

A man wearing a Microsoft HoloLens mixed reality headset in a factory setting. The background is a blurred industrial environment with machinery and structural elements. The man is wearing an orange polo shirt and is looking slightly to the right with a slight smile.

**TATA ELXSI**

engineering creativity

# MR based Safety training for a leading Steel Manufacturer

A HoloLens based training experience for shop floor workers



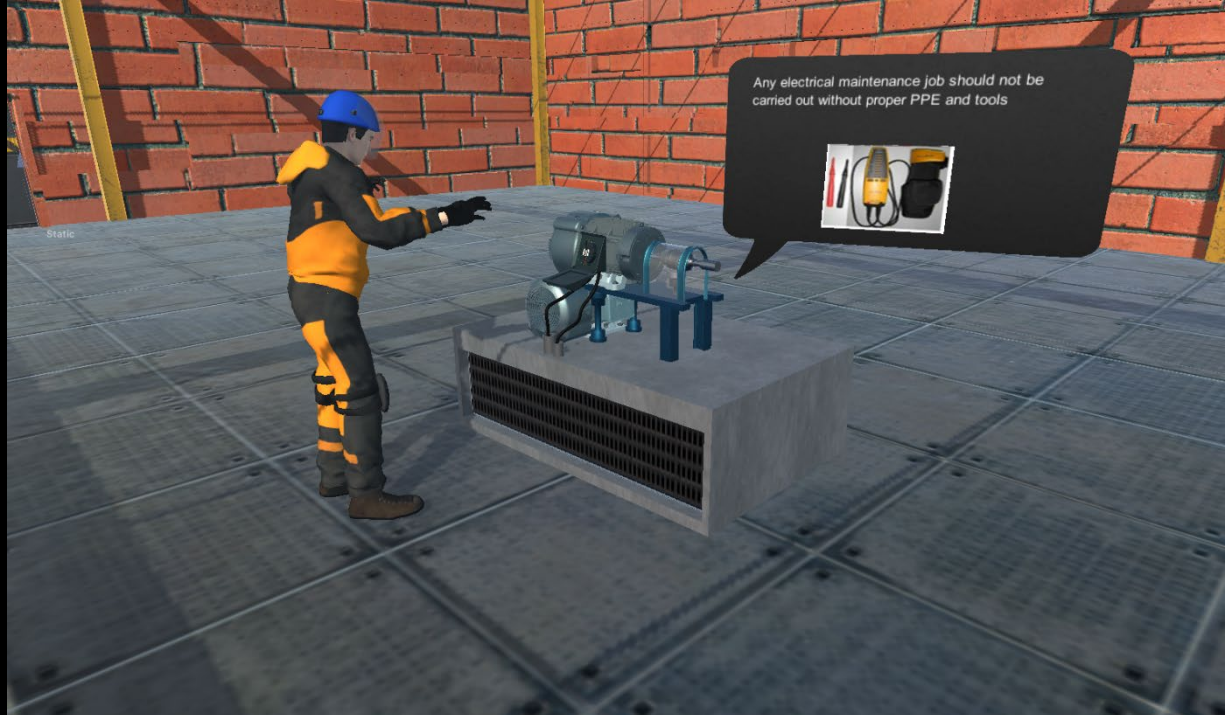
## BACKGROUND AND CHALLENGE

Working in a steel plant is hazardous. From working in a high temperature environment to handling toxic materials / heavy equipment's & materials, or facing electrical hazards to working without PPE kits, workers in a steel plant are often exposed to high level of safety and health risks.

Even a smallest error can be fatal. Workers have to train shop floor workers on how to handle some critical and hazardous situations in order to avoid casualties.

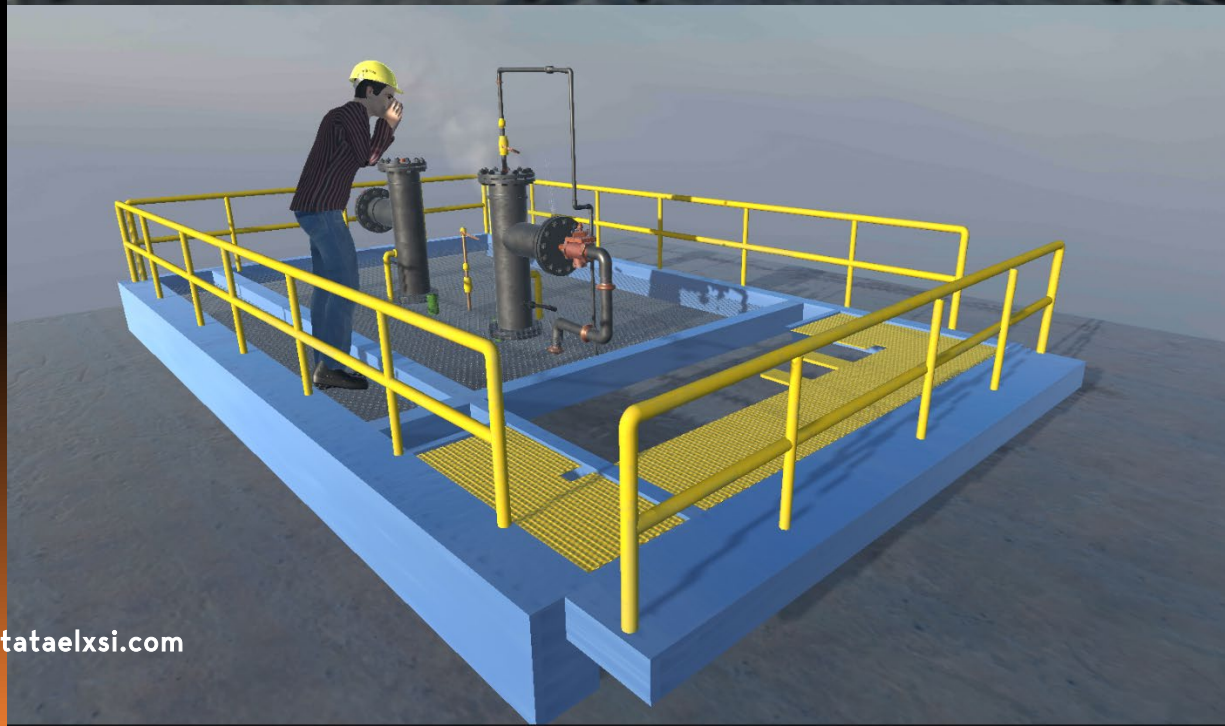
## SCOPE OF WORK

Develop an offline training digital solution that would provide an experiential, immersive and engaging experience.



## SOLUTION

- A unique HoloLens based AR experience was also developed by the Tata Elxsi team to orient semi / unskilled workforce through new age technologies.
- Through the immersive experience, trainees were exposed to different **hazardous situations** which they are likely to witness in a steel plant through a simulated environment. Like assist visitors on precautionary measures to ensure safety on the shop floor. The immersive AR experience by using HoloLens gave information to machinists - where the **gas leaks** could happen, where they can get an **electric shocks** if safety guidelines were not followed among a few.



## IMPACT

The MR based immersive and experiential training modules made the workers more prepared and adept at handling risky situations. The workers learnt how to handle hazardous situations successfully by trying out the scenarios multiple times till they become confident, which facilitated in reducing the fatalities in the shop-floor.