

NETRA: Naval Equipment and Task Reliability Analyzer Software

Problem Statement: All asset-intensive organisations require reliability prediction, health monitoring, residual life prediction, and maintenance optimisation of their assets. The researchers have addressed this requirement by developing a mission, task and equipment reliability prediction and analysis software, aptly named NETRA (Sanskrit for an eye), for Indian Navy ships. NETRA stands for Naval Equipment and Task Reliability Analyzer. It can bring down the human resource cost for the organisations depending on the required features of the NETRA software.

Uniqueness of the Solution: There is no similar solution (equipment reliability software) available in the market. The software is configurable for other asset-intensive organisations like the Indian Army and Coast Guards. To a large extent, this software automates the reliability model creation, and it can be integrated with existing CMMS (Computerised Maintenance Management System) and sensor-based

data acquisition systems. The various modules incorporated within NETRA are reliability prediction, reliability centred maintenance recommendation, condition monitoring of assets, residual life (time to next failure) estimation and maintenance optimisation. NETRA software is a cost-effective solution as it can reduce some human resource costs.

Current Status of Technology: The researchers have completed one out of the four stages. They plan to deliver the entire software in the next one and a half years.

Societal Impact: The product is mainly developed for defence and other asset-intensive organisations like the army, coast guards, railways, mining and petrochemical industry, power generation industry and manufacturing plants. It can significantly help in their asset and equipment management process.

Patent(s): In progress

Relevant Industries: Defence, Aerospace, Mining, Petrochemicals, Power, Manufacturing, Railways.

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