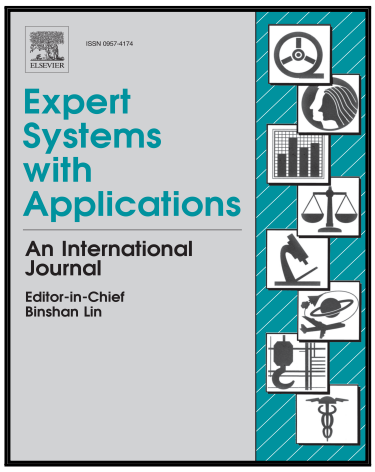

Ultrasound Image Segmentation Using A Novel Multi-Scale Gaussian Kernel Fuzzy Clustering and Multi-Scale Vector Field Convolution

Lipismita Panigrahi, Kesari Verma, Bikesh Kumar Singh

PII: S0957-4174(18)30521-9
DOI: https://doi.org/10.1016/j.eswa.2018.08.013
Reference: ESWA 12143

To appear in: *Expert Systems With Applications*

Received date: 6 September 2017
Revised date: 4 August 2018
Accepted date: 10 August 2018

Please cite this article as: Lipismita Panigrahi, Kesari Verma, Bikesh Kumar Singh, Ultrasound Image Segmentation Using A Novel Multi-Scale Gaussian Kernel Fuzzy Clustering and Multi-Scale Vector Field Convolution, *Expert Systems With Applications* (2018), doi: https://doi.org/10.1016/j.eswa.2018.08.013

Highlights

- A novel MsGKFCM clustering technique is proposed.
- For boundary detection MsVFC technique is used.
- The methods are evaluated using JI, DS, HD, AD, Accuracy and F-measure.
- Performed one-way ANOVA test to statistically assess the superiority of the method.
- The Proposed method outperforms among state of art methods in breast US datasets.