



## Electronic System Group Professor Ching-Wen Hsue

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Field of study:

Key words:

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### 1.The Subject and Aims of Research

The major research interests include filters, antennas, electromagnetic compatibility and a variety of microwave signal processors.

### 2.Related Recent Research Topics

With particular interests in the development of microwave signal processors using discrete-time technique. The ultimate goal is to implement a variety of digital signal processors in the microwave frequency range.

### 3.Selected Publications and Projects

#### Publication

- [1] L.-C. Tsai and C.-W. Hsue, "Dual-band band-pass filter using equal-length coupled-serial-shunted lines and Z-domain Technique", IEEE Transactions on Microwave Theory and Techniques, vol. 52, no. 4, April 2004
- [2] C.-W. Hsue, L.-C. Tsai and K.-L. Chen, "Implementation of first-order and second-order microwave differentiators", IEEE Transactions on Microwave Theory and Techniques, vol. 52, no. 5, pp. 1443-1449, May 2004.
- [3] L.-C. Tsai, K.-L. Chen and C.-W. Hsue, "Design of wideband bandpass filters using discrete-time domain techniques," Microwave and Optical Technology Letters, vol. 43, no. 3, pp. 264-266, Nov. 2004.
- [4] C.-W. Hsue, L.-C. Tsai and Y.-H. Tsai, "Time-constant control of microwave integrators using transmission lines," Submitted for publication in IEEE Transactions on Microwave Theory and Techniques.

#### Projects:

Design and implementation of microwave differentiators, integrators and correlators.

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