

以視覺為基礎之移動人員行為分析

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摘要

由於科技的日新月異，「智慧型生活環境」已逐漸變成可預期的未來。而基於視覺技術的智慧型環境，可提供更直覺、更值得信任的監控機制。本篇研究即是以居家安全保護為目的，除對入侵人員進行偵測以及追蹤外，更著重在可疑人員之行為分析，期望在危害行為發生前，防範於未然。本研究所開發的系統主要將擷取得出的人體邊界框，計算其長、寬大小與寬高比例等屬性，根據兩參數變化的量，以及速度的改變，來判斷人體所產生的動作。另外，分析座標的變化，來探察人體與保全物彼此的關聯，進而判定可疑人員的行為，決定是否發出警示。本研究可在居家安全的建構與維護上，運用平價的視訊擷取設備，發展智慧型的監控系統，將可疑人員的行為作系統化的分類、分析與異常狀況的判定。

關鍵詞：入侵偵測；移動物件；動作判定；行為分析

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