XXII. NETWORK SYNTHESIS

Prof. E. A. Guillemin   N. DeClaris   P. M. Lewis II
Dr. M. V. Cerrillo   J. C. Pinson

RESEARCH OBJECTIVES

Work in the field of time-domain synthesis is now fairly well crystallized. Two reports are in preparation, and a simplified systematic procedure is being formulated.

Reports dealing with new methods of cascade synthesis pertinent to RC and RLC driving-point and transfer impedance synthesis (mentioned in the Research Objectives of last year) will be published. (These are also being published in the Proceedings of the Brooklyn Polytechnic Institute Symposium on Network Synthesis and in the Transactions of the IRE, PGCT, 1955.)

Studies of the properties of voltage transfer functions and their synthesis (also mentioned last year) are in the preliminary write-up stage, as are the studies concerned with the analysis aspects of network theory.

With Dr. Cerrillo's return to the Laboratory, work is under way and being planned which will further evaluate and apply his studies in the construction of "window functions" for prediction, delayless filtering, pattern recognition, and other applications of this versatile synthesis method.

E. A. Guillemin