**Abstract**

In this paper the problem of extended dissipative state estimation for discrete-time switched complexdynamical networks (CDNs) with mixed time delays is investigated. The switching approach is based onsojourn probabilities and it is assumed that these probabilities are known aprior. One primary channel and multi-redundant channels which constitute multiple communication channels are considered to coexist for the state estimation of underlying switched CDNs. To solve for the *H*∞, *l*2 - *l*∞*,* passive anddissipative state estimation, the concept of the extended dissipativity is used by adjusting the weightingmatrices in a new performance index. Suitable Lyapunov–Krasovskii functional is constructed in terms ofKronecker product and based on the Lyapunov stability theory, new delay-dependent sufficient stability conditions are derived in terms of linear matrix inequalities (LMIs). The effectiveness of the developedtheoretical results is demonstrated via a numerical example.