S-PowerLink Technology

by Mr. J. Cornforth (TAS-UK)

"Space PowerLink" – A single two wire cable transports both a dc voltage and a 1Mbps data exchange to multiple distributed "Terminals" for sensor acquisition and node actuation. Current Spacecraft Architectures include segregated data communication for monitoring discrete lines and power lines. This leads to a bulky and heavy harness (e.g. up to 15% of the dry mass). S-PwL can help reduce this harness mass/complexity by implementing a lower mass, low power distributed control and monitoring system based on a 2 wire bus and "S-PwL-Controllers" and "S-PwL-Terminals" materialized by the SPA device currently in ESA ASIC development.