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Abstract:

Monitoring the Geodynamics and natural disasters like earthquake, v eruptions, avalanches, cyclones, etc., with the ultimate aim of predict them, and managing the rescue and rehabilitation operations during a after such calamities has assumed great importance world-wide. In In extensive high precision Geodetic and Geophysical control network ha established by Survey of India (SOI), the national mapping agency of of India, for the primary purpose of national mapping, through dedica efforts of over two centuries. More recently, various national organiza and institutions have taken up geodetic, geophysical and geological su for variety of applications. The extensive horizontal and vertical geod geophysical control network established through these collaborative e and huge amount of valuable data thus generated, have contributed significantly towards monitoring the crustal dynamics of the Indian su continent. Several specific projects for geodetic monitoring of local ar regional crustal deformations have been undertaken in the past, in th earthquake-affected areas in India. After the 1993 Latur earthquake i Peninsular Shield of India, extensive Geodetic and GPS investigations been taken up in that region by the Department of Science & Technol (DST), Government of India. In order to evolve a comprehensive "Na Programme on GPS for Geodynamics Studies in India", by integratin GPS control network for Peninsular shield, and other existing GPS sta cover the entire country, DST set up a National GPS Expert Group in 1 The National GPS Network for Geodynamics, recommended by the Ex Group, and now being implemented in a phased-manner by DST, cons about 40 permanent, 700 semi-permanent, and several hundred cam mode field GPS stations. Several GPS research groups are engaged in of specific regions under this national programme. An overview of this programme, along with the present status and future plans will be presented. Two case studies, being carried out by the IIT Bombay GP research group, under this National Programme: one in the Koyna reg central India, and another in the Bhuj region of Gujarat, will be briefly described.

Presentation Mode:

Keywords: GPS, geodesy, geodynamics, control network