

## Special Issue on Linear Time-Varying Systems

# CALL FOR PAPERS

A linear system is said to be time-invariant if its impulse response  $h(t, \tau)$ , where  $\tau$  is the occurrence time of the unit impulse function and  $t$  is the observation time, depends on  $t - \tau$  only; otherwise, it is time-varying.

Physical phenomena exhibit time-varying behaviour due to variation in operating conditions. It is very well-known that linearization of non-linear systems on their known trajectories also yields linear time-varying systems (LTVS). The scope covers both analogue systems described by differential equations and digital systems described by difference equations. Both of them appear in a wide variety of engineering applications.

This Special Issue aims at bringing together scientists and practitioners active in LTVS, to present their studies, share their knowledge and experiences, and discuss the current state of the art, with the goal of leading to future developments in LTVS. We encourage papers with important new perspectives on and experiences in LTVS from mathematical modelling, analysis, design and synthesis, stability, control, and many other aspects of engineering applications. New methods and results, as well as new problems appearing in theory and applications dealing with these subjects, especially fractional order applications, commutativity, and discrete-time systems, will predominantly be encouraged. Topics of interest include novel and stunning approaches and results on the following interlinked subjects. Original research and review articles are welcome.

Potential topics include but are not limited to the following:

- ▶ Analysis of LTVS
- ▶ Stability Theory of Parametric Systems
- ▶ Controller Design for LTVS
- ▶ Cascaded Systems and Commutativity of LTVS
- ▶ LTVS with Delay (Constant and Time-Varying)
- ▶ Fractional order LTVS
- ▶ Discrete-time LTVS
- ▶ Differential & Difference Equations for LTVS

Authors can submit their manuscripts through the Manuscript Tracking System at <https://review.hindawi.com/submit?specialIssue=601725>.

Papers are published upon acceptance, regardless of the Special Issue publication date.

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