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<div>(30)</div> <div>Priority: 01.12.1999 US 452214</div>	<div>(74)</div> <div>Representative: Burke, Steven David et al R.G.C. Jenkins &amp; Co. 26 Caxton Street London SW1H 0RJ (GB)</div>
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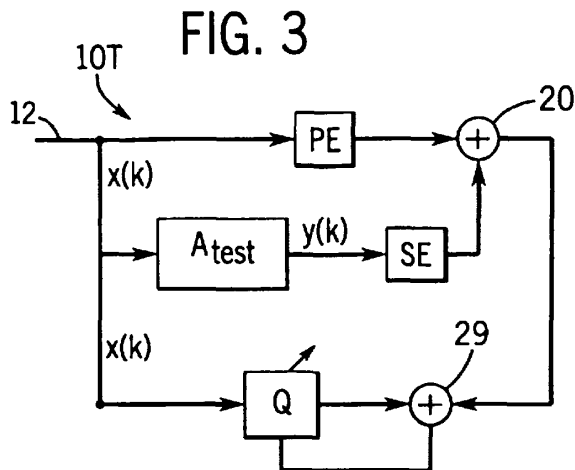
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Active acoustic attenuation system in which regressor filter is determined from overall system test model

(57)

An active acoustic attenuation system uses an overall system test model Q to determine a model for the auxiliary path SE. In the preferred SISO embodiment, the system is operated in test mode to determine the C model for use as a regressor filter in the filtered-X LMS or the filtered-U RLMS algorithms. The overall system test model Q is an adaptive model which receives a system reference signal as model input and receives a combination of its model output signal and the output of an error sensor as error input. A first version of a test control model Atest(1) is selected which includes test values for control model A. During testing,

the control model A does not adapt, however, the overall system test model Q does adapt. The system is operated in test mode to adaptively determine a first solution for the overall test model Q(1). Then, a second version of the test control model Atest(2) is selected, and the system is again operated in test mode to adaptively determine a second solution for the overall test model Q (2). The values Atest(1), Atest(2), Q(1), and Q(2) are then used to solve a set of linear equations to determine the auxiliary path SE. A copy of the calculated auxiliary path SE is used as the C model regressor filter. A multiple input, multiple output, multiple error (MIMO) embodiment of the invention is also disclosed.





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# EUROPEAN SEARCH REPORT

Application Number  
EP 00 31 0640

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			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
			G10K
The present search report has been drawn up for all claims			
Place of search <b>THE HAGUE</b>		Date of completion of the search <b>3 March 2003</b>	Examiner <b>Modesto, C</b>
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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**ANNEX TO THE EUROPEAN SEARCH REPORT  
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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.  
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