Bukov, V. N.; Ryabchenko, V. N.
System embedding. Classes of the control laws. (English. Russian original) [Zbl 1092.93517]

Summary: Consideration was given to control of the linear systems using the precompensator and controller. By means of the technology of system embedding, the problem was reduced to the linear matrix equations for which the general structures of classes of all were obtained. In doing so, problems using both the regular and nonregular (with nonreversible precompensator) control laws were encompassed. The generally nonformalizable dependence of the structure of controller class on the choice of the precompensator was shown to be the basic distinction of the nonregular laws. The solution was illustrated by an instructional example and an example of control of the aircraft lateral (roll-yaw) motion.

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