

Posudek školitele pro Hon Huin Chin, MEng.

Název pojednání:

Integrated approach of intelligent asset maintenance and resource conservation for circular economy

(Integrovaný přístup inteligentní údržby aktiv a zachování zdrojů pro oběhové hospodářství)

The doctoral thesis of Hon Huin, Chin MEng deals with the Integrated approach of intelligent asset maintenance and resource conservation for the circular economy.

I highly appreciate the proposed Process Integration strategy to multiple constraints in material resource recycling and reuse network. The Process Integration tool has also been extended for headers targeting method that can be applicable to internal process or industrial site-level problems. The candidate also proposed an integrated framework for asset planning and process optimisation in the chemical industry. This is crucial for long-term development to achieve the goals of Circular Economy through equipment upgrading or lifetime extension as well as resource conservation. He also extended the Process Integration approach on opportunistic maintenance management and workforce planning.

The publishing activity of the PhD student is excellent, as evidenced by a number of contributions to international conferences (9) and journal articles (25), with 3 are under review now with high impact factors.

Hon Huin Chin, MEng, has done excellent and independent work within the framework of doctoral studies. He is actively involved in research projects and is currently involved in the projects of strategic importance: “ Sustainable Process Integration Laboratory - SPIL, CZ.02.1.01 / 0.0 / 0.0 / 15_003 / 0000456” and “ CZ-CN INTER-ACTION LTACH19033: Transmission Enhancement and Energy Optimised Integration of Heat Exchangers in Petrochemical Industry Waste Heat Utilisation”. The projects were prepared in the NETME Center and selected in considerable competition on the basis of a tender of the Ministry of Education and supported from the resources of the Operational Program “Research, Development and Education”.



Prof. Dr-Habil. Ing. Jiří Klemeš, DrSc., dr.h.c. (mult)
školitel

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