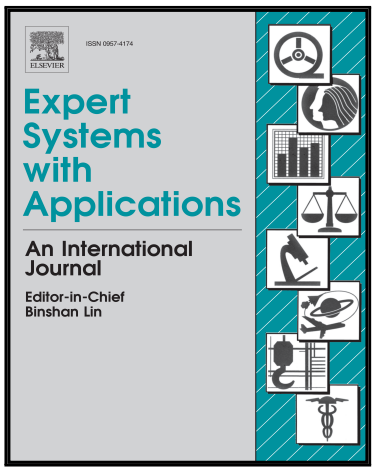

Assistive system based on nerve detection and needle navigation in ultrasound images for regional anesthesia

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Highlights

- Assistive system based on ultrasound images analysis and robotics guidance for UGRA.
- New approach based on machine learning and image processing to identify the nerve.
- Combination of template matching and active contour to segment the ROIs in US images.
- Real-time trajectory generation algorithm for guiding the needle.
- Direct model based method with adaptability to the environment dynamics.