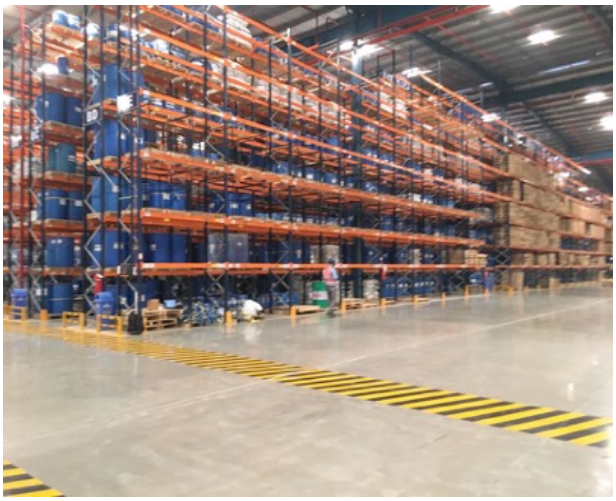
COIN Deployment and Applications

Real Time Asset & People Tracking:



An enterprise with 1.5 lakh sq. ft. workspace wanted an alert and pin point location whenever a forklift vehicle bumps into the racks while material handling.The enterprise also needed to monitor the pin point location of its 1000+ employees which would help them at the time of emergency situations. Also, food stored in the warehouse was getting damaged due to abrupt temperature variations and the inability of the enterprise to record it correctly.

A Large number of coins were installed at certain locations on the racks. Whenever an incident occurs, coin detects vibrations and sends real time data to the user. Additionally, SAFRs worn by employees helped the enterprise monitor their pin point location.Temperature sensor in our coins send real time data from various warehouse locations and helps the enterprise to keep a record and find actual reason for these temperature variations.

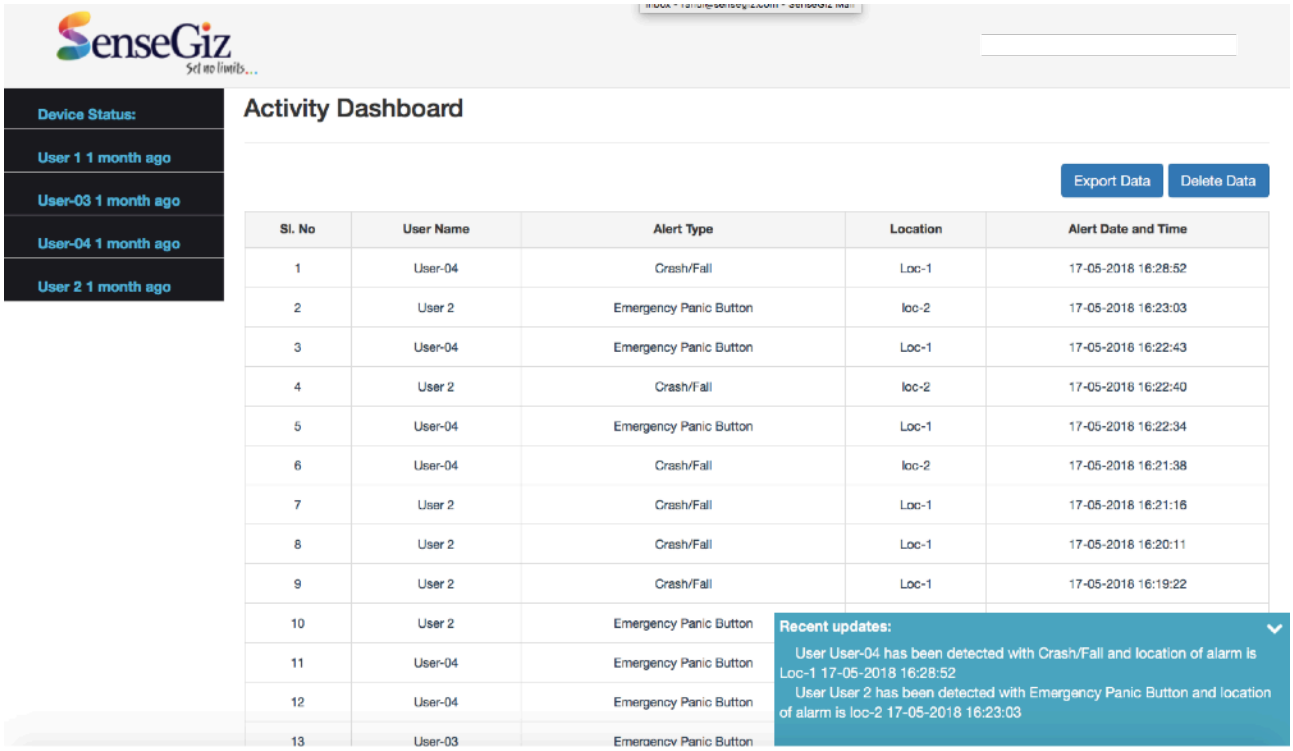
SenseGiz
Set no limits...

Geofence Tracking Details

Selected Geofence of Asset-06 is: location-01, location-02, location-03, location-04

Export Data | Delete Data

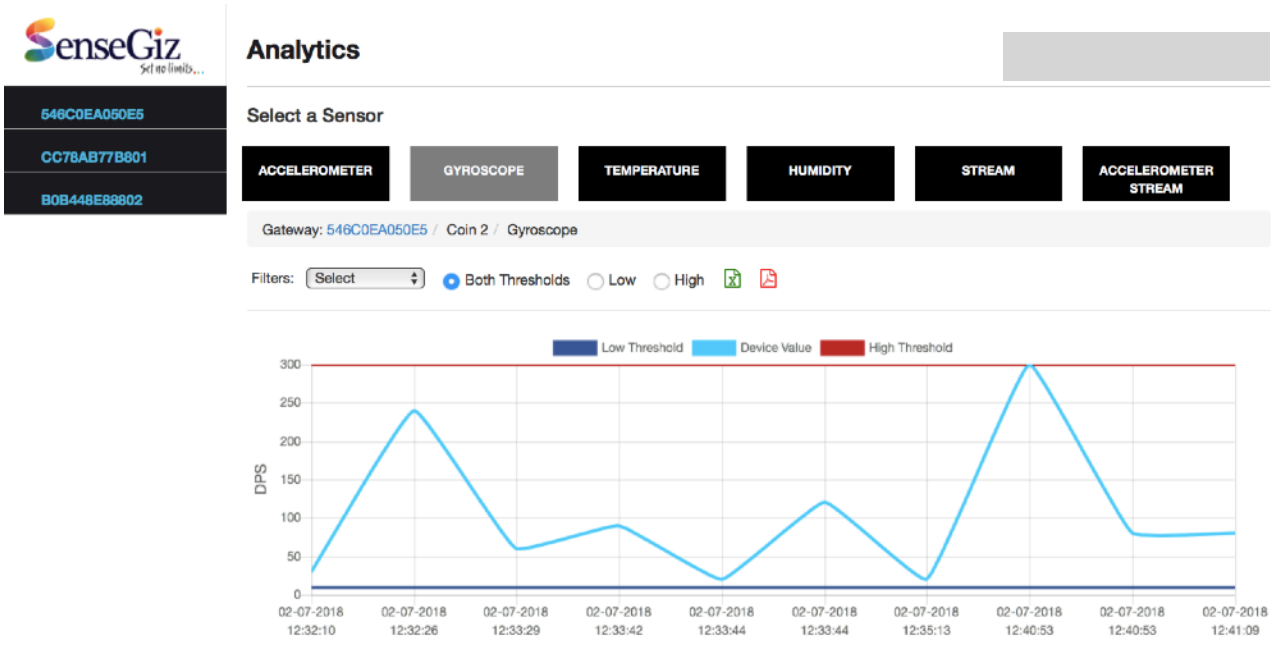
Sl. No	Asset Name	Current Location	Status	In time	Out time	Total time spent (HH:MM)
1	Asset-06	Radius of 0xA4 feet from location-04	IN	29-06-2018 10:10:11	29-06-2018 10:25:16	00:15
2	Asset-06	Radius of 20 feet from location-04	IN	29-06-2018 10:04:34	29-06-2018 10:09:01	00:04
3	Asset-06	Radius of 0xAF, 0xB6 feet from location-04	IN	28-06-2018 17:39:12	28-06-2018 17:57:30	00:18
4	Asset-06	Radius of 20 feet from location-04	IN	28-06-2018 17:29:45	28-06-2018 17:33:47	00:04

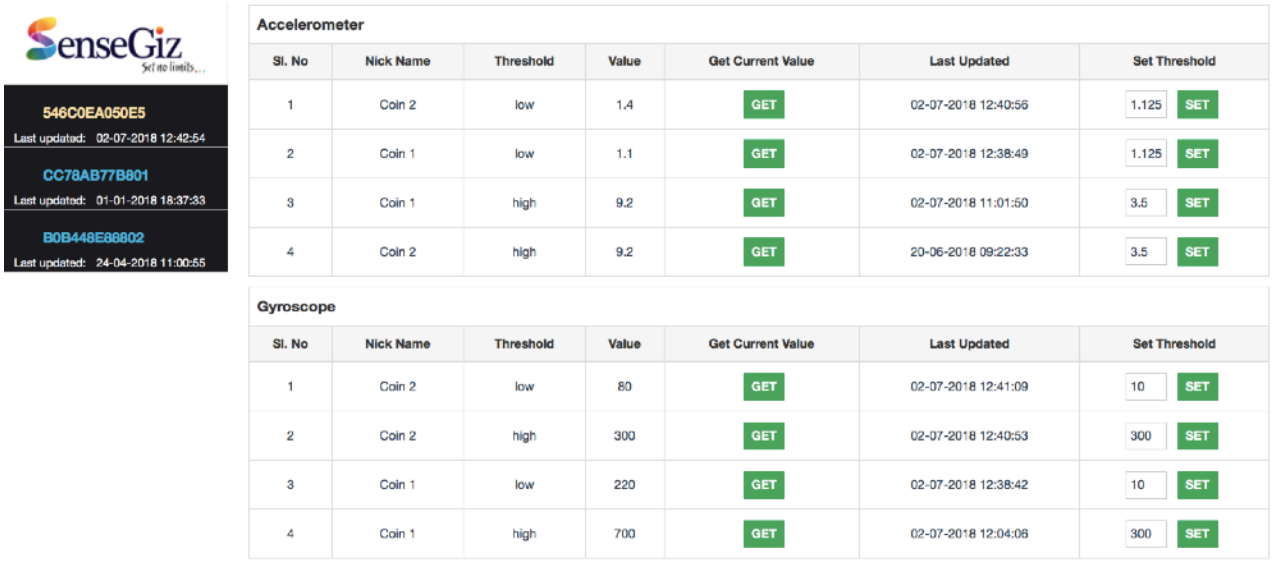


Perimeter Surveillance:

A government organization wanted real time data on trespassing and intrusion activity in an area where no person was allowed. The entire perimeter was to be covered against such activities and hence the solution was required to be very cost effective and efficient. The organization also demanded no false alarms due to rains, winds etc.

The perimeter was covered with our Coins. Sensors in the coin would detect intrusion activity and send real time notification to its users, which helped them take appropriate action. Wireless connectivity and wireless streaming. Hence a perfect fit in such cases. Due to its small size, the coin is not visible to the intruders.

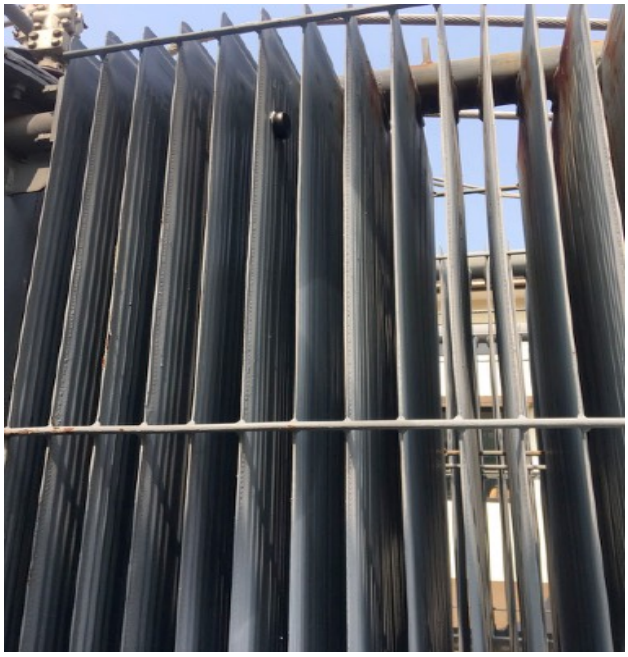




Condition Monitoring of an Electric Sub Station:

A Government organisation which supplies electricity to the city wanted to monitoring the temperature and humidity of the transformers.

COINs were placed on the transformers and fins to monitor the temperature. Different thresholds were set so that the management gets an alert when the temperature crosses set threshold values and to take immediate action. The next step is to dip the COIN inside transform filled with transformer oil and monitor the oil temperature. We have tested COINs fully dipped inside a can full of oil.



SenseGiz
Set no limits...

546C0EA03D75

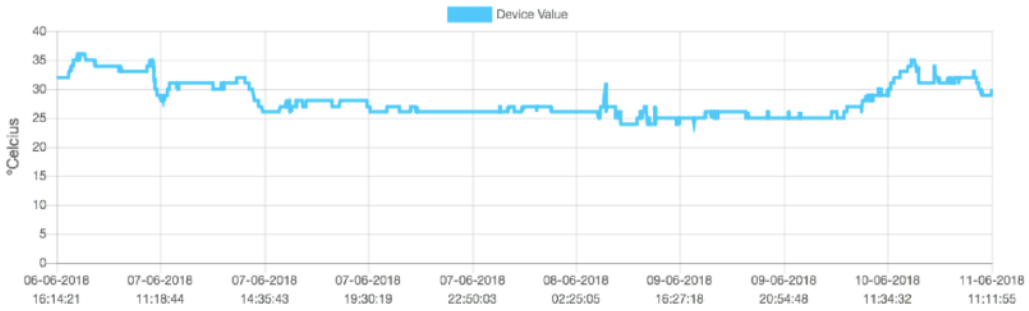
Analytics

Select a Sensor

ACCELEROMETER | GYROSCOPE | TEMPERATURE | HUMIDITY | STREAM | ACCELEROMETER STREAM

Gateway: 546C0EA03D75 / Coin-02 / Streams

Filters: Last 30 days | Temperature | Humidity



Updated On (date)	Device Value
06-06-2018 17:08:47	36
06-06-2018 17:08:25	36
06-06-2018 17:08:24	36
06-06-2018 17:07:08	36
06-06-2018 17:06:38	36
06-06-2018 17:05:40	36
06-06-2018 17:05:08	36
06-06-2018 17:04:12	35
06-06-2018 17:03:43	35
06-06-2018 17:03:42	35
06-06-2018 17:03:42	35

Intrusion detection for International School :

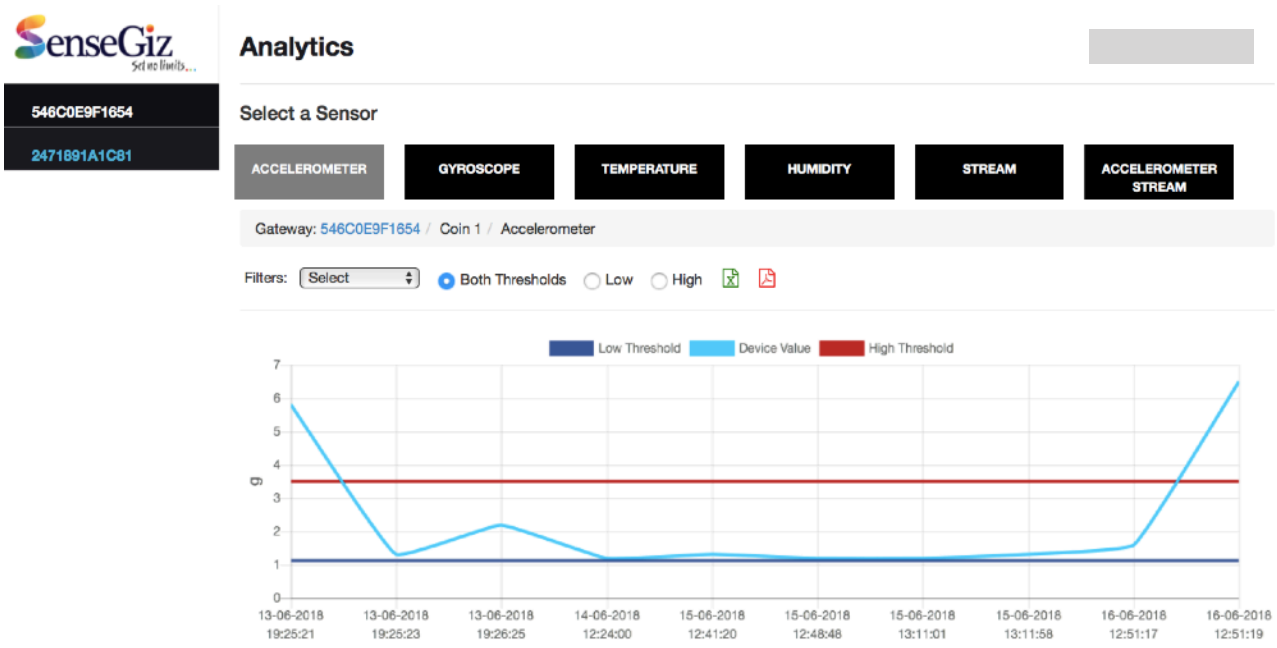
Currently the school has no means of monitoring complete perimeter of the campus and to monitor intrusion by any unauthorised personnel along the boundary fence between the school Campus and the neighbouring Public Sports Complex. The purpose of the system is to detect any movement in the boundary fence in order to prevent unauthorised access of outsiders to the campus.

The COIN sensors are fitted on the fence and were calibrated to send alert based on scale of movement of the fence. Following tests were conducted:

Team 1: Technical team member to trigger the alert by shaking the fence at irregular intervals with varying force and attempting to climb over the fence.

Team 2: Security Supervisor was given access to SMS alert system and upon receiving message was tasked to coordinate with security team to pursue the designated intruder. Security team was not informed of when the technical team would test the fence.

The results were positive, security was able to locate designated intruder. Response time of the system was calculated to be less than 6 secs.



SenseGiz
Set no limits...

546C0E9F1654
Last updated: 29-06-2018 19:13:23

2471891A1C81
Last updated: 22-04-2018 11:36:15

Accelerometer

Sl. No	Nick Name	Threshold	Value	Get Current Value	Last Updated	Set Threshold
1	Coin 5	low	3.2	GET	16-06-2018 14:48:54	1.125 SET
2	Coin 2	low	1.1	GET	16-06-2018 13:38:16	1.125 SET
3	Coin 3	low	1.1	GET	16-06-2018 12:56:04	1.125 SET
4	Coin 5	high	6.4	GET	16-06-2018 12:55:55	3.5 SET
5	Coin 4	low	1.6	GET	16-06-2018 12:51:22	1.125 SET
6	Coin 1	high	6.5	GET	16-06-2018 12:51:19	3.5 SET
7	Coin 1	low	1.6	GET	16-06-2018 12:51:17	1.125 SET
8	Coin 4	high	9.8	GET	15-06-2018 14:07:13	3.5 SET
9	Coin 3	high	6.5	GET	13-06-2018 16:33:48	3.5 SET
10	Coin 2	high	7.8	GET	13-06-2018 16:33:47	3.5 SET

Gyroscope

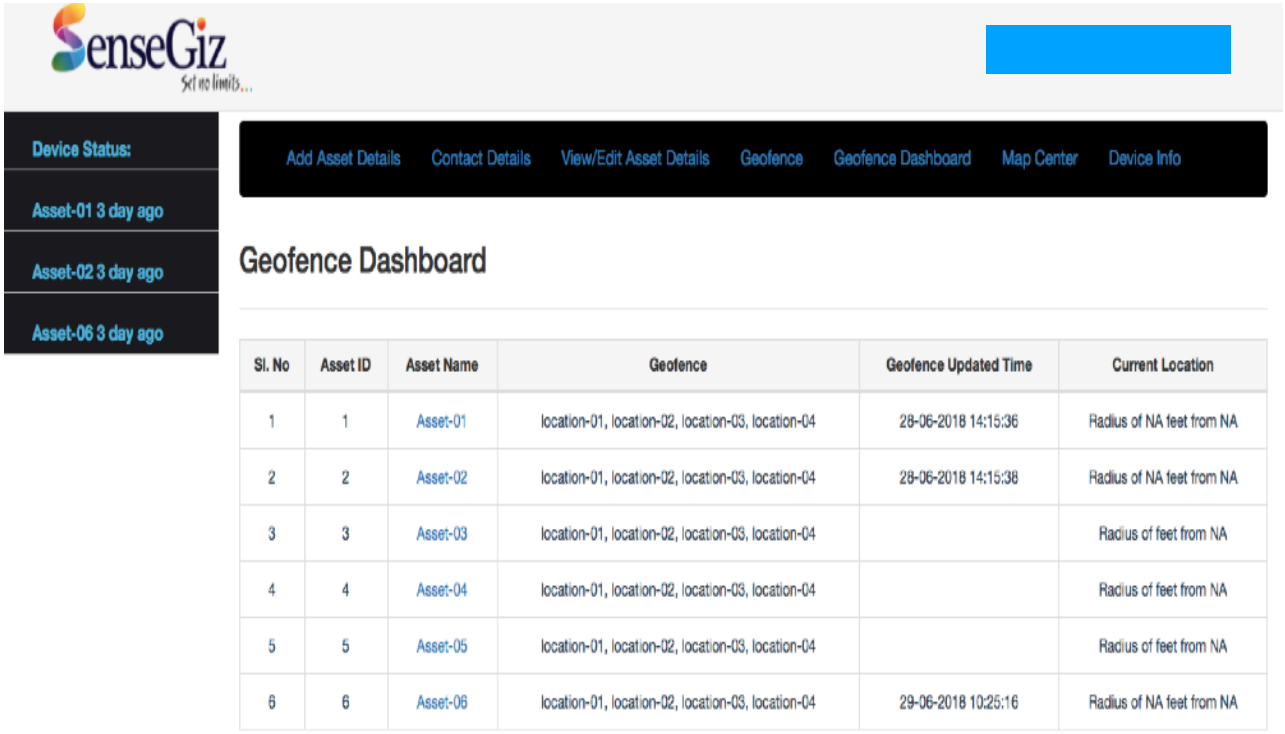
Sl. No	Nick Name	Threshold	Value	Get Current Value	Last Updated	Set Threshold
1	Coin 2	low	40	GET	16-06-2018 15:04:29	10 SET

Asset Tracking in a Leading Tyre Manufacturing Company:

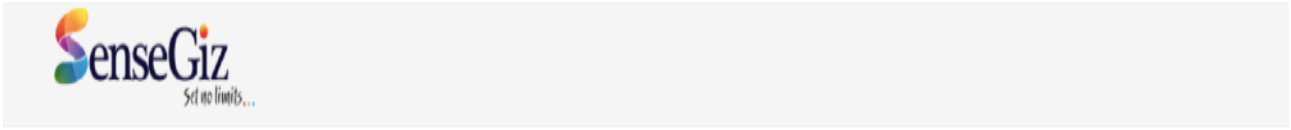
A large tyre manufacturing unit wanted to improve its production efficiency by tracking the location of raw material and moving assets and goods in transit. Currently all the tracking is done with hand held barcode scanner.

The shop floor area was covered with fixed COIN units installed at certain locations, which are then connected to the cloud via our Wi-Fi gateway. The assets to be tracked are tagged with FIND which are the moving units. COINS form an intelligent mesh network which communicates with the FIND and helps in locating the assets in real time.

With COIN FIND solution the customer were able to track the raw material accurately and could also search specific asset on the dashboard.



Sl. No	Asset ID	Asset Name	Geofence	Geofence Updated Time	Current Location
1	1	Asset-01	location-01, location-02, location-03, location-04	28-06-2018 14:15:36	Radius of NA feet from NA
2	2	Asset-02	location-01, location-02, location-03, location-04	28-06-2018 14:15:38	Radius of NA feet from NA
3	3	Asset-03	location-01, location-02, location-03, location-04		Radius of feet from NA
4	4	Asset-04	location-01, location-02, location-03, location-04		Radius of feet from NA
5	5	Asset-05	location-01, location-02, location-03, location-04		Radius of feet from NA
6	6	Asset-06	location-01, location-02, location-03, location-04	29-06-2018 10:25:16	Radius of NA feet from NA



Geofence Tracking Details

Selected Geofence of Asset-06 is: location-01, location-02, location-03, location-04

Export Data Delete Data

Sl. No	Asset Name	Current Location	Status	In time	Out time	Total time spent (HH:MM)
1	Asset-06	Radius of 0xA4 feet from location-04	IN	29-06-2018 10:10:11	29-06-2018 10:25:16	00:15
2	Asset-06	Radius of 20 feet from location-04	IN	29-06-2018 10:04:34	29-06-2018 10:09:01	00:04
3	Asset-06	Radius of 0xAF, 0xB6 feet from location-04	IN	28-06-2018 17:39:12	28-06-2018 17:57:30	00:18
4	Asset-06	Radius of 20 feet from location-04	IN	28-06-2018 17:29:45	28-06-2018 17:33:47	00:04

Record loading/unloading time at major car manufacturing company:

A large car manufacturing wanted to monitor the exact bay at which the truck stops and record the total time taken for unloading. Currently the recording is done manually. Here each truck was tagged with a FIND with the unique Id and Truck number as well. COINs were tagged at different locations and geofence were set.

SenseGiz

Geofence Tracking Details

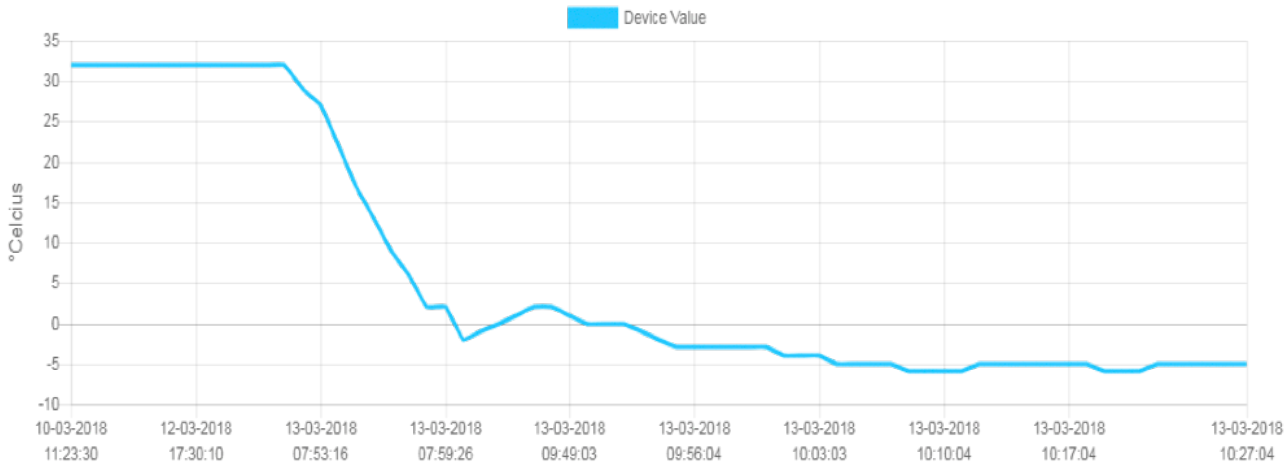
Selected Geofence of vehicle2 is: GATE IN, WAREHOUSE DOCK AREA , YARD AREA

Export Data | Delete Data

Sl. No	Asset Name	Current Location	Status	In time	Out time	Total time spent (HH:MM)
1	vehicle2	Radius of NA feet from NA	Outside Geofence	22-06-2018 15:22:17		-
2	vehicle2	Radius of 0xD5 feet from GATE IN	Within Geofence	22-06-2018 15:14:11	22-06-2018 15:22:17	00:08
3	vehicle2	Radius of NA feet from NA	Outside Geofence	22-06-2018 15:13:33	22-06-2018 15:14:11	00:00
4	vehicle2	Radius of 0xD4 feet from GATE IN	Within Geofence	22-06-2018 15:10:21	22-06-2018 15:13:32	00:03
5	vehicle2	Radius of NA feet from NA	Outside Geofence	22-06-2018 14:49:22	22-06-2018 15:10:21	00:20
6	vehicle2	Radius of 0xA4 feet from Location-05	Outside Geofence	22-06-2018 14:21:14	22-06-2018 14:49:22	00:28
7	vehicle2	Radius of NA feet from NA	Outside Geofence	22-06-2018 14:18:39	22-06-2018 14:21:14	00:02
8	vehicle2	Radius of 0xA3 feet from Location-05	Outside Geofence	22-06-2018 14:14:39	22-06-2018 14:18:38	00:03
9	vehicle2	Radius of NA feet from NA	Outside Geofence	22-06-2018 14:04:24	22-06-2018 14:14:39	00:10
10	vehicle2	Radius of 10 feet from Location-05	Outside Geofence	22-06-2018 13:59:53	22-06-2018 14:04:24	00:04
11	vehicle2	Radius of NA feet from NA	Outside Geofence	22-06-2018 13:58:58	22-06-2018 13:59:53	00:00

Condition Monitoring in a Cold Storage:

FMCG company had to control the quality of its stored goods by continuously monitor the temperature and humidity in its warehouse.
Coins were installed at various locations inside the warehouse. Real time data from the coins was sent to the server every 5 minutes. Collected data was then analyzed to make appropriate decisions.
Real time and accurate data. The benefits of the system is ability to set streaming rates and thresholds for notifications. Quality control, Loss reduction, Increased efficiencies.



Report

Below are the metric details of the coin selected :
Gateway ID : CC78AB878A00
Device ID : 01
Nick Name : Coin01
Metric : Temperature Stream (°C)

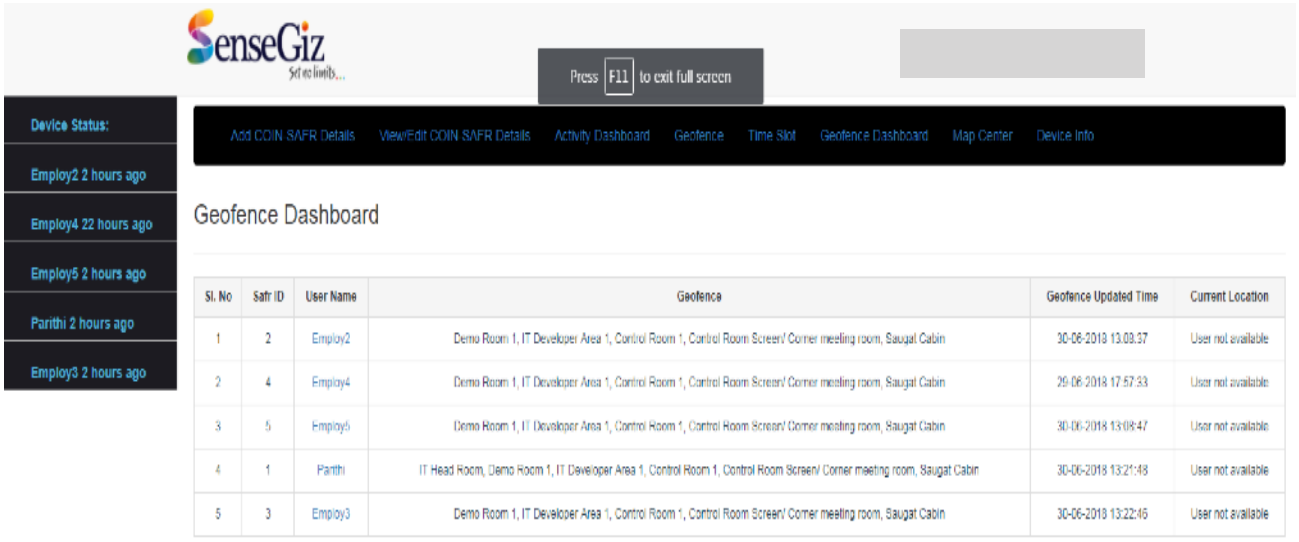
Below table shows the values received in the last 7 days (2018-03-09 to 2018-03-16) :

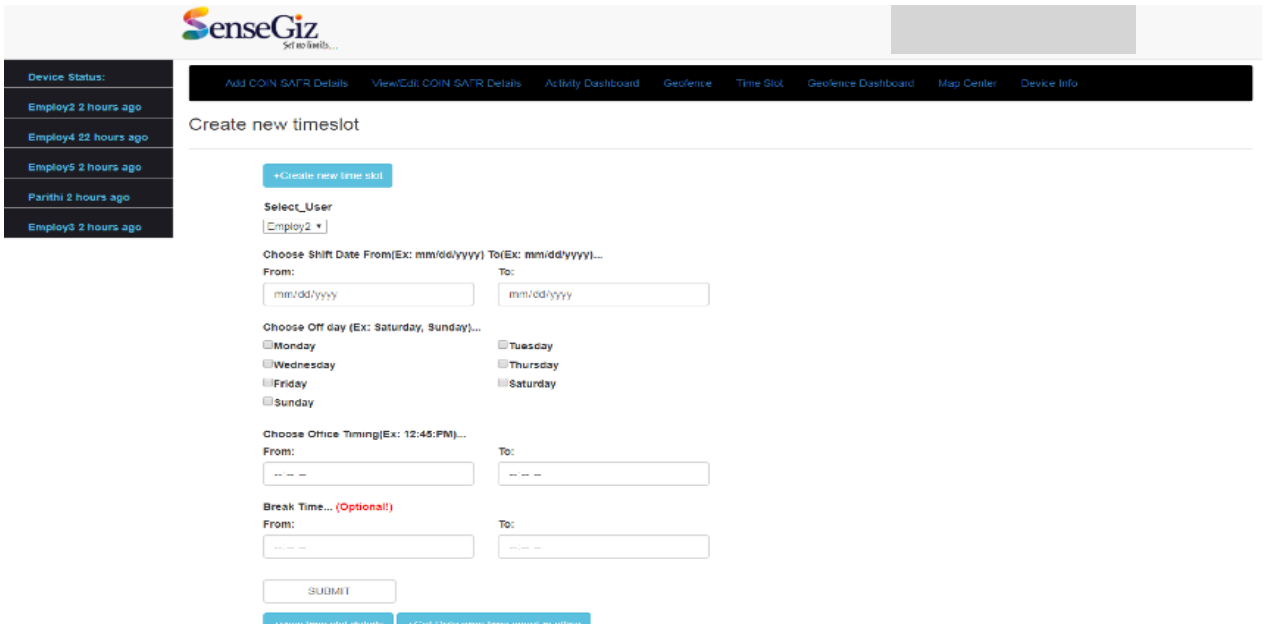
Updated On (date)	Device Value
13-03-2018 10:27:04	-5
13-03-2018 10:26:04	-5
13-03-2018 10:25:04	-5
13-03-2018 10:24:03	-5
13-03-2018 10:23:04	-5
13-03-2018 10:22:03	-5
13-03-2018 10:21:04	-6
13-03-2018 10:20:04	-6

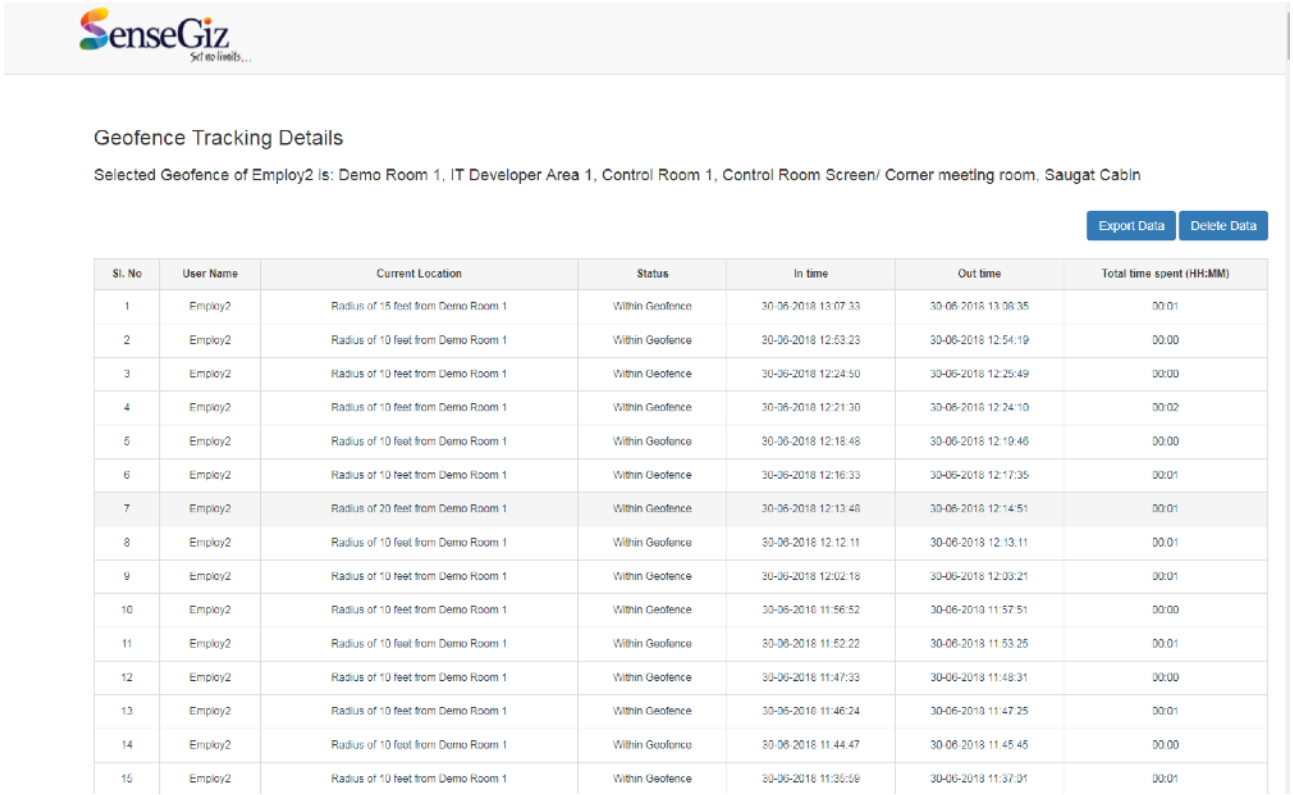
Tracking Employee and creating a Geofence in a Warehousing:

Tracking the location of the employee in a large warehouse so that they do not enter any restricted area.

Our Geo-fencing solution allows the administrator to set boundaries. It can be a circle around a specific point, or two polygons representing sides. The user can easily monitor the location of a person or an asset. Whenever a person / asset leaves or enters the assigned area, an alarm is triggered. Floor map can be imported on our dashboard and position of the COINS can be planned. Admin can monitor location of the employee and asset on the map. This is like indoor google map for assets and people tracking.







Sl. No	User Name	Current Location	Status	In time	Out time	Total time spent (HH:MM)
1	Employ2	Radius of 15 feet from Demo Room 1	Within Geofence	30-06-2018 13:07:33	30-06-2018 13:08:35	00:01
2	Employ2	Radius of 10 feet from Demo Room 1	Within Geofence	30-06-2018 12:53:23	30-06-2018 12:54:19	00:00
3	Employ2	Radius of 10 feet from Demo Room 1	Within Geofence	30-06-2018 12:24:50	30-06-2018 12:25:49	00:00
4	Employ2	Radius of 10 feet from Demo Room 1	Within Geofence	30-06-2018 12:21:30	30-06-2018 12:24:10	00:02
5	Employ2	Radius of 10 feet from Demo Room 1	Within Geofence	30-06-2018 12:18:48	30-06-2018 12:19:48	00:00
6	Employ2	Radius of 10 feet from Demo Room 1	Within Geofence	30-06-2018 12:16:33	30-06-2018 12:17:35	00:01
7	Employ2	Radius of 20 feet from Demo Room 1	Within Geofence	30-06-2018 12:13:48	30-06-2018 12:14:51	00:01
8	Employ2	Radius of 10 feet from Demo Room 1	Within Geofence	30-06-2018 12:12:11	30-06-2018 12:13:11	00:01
9	Employ2	Radius of 10 feet from Demo Room 1	Within Geofence	30-06-2018 12:02:18	30-06-2018 12:03:21	00:01
10	Employ2	Radius of 10 feet from Demo Room 1	Within Geofence	30-06-2018 11:56:52	30-06-2018 11:57:51	00:00
11	Employ2	Radius of 10 feet from Demo Room 1	Within Geofence	30-06-2018 11:52:22	30-06-2018 11:53:25	00:01
12	Employ2	Radius of 10 feet from Demo Room 1	Within Geofence	30-06-2018 11:47:33	30-06-2018 11:48:31	00:00
13	Employ2	Radius of 10 feet from Demo Room 1	Within Geofence	30-06-2018 11:46:24	30-06-2018 11:47:25	00:01
14	Employ2	Radius of 10 feet from Demo Room 1	Within Geofence	30-06-2018 11:44:47	30-06-2018 11:45:45	00:00
15	Employ2	Radius of 10 feet from Demo Room 1	Within Geofence	30-06-2018 11:36:59	30-06-2018 11:37:01	00:01