Vortragsankündigung

Seminar Regelungssysteme LV 0430L 654
Thursday, April 24th, 3pm
Vortragsort: EN 220

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Modelling, Control and Automation of Bioreactors

A novel jet-loop membrane bioreactor and a two-stage anaerobic bioreactor adapted for organic matter oxidation were designed and constructed. In these two separate projects, the inputs were wastewater samples (leachate and potato-processing wastewaters). Controlling the these kind of bioreactors to realize high rates of purification depends on maintaining the appropriate loadings and operating conditions. This requires collecting various system data to estimate the dynamics of the system satisfactorily with the aim of keeping certain parameters within the specified range. The differential transform method (DTM) based solution of the state equations reveals the current state of the process so that any deviation in the system parameters can be immediately detected and regulated accordingly.