



# A platform of Big Data Solution (eData.sg)

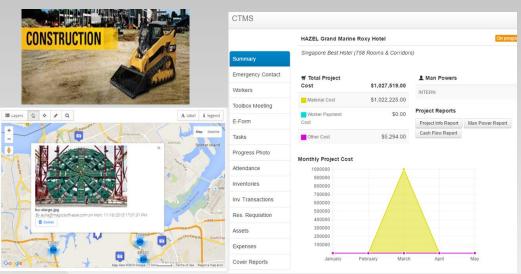
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## CTMS, Construction monitoring systems



### Above ground activities monitoring



#### Under ground activities monitoring

SPT (N/cm)

35

130

125

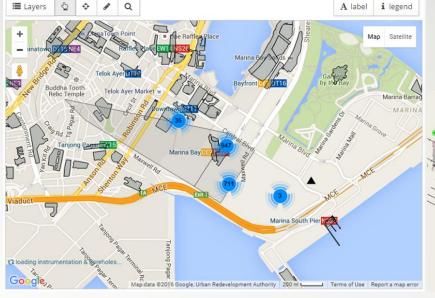
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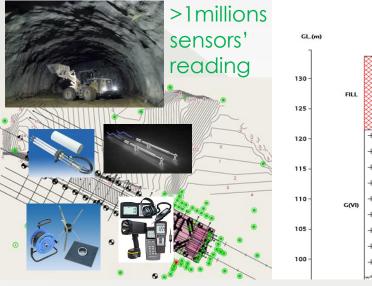
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110

105

100





### CTMS Features (>130 modules and features,

- > 200 analysis reports
- Photo Archives
- Mobile App
- Electronic Filing
- Project Management
- Project Task assignment
- Inventory Management
- Attendance Management
- Worker Management
- Safety checklist
- Permit to works (eptw)
- Toolbox meeting
- Progress photo
- Noncompliance list
- Inspection/Audit list
- Multiple language (Tamil, English, Chinese, Bahasa, Bangladesh)

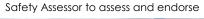
- User Management
- Roles Management
- Contract Management
- Contractor Management
- Master Data Management
- Map Layer Management
- Upload Map Layer (CAD drawing)
- System Alert
- Report Scheduler
- Customized Report
- Upload Site Investigation Data File
- Upload Construction Activity
- Upload Design Value
- > EMS Data Analysis
- Breached Data
- Instrumentation Alerts
- Reporting
  - **Prediction Analysis**



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## e-Permit To Work System







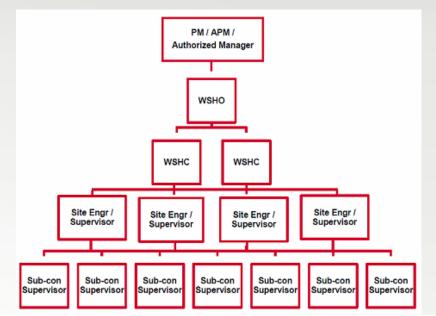
Project Manager Approve



Maincon Rep to check



WSH Officer to Verify PTW







# Collecting Instrument reading manually...spend days, weeks...





Orain Size in millimeters

/ X-Section 3





### <u>The Overview of Construction Management Systems (CTMS)</u>

CTMS is a real-time construction system that allows the contractors to collect, consolidate and manage on-site data with ease. The system utilizes the Smartphone mobility and Web extensibility to help engineers in achieving working efficiency and accuracy.











Equipment Information

SAFETY FIRST

**Safety Checklist** 







Non conformance List / Punch / list







Notification / Alert (SMS / Email)





Permit to Works (e-Sign)



Material Your logo helfhformation

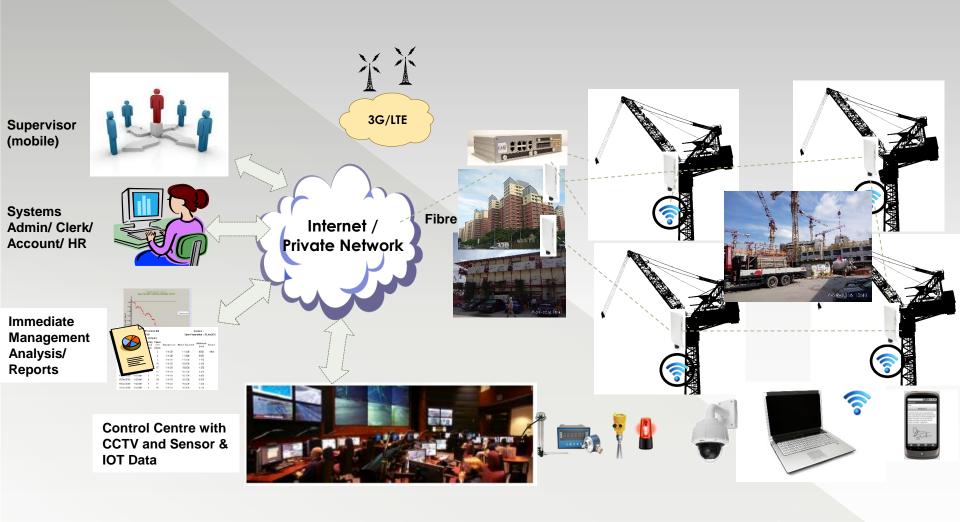


Order Now

Inventory Status and Order Information

### IP Connectivity for Construction Site

Providing internet and WiFi coverage to construction site which is out of bound for fibre connection. CCTV, Sensors and other IOT devices.



## ROI, Benefits, Impact

Real Time Data for Management & Decision Making

Tangible benefit by reducing waiting with whole workforce for PTW approval for works.

100 workers x 52 weeks x 6days x 30min = 15,600 man-hours =

### 7 man-years Per Project

Thomson line: Geotechnical consultant preparing geotechnical reports after collection of instrument reading

23 stations x 5 consultants x 52 weeks x 2days x 4 hours = 47,840 man-hours = 21 man-year

BIG DATA Business Analytic Capabilities, i.e. Prediction of Sinkhole





