# New Regulatory Regime for Man Machine Interface (MMI) of Mechanised Car Parking System (MCPS)

Presented by: Er. Siew Seng Yeow
Senior Engineer
Electrical and Mechanical Engineering Group,
Building and Construction Authority (BCA)





# Agenda

- To present New Regulatory Requirements for New and Existing MCPS
- To Present MCPS Code of Practice (COP) and Guidebook





#### Introduction

- MCPS is a system for the mechanized parking and retrieval of vehicles.
- The MCPS would have **man-machine interface** through which the driver interacts with the equipment during the process of parking of the vehicle.









#### Introduction

- The area where the driver interacts with the equipment is termed as man-machine interface (MMI). This includes, but is not limited to,
  - The transfer area and control panel,
  - Control logic that regulates all interactions between driver and MCPS (including Side doors).







### Acceptable Standard

- The acceptable standard in terms of design, construction, installation, testing and inspection of the man-machine interface of MCPS are
  - BCA's Code of Practice (BCA's COP)
  - EN14010 Safety of machinery Equipment for power driven parking of motor vehicles — Safety and EMC requirements for design, manufacturing, erection and commissioning stages.
  - The acceptable standards for operations and maintenance
    - BCA's Code of Practice (BCA's COP)



#### Launch of BCA's MCPS COP

 BCA will publish the electronic copy of the COP on 01 January 2022 in the link below.

• <a href="https://www.corenet.gov.sg/media/2330625/code-of-practice-mechanized-car-parking-system.pdf">https://www.corenet.gov.sg/media/2330625/code-of-practice-mechanized-car-parking-system.pdf</a>



## New regulatory requirement

- Summary of new legislative requirements
  - Must comply with the standards (BCA's COP or EN14010)
  - Require plans submission
  - Require PTO
- New legislative requirements will affect the following MCPS whose first plans are submitted on or after the implementation date (to be announced):
  - New MCPS installations in new/existing buildings
  - Existing MCPS which undergoes major A/R works



# New regulatory requirement

- Existing MCPS that are already in operation will not be affected by the new requirements.
  - We will seek to apply the new requirements to existing MCPS 3 years after the implementation date, to allow time for industry to prepare.
  - In the meantime, owners can voluntarily comply with requirement of the regulation and obtain a PTO before the 3 years deadline.



#### MCPS that are not in operation

- For existing MCPS that is <u>not</u> in operation:
  - It should be cordoned off and
  - All access into the MCPS by members of public, including any vehicle, should be prohibited.
- For New MCPS installations and Existing MCPS which undergoes major A/R works, if they are <u>not</u> in operation but is <u>used as static parking lots</u>:
  - Owner of the MCPS must still obtain a PTO and maintained according to the scope and frequency as specified by the manufacturer.

\*Please seek approvals from LTA and URA if you decide to stop the operation of MCPS.



#### **Additional Information**

 BCA will arrange another engagement session specifically for Owners of MCPS and issue a Guidebook to aid them in both the application process and in understanding the safety features in MCPS



# Thank you Thank you

@BCASingapore



