

Shahrood University of Technology

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Detection and characterization of hedgerow network using high resolution SAR data: A preliminary result

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Introduction: What is hedgerow? Why? and where?

Design

Types

Landscape

Hedges orientation vs TSX intensity

TSX backscattering analysis

Pauli RGB

Shannon entropy

HH covariance

HV Covariance

Hedges detection using TerraSAR-x

Hedge map of Airborne data after manual editing and field point data

Hedge detected by TSX and filed points

Conclusion

- TSX data has suitability for hedges detection specially by dual mode
- Backscattering model analysis with dual mode of TSX data was not well satisfied
- Difficult to detect the narrow and thin hedges
- TSX limitation is polarimetric mode and need surface roughness and soil moisture data plus hedges biometry for backscattering model
- TSX LOS has most complexity with cross hedges orientation

Thank you for your attention!

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