

MACHINE PROCESSING OF REMOTELY SENSED DATA

3-0-0-0-9

DIP system: components and functions, basic imaging process, multi-concept in RS data analysis, Elements of human and computer assisted interpretation. Formats of digital imagery, colour look up tables and transformations. Geometric and radiometric distortions and their corrections. Image histogram, point operations and look-up tables, contrast enhancements, Spatial and frequency filtering, Edge detection and enhancement, filters for radar images. Image transformations. Image Fusion. Pattern recognition: feature selection and extraction, unsupervised and supervised classifications, accuracy estimation, Fuzzy classification. Spatial classification: Texture, Contextual. Object-based classification, Other classifiers: ANN, SVM classification, Binary and hybrid classification, Hyperspectral classification.