

[HOME](#) | [SEARCH](#) | [JOURNALS](#) | [PROCEEDINGS](#) | [EBOOKS](#) | [ARTICLE PACK](#)
EBOOKS

Year
Subject
Title

DIGITAL LIBRARY

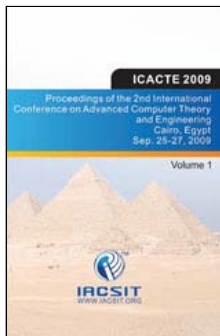
Home
Search
Journals
Proceedings
eBooks
Subscription Information
Feedback
ASME DL Tour
Help

SCITATION

Scitation FAQ
Scitation Home
Scitation Search
Search SPIN
MyScitation

Paper 23, A Learning Automata-Based Technique for Training Bayesian Networks

In Session 2 from: [International Conference on Advanced Computer Theory and Engineering \(ICACTE 2009\)](#)
Author(s)/Editor(s): **Xie Yi**



Published: **2009**
Author(s)/Editor(s): **Nabi Allah Rezvani, Mohammad Reza Meybodi**
Chapter DOI: [10.1115/1.802977.paper23](#)
Chapter Page Count: **12 pages**

[Previous Chapter](#) | [Next Chapter](#)
[Front Matter](#)
Session 1

1. A Proposed Intelligent Software Agent Criteria for Educating Deaf Student the Sign Language
2. RISP Configuration Overhead Optimization Using an Efficient Configuration Unit
3. A Comparative Study of Some Wavelet Functions in the Denoising of Phonocardiogram Signals
4. Stereo Image Reconstruction Using Adaptive Window Approach
5. Using Dominating Set and TSP Algorithm for Data Collection with

[Preview](#)
Chapter Contents

[Abstract](#)
[Key Words](#)
1 Introduction
2 Bayesian Networks
3 Learning Automata
4 Proposed Method for Parameter Training
5 Proposed Method for Structure Training
6. Result of Experiments
7. Conclusion
[References](#)

Excerpt

One of the most important challenges of Bayesian networks is training an optimal network based on existing training samples. We propose two Learning Automata-based methods for training parameters and structure of the network. Parameter training method is an incremental method which performs training and testing simultaneously and has lower computational cost than enumerative or search based parameter training methods. The structure training method uses a guided search scheme and avoids getting stuck in local maxima. This outputs a network that improves classification accuracy. We could also use both these methods together to train the network. Results indicated that this combinational method further improved classification accuracy while still kept computational cost rational.

PURCHASE CHAPTER (US\$25)
[BibSonomy](#)

[EMAIL PREVIEW](#) [RESEARCH TOOLKIT](#)
[BLOG THIS CHAPTER](#) [DOWNLOAD CITATION](#)

BOOK DATA**Print ISBN:**

9780791802977

Publisher:
[ASME Press](#)
KEYWORDS

[Bayesian Networks](#), [Training](#), [Learning Automata](#)