

**ABSTRAK**

Judul : Penerapan Keamanan Siber Pada Sistem Transportasi Laut  
(Studi Kasus: PT Indobaruna Bulk Transport)

Nama : Sahrudin

Program Studi : Teknik Informatika

Sistem transportasi laut semakin bergantung pada teknologi komputasi dan komunikasi, Informasi Teknologi (IT) dan Operasional Teknologi (OT) harus bekerja sama untuk melindungi informasi dan merancang keamanan untuk kegiatan kriminal yang disebabkan oleh serangan siber. Sistem tahapan proses dan penilaian keamanan siber untuk kapal diperlukan agar kerentanan sistem transportasi laut terhadap serangan siber dapat diukur secara akurat dan efektif. Menggunakan *framework* NIST, CIA model dan *Risk Assessment Matrix* (RAM) untuk identifikasi dan pengukuran merupakan kunci terpenting dalam proses penilaian keamanan siber pada sistem transportasi laut. Tugas akhir ini berfokus pada penerapan dan penilaian keamanan siber yang diterapkan PT Indobaruna Bulk Transport, dengan ruang lingkup analisis pada infrastruktur kapal meliputi sistem jaringan, komputer, perangkat komunikasi kapal, pengujian, dan penilaian.

Kata kunci : Sistem Transportasi Laut, Keamanan Siber, *Framework* NIST, CIA Model, *Risk Assessment*

**ABSTRACT**

Title : Implementation Cybersecurity on Marine Transportation System (Study Case: PT Indobaruna Bulk Transport)  
Name : Sahrudin  
Study Program : Informatics Engineering Departement

*Marine transportation systems are increasingly dependent on computing and communication technologies, Information technology (IT) and operational technology (OT) must work together to protect information and design security against criminal activity from cyberattacks. A system of process stages and cybersecurity assessments for ships is necessary so that the vulnerability of marine transport systems to cyberattacks can be measured accurately and effectively. Using the framework NIST, The CIA model and Risk Assessment Matrix (RAM) for identification and measurement is the most important key in the cybersecurity assessment process of marine transport systems. This final project focuses on the implementation and assessment of cybersecurity implemented by PT Indobaruna Bulk Transport, with the scope of analysis on vessel infrastructure including network systems, computers, ship communication devices, testing, and assessment.*

Keywords : Marine Transportation System, Cybersecurity, Framework NIST, The CIA Model, Risk Assessment