2019 Strategic Technology & Innovation Management Programme

Early Stage Technology Strategic Decision Making using Deep Learning
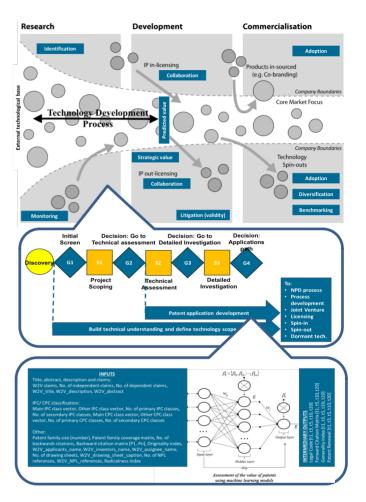
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Industrial/ managerial need addressed

In this research, we aim to apply artificial intelligence methods for technology strategic decision making, to predict technological value and impact. We aim to build a deep learning IP decision support tool, to complement the human judgement and aid the decision maker in making a decision for a technology project. We aim at helping manufacturing firms to feed IP data into technology development decision making processes, by using advanced computer science algorithms for prediction and classification, which improve human judgement for decisions.

Expected deliverables

- Full report, discussing the development of an optimized AI model of an artificial intelligence intellectual property decision support tool (IPDST), for the TDP, which analyses IP data using ANN (advanced computer science algorithms), to complement the decision maker's judgement. Explore the uses around the innovation process

Engagement opportunities

- Engage in survey and act as pivot point to further distribute the survey, to identify the most suitable selection criteria for technology projects (STIM2018 Project 1)
- Engage in semi structured interviews/ focus groups to understand technology development process models identified and used (STIM2018 Project 1)
- Case study applications and assessment of the optimised conceptual model within technology development processes

Approach

	Phase 1 (to 21/2/18)	Phase 2 (to 20/6/18)	Phase 3 (to 21/11/18)
Activities	Complete the model expansion and ensure it works Initiate survey	Initial case studies completed and Assessment Initiate focus groups And interviews	Model deployable and report To be completed