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Industry 4.0 Depends On Engineering Talent

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The growing economic strength of the GCC is being helped by the region's significant commitment to economic diversification and digital business transformation, through innovation and its underpinning technologies, including AI, IoT and blockchain.

The latest mega projects in the U.A.E. and Saudi Arabia may be making the headlines, but Industry 4.0 is quietly gaining traction across the region. Digital innovation is now routinely being adopted, but the full benefits of the fourth industrial revolution will only be realised by harnessing and developing the engineering talent of the region.

According to PwC, the focus of Industry 4.0 is the end-to-end digitisation of all physical assets and integration into digital ecosystems with value chain partners—the promise of the gains of Industry 4.0 will be realised by generating, analysing and communicating data seamlessly to create value across the entire organisation, including manufacturing.

In fact, PwC's 2016 Industry 4.0 Middle East Survey, found that companies anticipated significant gains from digitisation and integration over the following five years, including estimated annual digital revenue increase of 3.8% ($17bn); cost reductions of 3.8% a year on average ($17.3bn). It also found that Middle East companies are committing to Industry 4.0, with the vast majority (89%) planning to invest 4% or more of their annual revenue in digital operations solutions, amounting to an investment of $42bn over the following five years.

Crucially, companies are also investing to train their employees and drive the organisational change needed to facilitate this transformation.

This is all good news, but there is still another challenge, highlighted in the region's construction industry.

The results of Construction Week's 2018 Skills Gap Survey of construction professionals from the region found that nearly 72% believed their colleagues struggle to efficiently carry out their tasks, only 33% said their organization provided training or professional development courses, and 61% said they had not received any training or professional development. Of the survey's respondents, 86% said their degree qualified them for their current job, and 54% said they would enrol themselves in an educational programme—a bachelor's degree or higher—relevant to their current job. Almost 40% of the respondents had not completed any training in the past year.

There is still some way to go to fill the professional skills gap, although recruiters suggest that there is a large and growing pool of candidates within the regional construction, property and engineering sectors.

Reliability engineering and asset management is a sophisticated discipline embracing management techniques, organization, asset auditing, planning and the application of big data analysis, engineering and analytical knowledge to manufacturing processes, transport, power generation and the efficient operation of industrial, commercial and civic buildings to manage their assets efficiently.

Combining this level of sophisticated knowledge to the Industry 4.0 process emerging in the region will take strong professional skills and these are critical to the success of digital transformation and all it promises.

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