

Research project and supervisor team

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| Supervisory Team | Dr Qian Zhang, Dr Jiawei Li, Prof. Amin Farjudian and Dr Zhen Tan |
| Short introduction & description of research project | <p>In this PhD project, you will develop new approaches for creating a visual early warning system with an emphasis on manufacturing safety. Due to the complexity of modern safety production and the inherent difficulty of supervision, manual monitoring or relying exclusively on intelligent visual recognition technology is insufficient to meet the requirements for high dependability, immediate response, and prevention. You need develop a visual based model where dangerous behaviour patterns in industry are identified and proceeded to guide the simulation of possible dangerous activities in the manufacturing workplace. This necessitates the building an intelligent system capable of visual monitoring, detection, and prediction to ensure the safety of industrial operations.</p> <p>Research on the target AI system will focus on,</p> <ul style="list-style-type: none">(1) Employing deep learning algorithms to process image/video data via object detection, tracking, and scene categorization to identify semantic visual entities.(2) Implementation and analysis of the AI system for danger prediction by using fuzzy reference, interval probability, and domain theory. |
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