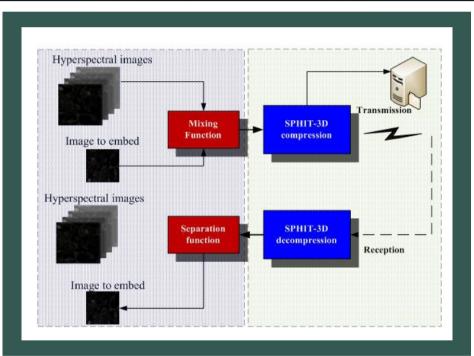


Journal of Signal and Information Processing





Journal Editorial Board

ISSN Print: 2159-4465 ISSN Online: 2159-4481

http://www.scirp.org/journal/jsip

Editor-in-Chief

Prof. Baozong Yuan Beijing Jiaotong University, China

Executive Editor in Chief

Prof. Qiuqi Ruan Beijing Jiaotong University, China

Editorial Board

Prof. Photios AnninosDemocritus University of Thrace, GreeceProf. Roelof Kars BrouwerThompson Rivers University, CanadaDr. Binghua ChaiUniversity of Washington, USA

Dr. Wei-Ta Chu National Chung Cheng University, Chinese Taipei

Dr. Jorge Manuel Miranda Dias University of Coimbra, Portugal

Prof. Javier Diaz-CarmonaInstituto Tecnologico de Celaya, MexicoDr. Sara L. GonzalezUniversity of Geneva, Switzerland

Dr. Cheng Tee HiangNanyang Technological University, SingaporeDr. Yong HuThe University of Hong Kong, Hong Kong (China)

Dr. Demongeot JacquesUniversity Hospital of Grenoble, France

Dr. Pierre JanninUniversity of Rennes I, FranceProf. Kamaruzaman JusoffUniversiti Putra Malaysia, MalaysiaProf. Byung-Gyu KimSunMoon University, Korea (South)

Prof. Vitaly Kober Centrode Investigación Científica y de Educación Superior de

Ensenada(CICESE), Mexico

Dr. Hyun Jung Kwon Andrews University, South-Africa

Dr. Jianwei Ma Tsinghua University, China

Prof. Ping-Feng PaiNational Chi Nan University, Taiwan (China)Prof. Siba Prasada PanigrahyKonark Institute of Science & Technology, India

Prof. Gwi-Tae ParkKorea University, Korea (South)Prof. Steffen B. PetersenUniversity of Aalborg, DenmarkDr. Camillo PorcaroUniversity of Birmingham, UKProf. Lotfi SenhadjiUniversity of Rennes I, France

Prof. Mu-Chun SuNational Central University, Chinese TaipeiProf. Wei WuDalian University of Technology, China

Dr. Oin Xin Simula Research Lab, Norway

Prof. Jianhua Xu East China Normal University, China

Prof. Bo-Suk YangPukyong National University, Korea (South)Prof. Lihua YangSun Yat-sen (Zhongshan) University, China

Prof. Thomas Fang Zheng Tsinghua University, China

Editorial Assistant

Alline Xiao

Email: jsip@scirp.org

Journal of Signal and Information Processing, 2011, 2, 253-347

Published Online November 2011 in SciRes (http://www.SciRP.org/journal/jsip/)



TABLE OF CONTENTS

Volume 2	Number 4	November 2011
New Formula	as for Irregular Sampling of Two-Bands Signals	
On Developm	nent of Fuzzy Controller: The Case of Gaussian and Triangular	Membership Functions
	ıloyo, A. M. Ajofoyinbo, O. Ibidapo-Obe	
Fast Algorith	ım for DOA Estimation with Partial Covariance Matrix and wit	hout Eigendecomposition
J. F. Chen, Y.	. T. Wu, H. Cao, H. Wang	266
The Study of	Multi-Expression Classification Algorithm Based on Adaboost	and
Mutual Indep	pendent Feature	
L. Y. Lang, Z	Z. T. Hu	270
A New Partit	ioning Method in Frequency Analysis of the Retinal Images for	Human Identification
M. Sabaghi, S	S. R. Hadianamrei, A. Zahedi, M. N. Lahiji	274
Simple Huma	an Gesture Detection and Recognition Using a Feature Vector a	nd a Real-Time Histogram
Based Algorit	thm	
I. Gómez-Con	nde, D. Olivieri, X. A. Vila, S. Orozco-Ochoa	279
Least Squares	s Matrix Algorithm for State-Space Modelling of Dynamic Systems	\$
J. T. Olkkone	en, H. Olkkonen	287
LMI Approac	ch to Suboptimal Guaranteed Cost Control for 2-D Discrete Un	certain Systems
A. Dhawan, I	H. Kar	292
Study on Digi	itization of TCM Diagnosis Applied Extraction Method of Blood	l Vessel
C. Wu, K. H	Harada	301
A Dyadic Wa	velet Filtering Method for 2-D Image Denoising	
Y. G. Zhu, X.	L. Yang	308
Fast Encodin	g-Decoding of 3D Hyperspectral Images Using a Non-Supervise	d Multimodal Compression
Scheme		-
M. Lahdir, A.	. Nait-ali, S. Ameur	316
	ectrum Technique for Machinery Fault Diagnosis	
_	V. Wang	322
_	cy Time of Flight Measurement Using Digital Signal Processing	
Subsea Appli		•
	H. Qayyum	330
	od of Voiced/Unvoiced Classification Based on Clustering	
	M. Hadavi, M. M. Nayebi	336

The figure on the front cover is from the article published in the Journal of Signal and Information Processing, 2011, Vol. 2, No. 4, pp. 316-321 by Mourad Lahdir, *et al.*

Copyright © 2011 SciRes.

Journal of Signal and Information Processing (JSIP)

Journal Information

SUBSCRIPTIONS

The Journal of Signal and Information Processing (Online at Scientific Research Publishing, www.SciRP.org) is published quarterly by Scientific Research Publishing, Inc., USA.

Subscription rates:

Print: \$39 per issue.

To subscribe, please contact Journals Subscriptions Department, E-mail: sub@scirp.org

SERVICES

Advertisements

Advertisement Sales Department, E-mail: service@scirp.org

Reprints (minimum quantity 100 copies)

Reprints Co-ordinator, Scientific Research Publishing, Inc., USA.

E-mail: sub@scirp.org

COPYRIGHT

Copyright@2011 Scientific Research Publishing, Inc.

All Rights Reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, scanning or otherwise, except as described below, without the permission in writing of the Publisher.

Copying of articles is not permitted except for personal and internal use, to the extent permitted by national copyright law, or under the terms of a license issued by the national Reproduction Rights Organization.

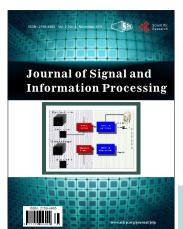
Requests for permission for other kinds of copying, such as copying for general distribution, for advertising or promotional purposes, for creating new collective works or for resale, and other enquiries should be addressed to the Publisher.

Statements and opinions expressed in the articles and communications are those of the individual contributors and not the statements and opinion of Scientific Research Publishing, Inc. We assumes no responsibility or liability for any damage or injury to persons or property arising out of the use of any materials, instructions, methods or ideas contained herein. We expressly disclaim any implied warranties of merchantability or fitness for a particular purpose. If expert assistance is required, the services of a competent professional person should be sought.

PRODUCTION INFORMATION

For manuscripts that have been accepted for publication, please contact:

E-mail: jsip@scirp.org



Call for Papers

Journal of Signal and **Information Processing**

http://www.scirp.org/journal/jsip

JSIP, a quarterly journal, dedicated to the latest advancement of signal and information processing. The goal of this journal is to keep a record of the state-of-theart research and promote the research work in the areas.

Editor-in-Chief

Prof. Baozong Yuan Beijing Jiaotong University, China

Executive Editor in Chief

Prof. Qiuqi Ruan Beijing Jiaotong University, China

Editorial Board

- Prof. Photios Anninos
- Prof. Roelof Kars Brouwer
- Dr. Binghua Chai
- Dr. Wei-Ta Chu
- Dr. Jorge Manuel Miranda Dias
- Prof. Javier Diaz-Carmona
- Dr. Sara L. Gonzalez
- Dr. Cheng Tee Hiang
- Dr. Yong Hu
- Dr. Demongeot Jacques Dr. Pierre Jannin
- Prof. Kamaruzaman Jusoff
- Prof. Byung-Gyu Kim Prof. Vitaly Kober
- Dr. Hyun Jung Kwon
- Dr. Jianwei Ma
- Prof. Ping-Feng Pai
- Prof. Siba Prasada Panigrahy Prof. Gwi-Tae Park
- Prof. Steffen B. Petersen
- Dr. Camillo Porcaro
- Prof. Lotfi Senhadji Prof. Mu-Chun Su
- Prof. Wei Wu
- Dr. Qin Xin
- Prof. Jianhua Xu
- Prof. Bo-Suk Yang
- Prof. Lihua Yang
- Prof. Thomas Fang Zheng

Democritus University of Thrace, Greece

Thompson Rivers University, Canada

University of Washington, USA

National Chung Cheng University, Chinese Taipei

University of Coimbra, Portugal

Instituto Tecnologico de Celaya, Mexico University of Geneva, Switzerland

Nanyang Technological University, Singapore

The University of Hong Kong, Hong Kong (China)

University Hospital of Grenoble, France University of Rennes I, France

Universiti Putra Malaysia, Malaysia

SunMoon University, Korea (South)

Centrode Investigación Científica y de Educación Superior de Ensenada (CICESE), Mexico

Andrews University, South-Africa

Tsinghua University, China

National Chi Nan University, Taiwan (China)

Konark Institute of Science & Technology, India

Korea University, Korea (South)

University of Aalborg, Denmark University of Birmingham, UK

University of Rennes I, France

National Central University, Chinese Taipei

Dalian University of Technology, China

Simula Research Lab, Norway

East China Normal University, China

Pukyong National University, Korea (South) Sun Yat-sen (Zhongshan) University, China

Subject Coverage

This journal invites original research and review papers that address the following issues in signal and information processing. Topics of interest are (but not limited to):

- ★Adaptive Filtering and Signal Processing ★Array Signal Processing
- ★Artificial Intelligence and Neural Networks
 ★Biometrics and Authentification
- ★Chaos Theory in EEG Brain Signals ★Chaos Theory in MEG Brain Signals
- ★Communication Signal Processing ★Compressive Signal Processing and Sensing
- ★Computer Vision and Virtual Reality ★Digital Signal Processing (DSP)
- ★Fuzzy System (including Fuzzy Control) ★Hardware Implementation for Signal Processing
- ★Higher Order Spectral Analysis
- ★Image Processing and Understanding
- ★Information Fusion and Its Application
- ★MEG Signals Processing in Biomedical Research ★Multimedia and Human-Computer Interaction
- ★Non-Stationary Signal Analysis and Time-Frequency Analysis ★Optical Signal Processing, Pattern Recognition

- ★PDE for Image Processing ★Radar Signal Processing
- ★Signal Application and Others ★Signal Processing for Bio-Informatics
- ★Signal Processing for Bio-Medical and Cognitive Science ★Signal Processing for Cognitive Radio
- ★Signal Processing for Internet, Wireless and Communications
 ★Signal Processing for Security
- ★Signal Processing for Sensor Networks ★Sonar Signal Processing and Localization
- ★Sparse Transform and Compressd Sensing ★Spectrum Estimation and Modeling
- ★Speech and Audio Coding ★Speech Synthesis and Recognition
- ★Statistical Analysis of Brain Signals after Transcranial Magnetic Stimulation
- ★Statistic Learning, Machine Learning and Pattern Recognition ★TF Spectrum Analysis and Wavelet
- ★Video Compression and Streaming

We are also interested in short papers (letters) that clearly address a specific problem, and short survey or position papers that sketch the results or problems on a specific topic. Authors of selected short papers would be invited to write a regular paper on the same topic for future issues of the JSIP.

Notes for Intending Authors

Submitted papers should not have been previously published nor be currently under consideration for publication elsewhere. Paper submission will be handled electronically through the website. All papers are refereed through a peer review process. For more details about the submissions, please access the website.

Website and E-Mail