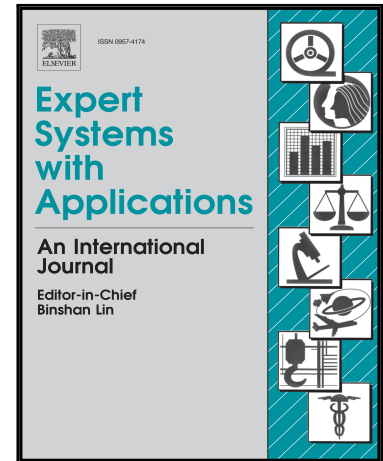


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Scene Object Recognition for Mobile Robots Through Semantic Knowledge and Probabilistic Graphical Models

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Highlights

- Semantic Knowledge and PGMs capabilities are combined.
- Common-sense information assists probabilistic inference.
- The system is able to exploit objects' relations and manage uncertainty.
- Validation is conducted with two datasets, UMA-offices and NYU2.
- The performance of exact and approximate inference methods is studied.

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