

ARTIFICIAL INTELLIGENCE / DEEP LEARNING IN AEROSPACE: AN INDIAN NAVY PERSPECTIVE

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Abstract:

Naval Aviation, over the last six and a half decades, has been effectively operating and maintaining about fifteen types of aircraft and their associated equipment. Modern aircraft such as the MiG 29K, Boeing P8I and the Advanced Jet Trainer (AJT) Hawk have in-built Health and Usage Monitoring Systems (HUMS) which generate several Terabytes of data during every sortie. This data archived by aircraft maintainers has the potential to accrue several benefits. The Navy also runs ERP systems for management of its logistics functions. In addition to these, there is immense scope for enhancing the efficiency of Image / Target classification of raw data from the aircraft sensors. Virtual and Augmented reality is another domain which can be extremely useful in training aircraft maintainers. In short, incorporation of AI / Deep Learning techniques heralds exciting prospects for the Navy.

Keywords: Health and Usage Monitoring Systems, Artificial Intelligence, Deep Learning, Predictive Maintenance