Master Class - Rethinking Technology-Led Maintenance Transformation Implementation People are the Key to Success

Curtin University

Effective and efficient maintenance management ensures that assets are productive and meet business needs. However, maintenance practices in the mining industry to date are slow to evolve and asset downtime remains stubbornly high. In light of the innovations in edge computing, artificial intelligence and Industrie 4.0, Centre for Transforming Maintenance through Data Science (CTMTDS) serves to transform maintenance by conceiving a new digitally-driven maintenance management system. Although technological innovations have clear benefits, their full value depends on successful adoption and implementation. It has been reported that technological innovations fail if they are not supported by end-users and other stakeholders. Some factors that influence users' attitudes and intentions toward new technology include its perceived usefulness and ease-of-use, skill level of the users, work design and team structure within organization, effects of trust and more. Thus, to understand that people are key to successfully implementing technology-led maintenance transformations and be aware of workforce capabilities required for the future of maintenance is of great value.

In the first part of the masterclass, we will introduce critical factors that will enhance the implementation of data science innovations in mining maintenance management system. These are essential in promoting data science innovation from three different levels: individual level, team level and organizational level. Digital capability is needed to transform these critical factors into drivers of data science innovation. Digital capability covers skills that centre around people, including technical skills and human skills. In the second part of the masterclass, we will decode digital capability; mapping the capabilities requirement for facilitating future focused organizational change management to offer guidance in leading successful digital transformation.

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Theme 4
2021-03-04