結合影像處理技術於資料相關結合之研究

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摘 要

在現今的航空及國防科技，由於目標物的性能速度，數目及變異性等皆較以往複雜，為因應日益復雜的追蹤環境，追蹤系統的性能必須同步提昇，才能達到洞燭機先，決戰千里之外的最高戰術目的。在目標的追蹤上，追蹤多個目標時比較複雜，也會常常造成感測器判斷上的錯誤，或者造成追蹤上極大的誤差，本論文提出結合影像資料及數據資料之相關結合技術，即應用競爭性類神經網路(Competitive Hopfield Neural Network)運算法於追蹤系統，擷取其特殊的運算架構，將之應用於本研究，並結合適應性預估器追蹤架構，以達到最佳的追蹤效果。當感測器偵測到訊號之後，經過影像處理程序與資料結合相關技術，提供目標運動的資訊供追蹤系統參考判斷用，進而判別出正確的雷達感測資料與目標軌跡關係。相信應用本論文所提之追蹤架構，將可得到較佳的追蹤結果。

關鍵詞 : 影像資料及數據資料、資料相關結合技術、競爭性類神經網路

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