

Disciplines Offered by IEMA Engineering



MECHANICAL



**FUEL-GAS
MANAGEMENT**



FIRE SUPPRESSION



**VERTICAL
TRANSPORTATION**



ELECTRICAL



SECURITY



**DATA &
COMMUNICATION**



LIFE SAFETY



ALTERNATE ENERGY



**BUILDING
MANAGEMENT
SYSTEM**



PUBLIC HEALTH



GREEN BUILDING



**MED-INDUSTRIAL
FACILITIES**



TECHNICAL STUDIES



**INFRASTRUCTURE
PLANNING**



BUILDING APPROVAL





MECHANICAL

- HVAC System
- VRF Air Conditioning System
- Packaged Units Air Conditioning System
- Unitary (Split) Air Conditioning System
- Hydronic Room Heating System
- Industrial Ventilation & Exhaust System
- Garbage Extraction System



FUEL-GAS MANAGEMENT

- Natural Gas
- Synthetic Natural Gas
- Liquefied Petroleum Gas
- Liquefied Natural Gas
- Bulk Fuel Storage System
- Fuel Transfer System



FIRE SUPPRESSION

- Fire Sprinkler System
- Fire Suppression Gas System
- Water Spray and Mist System
- Fire Fighting Stand Pipes, hydrants and Hose System



VERTICAL TRANSPORTATION

- Elevators
- Escalators
- Travellators
- Dumb Waiters





ELECTRICAL

- General Electrification with Distribution System
- Instrumentation and Control
- Emergency Power Generation System
- Emergency Lighting
- Building Earthing & Grounding System
- Lightning Protection System
- UPS Solutions
- External, HV, LV , Electrical Power Distribution



SECURITY

- CCTV Surveillance System
- Perimeter E-Fencing
- Surveillance / Search Lighting
- Anti-Theft System
- Speed Gates
- Walkthrough Gates
- Scanners
- Automatic Vehicle Barrier
- Vehicle Scanning System
- Electronic Door Lock



DATA & COMMUNICATION

- Data Centre Design
- IT Infrastructure System (Fiber Optic)
- Networking System
- Visitor Intercom System
- Public Address & Conference System
- Central Music System
- Nurse Call System / Paging System / Queue Management System
- CATV/MATV/Cable Antenna System
- DAS - Distributed Antenna System





LIFE SAFETY

- Fire Detection System
- Heat/ Gas Detection System
- Flame Detection System
- Automatic Smoke Control and Stair Well Pressurization System
- Fire and Emergency Evacuation Plan



ALTERNATE ENERGY

- Photo Voltaic Solar System
- Feasibility Studies for:
 - Wind Energy
 - Geothermal Energy
 - Tidal Energy
 - Biomass Energy
 - Nuclear Energy



BUILDING MANAGEMENT SYSTEM

- Building Management Unit
- Parking Management System
- Smart Metering and Monitoring





PUBLIC HEALTH

- Gravitational and Pneumatic Water Distribution System
- Irrigation System
- Drainage & Sewerage System
- Sub-Soil Drainage System
- Waste Water Treatment Plant
- Rain Water Harvesting
- Solid Waste Management of Industrial and Municipal Waste
- Hospital Waste Management
- Grey Water Recycling
- Reverse Osmosis Water Filtration Plant
- Water Parks
- Swimming Pools



GREEN BUILDING

- Energy Efficient Building Design
- Water Efficient Building Design
- Highly Efficient Material Selection
- Environmental Quality Enhancement
- Operations and Maintenance Optimization
- Waste Reduction



MED-INDUSTRIAL FACILITIES

- Compressed Air
- Deionized Water
- Oxygen Supply
- Nitrogen Supply
- Vacuum Supply
- Industrial Waste Management
- Hospital Waste Management





TECHNICAL STUDIES

- Energy Audit
- Facility Audits
- Equipment Testing and Safety Inspections
- Design Vetting and Bid Evaluations

Environmental Studies

- EIA (Environmental Impact Assessment)
- IEE (Initial Environmental Examination)
- ESMF (Envir. and Social Management Framework)
- ESMP (Envir. and Social Management Plan)
- Environmental Monitoring and Control
- Risk and Hazards Assessment
- Occupational Health & Safety
- BBS (Behaviour Based Safety)



INFRASTRUCTURE PLANNING

- Road and Highways
- Power Distribution Network
- Street Lighting
- Communication Infrastructure
- Sewerage Infrastructure
- Water Supply and Distribution Infrastructure
- Storm and Surface Drainage Infrastructure



BUILDING APPROVAL

- SBCA - Sindh Building Control Authority
- KDA - Karachi Development Authority
- Bahria Town - Pakistan
- RDA – Rawalpindi Development Authority
- CDA - Capital Development Authority
- CBC - Cantonment Board Clifton
- LDA - Lahore Development Authority
- SEPA - Sindh Environmental Protection Agency and others

