



Product of Viet An Group Company



Design by VAG in Germany  
Assembled in Vietnam



# iMisff 3101 WW

Smart integrated wastewater monitoring system.

Fulfilling the regulation of the Ministry of Environment.



Leading in Online Instrumentation for Process Automation

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# iMisff 3101 WW

Waste water monitoring is the process of measuring and analyzing the parameters and components of wastewater after it has undergone treatment or production processes.

Monitoring effluent water is a critical step in environmental management and safeguarding water resources, in accordance with Circular No. 10/2021/TT-BTNMT issued by the government of Vietnam.

## Monitoring Parameters

**Standard Parameters:** TSS (Total Suspended Solids), COD (Chemical Oxygen Demand), Ammonia, Temperature, pH.

**Extended Parameters:** Flowin, Flowout, Color, Total Nitrogen, Total Phosphor, and Heavy Metals.



## The strength of iMisff 3101 WW-ID

Our automated, continuous wastewater monitoring solution integrates high-precision sensors from EU/C7 manufacturers. Moreover, our devices have been endorsed for their quality in hundreds of countries worldwide, bringing the absolute confidence in our customers when choosing us.



**All devices are pre-integrated into a single monitoring station.**



**Easy installation and data monitoring through the control screens.**



**Remote monitoring access via the iLotusLand Platform.**



**Low cost for maintenance and servicing.**



**VIET AN GROUP JOINT STOCK COMPANY**

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# Main equipment inside the iMisff 3101 WW

## Transmitter Terminal MIQ/TC 2020 3G - WTW - Germany

The MIQ/TC 2020 3G control unit has the capability to connect up to 20 IQ digital sensors, enabling continuous and precise monitoring

- **Communications** : Ethernet/IP, Modbus TCP, PROFINET
- **Display** : Graphic Display; Resolution: 320 x 240 pixels.
- **Casing Materials** : ASA
- **Protection Level** : IP66/ NEMA 4X
- **Certificate** : ETL, cETL, CE



## TSS sensor - Visolid®700IQ - WTW - Germany

TSS stands for Total Suspended Solids, which refers to the total mass of solid particles that are not dissolved in water. Excess TSS levels can lead to sedimentation, clogging of drains and channels, and can pose a threat to aquatic organisms, impacting water quality and aquatic ecosystems.

- **Measuring principle** : Procedure for measuring scattered light
- **Measurement range** : 0 - 400 mg/l with the possibility of extending up to 1000 g/l TSS
- **Resolution** : 0.1 mg/l with automatic range adjustment
- **Accuracy** : ± 2 %

### Advantage

- Integrated ultrasonic window cleaning system. Surface fouling alert and ultrasonic cleaning system malfunction alert.
- Sensor connection cable equipped with lightning protection for efficient surge propagation.



## Amoni sensor - AmmoLyt Plus 700 IQ - WTW - Germany

The Ammonia parameter helps assess the effectiveness of wastewater treatment processes in the decomposition of organic compounds. The amount of Ammonium generated during untreated conditions can be harmful to the aquatic ecosystem.

- **Measuring principle** : Ion selection (ISE)
- **Resolution** : 0.1 mg/l
- **Measurement range** : 0.1-129 mg/l (or wider up to 2580 mg/l)
- **Accuracy** : ± 5 % of reading value

### Advantage

- Integrated NTC temperature compensation sensor, no pH compensation required, no calibration needed, only matrix adjustment.
- Sensor connection cable equipped with lightning protection for efficient surge propagation.



## pH sensor - SensoLyt® 700 IQ - WTW - Germany

pH is a critical parameter for assessing the acidity or alkalinity of an environment. Wastewater with excessively high or low pH levels can have adverse effects on the aquatic ecosystem.

- **Measuring principle** : Potentiometric
- **Resolution** : 0.01 pH
- **Measurement range** : 2-12 pH range (or 0-14 pH).
- **Accuracy** : ± 0.2 pH

### Advantage

- The design features a detachable electrode-electronics unit, allowing for easy replacement of the glass electrode head when damaged.
- Surface fouling alert and optional protective material choices of SS316 or POM.
- Sensor connection cable equipped with lightning protection for efficient surge propagation.



# Main equipment inside the iMisff 3101 WW

## The COD sensor - UV 705 IQ SAC - WTW - Germany

The COD (Chemical Oxygen Demand) index represents the amount of chemical oxidation required to oxidize organic substances in wastewater, used to assess the level of chemical pollution in the water.

- **Measuring principle** : UV 254 nm absorbance spectroscopy
- **Resolution** : 0.1 mg/l
- **Measurement range** : 0-800 mg/l
- **Accuracy** : ± 5 % of reading value

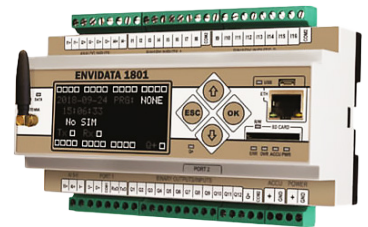
### Advantage

- Automatic cleaning with ultrasonic waves, corrosion-resistant Titanium protective material.
- Sensor connection cable equipped with lightning protection for efficient surge propagation.



## System for receiving, transmitting, and managing data ENVIDATA 1801-Poland

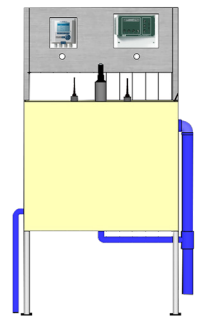
- **Power supply** : 10.8-30 VDC (12/24 VDC)
- **Input** : 16 Digital Input - 6 Analog Input (4-20mA)
- **Output** : 12 Digital Output
- **Communication port** : Modbus RTU (RS232/RS485), Modbus TCP, M-BUS, SNMP
- **Transmission method** : FTP, GPRS/UMTS/HSPA+/LTE, SMS, E-mail
- **Display screen** : LED



## Sample Tank iMisff 3101 WW - Viet Nam

The iMisff 3101 WW sample tank utilizes corrosion-resistant materials and serves as a reservoir for monitoring samples with a principle of free overflow discharge, ensuring a continuous renewal of the sample.

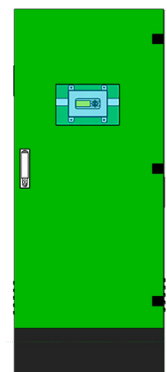
- **Dimensions** : 800W x 700H x 300D mm
- **Type** : Stand, outdoor
- **Material** : PP (Polypropylene) plastic, 8mm thick, Cream color
- **Weight** : 50 kg
- **Volume** : 168 liter



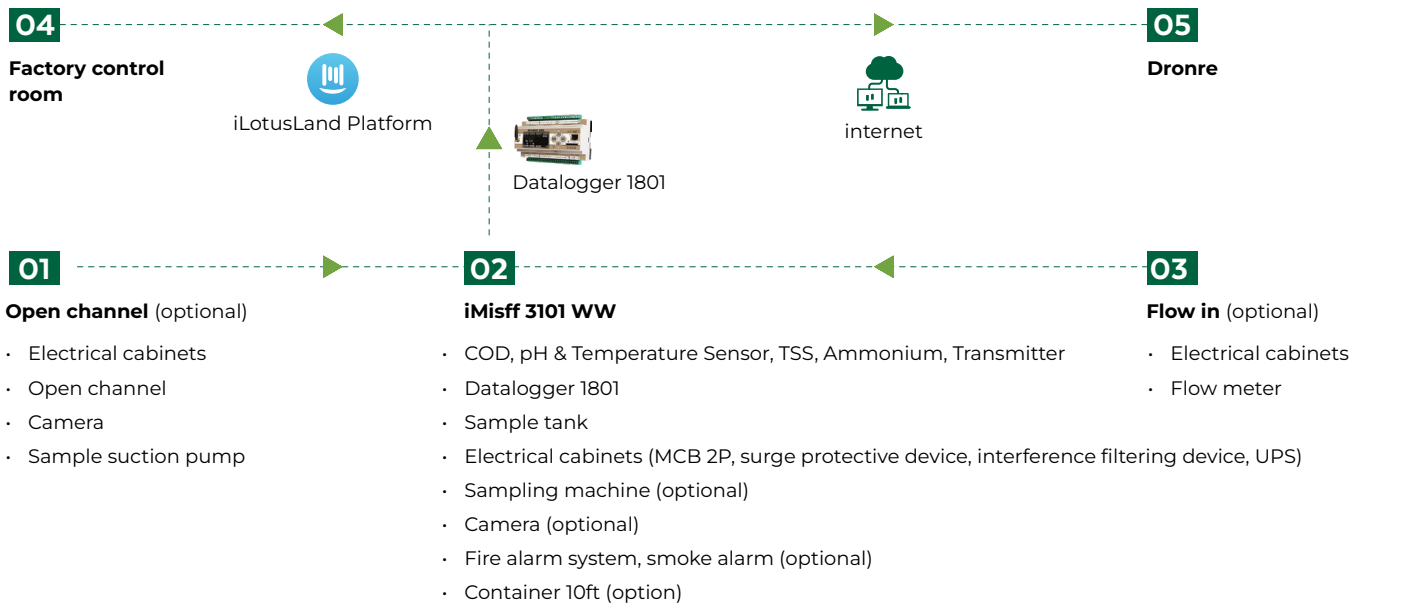
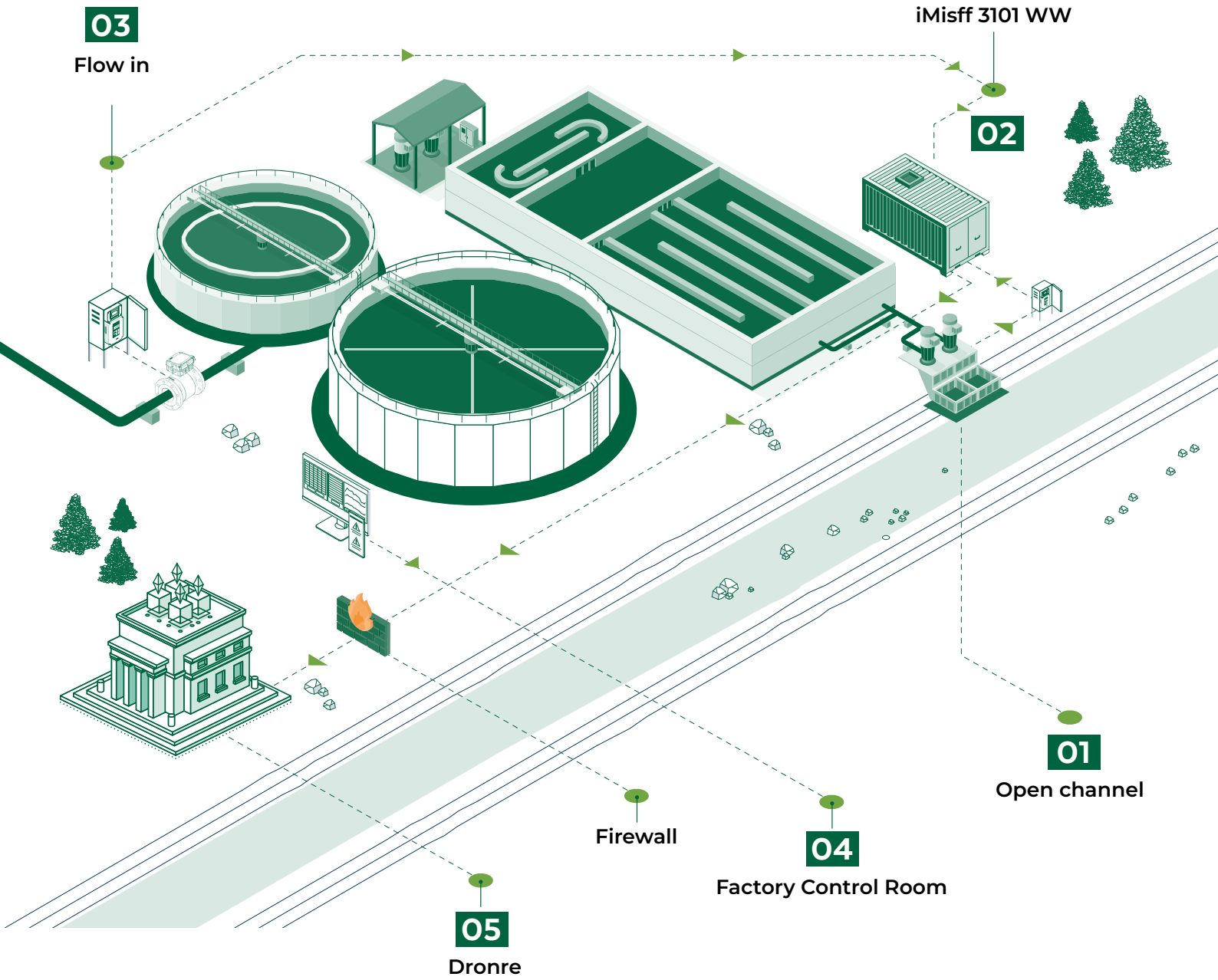
## Electric Cabinet iMisff 3101 WW - Viet Nam

The iMisff 3101 WW electrical cabinet functions as the central distribution and control hub for devices within the continuous automated wastewater monitoring system.

- **Dimensions** : 600Wx1500Hx650D mm
- **Type** : Stand, indoor
- **Material** : 1.5 mm thick steel, powder coated Ral 6024 color
- **Weight** : 160 kg



# iMisff 3101 WW Overview



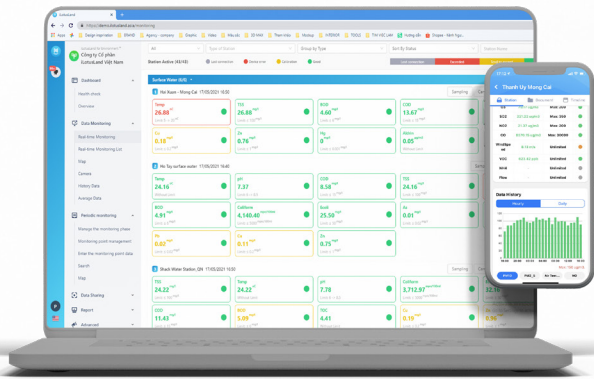
- 01 Open channel (optional)**
- Electrical cabinets
  - Open channel
  - Camera
  - Sample suction pump

- 02 iMisff 3101 WW**
- COD, pH & Temperature Sensor, TSS, Ammonium, Transmitter
  - Datalogger 1801
  - Sample tank
  - Electrical cabinets (MCB 2P, surge protective device, interference filtering device, UPS)
  - Sampling machine (optional)
  - Camera (optional)
  - Fire alarm system, smoke alarm (optional)
  - Container 10ft (option)

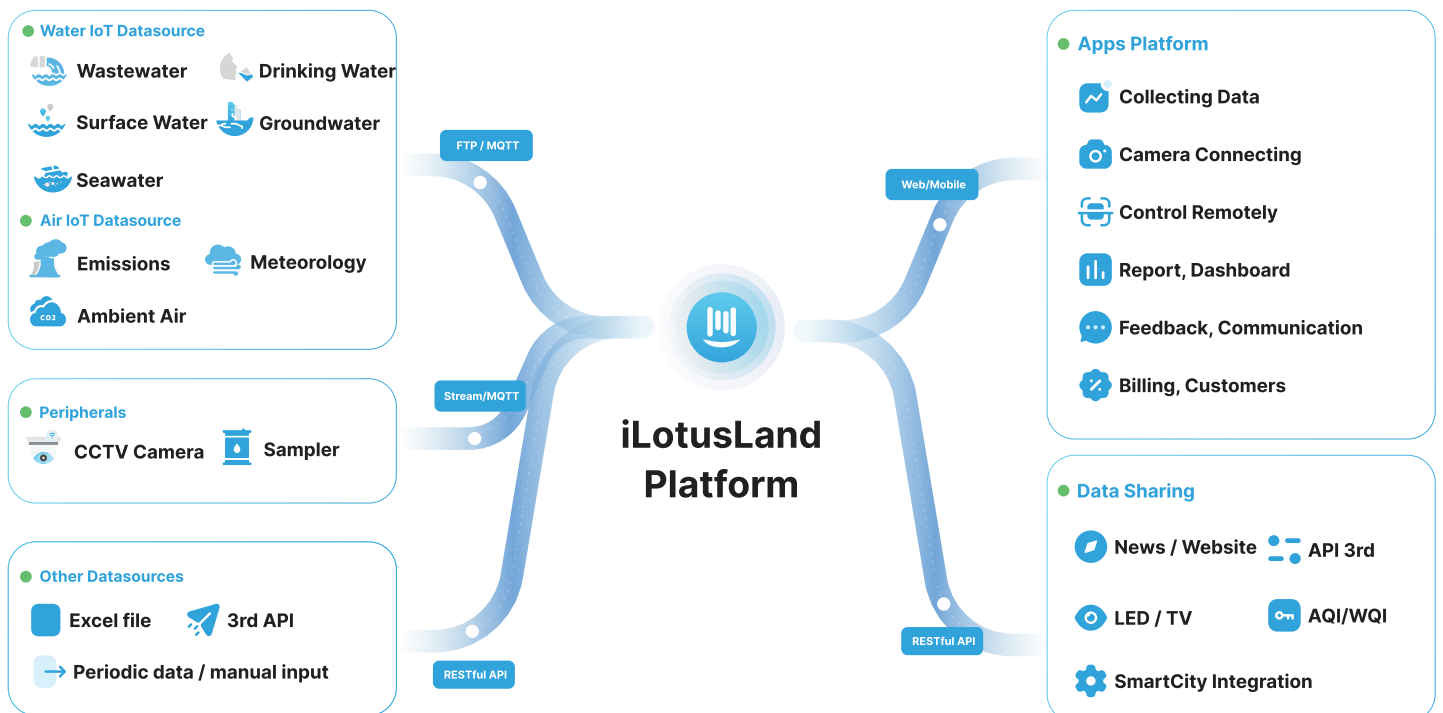
- 03 Flow in (optional)**
- Electrical cabinets
  - Flow meter

# 1<sup>st</sup> IoT Platform in Vietnam

Unstill now, iLotusLand Platform has exported software to 3 markets: India, Myanmar, and Malaysia. Positioning as a pioneer in industrial IoT platforms, iLotusLand aims to expand to the international market.



iLotusLand Web/Mobile



# Specifications iLotusLand Platform

WEB PLATFORM	
Dashboard	<ul style="list-style-type: none"> <li>- Statistics according to data status (exceeded, tend to exceed, good) and connection status (online / offline)</li> <li>- Monitor the chart form</li> <li>- Support widgets: Camera, notification, overview data</li> <li>- Warning by sound and color on the control panel</li> </ul>
Map	<ul style="list-style-type: none"> <li>- See the measurement point/location of the station on the map.</li> <li>- See the data status and devices status of the measurement/station on the map</li> <li>- See the latest parameters of the measurement/station on the map</li> </ul>
Camera	<ul style="list-style-type: none"> <li>- See all cameras of the stations that are managed or filtered according to the type of station, the name of the station. Zoom in the camera to see the details</li> </ul>
Data analysis	<ul style="list-style-type: none"> <li>- Average data (1 hour, 8 hours, 1 day, optional period)</li> <li>- The maximum value, the minimum value</li> </ul>
Look up data	<ul style="list-style-type: none"> <li>- Look up the original data of stations in management units, stations, stations, time (24 hours, 7 days, 15 days, 30 days, within), parameters, filter beyond threshold, data type ( Original data, valid data, invalid data)</li> <li>- Export Excel file data according to search options</li> <li>- See lookup data in the form of charts</li> <li>- Add/delete data filters</li> <li>- Access and quickly view data filters</li> <li>- Filter data according to QCVN, eliminate error data</li> </ul>
Share and integrated	<ul style="list-style-type: none"> <li>- Share API</li> <li>- Share data with FTP protocol</li> </ul>
Incident management	<ul style="list-style-type: none"> <li>- Automatically create ticket when there is a problem in the system</li> <li>- Receive notifications, interactive problems</li> <li>- Report problem</li> <li>- Options for incidents, expanding archives</li> </ul>
Send warnings	<ul style="list-style-type: none"> <li>- Send alerts via email, SMS, mobile app, web or webhook</li> <li>- Send a lot of warning with different levels, many different user groups</li> <li>- Look up history to send warnings</li> </ul>
Report	<ul style="list-style-type: none"> <li>- Report the collected data ratio</li> <li>- Average 24 -hour monitoring data report</li> <li>- Average 1 hour monitoring data report</li> <li>- Report the maximum monitoring value of 1 hour on average</li> <li>- Report the maximum monitoring value of 8 hours</li> <li>- Report data ratio exceeding the threshold</li> <li>- Data status assessment report</li> <li>- Report data in excess of the threshold</li> </ul>
MOBILE PLATFORM	
Data monitoring	<ul style="list-style-type: none"> <li>Statistics of data status, connection status (lost connection, device error, calibration, good) according to the total number of stations and each type.</li> <li>- Display data as line graph, column chart by time, by date</li> </ul>
Monitor Camera	<ul style="list-style-type: none"> <li>- Online monitoring camera of the monitoring station</li> </ul>
Map	<ul style="list-style-type: none"> <li>- Monitor the location of the stations on the map, distinguish the state (exceed the threshold, prepare to overcome, good, equipment error, calibration) by color</li> </ul>
Get warning	<ul style="list-style-type: none"> <li>- Receive warnings exceeding the threshold, device error, calibration or stations lost connection</li> </ul>
News	<ul style="list-style-type: none"> <li>- Share photos, posts</li> <li>- Interactive comments</li> </ul>
Incident management	<ul style="list-style-type: none"> <li>- Receive notifications, interactive problems</li> <li>- Comment on incidents</li> <li>- Attach images and documents for each incident</li> </ul>
Data analysis	<ul style="list-style-type: none"> <li>- Display analytical charts by parameters of each station type</li> <li>- Filter by station type, and parameters</li> </ul>
Management of records, operating documents, maintenance of equipment for equipment	<ul style="list-style-type: none"> <li>- View photos and store documents related to the station</li> <li>- Manage the folder of documents</li> <li>- Sync with the web platform</li> </ul>
Bảo mật	<ul style="list-style-type: none"> <li>- Login with fingerprint/Face ID &amp; two -step authentication</li> </ul>

# Viet An wastewater monitoring station installed

STT DỰ ÁN	TỈNH	SỐ TQT	LOẠI TQT
1. NM NUMBER ONE	HẬU GIANG	1	NƯỚC THẢI
2. TRUNG TÂM THOÁT NƯỚC ĐỒNG NAI	ĐỒNG NAI	1	NƯỚC THẢI
3. CÔNG TY TNHH ĐẦU TƯ VÀ XÂY DỰNG PHÚC LONG	LONG AN	1	NƯỚC THẢI
4. KCN CHÀ LÀ _ TÂY NINH	TÂY NINH	1	NƯỚC THẢI
5. NM GĂNG VIỆT	BÌNH DƯƠNG	1	NƯỚC THẢI
6. CÔNG TY TNHH KOBELCO ECO.SOLUTIONS VIET NAM	BÌNH DƯƠNG	1	NƯỚC THẢI
7. POSCO PHÚ MỸ - BRVT	BÀ RỊA	1	NƯỚC THẢI
8. CÔNG TY CỔ PHẦN LÂM SẢN VÀ XUẤT NHẬP KHẨU TỔNG HỢP BÌNH DƯƠNG	BÌNH DƯƠNG	1	NƯỚC THẢI
9. TỔNG CÔNG TY CẤP NƯỚC SÀI GÒN	HCM	1	NƯỚC THẢI
10. KCN PHƯỚC ĐÔNG - TỈNH TÂY NINH (JSI)	TÂY NINH	1	NƯỚC THẢI
11. CÔNG TY TNHH MTV PHÚ AN THẠNH LONG AN	LONG AN	1	NƯỚC THẢI
12. KCN TÂY NINH	TÂY NINH	1	NƯỚC THẢI
13. ĐA PHƯỚC_ TQT ĐẦU RA	HCM	1	NƯỚC THẢI
14. FORMOSA ĐỒNG NAI (KCN NHƠN TRẠCH_XUỞNG SỢI NHÂN TẠO)	ĐỒNG NAI	1	NƯỚC THẢI
15. FORMOSA ĐỒNG NAI (KCN NHƠN TRẠCH_XUỞNG SE SỢI)	ĐỒNG NAI	1	NƯỚC THẢI
16. KCN PHƯỚC ĐÔNG - TỈNH TÂY NINH (NMXLNT TẬP TRUNG)	TÂY NINH	1	NƯỚC THẢI
17. KCN CÁI MÉP_ BRVT	BÀ RỊA	1	NƯỚC THẢI
18. CÔNG TY TNHH MTV NƯỚC NGẦM SÀI GÒN	HCM	1	NƯỚC THẢI
19. CÔNG TY CP ĐẦU TƯ XÂY DỰNG HẠ TẦNG HÒA BÌNH	LONG AN	1	NƯỚC THẢI
20. NHIỆT ĐIỆN VĨNH TÂN 2	BÌNH THUẬN	4	NƯỚC THẢI



# Viet An wastewater monitoring station installed

STT DỰ ÁN	TỈNH	SỐ TQT	LOẠI TQT
21. NHÀ MÁY CẤP NƯỚC LAGI _ BÌNH THUẬN	BÌNH THUẬN	1	NƯỚC THẢI
22. CÔNG TY TNHH ĐẦU TƯ XÂY DỰNG VÀ CÔNG NGHỆ MÔI TRƯỜNG DƯƠNG NHẬT	BÌNH DƯƠNG	1	NƯỚC THẢI
23. TRUNG TÂM NGHIÊN CỨU TRIỂN KHAI KHU CÔNG NGHỆ CAO (SHTP LABS)	HCM	1	NƯỚC THẢI
24. CÔNG TY TNHH SẢN XUẤT THƯƠNG MẠI, DỊCH VỤ HIỆP THÀNH	BÌNH DƯƠNG	1	NƯỚC THẢI
25. NHIỆT ĐIỆN NHƠN TRẠCH 1	ĐỒNG NAI	1	NƯỚC THẢI
26. CÔNG TY TNHH GIẤY AN LỘC	BÌNH DƯƠNG	1	NƯỚC THẢI
27. BỆNH VIỆN NHI ĐỒNG 1	HCM	1	NƯỚC THẢI
28. VINHOMES	HCM	1	NƯỚC THẢI
29. CÔNG TY CỔ PHẦN VIỆT NAM MỘC BÀI	TÂY NINH	1	NƯỚC THẢI
30. KCN HIỆP PHƯỚC NHÀ BÈ	HCM	1	NƯỚC THẢI
31. KYUNGBANG	BÌNH DƯƠNG	1	NƯỚC THẢI
32. VINHOME TÂN CẢNG	HCM	1	NƯỚC THẢI
33. BAN QUẢN LÝ CẢNG CÁ PHAN THIẾT	BÌNH THUẬN	1	NƯỚC THẢI
34. CÔNG TY CP GĂNG VIỆT	BÌNH DƯƠNG	1	NƯỚC THẢI
35. VĨNH TÂN 4	BÌNH THUẬN	4	NƯỚC THẢI
36. GIẤY SÀI GÒN	BÀ RỊA	1	NƯỚC THẢI
37. TRẠM XỬ LÝ NƯỚC THẢI TẬP TRUNG	ĐỒNG NAI	1	NƯỚC THẢI
38. CTY CỔ PHẦN NGUYÊN PHỤ LIỆU DỆT MAY BÌNH AN	HCM	1	NƯỚC THẢI
39. CHI NHÁNH CÔNG TY CỔ PHẦN B.B ĐẠI MINH	BÌNH DƯƠNG	1	NƯỚC THẢI
40. CÔNG TY CỔ PHẦN SX&TM N.I.D	BẾN TRE	1	NƯỚC THẢI
41. CÔNG TY TNHH XỬNG GIẤY CHÁNH DƯƠNG	BÌNH DƯƠNG	1	NƯỚC THẢI
42. CẤP NƯỚC VÀ XỬ LÝ NƯỚC ĐÔ THỊ VIỆT NAM	BÌNH PHƯỚC	1	NƯỚC THẢI

# Viet An wastewater monitoring station installed

STT DỰ ÁN	TỈNH	SỐ TQT	LOẠI TQT
43. TẬP ĐOÀN SẢN XUẤT MÁY TÍNH FUJITSU VIỆT NAM	ĐỒNG NAI	1	NƯỚC THẢI
44. DỰ ÁN BA SON	HCM	1	NƯỚC THẢI
45. CÔNG TY TNHH MTV NHÔM LÂM ĐỒNG - TKV	LÂM ĐỒNG	2	NƯỚC THẢI
46. ĐÀO KIM CƯƠNG	HCM	1	NƯỚC THẢI
47. PROTRADE	BÌNH DƯƠNG	1	NƯỚC THẢI
48. CÔNG TY TNHH PAIHONG VIET NAM	BÌNH DƯƠNG	1	NƯỚC THẢI
49. HIM LAM Q6	HCM	1	NƯỚC THẢI
50. CASINO PHÚ QUỐC	KIÊN GIANG	1	NƯỚC THẢI
51. CÔNG TY CỔ PHẦN TẬP ĐOÀN HOA SEN	BÀ RỊA	1	NƯỚC THẢI
52. CÔNG TY TNHH PHÁT TRIỂN HẠ TẦNG KCN TÂN KIM VÀ KDC TÂN KIM	LONG AN	1	NƯỚC THẢI
53. CÔNG TY NHIỆT ĐIỆN DUYÊN HẢI I	TRÀ VINH	2	NƯỚC THẢI
54. BỆNH VIỆN NHÂN DÂN 115	HCM	1	NƯỚC THẢI
55. GEDI (VPHĐH NMNĐ VĨNH TÂN 1 TẠI BÌNH THUẬN)	BÌNH THUẬN	3	NƯỚC THẢI
56. THẢO ĐIỀN	HCM	1	NƯỚC THẢI
57. CÔNG TY CỔ PHẦN GAMUDA LAND	HCM	1	NƯỚC THẢI
58. CÔNG TY CP TẬP ĐOÀN TÂN Á ĐẠI THÀNH	LONG AN	1	NƯỚC THẢI
59. FORMOSA ĐỒNG NAI	ĐỒNG NAI	1	NƯỚC THẢI
60. GIẤY NAM TIẾN	BÌNH DƯƠNG	1	NƯỚC THẢI
61. CÔNG TY TNHH NỘI THẤT GỖ PHÚ ĐÌNH	BÌNH DƯƠNG	1	NƯỚC THẢI
62. CÔNG TY NHIỆT ĐIỆN PHÚ MỸ - CHI NHÁNH CÔNG TY TNHH MỘT THÀNH VIÊN – TỔNG CÔNG TY PHÁT ĐIỆN 3	BÀ RỊA	4	NƯỚC THẢI
63. CÔNG TY TNHH SẢN XUẤT THƯƠNG MẠI DỊCH VỤ THIỆN HƯNG	BÌNH DƯƠNG	1	NƯỚC THẢI
64. LAGI - NÔNG LÂM	BÌNH THUẬN	1	NƯỚC THẢI

## Wastewater treatment plant - AMATA Bien Hoa

**AMATA**  
CITY BIEN HOA

- › Investor : AMATA City Bien Hoa Joint Stock Company
- › Station : 01 station
- › Measurement parameters : COD, TSS, Amoni, pH, temperature, flow in và flow out, Clo dư.
- › Location : Long Binh Ward, Bien Hoa City, Dong Nai Province
- › Time : 2023



## Trạm quan trắc nước thải KCN Nhơn Trạch

**D2D**

- › Investor : Industrial Urban Development Joint Stock Company No. 2 (D2D)
- › Station : 01 station
- › Measurement parameters : COD và các chỉ tiêu khác trong trạm quan trắc nước thải đầu ra
- › Location : Tran Phu street, Nhon Trach 2 Industrial Zone, Nhon Trach district, Dong Nai Province
- › Time : 2023



And more than 1,000 automatic intelligent environmental monitoring stations  
have been installed throughout Vietnam

## Ecosystem of the Viet An Group



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## Connect to us

