IEEE Transactions on Aerospace and Electronic Systems, vol.59, no.5, pp.7098-7114, 2023 (SCI-Expanded)
- II. **Gaussian Mixture Filtering with Nonlinear Measurements Minimizing Forward Kullback-Leibler Divergence**
Laz E., ORGUNER U.
Signal Processing, vol.208, 2023 (SCI-Expanded)

- III. **An Approximate MSE Expression for Maximum Likelihood and Other Implicitly Defined Estimators of Non-Random Parameters**
Mehmetcik E., ORGUNER U., CANDAN Ç.
SIGNAL PROCESSING, vol.204, 2023 (SCI-Expanded)
- IV. **Multi-Ellipsoidal Extended Target Tracking With Variational Bayes Inference**
TUNCER B., ORGUNER U., ÖZKAN E.
IEEE TRANSACTIONS ON SIGNAL PROCESSING, vol.70, pp.3921-3934, 2022 (SCI-Expanded)
- V. **Decorrelation of Previously Communicated Information for an Interacting Multiple Model Filter**
Acar D., ORGUNER U.
IEEE TRANSACTIONS ON AEROSPACE AND ELECTRONIC SYSTEMS, vol.57, no.1, pp.404-422, 2021 (SCI-Expanded)
- VI. **Performance limits for the amplitude estimation of power system harmonics & interharmonics**
Altıntasi C., ORGUNER U., Salor O.
IET GENERATION TRANSMISSION & DISTRIBUTION, vol.14, no.19, pp.4108-4121, 2020 (SCI-Expanded)
- VII. **Chernoff Fusion of Gaussian Mixtures Based on Sigma-Point Approximation**
Gunay M., ORGUNER U., DEMİREKLER M.
IEEE TRANSACTIONS ON AEROSPACE AND ELECTRONIC SYSTEMS, vol.52, no.6, pp.2731-2746, 2016 (SCI-Expanded)
- VIII. **Approximate Bayesian Smoothing with Unknown Process and Measurement Noise Covariances**
Ardeşiri T., Ozkan E., ORGUNER U., Gustafsson F.
IEEE SIGNAL PROCESSING LETTERS, vol.22, no.12, pp.2450-2454, 2015 (SCI-Expanded)
- IX. **Greedy Reduction Algorithms for Mixtures of Exponential Family**
Ardeşiri T., Granstrom K., Ozkan E., ORGUNER U.
IEEE SIGNAL PROCESSING LETTERS, vol.22, no.6, pp.676-680, 2015 (SCI-Expanded)
- X. **A fine-resolution frequency estimator using an arbitrary number of DFT coefficients**
ORGUNER U., CANDAN Ç.
SIGNAL PROCESSING, vol.105, pp.17-21, 2014 (SCI-Expanded)
- XI. **Random Set Methods Estimation of Multiple Extended Objects**
Granstrom K., Lundquist C., Gustafsson F., Orguner U.
IEEE ROBOTICS & AUTOMATION MAGAZINE, vol.21, no.2, pp.73-82, 2014 (SCI-Expanded)
- XII. **Multi-target tracking with PHD filter using Doppler-only measurements**
Guldogan M. B., Lindgren D., Gustafsson F., Habberstad H., ORGUNER U.
DIGITAL SIGNAL PROCESSING, vol.27, pp.1-11, 2014 (SCI-Expanded)
- XIII. **New Prediction for Extended Targets With Random Matrices**
Granstrom K., ORGUNER U.
IEEE TRANSACTIONS ON AEROSPACE AND ELECTRONIC SYSTEMS, vol.50, no.2, pp.1577-1589, 2014 (SCI-Expanded)
- XIV. **The Marginal Enumeration Bayesian Cramer-Rao Bound for Jump Markov Systems**
FRITSCHÉ C., ORGUNER U., Svensson L., Gustafsson F.
IEEE SIGNAL PROCESSING LETTERS, vol.21, no.4, pp.464-468, 2014 (SCI-Expanded)
- XV. **The moment function for the ratio of correlated generalized gamma variables**
CANDAN Ç., Orguner U.
STATISTICS & PROBABILITY LETTERS, vol.83, no.10, pp.2353-2356, 2013 (SCI-Expanded)
- XVI. **An Extended Target CPHD Filter and a Gamma Gaussian Inverse Wishart Implementation**
Lundquist C., Granstrom K., ORGUNER U.
IEEE JOURNAL OF SELECTED TOPICS IN SIGNAL PROCESSING, vol.7, no.3, pp.472-483, 2013 (SCI-Expanded)
- XVII. **On Spawning and Combination of Extended/Group Targets Modeled With Random Matrices**
Granstrom K., ORGUNER U.
IEEE TRANSACTIONS ON SIGNAL PROCESSING, vol.61, no.3, 2013 (SCI-Expanded)
- XVIII. **A PHD Filter for Tracking Multiple Extended Targets Using Random Matrices**
Granstrom K., Orguner U.
IEEE TRANSACTIONS ON SIGNAL PROCESSING, vol.60, no.11, pp.5657-5671, 2012 (SCI-Expanded)

- XIX. **Extended Target Tracking using a Gaussian-Mixture PHD Filter**
 Granstrom K., Lundquist C., Orguner O.
 IEEE TRANSACTIONS ON AEROSPACE AND ELECTRONIC SYSTEMS, vol.48, pp.3268-3286, 2012 (SCI-Expanded)
- XX. **Road Target Search and Tracking with Gimballed Vision Sensor on an Unmanned Aerial Vehicle**
 Skoglar P., Orguner U., Tornqvist D., Gustafsson F.
 REMOTE SENSING, vol.4, no.7, pp.2076-2111, 2012 (SCI-Expanded)
- XXI. **A Variational Measurement Update for Extended Target Tracking With Random Matrices**
 Orguner U.
 IEEE TRANSACTIONS ON SIGNAL PROCESSING, vol.60, no.7, pp.3827-3834, 2012 (SCI-Expanded)
- XXII. **Pedestrian tracking with an infrared sensor using road network information**
 Skoglar P., Orguner U., Tornqvist D., Gustafsson F.
 EURASIP JOURNAL ON ADVANCES IN SIGNAL PROCESSING, 2012 (SCI-Expanded)
- XXIII. **Target Tracking With Particle Filters Under Signal Propagation Delays**
 Orguner U., Gustafsson F.
 IEEE TRANSACTIONS ON SIGNAL PROCESSING, vol.59, no.6, pp.2485-2495, 2011 (SCI-Expanded)
- XXIV. **A Simple Real-Time Fault Signature Monitoring Tool for Motor-Drive-Embedded Fault Diagnosis Systems**
 Akin B., Choi S., Orguner U., Toliyat H. A.
 IEEE TRANSACTIONS ON INDUSTRIAL ELECTRONICS, vol.58, no.5, pp.1990-2001, 2011 (SCI-Expanded)
- XXV. **Robust Tracking in Cellular Networks Using HMM Filters and Cell-ID Measurements**
 Bshara M., Orguner U., Gustafsson F., Van Biesen L.
 IEEE TRANSACTIONS ON VEHICULAR TECHNOLOGY, vol.60, no.3, pp.1016-1024, 2011 (SCI-Expanded)
- XXVI. **Extended Target Tracking Using Polynomials With Applications to Road-Map Estimation**
 Lundquist C., Orguner U., Gustafsson F.
 IEEE TRANSACTIONS ON SIGNAL PROCESSING, vol.59, no.1, pp.15-26, 2011 (SCI-Expanded)
- XXVII. **Fingerprinting Localization in Wireless Networks Based on Received-Signal-Strength Measurements: A Case Study on WiMAX Networks**
 Bshara M., Orguner U., Gustafsson F., Van Biesen L.
 IEEE TRANSACTIONS ON VEHICULAR TECHNOLOGY, vol.59, no.1, pp.283-294, 2010 (SCI-Expanded)
- XXVIII. **Maximum likelihood estimation of transition probabilities of jump Markov linear systems**
 Orguner U., Demirekler M.
 IEEE TRANSACTIONS ON SIGNAL PROCESSING, vol.56, no.10, pp.5093-5108, 2008 (SCI-Expanded)
- XXIX. **Risk-sensitive particle filters for mitigating sample impoverishment**
 Orguner U., Gustafsson F.
 IEEE TRANSACTIONS ON SIGNAL PROCESSING, vol.56, no.10, pp.5001-5012, 2008 (SCI-Expanded)
- XXX. **Phase-sensitive detection of motor fault signatures in the presence of noise**
 Akin B., Orguner U., Toliyat H. A., Rayner M.
 IEEE TRANSACTIONS ON INDUSTRIAL ELECTRONICS, vol.55, no.6, pp.2539-2550, 2008 (SCI-Expanded)
- XXXI. **Low order PWM inverter harmonics contributions to the inverter-fed induction machine fault diagnosis**
 Akin B., Orguner U., Toliyat H. A., Rayner M.
 IEEE TRANSACTIONS ON INDUSTRIAL ELECTRONICS, vol.55, no.2, pp.610-619, 2008 (SCI-Expanded)
- XXXII. **Risk-sensitive filtering for jump Markov linear systems**
 Orguner U., Demirekler M.
 AUTOMATICA, vol.44, no.1, pp.109-118, 2008 (SCI-Expanded)
- XXXIII. **Analysis of single Gaussian approximation of Gaussian mixtures in Bayesian filtering applied to mixed multiple-model estimation**
 Orguner U., Demirekler M.
 INTERNATIONAL JOURNAL OF CONTROL, vol.80, no.6, pp.952-967, 2007 (SCI-Expanded)
- XXXIV. **An online sequential algorithm for the estimation of transition probabilities for jump Markov linear systems**

Orguner U., Demirekler M.

AUTOMATICA, vol.42, no.10, pp.1735-1744, 2006 (SCI-Expanded)

XXXV. **Simple derivative-free nonlinear state observer for sensorless AC drives**

Akin B., Orguner U., Ersak A., Ehsani M.

IEEE-ASME TRANSACTIONS ON MECHATRONICS, vol.11, no.5, pp.634-643, 2006 (SCI-Expanded)

Books & Book Chapters

I. **Navigation and Tracking of Road-Bound Vehicles Using Map Support**

Orguner U.

in: Handbook of Intelligent Vehicles, Azim Eskandarian, Editor, Springer-Verlag , London, pp.397-434, 2012

Refereed Congress / Symposium Publications in Proceedings

I. **Adaptive mixture approximation for target tracking in clutter**

D'Ortenzio A., Manes C., ORGUNER U.

22nd World Congress of the International Federation of Automatic Control (IFAC), Yokohama, Japan, 9 - 14 July 2023, pp.8889-8895

II. **Adaptive Mixture Model Reduction based on the Composite Transportation Dissimilarity**

D'Ortenzio A., Manes C., Iuliis V. D., ORGUNER U.

26th International Conference on Information Fusion, FUSION 2023, South Carolina, United States Of America, 27 - 30 June 2023

III. **Bayesian Filtering and Smoothing with Unknown Measurement Noise Covariance**

Laz E., ORGUNER U.

2023 IEEE International Radar Conference, RADAR 2023, Sydney, Australia, 6 - 10 November 2023

IV. **A Model Selection criterion for the Mixture Reduction problem based on the Kullback-Leibler Divergence**

D'Ortenzio A., Manes C., ORGUNER U.

25th International Conference of Information Fusion (FUSION), Linköping, Sweden, 4 - 07 July 2022

V. **Fixed-point iterative computation of Gaussian barycenters for some dissimilarity measures**

D'ortenzio A., Manes C., Orguner U.

2022 International Conference on Computational Science and Computational Intelligence, CSCI 2022, Nevada, United States Of America, 14 - 16 December 2022, pp.1422-1428

VI. **Association and Fusion of Range-Azimuth Tracks**

Balci A. E., ŞAHİN K. K., Kumru F., Pektas F., ÖZKAN E., ORGUNER U.

25th International Conference of Information Fusion (FUSION), Linköping, Sweden, 4 - 07 July 2022

VII. **An Optimal Transport Perspective on Gamma Gaussian Inverse-Wishart Mixture Reduction**

D'Ortenzio A., Manes C., ORGUNER U.

25th International Conference of Information Fusion (FUSION), Linköping, Sweden, 4 - 07 July 2022

VIII. **Slow moving target detection for airborne radar systems by dynamic programming on SAR images**

Gurer G., Koc S., Candan Ç., Orguner U.

2019 IEEE Radar Conference, RadarConf 2019, Massachusetts, United States Of America, 22 - 26 April 2019

IX. **A TIGHTER BAYESIAN CRAMER-RAO BOUND**

Bacharach L., Fritsche C., Orguner U., Chaumette E.

44th IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), Brighton, United Kingdom, 12 - 17 May 2019, pp.5277-5281

X. **Some Inequalities Between Pairs of Marginal and Joint Bayesian Lower Bounds**

Bacharach L., Chaumette E., Fritsche C., ORGUNER U.

22nd International Conference on Information Fusion (FUSION), Ottawa, Canada, 2 - 05 July 2019

- XI. **Nonlinear Decentralized Data Fusion with Generalized Inverse Covariance Intersection**
Noack B., ORGUNER U., Hanebeck U. D.
22nd International Conference on Information Fusion (FUSION), Ottawa, Canada, 2 - 05 July 2019
- XII. **Bobrovsky-Zakai Bound for Filtering, Prediction and Smoothing of Nonlinear Dynamic Systems**
Fritsche C., ORGUNER U., Gustafsson F.
21st International Conference on Information Fusion, FUSION 2018, Cambridge, United Kingdom, 10 - 13 July 2018, pp.171-178
- XIII. **Information Decorrelation for an Interacting Multiple Model Filter**
Acar D., ORGUNER U.
21st International Conference on Information Fusion, FUSION 2018, Cambridge, United Kingdom, 10 - 13 July 2018, pp.1527-1534
- XIV. **A Random Matrix Measurement Update Using Taylor-Series Approximations**
SARITAŞ E., ORGUNER U.
21st International Conference on Information Fusion, FUSION 2018, Cambridge, United Kingdom, 10 - 13 July 2018, pp.1756-1763
- XV. **MARGINAL BAYESIAN BHATTACHARYYA BOUNDS FOR DISCRETE-TIME FILTERING**
Fritsche C., ORGUNER U., ÖZKAN E., Gustafsson F.
IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), Calgary, Canada, 15 - 20 April 2018, pp.4289-4293
- XVI. **Approximate Analytical Solutions for the Weight Optimization Problems of CI and ICI**
ORGUNER U.
Symposium on Sensor Data Fusion - Trends, Solutions, Applications (SDF), Bonn, Germany, 10 - 12 October 2017
- XVII. **Posterior Cramér-Rao Lower Bounds for Extended Target Tracking with Random Matrices**
SARITAŞ E., ORGUNER U.
2016 19TH INTERNATIONAL CONFERENCE ON INFORMATION FUSION (FUSION), Heidelberg, Germany, 5 - 08 July 2016, pp.1485-1492
- XVIII. **Optimal sensor placement for Doppler-only target tracking: 1D target motion case**
Ayazgok S., ORGUNER U.
19th International Conference on Information Fusion, FUSION 2016, Heidelberg, Germany, 5 - 08 July 2016, pp.2283-2288
- XIX. **Posterior Cramér-Rao lower bounds for extended target tracking with random matrices**
SARITAŞ E., ORGUNER U.
19th International Conference on Information Fusion, FUSION 2016, Heidelberg, Germany, 5 - 08 July 2016, pp.1485-1492
- XX. **Recent results on Bayesian Cramér-Rao bounds for jump Markov systems**
Fritsche C., ORGUNER U., Svensson L., Gustafsson F.
19th International Conference on Information Fusion, FUSION 2016, Heidelberg, Germany, 5 - 08 July 2016, pp.512-520
- XXI. **Optimal Sensor Placement for Doppler-Only Target Tracking: 1D Target Motion Case**
Ayazgok S., ORGUNER U.
19th International Conference on Information Fusion (FUSION), Heidelberg, Germany, 5 - 08 July 2016, pp.2283-2288
- XXII. **On the Solution of Data Association Problem Using Rollout Algorithms**
Ozgen S., DEMİREKLER M., ORGUNER U.
19th International Conference on Information Fusion (FUSION), Heidelberg, Germany, 5 - 08 July 2016, pp.695-702
- XXIII. **Posterior Cramér-Rao Lower Bounds for Extended Target Tracking with Random Matrices**
SARITAŞ E., ORGUNER U.
19th International Conference on Information Fusion (FUSION), Heidelberg, Germany, 5 - 08 July 2016, pp.1485-1492
- XXIV. **ON PARAMETRIC LOWER BOUNDS FOR DISCRETE-TIME FILTERING**

- Fritsche C., ORGUNER U., Gustafsson F.
IEEE International Conference on Acoustics, Speech, and Signal Processing, Shanghai, China, 20 - 25 March 2016, pp.4338-4342
- XXV. **Chernoff Fusion of Gaussian Mixtures for Distributed Maneuvering Target Tracking**
GUNAY M., ORGUNER U., DEMIREKLER M.
18th International Conference on Information Fusion (Fusion), Washington, Kiribati, 6 - 09 July 2015, pp.870-877
- XXVI. **Dynamic Quantization for Track Fusion Under Communication Constraints**
Gok G., ORGUNER U.
23rd Signal Processing and Communications Applications Conference (SIU), Malatya, Turkey, 16 - 19 May 2015, pp.962-965
- XXVII. **On Generalized Eigenvector Space For Target Detection in Reduced Dimensions**
GÜVENSEN G. M., CANDAN Ç., Koc S., ORGUNER U.
IEEE International Radar Conference (RadarCon), Virginia, United States Of America, 10 - 15 May 2015, pp.1316-1321
- XXVIII. **MARGINAL WEISS-WEINSTEIN BOUNDS FOR DISCRETE-TIME FILTERING**
Fritsche C., Ozkan E., ORGUNER U., Gustafsson F.
40th IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP), Brisbane, Australia, 19 - 24 April 2015, pp.3487-3491
- XXIX. **Approximate Chernoff Fusion of Gaussian Mixtures Using Sigma-Points**
Gunay M., ORGUNER U., DEMIREKLER M.
17th International Conference on Information Fusion (FUSION), Salamanca, Mexico, 7 - 10 July 2014
- XXX. **DELAY ESTIMATION BASED ON KINEMATIC TRACK INFORMATION WITHOUT TIME STAMPS**
Ozgen S., SARITAŞ E., ORGUNER U., Acar D.
22nd IEEE Signal Processing and Communications Applications Conference (SIU), Trabzon, Turkey, 23 - 25 April 2014, pp.1454-1458
- XXXI. **3D TRACKING OF PEOPLE WITH RAO-BLACKWELLIZED PARTICLE FILTERS**
Topcu O., ORGUNER U., Alatan A., ERCAN A. Ö.
22nd IEEE Signal Processing and Communications Applications Conference (SIU), Trabzon, Turkey, 23 - 25 April 2014, pp.670-673
- XXXII. **On the Cramér-Rao lower bound under model mismatch**
Fritsche C., ORGUNER U., Ozkan E., Gustafsson F.
40th IEEE International Conference on Acoustics, Speech, and Signal Processing, ICASSP 2015, Brisbane, Australia, 19 - 24 April 2014, pp.3986-3990
- XXXIII. **Centralized Target Tracking with Propagation Delayed Measurements**
MEHMETCIK E., ORGUNER U.
16th International Conference on Information Fusion (FUSION), İstanbul, Turkey, 9 - 12 July 2013, pp.820-826
- XXXIV. **MULTI-TARGET TRACKING USING PASSIVE DOPPLER MEASUREMENTS**
Guldogan M. B., ORGUNER U., Gustafsson F.
21st Signal Processing and Communications Applications Conference (SIU), CYPRUS, 24 - 26 April 2013
- XXXV. **Enhancing GPS positioning accuracy from the generation of ground-truth reference points for on-road urban navigation**
Bshara M., Orguner U., Gustafsson F., Van Biesen L.
20th IMEKO World Congress 2012, Busan, South Korea, 9 - 14 September 2012, vol.2, pp.799-804
- XXXVI. **On the reduction of Gaussian inverse Wishart mixtures**
Granström K., ORGUNER U.
15th International Conference on Information Fusion, FUSION 2012, Singapore, Singapore, 7 - 12 September 2012, pp.2162-2169
- XXXVII. **Estimation and maintenance of measurement rates for multiple extended target tracking**
Granström K., ORGUNER U.
15th International Conference on Information Fusion, FUSION 2012, Singapore, Singapore, 7 - 12 September 2012, pp.2170-2176

- XXXVIII. **On mixture reduction for multiple target tracking**
Ardeshiri T., ORGUNER U., Lundquist C., Schön T. B.
15th International Conference on Information Fusion, FUSION 2012, Singapore, Singapore, 7 - 12 September 2012, pp.692-699
- XXXIX. **On-road trajectory generation from GPS data: A particle filtering/smoothing application**
Roth M., Gustafsson F., ORGUNER U.
15th International Conference on Information Fusion, FUSION 2012, Singapore, Singapore, 7 - 12 September 2012, pp.779-786
- XL. **Multiple target tracking with Gaussian mixture PHD filter using passive acoustic Doppler-only measurements**
Guldogan M. B., Lindgren D., Gustafsson F., Habberstad H., Orguner U.
15th International Conference on Information Fusion, FUSION 2012, Singapore, Singapore, 7 - 12 September 2012, pp.2600-2607
- XLI. **Gaussian mixture PHD filter for multi-target tracking using passive doppler-only measurements**
Guldogan M. B., Orguner U., Gustafsson F.
9th IET Data Fusion and Target Tracking Conference: Algorithms and Applications, DF and TT 2012, London, United Kingdom, 16 - 17 May 2012, vol.2012, pp.2
- XLII. **Olasilik hipotez yoğunluğu süzgeci kullanarak akustik sensörlerle kara araçları takibi**
Özkan E., Güldoğan B., ORGUNER U., Gustafsson F.
2012 20th Signal Processing and Communications Applications Conference, SIU 2012, Fethiye, Mugla, Turkey, 18 - 20 April 2012
- XLIII. **Non-Linear Filtering based on Observations from Student's t Processes**
Saha S., Orguner U., Gustafsson F.
IEEE Aerospace Conference, Montana, United States Of America, 3 - 10 March 2012
- XLIV. **ML Estimation of Process Noise Variance in Dynamic Systems**
Axelsson P., Orguner U., Gustafsson F., Norrlöf M.
Proceedings of 18th IFAC World Congress, Milan, Italy, 28 August - 02 September 2011, vol.44, pp.5609-5614
- XLV. **The benefits of down-sampling in the particle filter**
Gustafsson F., Saha S., Orguner U.
14th International Conference on Information Fusion, Fusion 2011, Chicago, IL, United States Of America, 5 - 08 July 2011
- XLVI. **Extended target tracking with a cardinalized probability hypothesis density filter**
Orguner U., Lundquist C., Granström K.
14th International Conference on Information Fusion, Fusion 2011, Chicago, IL, United States Of America, 5 - 08 July 2011
- XLVII. **Ground multiple target tracking with a network of acoustic sensor arrays using PHD and CPHD filters**
Özkan E., Guldogan M. B., Orguner U., Gustafsson F.
14th International Conference on Information Fusion, Fusion 2011, Chicago, IL, United States Of America, 5 - 08 July 2011
- XLVIII. **Tracking rectangular and elliptical extended targets using laser measurements**
Granström K., Lundquist C., Orguner U.
14th International Conference on Information Fusion, Fusion 2011, Chicago, IL, United States Of America, 5 - 08 July 2011
- XLIX. **Estimating the shape of targets with a PHD filter**
Lundquist C., Granström K., Orguner U.
14th International Conference on Information Fusion, Fusion 2011, Chicago, IL, United States Of America, 5 - 08 July 2011
- L. **GPS positioning and ground-truth reference points generation**
Bshara M., Orguner U., Gustafsson F., Van Biesen L.
Joint IMEKO TC11-TC19-TC20 International Symposium Metrological Infrastructure, Environmental and Energy

Measurement and International Symposium of Energy Agencies of Mediterranean Countries, IMEKO-MI 2011, Cavtat, Croatia, 15 - 17 June 2011, pp.111-116

- LI. HUMAN GAIT PARAMETER ESTIMATION BASED ON MICRO-DOPPLER SIGNATURES USING PARTICLE FILTERS**
Guldogan M. B., Gustafsson F., Orguner U., Bjorklund S., Petersson H., Nezirovic A.
IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP), Prague, Czech Republic, 22 - 27 May 2011, pp.5940-5943
- LII. Radar micro-doppler parameter estimation of human motion using particle filters Parcacik suzgeci kullanilarak insan yürüyüş ü radar mikro-doppler parametrelerinin kesti rilmesi**
Guldogan M., Gustafsson F., Orguner U., Björklund S., Petersson H., Nezirovic A.
2011 IEEE 19th Signal Processing and Communications Applications Conference, SIU 2011, Antalya, Turkey, 20 - 22 April 2011, pp.395-398
- LIII. Non-linear filtering based on observations from Gaussian processes**
Gustafsson F., Saha S., Orguner U.
2011 IEEE Aerospace Conference, AERO 2011, Big Sky, MT, United States Of America, 5 - 12 March 2011
- LIV. Estimating polynomial structures from radar data**
Lundquist C., Orguner U., Gustafsson F.
13th Conference on Information Fusion, Fusion 2010, Edinburgh, United Kingdom, 26 - 29 July 2010
- LV. Multi target tracking with acoustic power measurements using emitted power density**
Orguner U., Gustafsson F.
13th Conference on Information Fusion, Fusion 2010, Edinburgh, United Kingdom, 26 - 29 July 2010
- LVI. A Gaussian mixture PHD filter for extended target tracking**
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