

MECH3422 Building Services Engineering I

http://me.hku.hk/bse/MECH3422/

Summary of Teaching (Dr. Sam C. M. Hui)

<p>1. Electrical Services Systems -- Electricity Supply, Load Estimation and Power Distribution</p> <p>1.1 Electricity Supply 1.2 Electricity Tariffs 1.3 Load Estimation 1.4 Plant Rooms 1.5 Electrical Distribution</p> <p>2. Electrical Services Systems -- Regulations, Electrical Protection, Standby Power and Testing</p> <p>2.1 Regulations 2.2 Electrical Protection 2.3 Earthing Arrangements 2.4 Backup of Normal Supply 2.5 Standby Generator 2.6 Testing of L. V. Systems</p> <p>3. Lighting Systems – Basic Concepts</p> <p>3.1 Purpose of Lighting 3.2 Terminology 3.3 Lighting Systems 3.4 Human Eye 3.5 Vision 3.6 Colour</p> <p>4. Lighting Systems – Light Sources and Luminaires</p> <p>4.1 Light Sources 4.2 Ballasts and Luminaire 4.3 Lighting Maintenance</p> <p>5. Lighting Systems – Lighting Design</p> <p>5.1 Basic Principles 5.2 Design Process 5.3 Lighting Calculations 5.4 Daylighting Design 5.5 Exterior & Emergency Lighting 5.6 Energy Efficient Lighting 5.7 Lighting Economics</p>	<p>6. Lifts and Escalators: Principles and Planning</p> <p>6.1 Basic Principles 6.2 Planning & Design Factors 6.3 System Types 6.4 Regulations and Codes</p> <p>7. Lifts and Escalators -- Lift Traffic and Components</p> <p>7.1 Lift Traffic Analysis 7.2 Advanced Traffic Planning 7.3 Lift Components</p> <p>8. Lifts and escalators -- Operation and Safety</p> <p>8.1 Lift Drive Operation 8.2 Lift Traffic Control 8.3 Operation of Escalators 8.4 Safety Issues 8.5 Energy Efficiency 8.6 Lift Modernisation</p> <p>9. Security systems</p> <p>9.1 Basic Concepts 9.2 Risk Assessment 9.3 Security Planning 9.4 System Components</p> <p>Technical Visit: Hongkong Electric Company Power Quality Centre and Smart Power Centre</p> <p>Assignment 02 -- Interior Lighting Design</p> <p>Technical Visit: Machine-room-less lift system at Haking Wong Building (near MTR HKU Station Exist A1)</p>
--	--

Concept Map:

