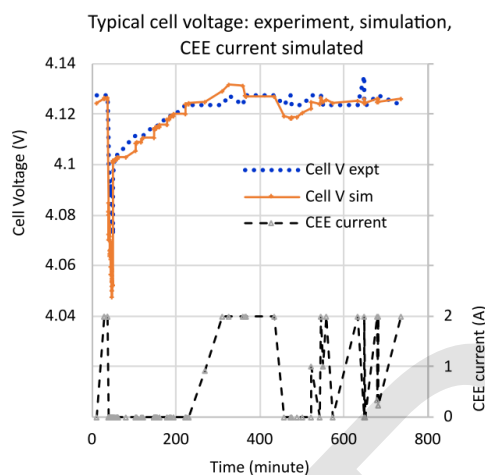


Combined Model for Lithium ion battery & charge equalization electronics

U R Rao Satellite Centre (URSC) of Indian Space Research Organisation (ISRO) has indigenously developed software model to estimate battery performance as well as charge equalization electronics (CEE) on-board spacecraft. This model outputs the battery performance in presence of CEE.

Salient Features

- ❖ Applicable to s-p or p-s configured batteries CEE.
- ❖ Specific to cell and CEE type based on proprietary testing on-ground.
- ❖ Could be extended to other applications on demand.



Description

- ★ Combined Model for Lithium ion battery & CEE will take on-ground test for typical cells & flight model of CEE along other inputs. It estimates battery performance while the CEE draws either quiescent current or the equalization current.
- ★ The model needs charge retention input under test condition (a standard test for all batteries) & provides finer accuracy.
- ★ The Combined model of Lithium ion cell and CEE is used for analysis in specific ISRO missions.

Technology Transfer

URSC-ISRO offers to transfer this technology of indigenously developed Combined Model for Lithium ion battery & charge equalization electronics for Lithium ion battery to industries in India in space arena. To use the model, industries must have Matlab environment & should spare few cells with which the batteries are being made by them and also CEE test data. The inputs requirements needed will be intimated on case to case basis.

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