

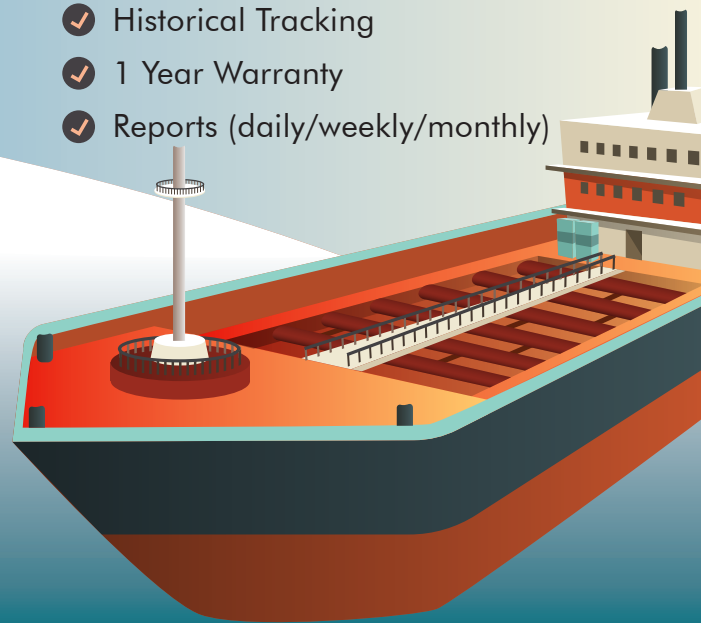
F M S

Fuel Monitoring System with AI



Key Features

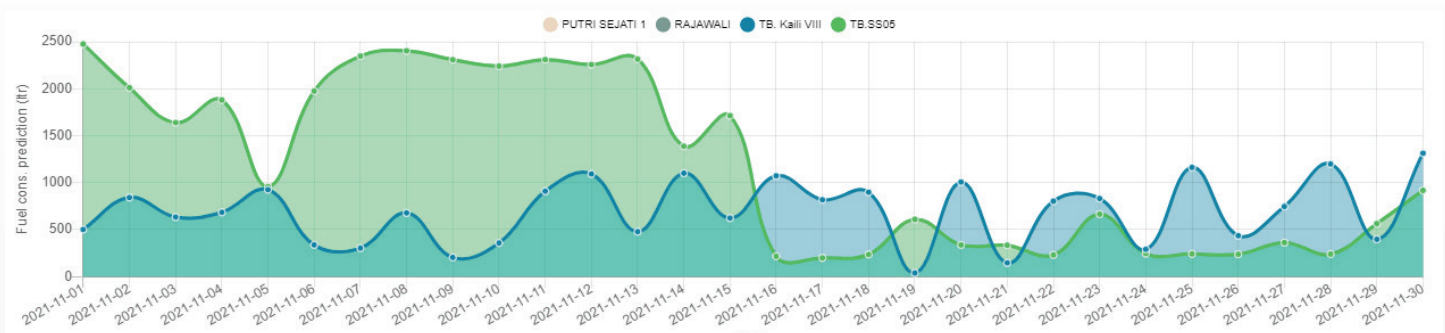
- ✓ Real time monitoring 24/7
- ✓ Call Center 24/7
- ✓ Estimation accuracy > 90%
- ✓ Dual mode (GSM + Satellite*)
- ✓ Website-based application
- ✓ Historical Tracking
- ✓ 1 Year Warranty
- ✓ Reports (daily/weekly/monthly)



About FMS

Fuel Monitoring System with AI didesain untuk memantau konsumsi bahan bakar kapal. Teknologi AI dapat memberi estimasi jumlah konsumsi bahan bakar berdasarkan kondisi mesin kapal, sehingga tidak perlu modifikasi pipa bahan bakar ataupun komponen kapal.

Fuel Consumption Analytics



Step-by-step Installation



Survey



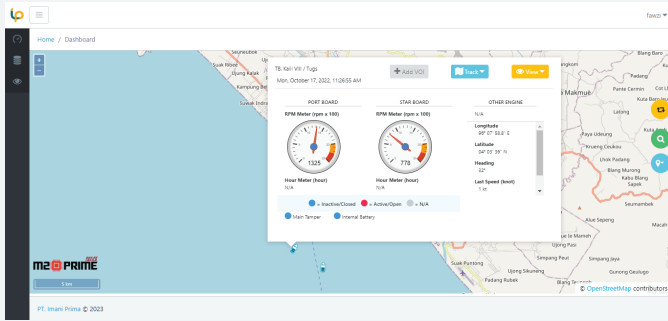
Installation
FMS system
+Flow Meter



Data collection
3 months



Implementation
FMS system
without Flow Meter



Monitoring

Monitor posisi kapal di peta, status kapal, dan kondisi mesin secara real-time. Tracking history perjalanan kapal juga dapat dilakukan.

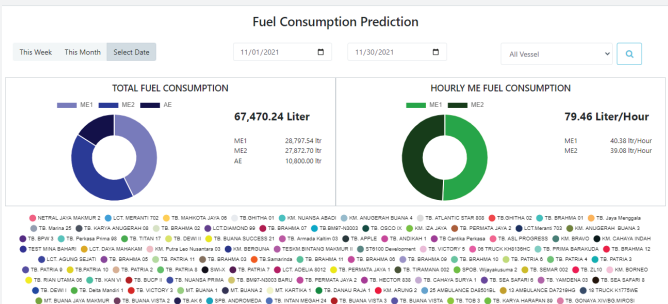


#	Timestamp	Vessel	Mileage(NM)	Running Hour ME	Fuel Consumption Prediction ME (lit)	Fuel Consumption Prediction AE (lit)	Fuel Consumption Prediction Total (lit)	Detail
1	30-11-2021	TS KAH VI	15.42	18.08	1,312.05	240.00	1,552.05	
2	30-11-2021	TS D206	4.80	6.83	917.21	120.00	1,037.21	
3	30-11-2021	TS D206	1.88	3.33	284.17	120.00	404.17	
4	30-11-2021	TS KAH VI	6.93	16.25	366.86	240.00	606.86	
5	30-11-2021	TS D206	2.27	0	228.48	120.00	348.48	
6	30-11-2021	TS KAH VI	12.38	17.17	1,168.65	240.00	1,408.65	
7	27-11-2021	TS KAH VI	15.70	14.58	146.55	240.00	386.55	
8	27-11-2021	TS D206	6.63	1.33	381.22	120.00	501.22	
9	26-11-2021	TS D206	0.94	0	237.48	120.00	357.48	
10	26-11-2021	TS KAH VI	6.85	6	450.01	240.00	690.01	

Total Data 10 entries

Reports

Laporan perjalanan kapal dan prediksi konsumsi bahan bakar kapal. Laporan dapat di-download dalam bentuk file Excel dan dapat dipilih secara harian, mingguan, ataupun bulanan.



Analytics

Data prediksi konsumsi bahan bakar dari kapal-kapal yang didukung dengan teknologi AI, disajikan dengan komprehensif dalam bentuk grafik dan chart.



Hardware Specification

Controller

Electrical

- Input Voltage : 220VAC
- Power Consumption : 0.6A
- Backup Battery Voltage : 24VDC
- Backup Battery Duration : 6 Hours (Depending Number Flow Meter)
- Type Battery : Dry Battery
- Charging Time : 12 Hours
- Temperature : 15C -65C

Network

Using LTE Cat 1

- Cellular Networks : 2G/3G/4G
- Frequency Bands :
 - LTE : B1/B3/B5/B7/B8/B20
 - WCDMA : B1/B5/B8
 - GSM : 900/1800MHz

GNSS

- Satellite : GPS/QZSS, GLONASS, Galileo, BeiDou
- Accuraction : up to 2.5m
- Hot Start : 2s
- Cold Start : 30s

Flow Meter

- Compatible Model : ALIA AUF750
- Type Flow Meter : Ultrasonic flow meter wall mounting with clamp on transducer
- Accuracy : +/- 1% ~ +/- 2% of reading (0.5-30 m/s)
- Response Time : Less than 1s
- Pipe Size Range : 15-6000 mm
- Velocities Range : 0.01 - 32m/S
- Number Flow Meter : 8 (Max)

Interface

- Serial Interface : RS-485, USB For Debuggin
- I/O Interface :
 - Input : 10 pin
 - Output : 10 pin
 - Tamper Input : 1 pin
 - RPM Sensor : 4 pin

Logging

- Type Memory : Micro SD
- Size Memory : 4GB
- Duration Log : 6 Month

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