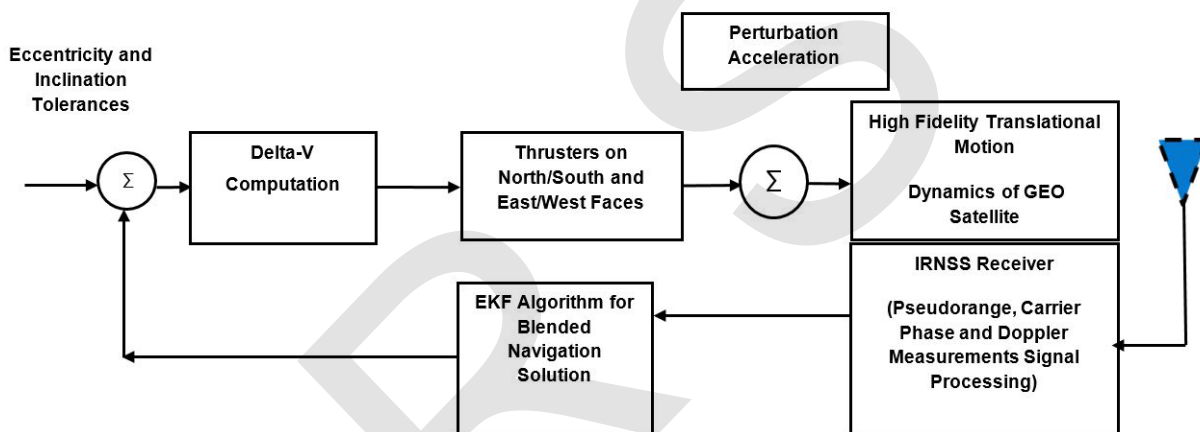


Autonomous Station Keeping

U R Rao Satellite Centre (URSC) of Indian Space Research Organisation (ISRO) has developed methods for Autonomous Station Keeping of GEO satellites. The capability of performing autonomous station keeping of GEO satellites was demonstrated through simulations. In addition to autonomous Station keeping, this technology can be extended to LEO satellites orbit maintenance, payload operations, antenna drive and also for GEO transfer orbit operations.



GNSS Based Autonomous Station Keeping

Salient Features

The GNSS data can be used to obtain the precise orbit. This requires the GPS receiver capable of receiving GNSS signal at GEO altitude. In the absence of non-availability of the high sensitivity GNSS receiver, the scheme can be used with reference orbit generated and propagated on-board the satellite. The satellite orbit and attitude can be maintained within mission specifications, without ground support.

Major Specifications

- ✦ Lat, Lon Maintenance within $\pm 0.1^\circ$.
- ✦ Attitude Error within 0.2° about Roll and Pitch and 0.4° about Yaw.

Technology Transfer

URSC-ISRO offers to transfer this technology of Autonomous Station Keeping to industries in India with adequate experience and facilities. Industries interested in obtaining knowhow may write giving details of their present activities, infrastructure and facilities.

Technology Transfer & Industry Coordination Division (TTID),
Programme Planning and Evaluation Group (PPEG),

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🌐 <https://www.ursc.gov.in/industry/index.jsp>