



## 計算機組

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#### 一、研究主題與目標

我們主要研究的方向包括可程式單晶片應用於嵌入式系統、無線感測網路、隨意式行動網路、多核心程式及分散式系統。

#### 二、最近研究題目

##### ■無線通訊和行動計算

- 無線網路
  - ▲ Ad Hoc 繞路機制
  - ▲ 無線網路的省電研究
  - ▲ 高服務品質的繞路研究
  - ▲ 無線感測網路
- 多媒體無線網路
  - ▲ 頻寬預留
  - ▲ 有效資源管理
  - ▲ 服務品質
- 資料廣播

##### ■平行處理和分散式系統

- 叢集式計算
- 點對點計算
- 互連式網路
- 多核心程式

##### ■可程式單晶片應用於嵌入式系統

#### 三、主要的研究成果與所執行的計劃

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- Incomplete Subcube Identification in Faulty Hypercubes,” *IEEE Transactions on Parallel and Distributed Systems*, Vol. 8, No. 11, pp. 1171-1183, 1997. (EI, SCI)
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  7. J.-Y. Chang and H.-L. Chen, “Dynamic-Grouping Bandwidth Reservation Scheme for Multimedia Wireless Networks,” *IEEE Journal on Selected Areas in Communications*, vol. 21, no. 10, pp. 1566-1574, Dec. 2003. (EI, SCI)
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  11. S. Wang and H.-L. Chen, “Near-Optimal Data Allocation over Multiple Broadcast Channels,” *Computer Communications*, vol. 29, no.9, pp. 1341-1349, May 2006. (EI, SCI)
  12. J.-Y. Chang and H.-L. Chen, “A Borrowing-Based Call Admission Control Policy for Mobile Multimedia Wireless Networks,” *IEICE Transactions on Communications*, vol. E89-B, no. 10, pp. 2722-2732, Oct. 2006. (EI, SCI)