



FMCW SAR for Stability Monitoring

- Ku-Band FMCW Radar
- Spatial Resolution: Range 0.6m
- Cross Range Resolution: 6.0 mrad
- Detection of mm-level deformation
- Home grown SAR & prediction algorithms
- Remote sensing upto 2.0 kms
- Real Time Operation System
- 24x7 operation
- Portable design



Ground Based- Slope
Monitoring Interferometric
SAR (GB-SMiSA Radar)
Courtesy: NCL, Dudhichua



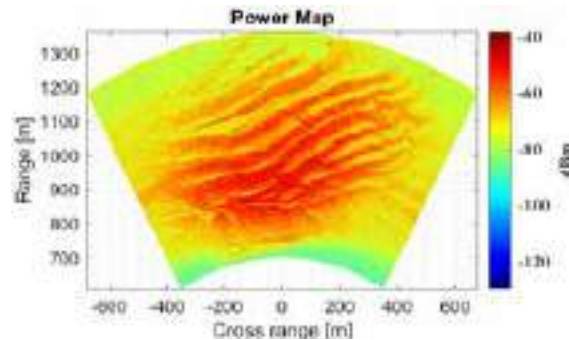
GB-SAR illuminating the
OB dump benches
Courtesy: NCL, Dudhichua

Western Overburden Dump under Illumination



(Optical image taken from Radar Location
i.e. @Eastern O.B. dump)
Courtesy: NCL, Dudhichua

SAR Image of Western Overburden Dump



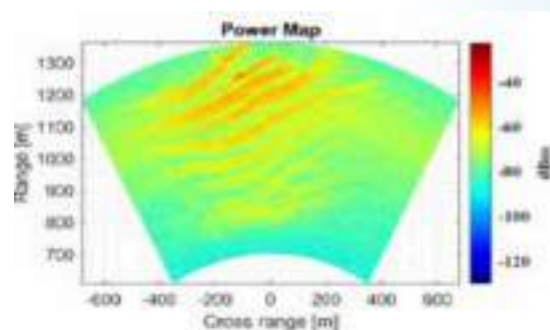
Swath of OB dump benches: 400m in
range and +/-600m in Cross range

1m CR placed on Overburden Dump



CR installed on O.B. dump
Courtesy : NCL, Dudhichua

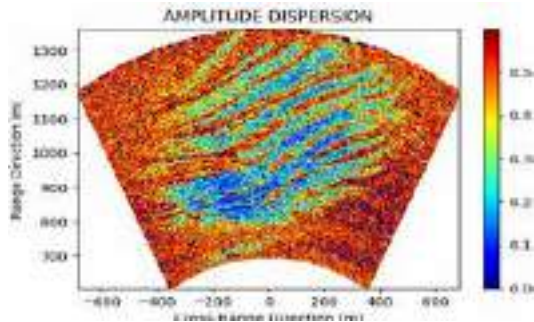
Observation of 1m CR from SAR Image



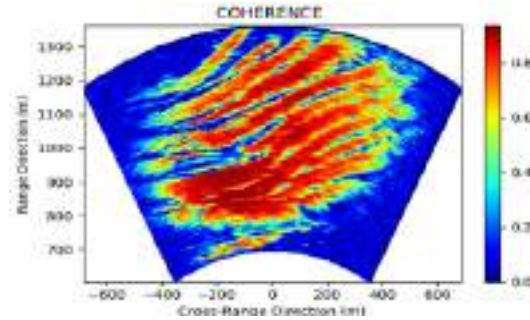
Clear observation of 1m Trihedral CR placed at
1258.5m in range direction on the OB dump
bench from SAR image



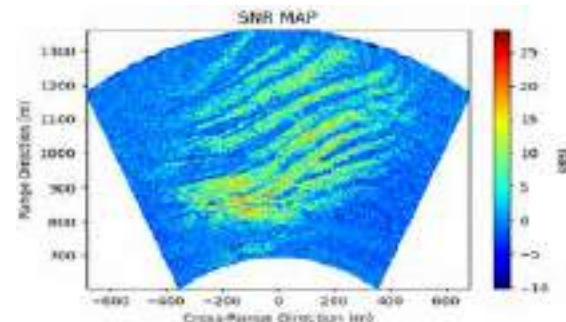
Intermediate Stage Outputs of GB-InSAR



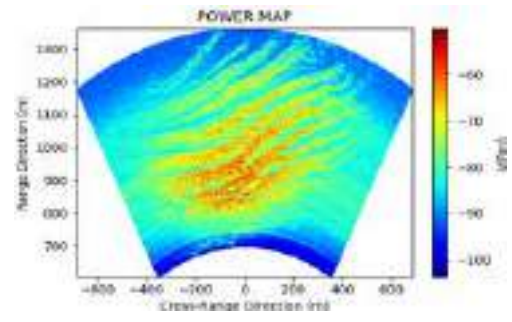
Amplitude dispersion plot gives maximum backscattering areas in scene by using dispersion index



Coherence plot shows the similarity between present and past data observation

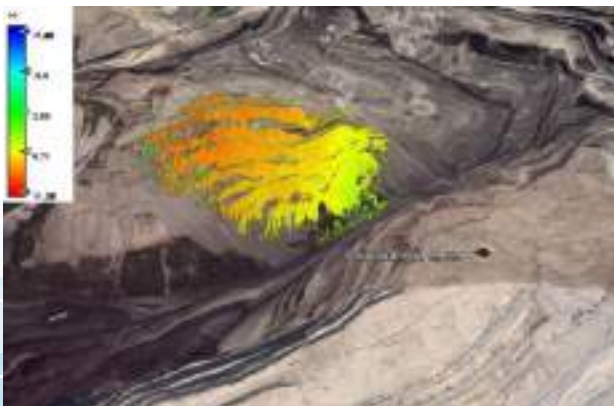


SNR plot indicates the signal to noise ratio in the processed image



Average Power map shows average intensity of signal from the scene

Geo-Coded SAR image



Remote Operation of SAR System

