

## 基於人工智慧之薄膜壓力感測器 AOI 解決方案

### 摘要：

Deep Learning brings revolutionary impacts to AOI (Automatic Optical Inspection) system. Many algorithms have been proposed either to improve the accuracy of defect classification, or to reduce the dependency of defective samples. However, practical industrial implementations are still rare. In this work, we apply PatchCore to inspect anomalies of thin-film pressure sensor and build a highly integrated AOI system using CISM (Contact Image Sensor Module) which is capable of automatically scanning target for a digital image then feeding it to our software for inspection and displaying results with notations of defective area. Based on our internal testing, 0 % under-kill rate and 7 % over-kill rate were achieved using only 4 normal samples for modeling. We expect the over kill rate can be further reduced once more samples are available.