

CONCLUSION

In this article, we proposed an event-based sliding mode observer for estimating the states practically, i.e., with any arbitrary accuracy. It was possible by the proper tuning of event parameters, possibly online. We discussed the implementation of the observer in two different architectures. In the first one, we proved that the states are estimated practically irrespective of external disturbances. However, in sensor-side implementation, the estimation error converges to zero as the outputs are continuously fed to the observer. The proposed sliding mode observer can be useful for various applications, e.g., fault detection and isolation, output feedback stabilization, detection of cyber-attacks, etc.

Problem:

Online tuning of event parameters?

