Abstract

Radiometric normalization of multi-temporal satellite image is very important for change detection or image mosaic. To obtain land cover changes to reduce the false changes, it is necessary to perform radiometric normalization of multi-temporal satellite images. There are two types of methods: absolutely radiometric normalization (ARN) and relative radiometric normalization (RRN). ARN converts digital number (DN) of each image into land-surface reflectivity directly. It required many synchronous observation data of satellite to revise atmospheric condition and sensor response. But it is difficult, expensive and unpractical to obtain such data. An alternative to absolute radiometric correction is relative correction (RRN) which is commonly used. Various methods are there for radiometric correction like MAD,
IR-MAD, Histogram matching (HM), Simple Regression (SR), Dark and bright set (DB). A method called ordinal conversion which neither belongs to ARN nor RRN for radiometric normalization and change detection. In this paper Ordinal conversion method is compared with histogram matching method and experimental results are discussed.

References

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Index Terms

Computer Science
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Radiometric Normalization  Ordinal Conversion  histogram-matching