# *Abstract*

*Security and protection of the data is the core objective of every organization but since cyber-attacks got more advanced than ever before, the data is compromised more often resulting in financial loss, life loss, or privacy breaches as its consequences. To cope with the increasing number of cyber-attacks in flight operations, which are not just increasing in numbers but also increasing in sophistication, there must be a system that is capable of handling these attacks. Since we know that traditional IDS is not capable enough to protect the data, and as a large number of human lives are at a stake in flight operations, an unfortunate data corruption attack, could give rise to a catastrophe incident. In this thesis, we have proposed a Blockchain-based Intrusion Detection System for Flight Operations (BIDFO) framework to protect the privacy of the data and avoid the corruption of the data in flight operations. Blockchain not only tends to protect the data from corruption but also circumvents the challenges faced by IDS which include trust and consensus building between different nodes in a network thus enhancing the capability of the IDS.*