

# **Efficient Resampling Implementations**

**by Douglas W. Barker**

## **ALTERNATE METHOD FOR COMPUTING DECIMATION COEFFICIENTS**

Another method for calculating the filter coefficients for decimation involves oversampling the impulse response of the prototype filter by a factor of  $P$ , then selecting the coefficients closest to the time points of  $T$  in (8). This allows the use of any canned filter design program.

Oversampling the impulse response involves increasing the filter sample rate by the factor  $P$ , while holding the cut-off frequency and all other specifications the same, while multiplying the filter order by  $P$ .