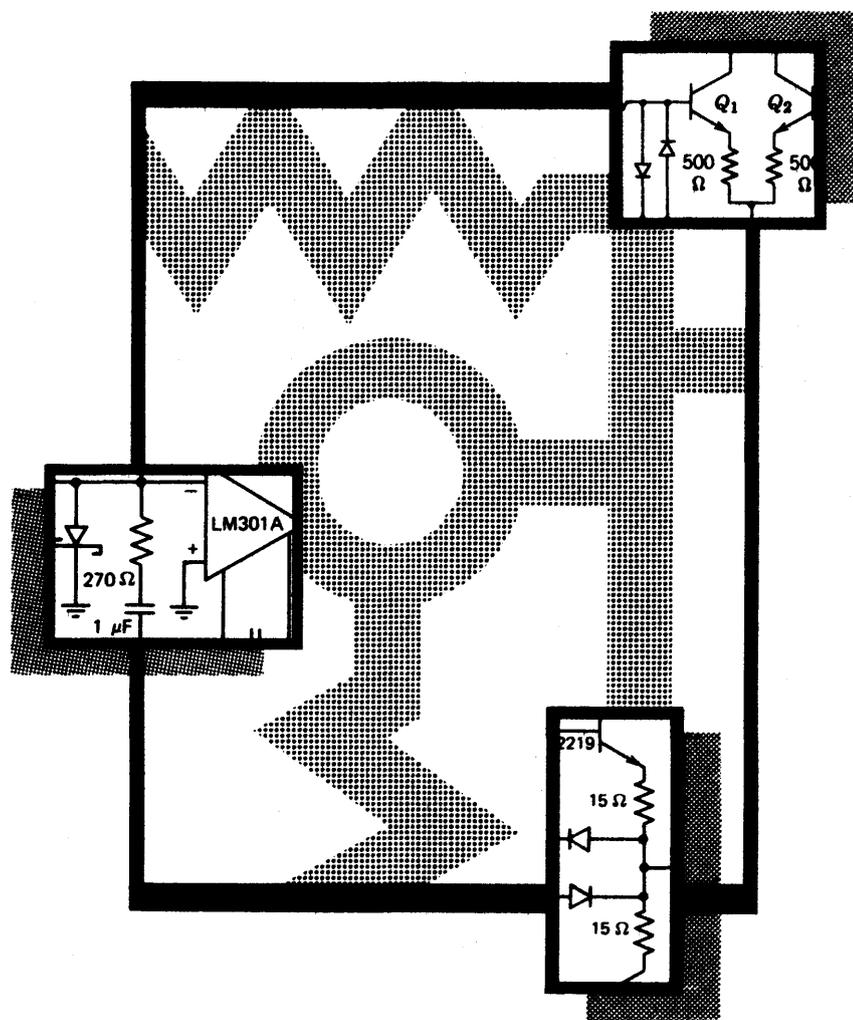
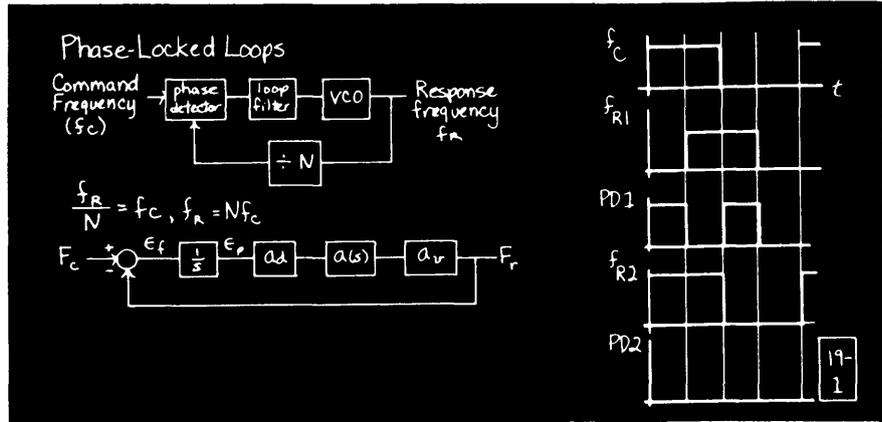


Phase-Locked Loops

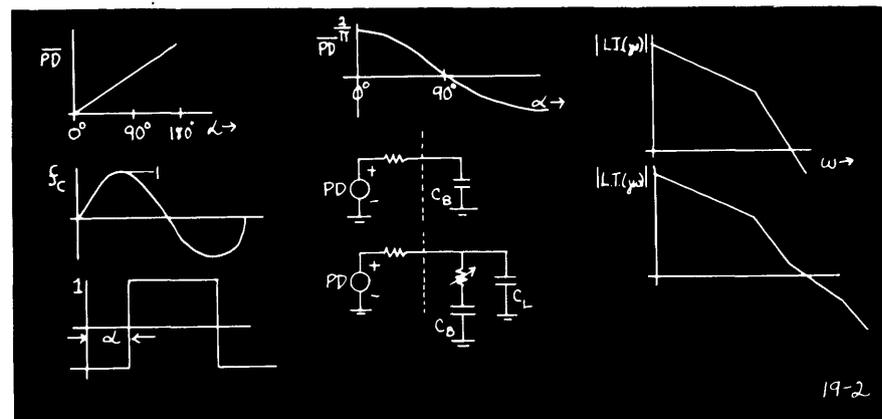
19

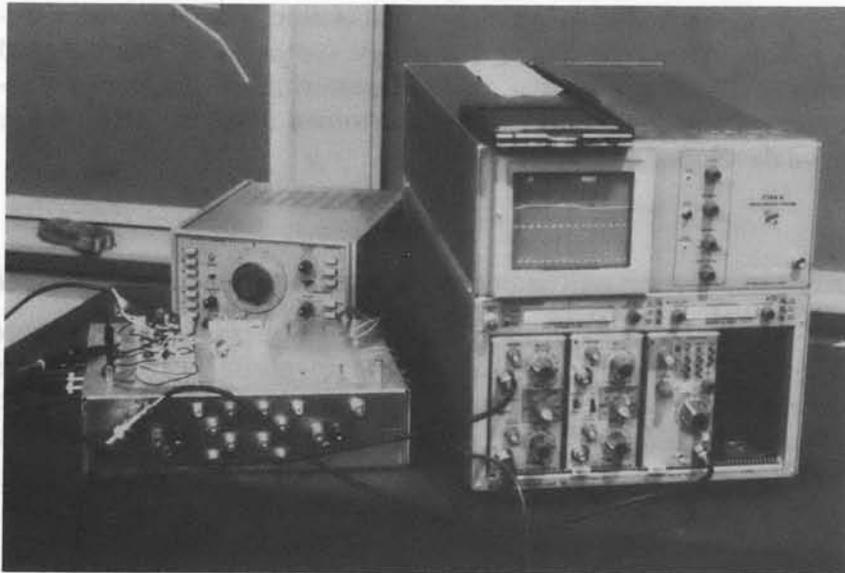


Blackboard 19.1

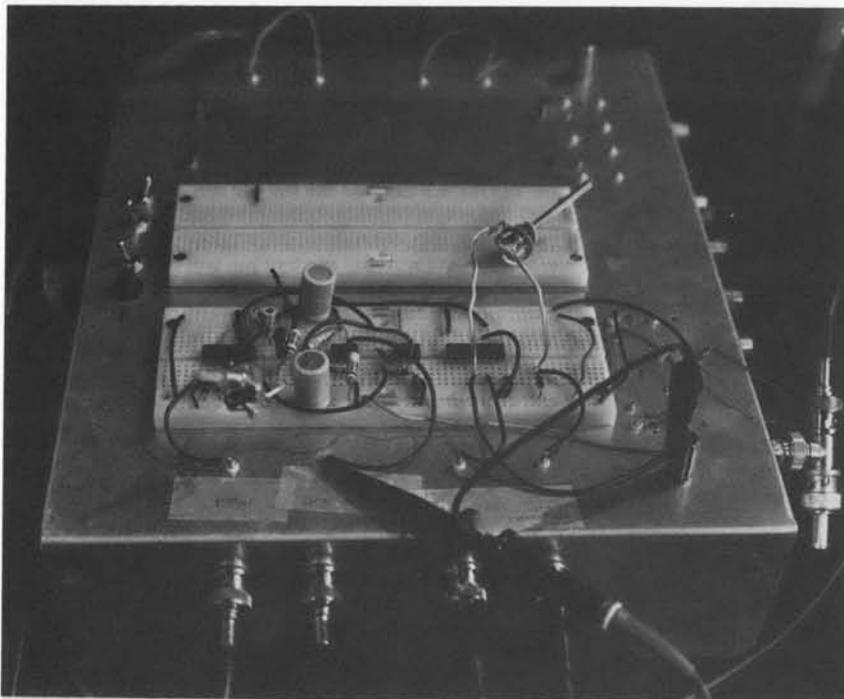


Blackboard 19.2





Demonstration Photograph
19.1 Phase-lock loop demonstration



Demonstration Photograph
19.2 Close-up of phase-lock loop

Comments

The phase-locked loop is a circuit that is used in applications ranging from demodulation to frequency synthesis. A phase-locked loop is a feedback system, and the performance and design constraints for such circuits can be determined using the methods we have developed earlier in the course.

Reading/Problems

There are no specific reading assignments or problems. For those interested in a thorough background in phase-locked loops, an excellent and detailed treatment is provided in: Floyd M. Gardner, *Phaselock Techniques*, 2nd ed. (New York: John Wiley & Sons, 1979).

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