

# The Research and Application of Competitive Hopfield Neural Network

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## ABSTRACT

Radar system plays an important role in both defense industries and civil applications. In order to obtain the performance radar system should have good tracking algorithm, therefore, it can obtain high detection probability and reduce the tracking errors. A neural network model is investigated in this thesis. Such a mathematical model applying Hopfield Neural Network to tracking systems will have more accurate tracking results. The proposed tracking procedure is developed in this thesis. Moreover, one simulation program using Matlab is also designed. According to the simulation results, this tracking algorithm have good performance.

Keywords : Radar system ; Tracking system ; Neural network

## Table of Contents

封面內頁 簽名頁 授權書 . . . . .	iii	中文摘要 . . . . .	
. . . . . iv	英文摘要 . . . . .	v	誌謝 . . . . .
. . . . . vi	目錄 . . . . .	vii	圖目錄 . . . . .
. . . . . ix	表目錄 . . . . .		xi
第一章 緒論 1.1前言 . . . . .	1	1.2雷達發展沿革 . . . . .	
. . . . . 1	1.3雷達應用 . . . . .	2	1.4研究方法 . . . . .
4	1.5論文架構 . . . . .	5	第二章 類神經網路原理 2.1理論基礎 . . . . .
. . . . . 6	2.2 Hopfield模型 . . . . .	7	2.3 Lyapunov函數 . . . . .
. . . . . 10	2.4類神經網路設計 . . . . .	11	第三章 追蹤架構 3.1前言 . . . . .
. . . . . 13	3.2追蹤系統數學模型 . . . . .	14	3.3卡門濾波器原理應用 . . . . .
. . . . . 15	3.4擴展式卡門濾波器 . . . . .	17	3.5資料相關結合技術 . . . . .
19	第四章 適應程序設計 4.1變速度追蹤理論 . . . . .	23	4.2變速度估測理論 . . . . .
. . . . . 24	4.3適應程序 . . . . .	30	第五章 模擬與分析 5.1單一目標追蹤模擬分析 . . . . .
. . . . . 33	5.2追蹤兩平行變速度目標 . . . . .	39	5.3追蹤四個變速度目標 . . . . .
. . . . . 46	第六章 結論 . . . . .	54	參考文獻 . . . . .
. . . . . 55			

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