

### United States Patent [19]

### Eatwell

[11] Patent Number:

### [45] Date of Patent: Sep. 3, 1996

5,553,153

### [54] METHOD AND SYSTEM FOR ON-LINE SYSTEM IDENTIFICATION

- [75] Inventor: Graham P. Eatwell, Cambridge, United Kingdom
- [73] Assignee: Noise Cancellation Technologies, Inc., Linthicum, Md.
- [21] Appl. No.: 15,195
- [22] Filed: Feb. 10, 1993
- [51] Int. Cl.<sup>6</sup> ...... A61F 11/06
- [52]
   U.S. Cl.
   381/71

   [58]
   Field of Search
   381/71.94

### [56] **References Cited**

### U.S. PATENT DOCUMENTS

4,677,676	6/1987	Eriksson	
4,953,217	8/1990	Twiney et al	381/71
5,105,377	4/1992	Ziegler, Jr.	381/71
5,278,913	1/1994	Delfosse et al	381/71

### OTHER PUBLICATIONS

IBM J. Research and Development "Periodic Sequences with Optimal Properties for Channel Estimation and Fast Start Up Equalization" A. Milewski. pp. 426–430. Vol. 27 No. 5 Sep. 1983. IEEE Transactions of Information Theory. "Polyphase Codes with Good Periodic Correlation Properties." David Chu. Jul. 1972 pp. 531–535.

Adaptive Signal Processing Bernard Widrow and Samuel Stearns. Prentice Hall, Inc. 1985, Table of Contents.

Active Control of Sound. Nelson and Elliot. Academic Press. 1992, Table of Contents.

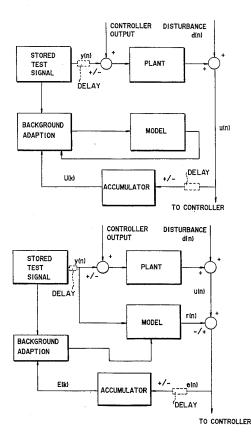
### Primary Examiner—Curtis Kuntz Assistant Examiner—Ping W. Lee

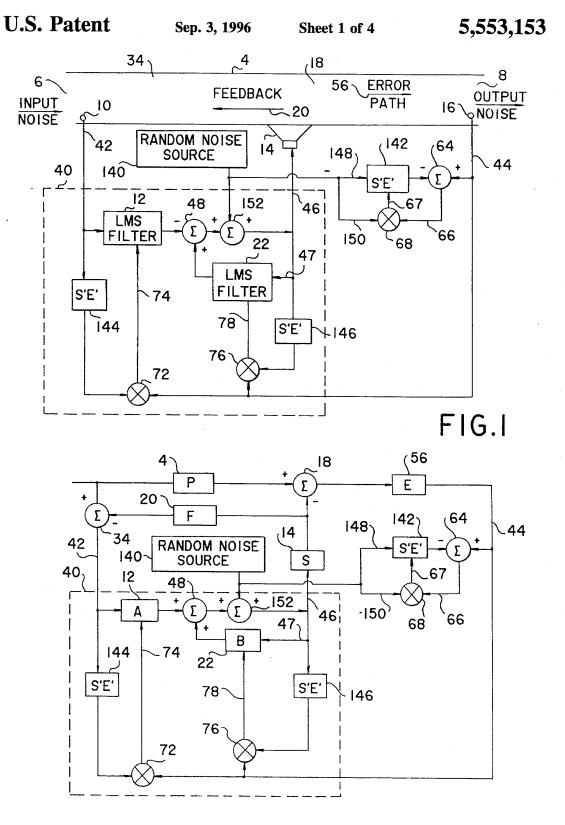
[57]

#### ABSTRACT

This invention relates to an improved method of on-line system identification for use with active control systems which requires less computation and reduces the problem of coefficient jitter in the filters of the active control system by using a fixed test signal which is designed to have a particular power spectrum.

#### 18 Claims, 4 Drawing Sheets





## FIG.2

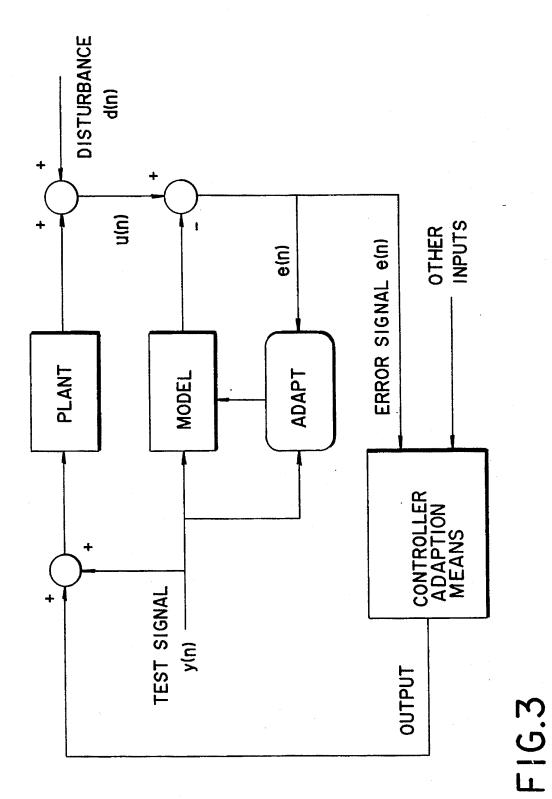
Δ

## **ARM** Find authenticated court documents without watermarks at <u>docketalarm.com</u>.

^KF

 $\mathbf{b}$ 

Α

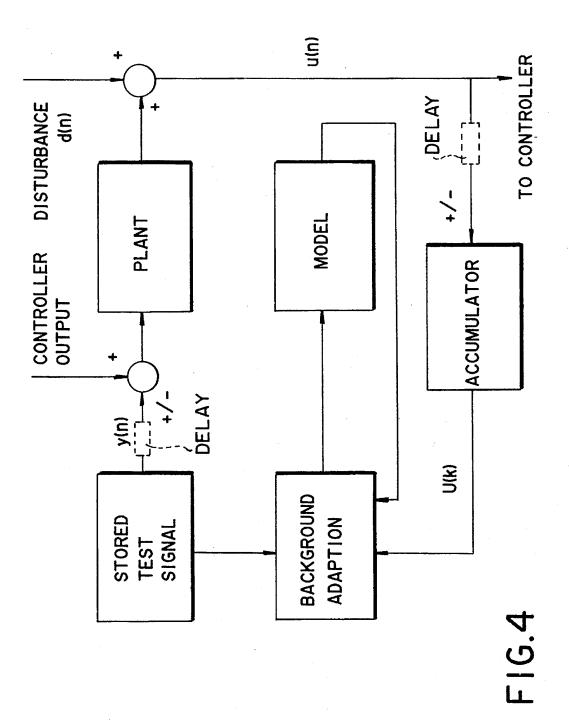


CKE.

R

)

Α



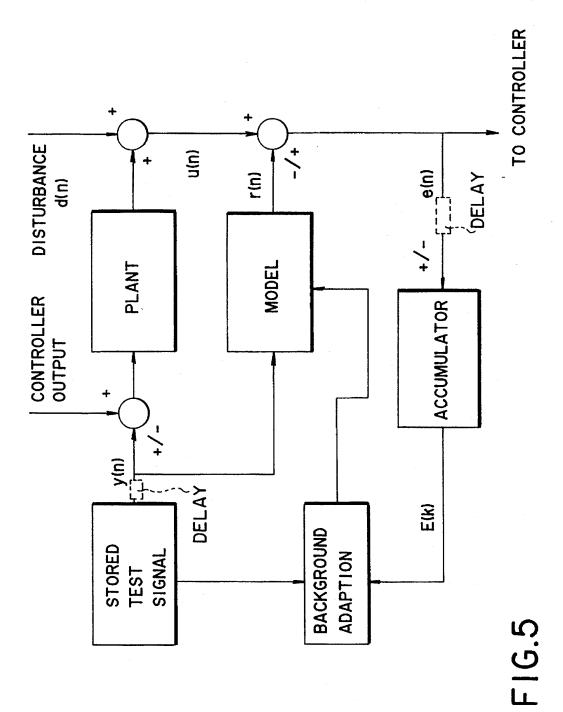
Find authenticated court documents without watermarks at <u>docketalarm.com</u>.

`KF

R

М

Α



Find authenticated court documents without watermarks at docketalarm.com.

## DOCKET A L A R M



# Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

## **Real-Time Litigation Alerts**



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

## **Advanced Docket Research**



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

## **Analytics At Your Fingertips**



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

## API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

### LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

### FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

### E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.