Enhanced E & M Services via Integrated Building Management System, Remote Monitoring Unit, and Geographic Information System

Ir LEE Che Kit
Chief Electronics Engineer

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### Electrical & Mechanical Services Department

#### Our E&M services portfolio

- Government buildings
- Leisure & cultural venues
- Markets
- Hospitals & clinics
- Disciplined forces facilities
- Government vehicles
- Transport infrastructures
- Ferry terminals
- Crematoria services
- Schools
- Borders
- Airport facilities
- Public lifts and escalators
- Footbridge / subway lightings

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**Organisers:**
- Construction Industry Council
- HKGBC
- SBE Series
- iiSBE

**International Co-owners:**
- Global Alliance for Buildings and Construction
- Sustainable Buildings and Climate Initiative
- Promoting Policies and Practices for Sustainability
Dispersive Equipment Location
Traditional Maintenance Strategies

Preventive Maintenance

Corrective Maintenance

Fault Occurs → Fault Observed → Fault Report → Fault Rectification

Replace → Patrol

Repair → Inspection
Data-driven Era

High effectiveness

High efficiency
New Norms of E&M Services Needs

- Digitization with ICT
- Mobility
- Operation Data Sharing
- Intelligence
- Pull to Push
- On-demand
Data-driven Changes to E&M Services

Traditional Maintenance Strategies
Preventive and Corrective Maintenance

Systematic Asset Management Strategies

Real-time Sensing
Information Sharing
Data Analysis/Decision - Action
Life Cycle Management
Integrated Building Management System (iBMS)

- iBMS Server
  - Computer
  - Smart phone/tablet
  - GIS Console in EMSD Headquarter
  - Console in iBMS room
  - Internet
  - Fibre cable
  - Signal Protocol: BACNet
  - Existing CCMS
    - (Building A)
    - (Building B)
    - (Building C)
    - (Building D)
  - iBMS Server
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Geographic Information based remote monitoring system
EMSD Information Service Centre
Conclusion

SMART E&M SERVICE

Data Acquisition

Data Analytic

Information Sharing

Change Mindset & Behavior

Better resources allocation
Thank you