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“Plantwide control - A review and a new design procedure”

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Abstract: Most (if not all) available control theories assume that a control structure is given at the outset and fail to answer some basic questions that a control engineer regularly meets in practice (Foss 1973): 'What should be controlled, which variables should be measured, which inputs should be manipulated, and what trade-offs should be made between them?' These are the questions that plantwide control tries to answer. There are two main approaches to the problem, a mathematically oriented approach (control structure design) and a process oriented approach. Both approaches are reviewed in the paper. We also provide some definitions of terms used within the area of control.



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