

Tugas I sistem pengaturan Berjaringan

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INSTITUT TEKNOLOGI SEPULUH NOPEMBER 2023

1. Any communication network can only carry a finite amount of information per unit of time. Each sensor network needs to communicate with maximum bit rate which carry reliably the system. A significant research has been define that the problem of minimum bit rate is needed to stabilize a linear system through feedback over a finite capacity channel.
2. Overall delay between sampling and eventual decoding at the receiver can be highly variable because both the network access delays and the transmission delays depend on highly variable network conditions such as congestion and channel quality
3. Because, state estimation over network is important in applications such as remote sensing, space exploration, and sensor network. It is also a crucial component of certainty equivalence NCS controllers that construct control signals based on state estimates of a remote plant. The most widely used in estimator is Kalman filter.
4. In some NCSs, the data transmitted are time stamped, which means that the receiver may have an estimate of the delay’s duration and take appropriate corrective action. A significant number of results have attempted to characterize a maximum upper bound on the sampling interval for which stability can be guaranteed. Large interval might be inaccurate because the selected data has a wide data range so that perhaps the most important points in the data are missed.
5. Delay differential equations (DDEs) are a type of [differential equation](https://en.wikipedia.org/wiki/Differential_equation) in which the derivative of the unknown function at a certain time is given in terms of the values of the function at previous times. DDEs are also called time-delay systems, systems with aftereffect or dead-time, hereditary systems, equations with deviating argument, or differential-difference equations. Using observer-based controllers to handle NCS are proposed: nonparticipative and anticipative.
6. Dropout model in system is special case of a discrete-time *Markovian jump linear system* (MJLS). In general, MJLS the index in system would be the state of a discrete-time Markov chain with a finite number of states and a given transition probability matrix.
7. This survey did not address a few important issues in NCSs, such as bit rate and quantization. This paper might be implemented about this issue “Stabilizing bit rate conditions for a scalar linear even-triggered system with Markov dropouts” Liu, Yuan and Ling Qiang.
8. In paper “Control methodologies in networked control systems” discuss method the augmented deterministic discrete-time model in plant linear. To find optimal result use optimal stochastic control methodology to control NCS on random delay networks. non-linear and perturbation theory to formulate network delay effects in an NCS as the vanishing perturbation of a continuous-time system under the assumption that there is no observation noise. In conclusion, this paper discusses about methodologies when the system encounters delay, and describes how the sampling method for time scheduling is implemented. This paper also discusses control method in NCS, there are robust control and fuzzy logic modulation.