

A phenomenon, known as mixed-mode, occurs naturally in switched delay systems, and it makes the stability analysis for such systems a challenge, especially for the case of time-varying delays. This note aims to investigate the effects of mixed-modes on the stability analysis of switched time-varying delay systems, which are motivated from networked control applications. By constructing a Lyapunov-Krasovskii functional and using the estimation of quadrature, as well as the average dwell time approach, new exponential stability conditions are given for the switched time-varying delay systems with both stable and unstable subsystems. This can be seen as a generalization of existing results that mainly focus on the cases of constant delay and all stable subsystems. Finally, simulation examples are presented to illustrate the developed results.