

## Cooperative multi-knowledge learning control system for obstacle consideration

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### ABSTRACT

A safe and reliable control operation can be difficult due to limitations in operator's skills. A self-developing control system could help assist or even replaces the operators in providing the required control operations. However, the self-developing control system is lack of flexibility in determining the necessary control option in multiple conditions where a human operator usually prevails by experiences in optimizing priority. Here, a cooperative multi-knowledge learning control system is proposed in providing flexibility for determining priority in control options, within multiple conditions by considering the required self-developing control knowledge in fulfilling these conditions. The results show that the system was able to provide consideration in prioritizing the use of the required control knowledge of the condition assigned.

### KEYWORDS

Multi-knowledge; Learning control; Reinforcement learning

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