Informatics Institute of Technology

In Collaboration with

University of Westminster

Intelligent Workflow Task Optimization with Automation (IWTOA engine)

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W1583002 / 2014191

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Submitted for partial fulfilment of the requirement for

BEng (Hon) Software Engineering

Department: Software Engineering and Computer Science

May 2020

Abstract

For past few years, various machine learning technologies have emerged in the field of business process management applications, thus many modern Business process management applications use artificial intelligence on implementing simpler modifications for parts of the business process ecosystem. The reason being the gap that exists on implementation of mathematical concepts for tools that exists in the business process management arena. This research looks in the area of process science and improving components of business processes such as process and tasks involved in workflows. To identify the existing problems in workflows and business processes.

As part of the solution, IWTOA (intelligent workflow task optimization and automation engine), a mechanism for understanding manual usertask in a given research workflow shown for a selected business process management application. Areas of artificial intelligence such machine learning was used as part of the engine's adoptability for decisioning. The engine is capable for deciding on key feature/decisions set out by human on each usertasks of workflow through a trained machine learning model. The engine was developed further to be included as part of any dependency of the chosen framework. Allowing developer's to adopt and test the performance of the engine along different business process management tool

The tests run along the engine is given in testing chapter with regards to three main impurity algorithm and further improvements for the research engine is discussed in the evaluation chapter.

Keywords:
Business Process Management, Machine learning, Process Science, Process Mining, Process Modelling