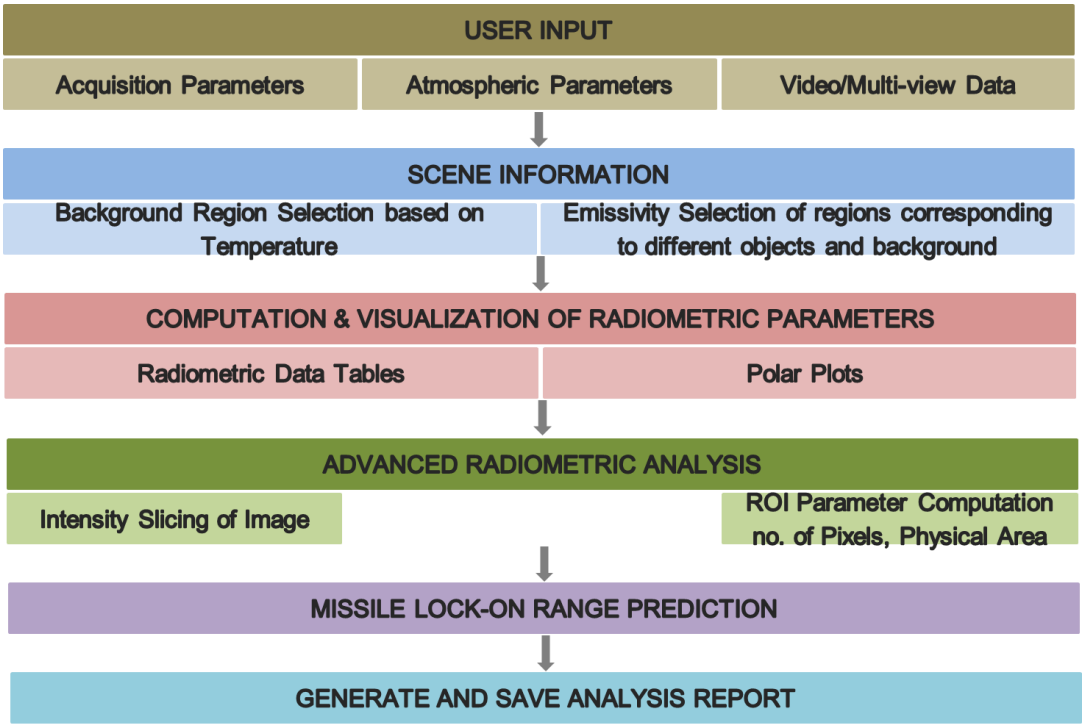
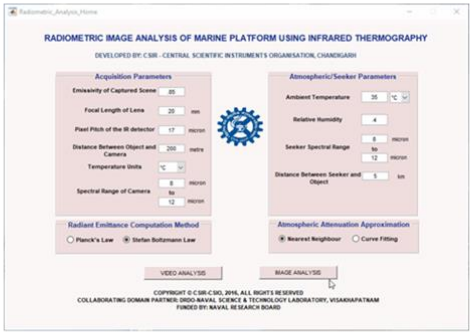
RadAnaTool: Radiometric Analysis Tool for Marine Platforms

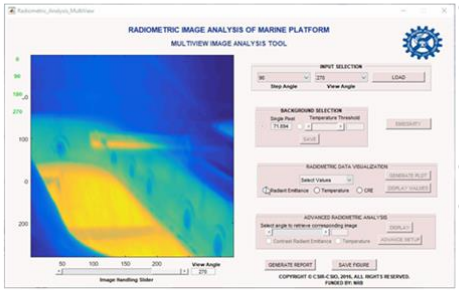
All marine platforms are potential infrared targets due to the inherent IR signature due to internal and external heat source. New ship design programs and design changes of old ship are undertaken to ensure IR countermeasures (IRCM) and IR suppression systems (IRSS). IR signature analysis is critical part of stealth technology, which helps in reducing a platform's susceptibility to infrared guided weapons and surveillance sensors.



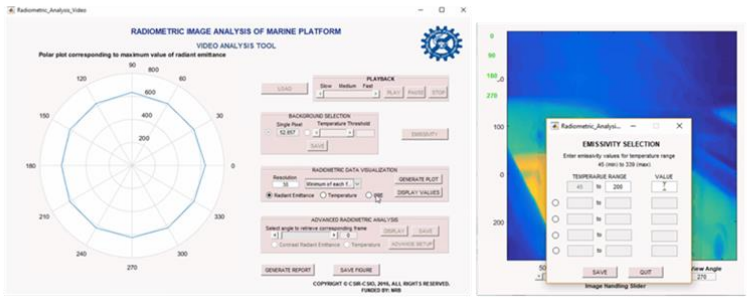
Salient Features of Radiometric Analysis Tool (RadAnaTool)

- Analysis of both radiometric video data or multiple images
- Estimation of attenuation due to CO_2 and H_2O in atmosphere
- Computation of radiant emittance from Temperature



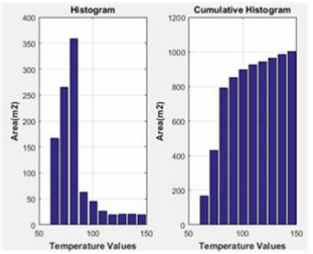


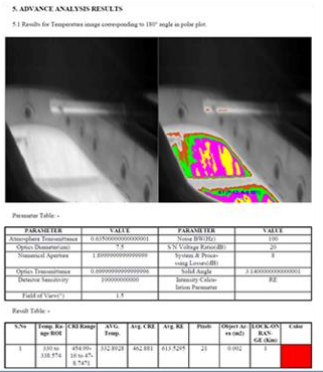
- Segmentation of background and Region of interest based on temperature
- Emissivity Correction
- Computation & visualization of radiometric parameters



Advanced Radiometric Analysis

- Intensity slicing of image
- ROI selection
- Automatic computation of ROI parameters – no of pixels, physical area
- Cumulative histogram analysis





- Seeker lock-on range computation
- Automatic generation of analysis report