

BUILDING SERVICES

SPPE 3112

LIFT SYSTEM

DR. DAYANA FARZEEHA ALI

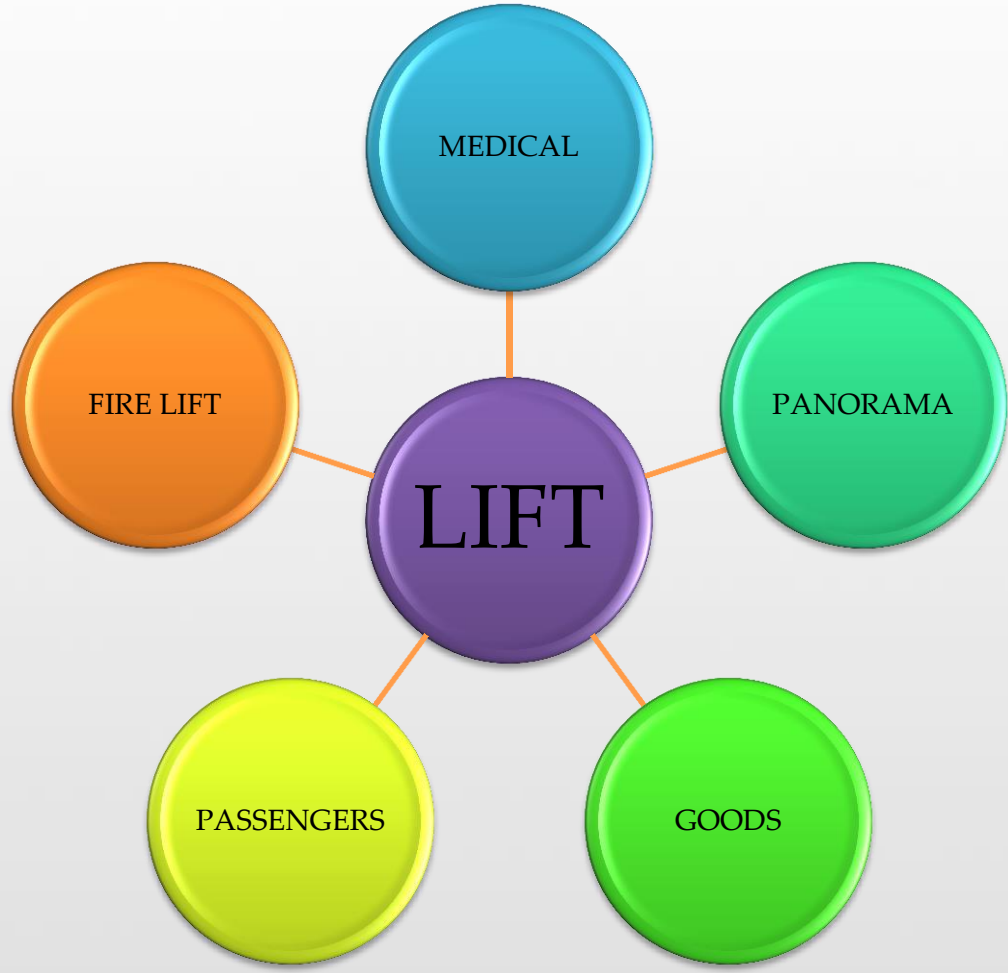
INTRODUCTION

- A transport device used to move goods or people vertically.
- Lift is a platform, either open or enclosed, used for lifting people or freight to upper floors within a building.
- Lift are a standard part of any tall commercial or residential building.

LIFT SYSTEM

- Categorized as a vertical transport
- The first lift safe – 1852
- Steam powerful lift - 1854
- Hydraulic lift - 1874
- Electric lift - 1889
- Hoist lift (without gear) - 1903
- Lift control system (semi-automatic) - 1924
- Multi-zone lift -1960

LIFT SYSTEM



LIFT SYSTEM

PASSENGER LIFT

- Suits in the hotel, market, the office and building and so on.
- A passenger lift is designed to move people between a building's floors.

PANORAMA LIFT

- The panorama lift is a perfect combined with art and technology.

MEDICAL LIFT

- Carry the medical personnel,
- the hospital bed and the goods,
- the strong comfort movement,
- the low noise, the high even level
- precision, the way of the door
- opening have divides

GOODS LIFT

- The goods ladder design specification is complete
- The carrying capacity may amount to 5 tons or above.

FIRE LIFT

- Fire and rescue service

LIFT SYSTEM

- Law's will
- For building consumers convenient
- Overcome an emergency situation in building

LIFT SELECTION

- Building's function
- Building's consumer
- Design for building
- Cost
- Laws and authority
- Lift's load
- Lift's speed
- Lift's selection

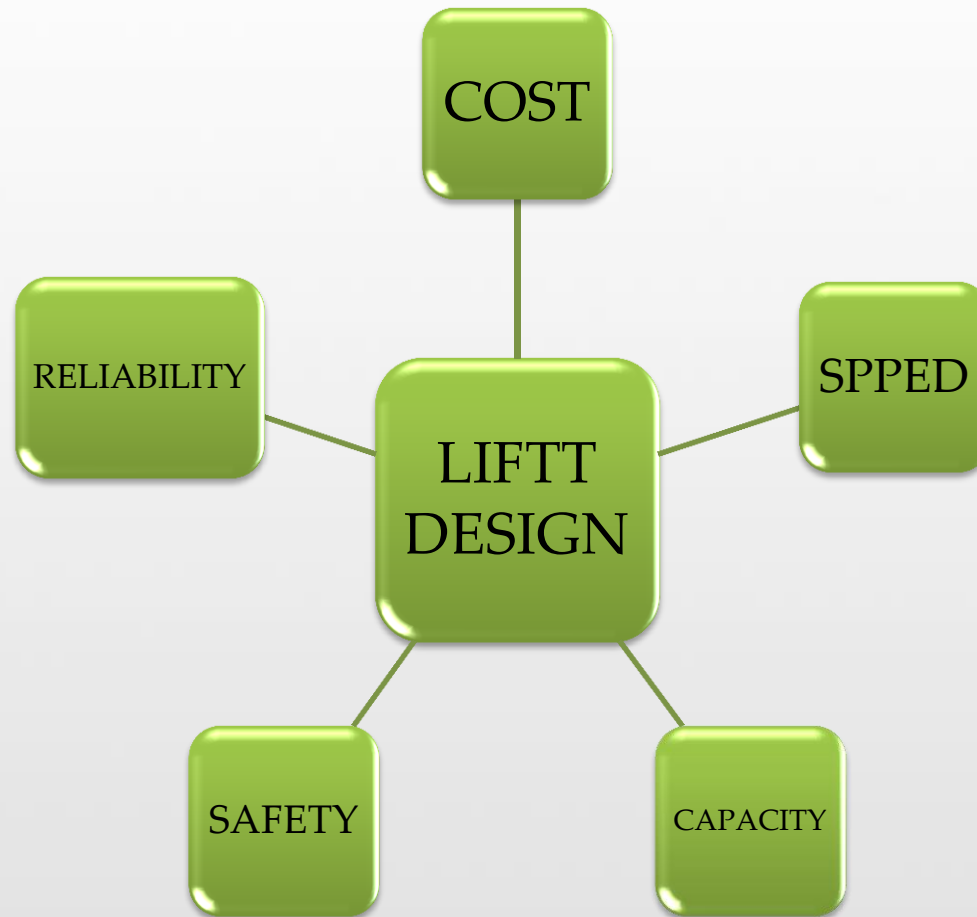
LIFT COMPONENT

- Lift car
- Lift Cable
- Lift Machine
- Control Equipment
- Counterweight
- Lift hoist way
- Guide rails
- Penthouse
- Pit
- Buffer

LIFT CHARACTERISTIC

1. Waiting for minimum time
2. Comfortable lift acceleration
3. Quick transport rates
4. Lift and unload quickly
5. Quick and silent door operation
6. Enough lighting
7. Emergency equipments and security
8. Happy environment

LIFT DESIGN



LIFT SELECTION

Number of level	6 – 10 storey			11 – 15 storey			16 – 20 storey			
	Lift Area	No. of Lift	Payload (Kg)	Speed (ms^{-1})	No. of Lift	Payload (Kg)	Speed (ms^{-1})	No. of Lift	Payload (Kg)	Speed (ms^{-1})
	500	4	1050	2.5	6	1,350	3.0	6	1,350	3.5
	750	4	1050	2.5	6	1,350	3.0	6	1,350	3.5
	1000	6	1050	2.5	8	1,350	3.0			
	1250	6	1050	2.5	8	1,350	3.0			
	1500	8	1050	2.5						
	1750	8	1150	2.5						

LIFT SELECTION

Floor Area : More than 280m²

Height : More than 7.4m

Speed : 1.6 ms⁻¹

Payload : 900kg

Specification for lift

Types of machine : *Geared*

Interior design: *Rigidised stainless steel with hand rail*

Floor interior: *Studded rubber tiles*

space: 1800mm x 1800mm

controller : friendly button for disable person

All lifts are required to have :

- ✓ Emergency communication connection
- ✓ Fire emergency
- ✓ Ventilation
- ✓ Special access

