

Rathmalana, Sri Lanka | 12th. December 2024

DESIGN OF AUTOMATED OIL-WATER SEPARATOR SYSTEMS TO REDUCE ENVIRONMENTAL EFFECTS IN ASSOCIATED INDUSTRIES

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Abstract: This paper overview the important of advance oil water separator technology in managing oil contaminated water in industry like Petroleum, Manufacturing and Transportation. This paper give details to existing systems and their limitations and highlighting the needs for more efficient solutions. The study introduces novel approach by involving automation systems to improve performance of oil water separators. This method improve accuracy, minimize manual operations, reduce interceptor overloading, solid waste collecting. API Separator that are optimize for parameters like length to width ratio, depth to width ratio and horizontal velocity. The study promotes combining for integrating full automated systems with conventional separation technology to enhance operational performance reliability and environmental protection.

Keywords: Oil-Water Separator, System Automation, Environmental protection, efficient