

ABSTRACT

Since the launching of the first satellite in space, there has surged a great attraction and urge towards the application of image processing techniques and remote sensing in different branches of science and technology. In the present thesis, digital image processing of remotely sensed data has been attempted for geological theme extraction. A small area from the Mayurbhanj district, Orissa was chosen as a test site. Most of the methods, that have been applied here, are taken from the field of communication theory and potential theory. It has been found that some of the methods do not yield good results and the reason for this has been explained in term of the lack of continuity of the grey level values. The whole work has been carried out in the Burrough's B6700 computer at R.C.C., Jadavpur, Calcutta, without an interactive facility which is a severe constraint on this sort of studies. As a result of this study, the relevant software package has been developed and the results have been interpreted in the light of local geology.