

X. MULTIPATH TRANSMISSION

Prof. J. B. Wiesner
E. J. Baghdady
A. W. Emmons

RESEARCH OBJECTIVES

The main interest in this project is still centered on the possibility of achieving disturbance-free reception under adverse conditions of multipath, cochannel, and channel-jamming interference. An intensive study of the basic requirements in the design of FM receivers to exhibit the intrinsic capture qualities of wideband FM systems is being completed. Various schemes promising considerable improvement in the capture performance of the receiver, at commensurate cost, are also the objects of experimental investigation.

The basic aspects of the project are concerned with both transient and steady-state studies of the response of networks involving energy-storage elements for variable-frequency excitations of various types. In addition, problems concerned with basic FM circuits are included. Throughout this endeavor, we are trying to determine what can be done with a wideband FM system and how to do it.

E. J. Baghdady