Thyssenkrupp programmer hacks Industry 4.0

From thyssenkrupp Industrial Solutions South Africa.

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Andrew Gotara, an engineering programmer at thyssenkrupp Industrial Solutions South Africa, and his team walked away with an innovations award in the #hack4tk challenge.

Hacking digital potential

#hack4tk is hosted annually by thyssenkrupp AG in Essen, Germany. It is a game-changing initiative that maximises digital potential by fostering creative thinking and innovation and inspiring participants to solve complex challenges utilising digital technology.

Gotara saw an opportunity to not only demonstrate how digital technology can be used to solve a challenge but also to utilise digital technology to partake in the hackathon remotely.

The gruelling 24-hour competition which took place on 3 and 4 July 2019, welcomed individuals from all corners of the world, both from within and outside of thyssenkrupp, who believe they have what it takes to find a solution to these challenges.

Gotora's team consisted of one German and five locally based coding enthusiasts with expertise in the fields of engineering, artificial intelligence (AI), computer vision and data science. Out of the 10 hackathon challenges, the team selected both the 'Chatbot virtual service assistant' and 'Autonomous plant start-up' challenges and they split their team into two groups, with three team members working on each challenge.
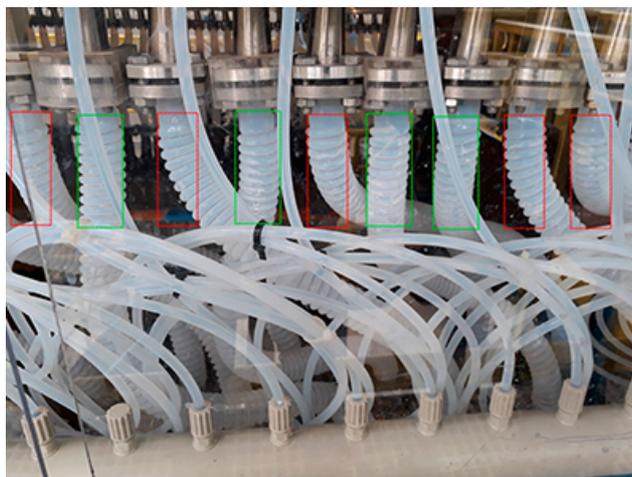
Automation

The 'autonomous plant start-up' challenge captivated Gotora and his team. They immediately recognised that automation was the link between the challenge and a similar tkISSA digital project, Liquid Fuel Storage (LFS).

With members working from the thyssenkrupp Johannesburg office and the thyssenkrupp AG office in Germany, the forward-thinking team successfully used the internet and a variety of digital platforms including social media to solve the challenge. Using a computer, a camera and software, Gotora and his team automated the detection of fluid flow. Once the system has detected and confirmed fluid flow out of all the cells, the plant automatically starts up. However, in the event of no fluid or flow, the system alerts the technician.

Expressing his gratitude to his team for their hard work and determination over those intense 24-hours, Gotora says that it was leveraging on digital technology that made the winning solution possible.

Tags: #hack4tk thyssenkrupp Industrial Solutions digital automation digital technology hackathon coding

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