Optimal control for combined energy storage and attitude control system (CEACS) in small satellites

ABSTRACT

The combined energy storage and attitude control system (CEACS) combines both energy storage and attitude control modules via the flywheel technology. Previously only the conventional control methods were tested for CEACS. In this paper, H2 and H-infinity control methods are implemented in CEACS. The satellite attitude control performances show that both control options can be employed for a good attitude pointing accuracy.

Keyword: CEACS; Component; H infinity control; H2 control; Optimal control