1145-93-2931   **Hasala Gallolu Kankanamalage*** (`hgallolu@rwu.edu`). *Lyapunov descriptions of string stability for systems with delays.*

String stability plays a central role in analysis of interconnected systems. This special stability property is especially important analysis and design of Adaptive Control Systems and intelligent interconnected systems. There are Lyapunov descriptions available for string stability in the literature of interconnected systems. However, systems associated time delays need special consideration. In this work, we consider Lyapunov characterizations of variants of string stability for systems associated with time delays. Main contribution includes theoretical framework of Lyapunov descriptions accompanied by potential practical implementations. (Received September 26, 2018)

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