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# A Microprocessor-Based Digital Integrated Circuit Tester

Stuart Brown

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A MICROPROCESSOR-BASE DIGITAL  
INTEGRATED CIRCUIT TESTER

Stuart Brown

Written for: EET 492  
Senior Design

May 1, 1978

# A MICROPROCESSOR-BASED DIGITAL INTEGRATED CIRCUIT TESTER

Stuart Brown

## ABSTRACT

With the growing popularity of digital ICs, a better way of testing them is warranted. This paper describes an automatic IC tester which offers maximum flexibility at minimum price. The need for this tester is supported by a discussion of common testing methods and commercially available testers. It is deduced that computer controlled automatic testers are the most desirable type of IC checker but the most expensive. A new product, called a microprocessor, is held to be the key to low cost, automatic control. A microprocessor-based tester has been built for less than \$200. Included in the paper is a set of operating instructions and a theory of operation discussion. The conclusion is that the microprocessor-based tester works well and meets the criterion set by a previously submitted proposal to build the tester.

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