Irregular Cellular Learning Automata

2 Author(s)

Esnaashari, M. ; Inf. Technol. Dept., Iran Telecommun. Res. Center, Tehran, Iran ; Meybodi, M.R.

Cellular learning automaton (CLA) is a recently introduced model that combines cellula (CA) and learning automaton (LA). The basic idea of CLA is to use LA to adjust the sta probability of stochastic CA. This model has been used to solve problems in areas such assignment in cellular networks, call admission control, image processing, and very larg integration placement. In this paper, an extension of CLA called irregular CLA (ICLA) is This extension is obtained by removing the structure regularity assumption in CLA. Irre structure of ICLA is needed in some applications, such as computer networks, web min computing. The concept of expediency has been introduced for ICLA and then, conditio which an ICLA becomes expedient are analytically found.

Published in:
Cybernetics, IEEE Transactions on (Volume:45 , Issue: 8)

Page(s):
1622 - 1632

Date of Publication :
01 October 2014

ISSN :

Date of Current Version

2168-2267

INSPEC Accession Number:
15292378

DOI:
10.1109/TCYB.2014.2356591

15 July 2015

Issue Date :
Aug. 2015

Sponsored by :
Systems, Man, and Cybernetics Society

Publisher:
IEEE