Title (en)

Active noise or vibration control (ANVC) system and method including enhanced reference signals

Title (de)

Aktives Lärm- oder Schwingungskontrollesystem und -anordnung mit verstarkten Referenzsignalen

Title (fr)

Système et procédé de contrÔle active du bruit ou vibration comprenant signaux de référence améliorés

Publication

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Application

EP 97302679 A 19970418

Priority

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Abstract (en)

An ANVC system (50) and method of enhancing the reference (input) signal (51) provided from a reference sensor (52) in a feedforward-type Active Noise or Vibration Control (ANVC) system (50). Preferably, an Adaptive Line Enhancer (ALE) (54) is provided in the input path for reducing the uncorrelated noise present in the reference signal (51). In one aspect, a tone(s) present can be enhanced by reducing broadband uncorrelated noise. In another aspect, the broadband input to the ANVC control (58) can be enhanced by eliminating uncorrelated tone(s). The filter structure used in the ALE (54) may include IIR or FIR and the algorithm used to update the ALE filters may include LMS, RLS, or GMV. Parametric and adaptive inverse ALEs (69) and (80) are also described. In alternate embodiments, multiple ALEs are arranged in cascaded or parallel relationship. Further, the tonal output (22) of the ALE (54) may be used as an input to auxiliary components such as Engine Vibration Monitors (EVMs). The ALEs are beneficial in both tonal and broadband ANVC systems (50). <IMAGE>

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