

## Upskilling is key to addressing the growing technology skills gap in manufacturing



Technology has always been a significant disruptor in the manufacturing sector, and as the rapid acceleration of digitalisation continues, the fourth industrial revolution (4IR) is once again changing the game. Robotics and automation are taking over many previously manual processes, making roles that were once fulfilled by human staff redundant. This reduces the cost of labour and, in turn, the cost of manufacturing, therefore increasing profitability for manufacturers. However, it also means that new roles are being created, and there is a technology-related skills gap that needs to be addressed through appropriate training and skills development initiatives.

### Automating the future

Robotic automation can be used to significantly enhance systems and processes, making manufacturing faster, cheaper and more efficient while improving the quality of products as well as worker safety. Some of these roles include welding, assembly, packing, shipping and handling of raw materials, including hazardous chemicals.

As artificial intelligence, machine learning and robotics continues to advance, robots will be able to take on a broader range of manufacturing tasks. However, while this is beneficial for the manufacturing sector as a whole, it has the potential to leave many previously employed people short of work. The required skill sets are changing - people need to know how to work with machines, rather than how to make specific products, and upskilling has become critical.

### New skills for a new world

While machines take over mundane, repetitive and rules-based tasks, machines also require configuration, handling, management and maintenance, which in turn requires people. It has become imperative to upskill employees on new, technology-based skills such as these, because new job roles will

be created as automation increases. There is also a growing skills gap when it comes to basic computer skills, because as digitalisation becomes more prevalent, aspects such as paperwork become computer-based.

The reality is that technology is taking away certain jobs while creating others, and alternative skills are essential to ensure continued employment and employability. Rather than hiring new people with new skills, those loyal workers who have become trusted business assets should be upskilled wherever possible. Not only will this allow them to add further value to a business they have developed loyalty to over the years, it will also give them greater opportunity to find future employment should their role become redundant.

#### People at the heart

The manufacturing sector is changing, but people are still at the heart of it, and it is imperative to give people the skills they need to continue to be productive and employable in a technology-driven future.

Training initiatives need to become aligned with new skill sets required by 4IR as a matter of priority, so that the manufacturing sector can remain competitive and that its people can remain employable.

Companies have a responsibility to train their staff to ensure they remain relevant in the new world, and a moral obligation to help people develop skills that will enable them to continue being productive and employable. The benefit of upskilling and training from within is that these are people who already know the business, they understand the dynamics and processes, and will be able to assimilate their new skills a lot faster than hiring externally. However, in order to get maximum benefit from training and development, these initiatives need to be aligned not only with skills required by the 4IR, but also skills required by the business. A trusted training partner can help to develop a training plan and roadmap for the future, to drive business forward while upskilling staff to remain relevant and adaptable in a world where technology is the future and is always changing.