# Fast and low power integrated circuit for impulsive sound localisation using Kalman filter approach

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A fast low power time delay estimator for the localisation of impulsive sounds is shown. The system is based on a simplified Kalman filter structure and is implemented on a 0.5 μm standard CMOS architecture. Tests show that the circuit is faster than equivalent systems, and that its energy requirements are lower than the best results reported so far.

Inspec keywords: delay circuits; Kalman filters; low-power electronics; CMOS integrated circuits

Other keywords: low power time delay estimator; Kalman filter; CMOS architecture; impulsive sound localisation; low power integrated circuit

Subjects: Pulse circuits; Filters and other networks; CMOS integrated circuits

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