***Intermittent Feedback in Time-Delay Systems: Small-Gain Theorem with Lyapunov Proof (Preliminary Results)***

**Abstract:** Networked Control Systems (NCSs) are spatially distributed control systems in which sensors, controllers and actuators exchange information over a shared resource-constrained communication network. On the one hand, NCSs offer greater flexibility as weel as reduced implementation and maintenance costs in comparison with traditional control systems. On the other hand, networked-induced imperfections in NCSs impair control system performance and may even lead to instability. In this talk, we investigate scheduling protocols, delays, packet dropouts, aperiodic sampling and noisy data. Essentially, in addition to possessing the usual robustness requirements (e.g., to modeling uncertainties and/or external disturbances), NCSs also need to be robust against these networked-induced phenomena. In an effort to further reduce conservativeness of our previous works, we combine the small-gain theorem settings with Lyapunov-Krasovskii functionals. The talk will include our preliminary results in this direction.