

DRONACHARYA

Disaster Management & Ocean Monitoring



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DRON-ACHARYA, powered by Advanced Image Processing, Artificial Intelligence, and Advanced Photonic Technology revolutionizes ocean monitoring and disaster management, offering real-time insights for safeguarding coastal regions and maritime operations.

FEATURES

- Integration of Cutting-edge Technologies:
 - Advanced Image Processing
 - Laser Backscattering
 - Big Data & AI
- Image Processing with Remote Surveillance
- Ocean Monitoring for Disaster Management
- Real-Time Interpretation
- Portable and Compact.
- Low Power Consumption.
- Cloud-based Big Data Analytics and Streaming for Global Access.
- **Image Processing:** Improves visual data quality by stabilizing images, reducing smoke/cloud interference, and enhancing clarity for optimal performance in various conditions.
- **Artificial Intelligence (AI) and Remote Sensing Satellites:** AI aids real-time analysis of data from remote sensing satellites, capturing optical and radar images for diverse applications.
- **Natural Disaster Early Warning:** Detects ocean condition anomalies and identifies disaster precursors, enabling timely response and mitigation efforts.
- **Versatile Target Detection and Monitoring:** Detects, distinguishes, and tracks targets within a 100km range of ships and monitors divers from 20m to 20km above or below sea level, ensuring comprehensive surveillance capabilities.
- **Wave and Current Monitoring:** Offers real-time ocean monitoring using precise photonic sensors for data collection, providing essential insights into current conditions.
- **Ship Tracking and Monitoring:** Ensures maritime security and efficient rescue operations with real-time vessel tracking capabilities.
- **Tide Monitoring:** Provides precise tide data, enhancing early warning systems and supporting preparedness for potential coastal flooding and high tides.
- **Coastal Infrastructure Monitoring for Early Damage Detection:** Actively monitors coastal infrastructure, enabling early detection of damage and timely maintenance to prevent potential disasters.



DRONACHARYA CATSMART BIG DATA

- CATSMART ML improves image recognition capabilities, enhancing the precision of image processing.
- CATSMART AI classifies various marine vessels, including ships, submarines, and boats, and differentiates divers for comprehensive maritime surveillance.
- Offers real-time analysis, adapting to changing conditions with CATSMART.
- CATSMART ML predicts tides and currents for improved maritime safety.
- Integration with photonic technology enables real-time and accurate data analysis, enhancing surveillance capabilities.
- CATSMART AI and ML contribute to disaster management efforts, providing valuable insights for timely responses to crises.
- DRONACHARYA scales efficiently with CATSMART AI and Big Data for versatile applications, including disaster management and maritime surveillance.



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