

XXVIII. CIRCUIT THEORY AND DESIGN*

Prof. P. Penfield, Jr.
Prof. R. P. Rafuse

Prof. C. L. Searle
Prof. R. D. Thornton

RESEARCH OBJECTIVES

Investigations of nonlinear, time-variant linear, and linear active circuits are aimed at a better understanding of the relations between theoretical models and physical devices. Current research includes:

- (a) theoretical investigations, design, and experimental behavior of parametric amplifiers and frequency multipliers
- (b) determination of the invariant properties of active network components under various kinds of embedding
- (c) studies of transistor and tunnel-diode circuits
- (d) interpretation of a general $v \cdot i$ conservation theorem.

P. Penfield, Jr., R. P. Rafuse, C. L. Searle, R. D. Thornton

*This work is supported in part by Purchase Order DDL B-00368 with Lincoln Laboratory, a center for research operated by Massachusetts Institute of Technology with the joint support of the U. S. Army, Navy, and Air Force under Air Force Contract AF19(604)-7400.

