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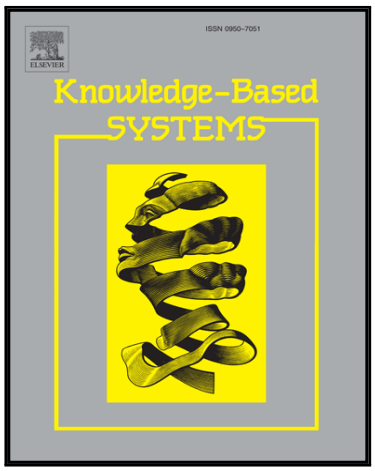

Empowering Particle Swarm Optimization Algorithm Using Multi Agents' Capability: A Holonic Approach

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Highlights

- A new PSO variant, i.e., Holonic-PSO is proposed to balance exploration/exploitation.
- By considering PSO algorithm as a simple multi agent system, holonic organization is used to improve the efficiency of this algorithm.
- Using holonic organization balances local/global search and helps to avoid premature convergence and trapping in local optimums.
- Results show that Holonic-PSO outperforms other PSO variants.

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