

Towards developing agent-based KMS in managing knowledge of green SD for community of practice

ABSTRACT

Green Software Development (GSD) is about adopting green practices in Software Development Life Cycle towards developing environmentally-friendly software products. GSD is knowledge-intensive project, which is heavily depending on sharing of green practices in Community of Practice (CoP) to develop greener software products. As knowledge sharing is an important activity in Knowledge Management (KM), this is how the power of KM comes in to support GSD. However, there is a lack of KM application in managing green knowledge of GSD. To address the research gap, this paper suggests an implementation of agent technology together with KM application in helping CoP to share knowledge of GSD. Based on Literature Review, a conceptual architecture of agent-based KM System (KMS) is proposed, with the aim of studying on how multi-agent system and KMS are working together efficiently to enhance knowledge sharing in GSD environment.

Keyword: Knowledge management; Green software development; Agent technology; Community of practice