

# A Case Based Reasoning Decision Support Model for Green ITIS Diffusion in Collaborative Enterprise

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*Abstract*—The change in climatic conditions has resulted to the decline of the environment and excess consumption of resources have put more pressure on IT practitioners to Green their business process in collaborative enterprise. Thus there is need to reduce environmental impacts of enterprise development life cycle. IT practitioners however, still face challenges in diffusion Green practices in their enterprise. They often implement new projects with different project requirements and characteristics. Therefore, it would be helpful if IT practitioners could refer to other similar Green cases when planning and implementing current projects. Thus this paper proposes a case based reasoning decision support model to provide case studies of similar Green cases projects and suggestions on how to diffuse sustainable practices in collaborative enterprise. The model can support IT practitioners in making decisions on Green practices that can be diffused in their enterprise process. This paper synthesis and extract secondary data from existing Green techniques and available Green tools. Our findings show that no tools or techniques have been proposed to cater these issues in collaborative enterprise domain. Thus the proposed model is a valuable tool for IT practitioners in collaborative enterprise.

*Keywords*—Green ITIS; sustainability; case based reasoning; decision making support; collaborative enterprise