

Dr. Ambedkar Institute of Technology, Bangalore – 56 Department of Electronics & Instrumentation Engineering

The attached documents are valid and approved.

Prof. & Head Professor & Frank Department of Slory on Instrumente.....n En jine. Dr. Ambec .:- 'notitute of Tech-Bangalore - 500 056.

Scanned By Camera Scanner

# Dr. Ambedkar Institute of Technology

SI.No	Name of the teach er	Title of the book/chapte rs published	Title of the paper	Title of the proceedings of the conference	Year of publication	ISBN/ISSN number of the proceeding	whether at the time of publication Affiliating Institution Was same Yes/NO	Name of the publisher
1	Dr. M Meen akshi	Image processing Algorithms for Brest cancer	-	-	8 <sup>m</sup> Nov 2020	978620292198 5	Yes	Lambert academic publications
2	Dr. K Rame sha	International conference on intelligent computing and applications	Adaptive Filter Algorithm s Based Noise Cancellati on Using Neural Network in Mobile Applicatio ns	Advances in intelligent systems and computing	2018	ISBN: 978- 981-10- 5520-1	Yes	Springer link

## Dept. of Electronics and Instrumentation Engineering



Beena Ulalla Mata B.N. Meenakshi M.

# Image Processing Algorithms

For Breast Cancer



This book contains the new image processing algorithm technique for breast cancer detection. The image processing consists of three major steps i.e. pre-processing, segmentation and finally features extraction along with classification for both MIAS Bench mark data set and a novel regional database named as "I- MI Data Base" developed for the Indian Women. This book includes development of a regional dataset available in DICOM format collected from various leading hospitals; a Metadata is converted to BMP format and created a Regional Benchmark database named as "I-MI Database". The novelty of this research work is the application of a new feature based machine learning algorithm to categorize the mammogram images as benign and malignant for a novel data base I-MI.



**Dr. Beena Ullala Mata B. N.** is an Associate Professor in Department of Medical Electronics, B.M.S. College of Engineering, Bangalore with a Ph,D., in Signal and Image processing techniques, from VTU, Belagavi. She is an excellent teacher with 24 years of teaching and 9 years of research experience with many international journal publications.



Advances in Intelligent Systems and Computing 632

Subhransu Sekhar Dash Swagatam Das Bijaya Ketan Panigrahi *Editors* 

International Conference on Intelligent Computing and Applications





Search 📿 📜 Log in



# Adaptive Filter Algorithms Based Noise Cancellation Using Neural Network in Mobile Applications

A. M. Prasanna Kumar 🗠 & K. Ramesha

Conference paper | <u>First Online: 28 December 2017</u> **951** Accesses | **1** <u>Citations</u>

Part of the <u>Advances in Intelligent Systems and</u> <u>Computing</u> book series (AISC,volume 632)

### Abstract

Noise-free output is a desired characteristic of any mobile communication system. Adaptive noise cancellation is achieved by subtracting unwanted noise signal from the corrupted signal. We propose signal extraction using artificial neural network hybrid back propagation adaptive for mobile systems. The performance analysis of the proposed hybrid adaptive algorithms is carried out based on the error convergence and correlation coefficient. By taking into consideration of the existing algorithms, the proposed algorithms require small neural training sets and it gives good results. Noise cancellation operation is established through adaptive control with the goal of achieving minimum noise error level at output. This paper focuses on the analysis of noise cancellation using least mean square algorithms, gradient adaptive lattice algorithms, and hybrid adaptive algorithms. From computed output, we observed that the hybrid adaptive algorithms perform better.

#### Keywords

Adaptive filter Neural network

Least mean square

Adaptive noise cancellation

#### **Adaptive algorithms**

This is a preview of subscription content, <u>access via</u> <u>your institution</u>.

✓ Chapter	<b>EUR 29.95</b> Price includes VAT (India)					
<ul> <li>DOI: 10.1007/978-981-10-5520-1_8</li> <li>Chapter length: 12 pages</li> <li>Instant PDF download</li> <li>Readable on all devices</li> <li>Own it forever</li> <li>Exclusive offer for individuals only</li> <li>Tax calculation will be finalised during</li> </ul>	ng checkout					
Buy Chapter						
> eBook	EUR 277.13					
> Softcover Book	EUR 329.99					
Learn about institutional subscriptions						

#### References

- Bernard Widrow., John R Glover., John M McCool., John Kaunitz., Charles S Williams., Robert H Hearn., James R Zeidler., Eugene Dong Jr and Robert C Goodlin.: Adaptive Noise Cancelling Principles and Applications. Proceedings of IEEE Spectrum, vol. 63, issue 12, pp. 1692–1716, (1975).
- Shubhra Dixit and Deepak Nagaria.: Neural Network Implementation of Least Mean Square Adaptive Noise Cancellation. International Conference on Issues and Challenges in Intelligent Computing Techniques, vol. 1, pp. 134–139, (2014).
- 3. V Ashok., T Balakumaran., A Nirmalkumar, P Ravikumar.: Spatially Resolved Laser Doppler Based Diffused Beam Reflectance Measurement of Blood Glucose Diagnosis in Real Time by Noninvasive Technique. International Conference on Computing, Communication and Network Technologies, vol. 1, pp. 1–8, (2010).
- Syed A Hadei and M Lotfizad.: A Family of Adaptive Filter Algorithms in Noise Cancellation for Speech Enhancement. International Journal of Computer and Electrical Engineering, vol. 2 (2), pp. 307–315, (2010).

- 5. V R Vijay Kumar., P T Vanathi and P Kanaga Sapabathi.: Modified Adaptive Filtering Algorithms for Noise Cancellation in Speech Signals. Electronics and Electrical Engineering, Kanus Technologija, vol. 2 (74), pp. 17–20, (2007).
- Lilatul Ferdouse., Nasrin Akhter., Tamanna Haque Nipa and Fariha Tasmin Jaigirdar.: Simulation and Performance Analysis of Adaptive Filtering Algorithms in Noise Cancellation. International Journal of Computer Science Issues, vol. 8, issue 1, pp. 185–192, (2011).
- Vartika Anand., Shalini Shah and Sunil Kumar.: Intelligent Adaptive Filtering for Noise Cancellation. International Journal of Advanced Research in Electrical, Electronics & Instrumentation Engineering, vol. 2, issue 5, pp. 2029–2039, (2013).

### Author information

Authors and Affiliations

**Department of Electronics & Communication** 

Engineering, ACS College of Engineering,

Bengaluru, 560074, India

A. M. Prasanna Kumar

# Department of Electronics & Communication Engineering, Dr. Ambedkar Institute of

#### Technology, Bengaluru, 560056, India

K. Ramesha

Corresponding author

Correspondence to <u>A. M. Prasanna Kumar</u>. Editor information

**Editors and Affiliations** 

Department of Electrical and Electronics Engineering, SRM University, Chennai, Tamil Nadu, India Dr. Subhransu Sekhar Dash

**Electronics and Communication Sciences Unit,** 

#### Indian Statistical Institute, Kolkata, West Bengal,

India

Dr. Swagatam Das

**Department of Electrical Engineering, Indian** 

#### Institute of Technology Delhi, New Delhi, Delhi,

India

Prof. Dr. Bijaya Ketan Panigrahi

**Rights and permissions** 

**Reprints and Permissions** 

Copyright information

© 2018 Springer Nature Singapore Pte Ltd.

### About this paper

#### Cite this paper

Prasanna Kumar, A.M., Ramesha, K. (2018). Adaptive Filter

Algorithms Based Noise Cancellation Using Neural

Network in Mobile Applications. In: Dash, S., Das, S., Panigrahi, B. (eds) International Conference on Intelligent Computing and Applications. Advances in Intelligent Systems and Computing, vol 632. Springer, Singapore. https://doi.org/10.1007/978-981-10-5520-1\_8

#### <u>.RIS</u> <u>↓</u> <u>.ENW</u> <u>↓</u> <u>.BIB</u> <u>↓</u>

DOI

https://doi.org/10.1007/978-981-10-5520-1\_8

Published	Publisher Name	Print ISBN
28 December	Springer,	978-981-10-
2017	Singapore	5519-5
Online ISBN	eBook Packages	
978-981-10-	Engineering	
5520-1	Engineering (R0)	

Not logged in - 157.50.7.102 Not affiliated **SPRINGER NATURE** 

© 2023 Springer Nature Switzerland AG. Part of Springer Nature.