



Structural & Civil Engineering

Consultation Research Training Construction Advice

SATYA ILLINDRA Engineers



Plot:107, Vasavi Nagar, Opp.Kharkhana,
Secunderabad, Hyderabad-500 015, India.

E-mail: satya@siengineers.com info@siengineers.com

Web: www.siengineers.com

Phone: +91-40- 4028 0465

Mob: +91-90 32 09 12 14

Satya Illindra Engineers (S.I.E.) is an Engineering, Planning and Project Management Consultancy firm in the areas of Structural & Civil Engineering, Architecture, Building Services and Construction.

S.I.E. is set up by **Mr.Satyanarayana Illindra** who was associated with the several land mark projects in Dubai and Middle East particularly Burj Al Arab, Emirates Towers and World's Tallest Tower Burj Khalifa.



Dubai Skyline



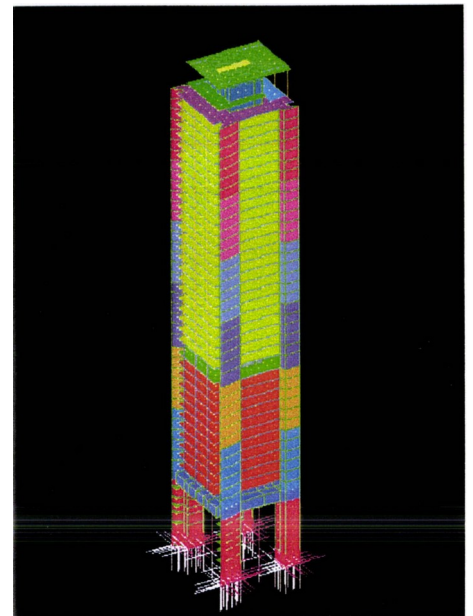
Burj Al Arab, Dubai



Emirates Towers, Dubai



**Structural Design Adoption of
Burj Khalifa, World's Tallest Tower**



**Finite Element Analysis of
Capricorn Tower, Dubai**

**Experiences include the Seismic and Wind Resistant design of buildings,
Structural Stability of High Rise Structures, Design for Robustness and Ductility.**



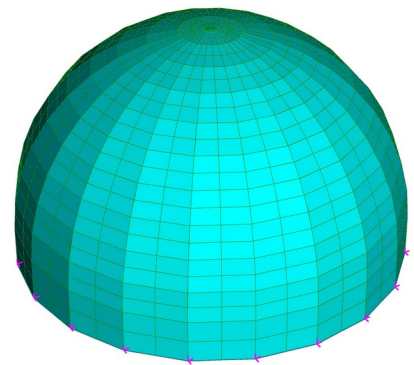
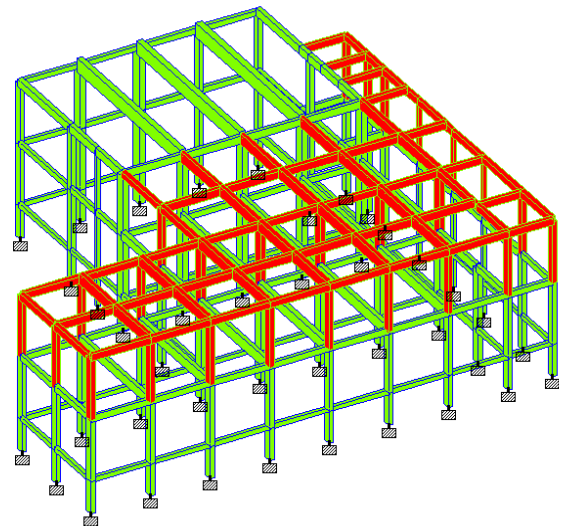
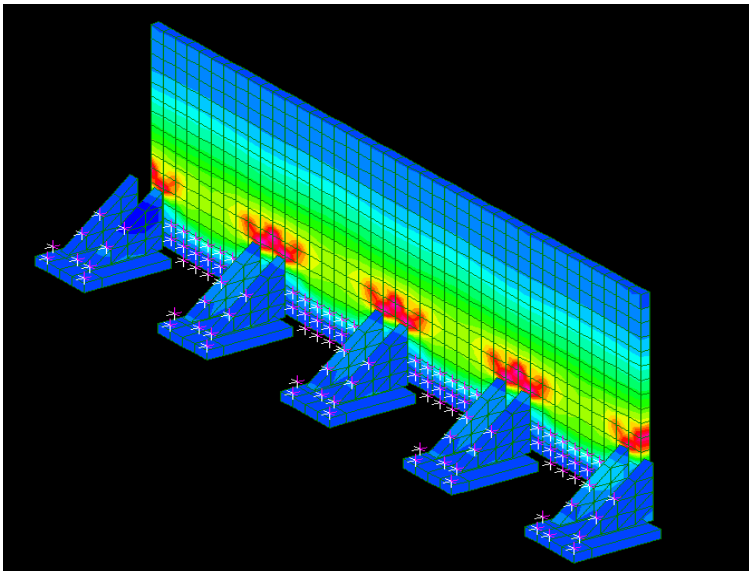
The Projects include the design and construction of swimming pools, High rise structures, fatigue resistant design of long span pedestrian bridges and Stadiums.



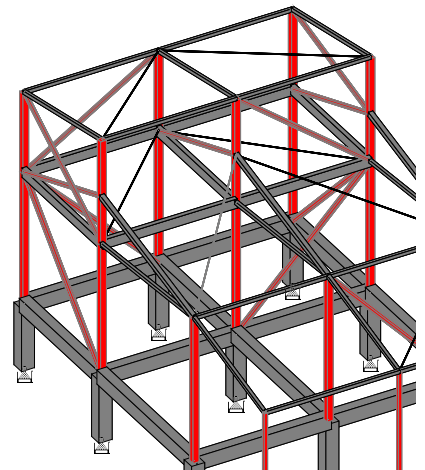
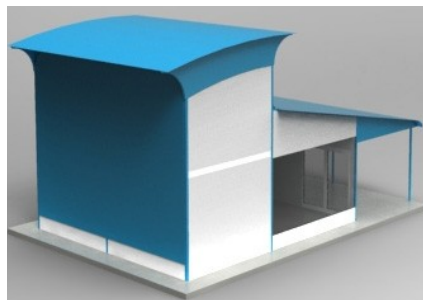
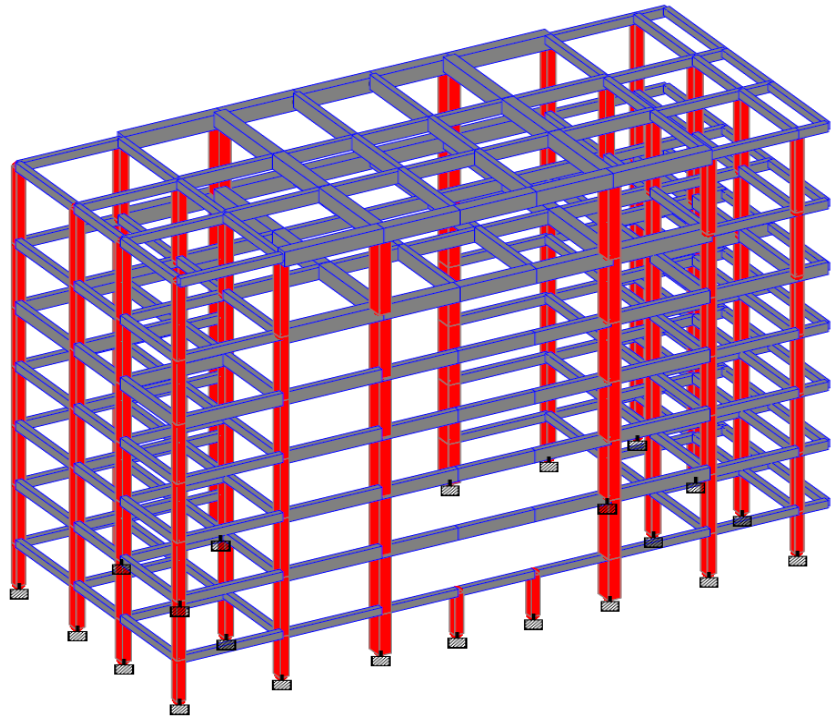
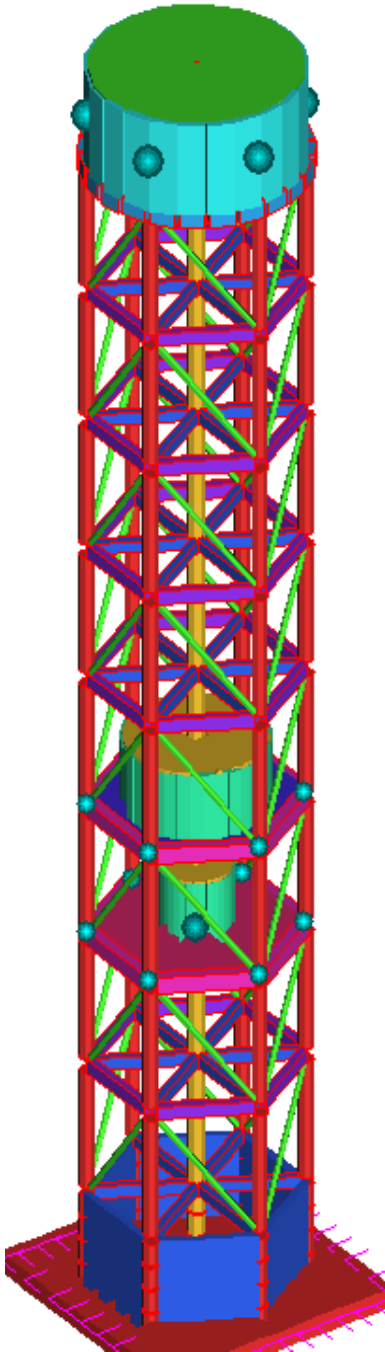
KAFD Hotel, KSA



Longest Pedestrian Bridge connecting Two Buildings (Sky Walk Towers, Dubai)
Lead Designer for Towers and Connecting Bridge



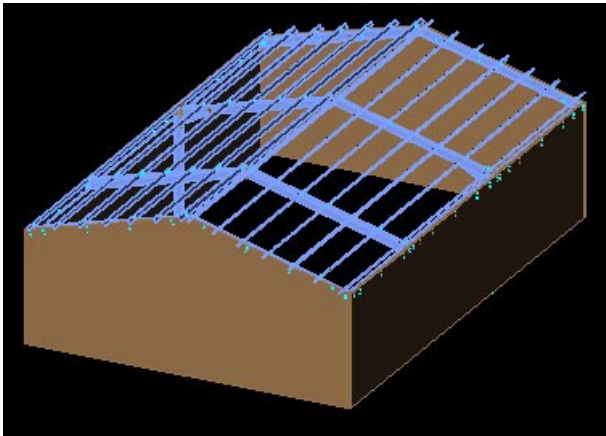
Structural Consultant for Military Engineering Services Establishments namely Swimming Pools(Hyderabad), FRP Domes(J&K-Border Roads), Function Halls(Kochi), Extension of Buildings



Structural Consultant for Multi Storey Water Tanks in Hyderabad for M.E.S.(40m height, 3 levels under single staging), Extension of Building without imposing loading on existing structure, Hardware Storage facility(Pune) & Water Treatment Plant Structures for M/sWater Health India Pvt.Ltd.



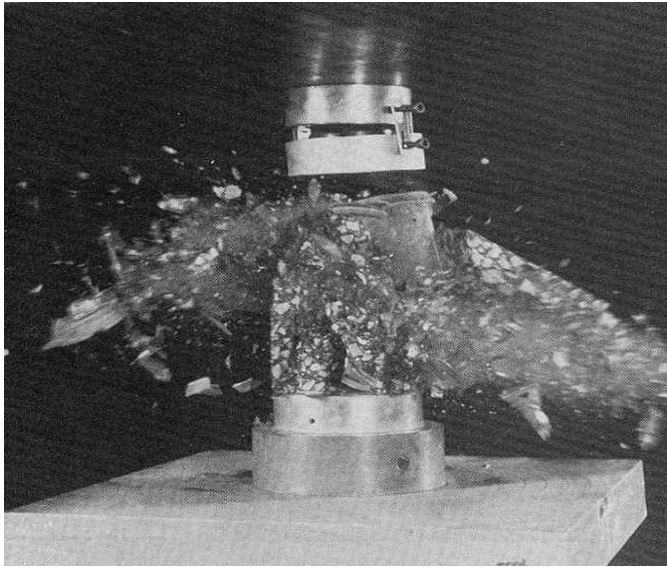
Prefabricated & Steel Structures



Industrial, Onshore Oil & Gas Structures

Advice on Latest Materials and Technologies

S.I.E. has expertise with the latest technologies and products and keeps up to date with the latest know-how in the field.



The Projects envisaged today are conceived to be built in shortest time possible, whilst keeping overall project cost under control.

To achieve faster construction, High Strength Concrete, Structural Steel and Precast Concrete are extensively used in other parts of the world.

S.I.E. will provide the Clients a Project specific advise and value engineering on how the latest materials and techniques can be employed with particular focus on overall structural integrity, safety, stability and economy.

High Strength Concrete Explosion



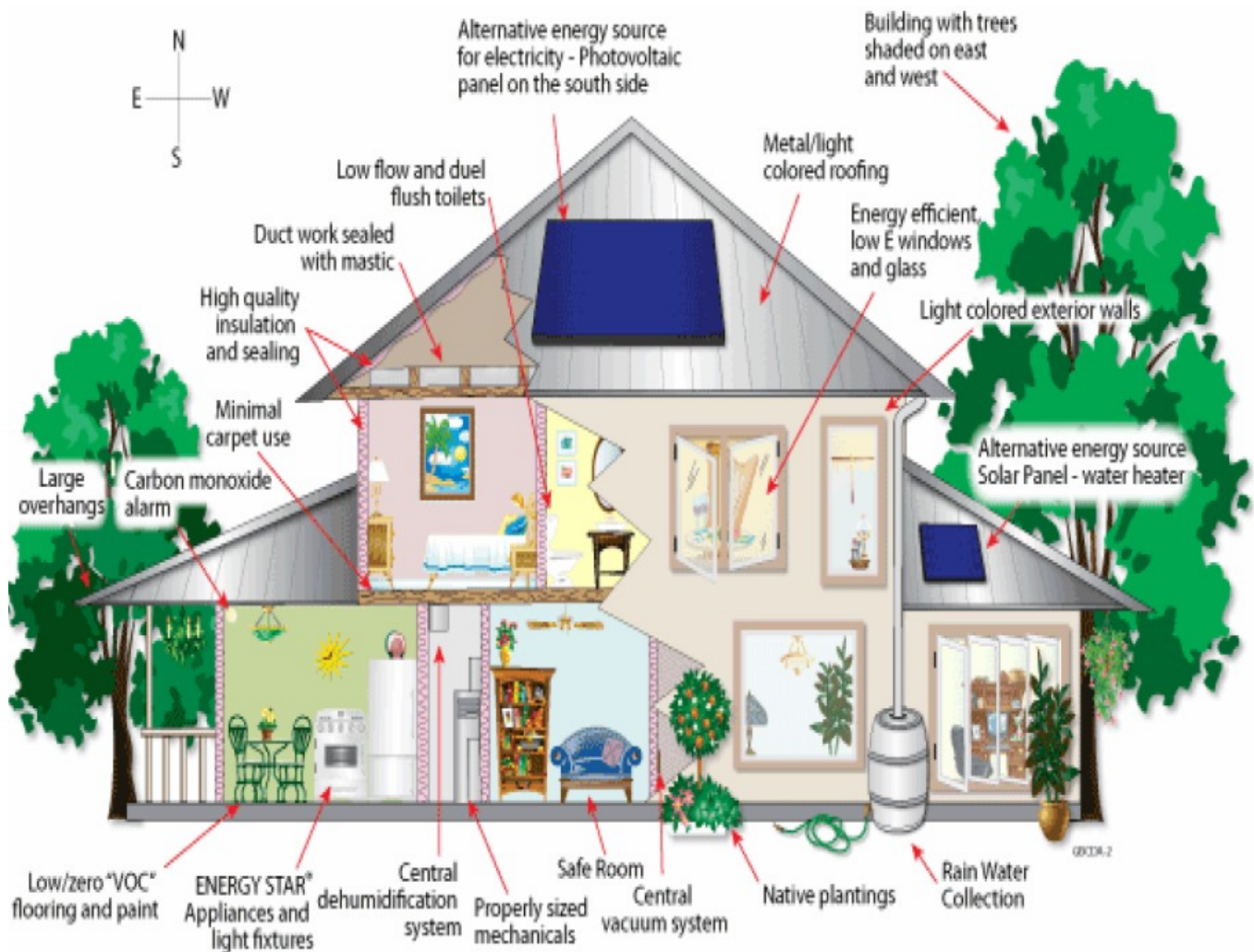
Precast Structures



Glu laminated Timber has made rapid development in recent years of timber engineering Glulam has increased strength for use in long span structures where Architectural beauty is a pre-requisite.

Fiber reinforced plastic (FRP) is highly corrosive resistant and it is widely used in construction now-a-days in advanced countries. FRP is used in strengthening of R.C.structures. FRP fibres are also used in PCC to enhance tensile strength of concrete.

Green Buildings



Green buildings are known as sustainable or high performance buildings that reduce energy use, conserve natural resources and reduce greenhouse gas emissions throughout a building's life-cycle. It attempts to balance economic, social, and environmental factors.

Effective green building can lead to

- reduced operating costs by increasing productivity and using less energy and water
- improved public and occupant health due to improved indoor air quality and
- reduced environmental impacts such as lessening storm water runoff.

Green Building is the key focus of S.I.E. and implements its principles to a variety of built environment such as buildings, retail, campus, community, neighborhood etc.,

S.I.E since its inception in 2011, carried out engineering consultancy for more than 130 Nos. of various Projects namely Building Structures, Industrial and Infrastructural of total cost INR 35 billion. Building Structures of 8.40 million SFT projects are included in these.

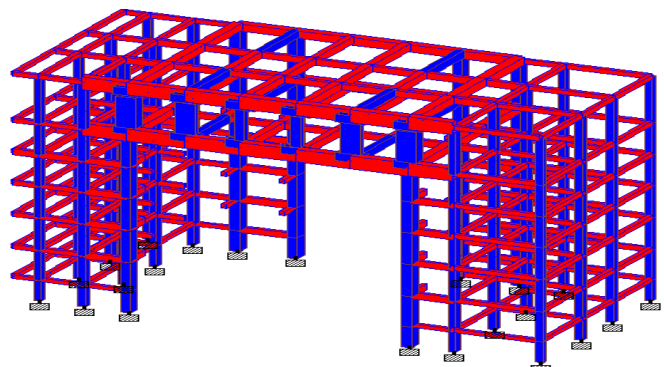
Some of the Projects/Engineering Services rendered are:

- Vidyut Soudha Annex Extension for APGENCO, Hyderabad
- Swimming Pool and Viewing Gallery for DRDO, Hyderabad
- Residential Township 135 Flats and Club House etc. at Chirala, A.P.
- 4 Nos. Luxurious Villas at Banjara Hills, Hyderabad
- 4 Nos. Stilt+5 quarters for Kakatiya Thermal Power Projects, APGENCO, Chelpur
- Roof Structure for Anuvijay Township, Kudankulam Nuclear Power Project, Tamilnadu
- Security Grill under 'T' Girder Bridge for Indian Navy, Visakhapatnam, A.P.
- Roof Structure for KIMS Cancer Hospital, Hyderabad
- Extension of HCC Production Shop for Defence at Katni, Madhya Pradesh
- Infrastructural Facilities design for 3MMTPA Imported Coal Conveying Plant Package for NTPC, Farakka, West Bengal
- Precast Feasibility Study for B2+G+18 Floor Towers Mantri Sun 3 at Bangalore
- Proof Checking of Judges Hostel Building for Hyderabad Metro, Hyderabad
- Children School of BUA 150000 SFT for Defence at Secunderabad
- New Gun Machine Shop at Ishapore, West Bengal for Defence
- NDT Testing of 4 Nos. Over Head Water Tanks at Kanchanbhag, Hyderabad for Defence.
- Design of Reusable/Precast Structural items for 5 Bay Sleeper Plant for M/s PRIPL, Hyderabad
- Value Engineering and Detailed Engineering on usage of Aerocon Blocks for Transit Labor Welfare Dept Building for Karnataka Housing Board, Gulbarga.

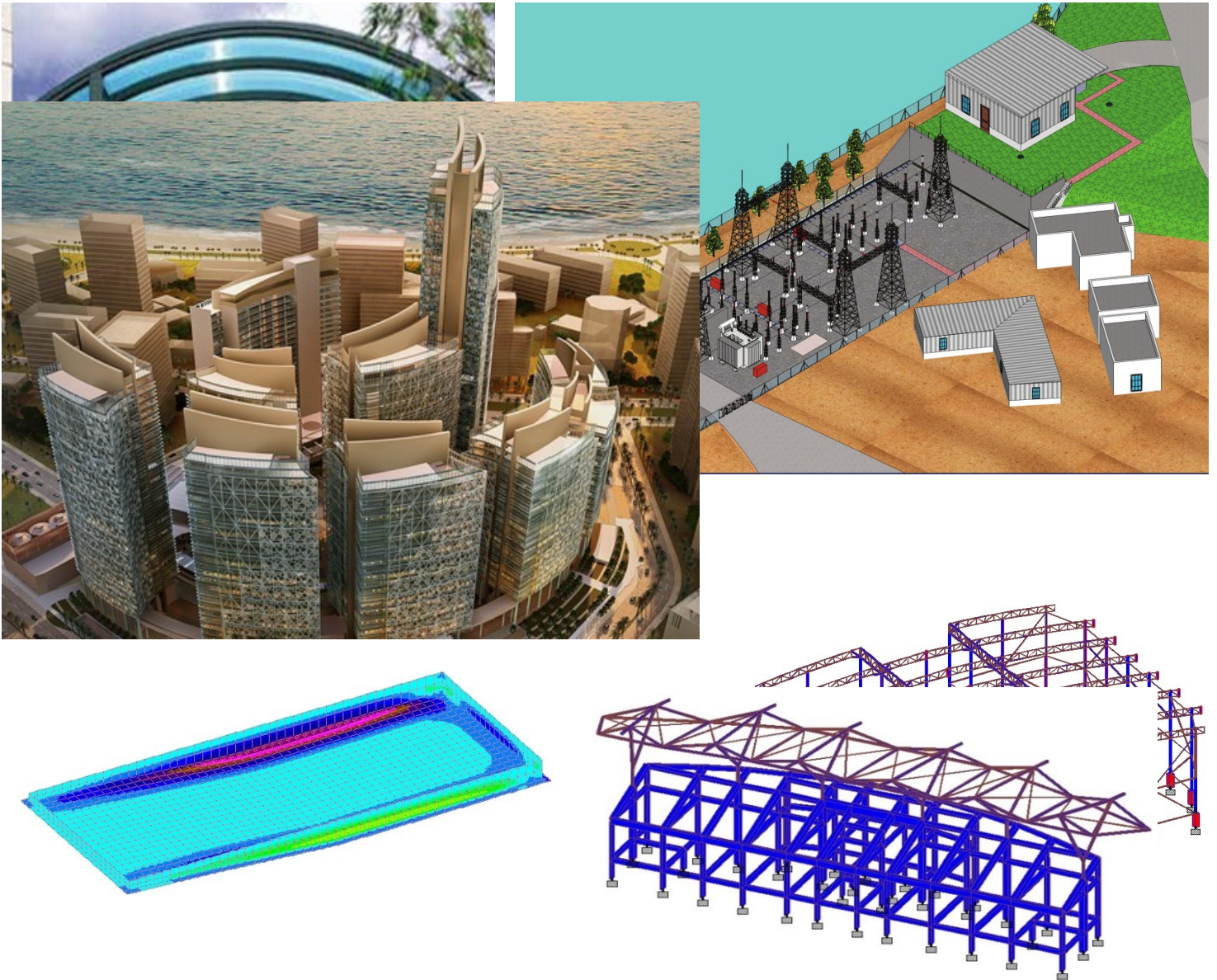


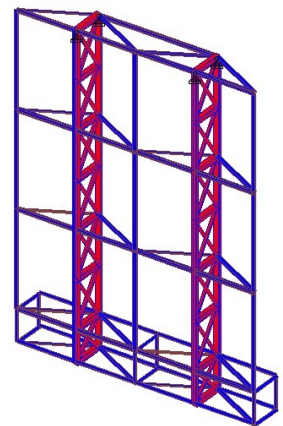
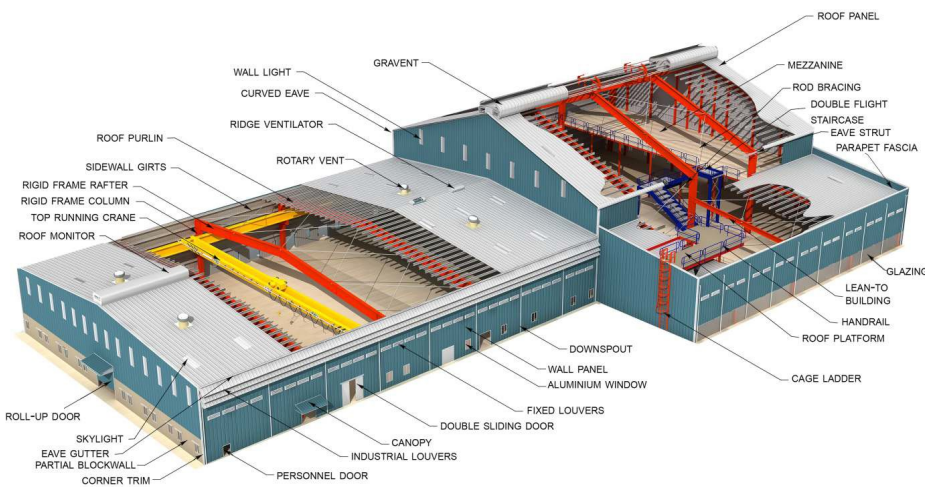
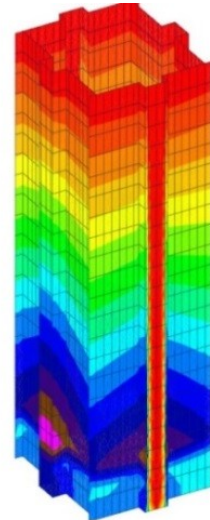
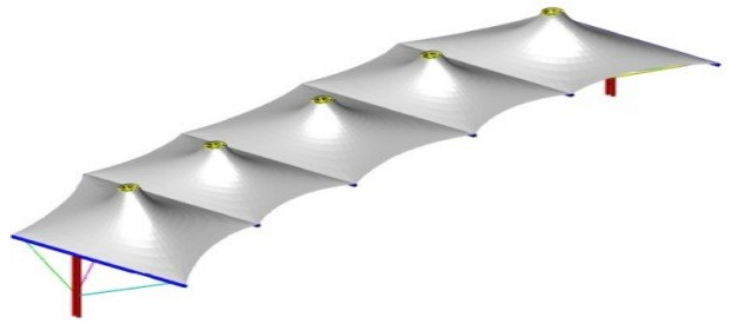
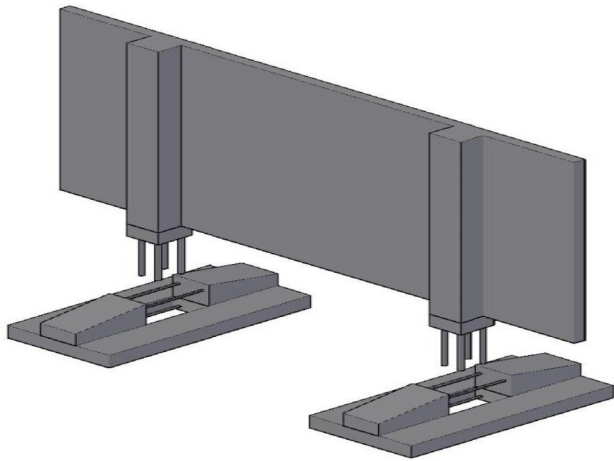
- Strengthening / Retrofitting and Extension of Three Axis Building for ADE, Bangalore for Chief Engineer R&D, M.E.S.
 - Structural Designs for Indira Gandhi International Sports Complex at Haldwani, Nainital, Uttarakand consisting of Cricket, Indoor, Atheletic Stadiums, Swimming pools and Infrastructural facilities.
-

- Structural Designs for NIPER, Guwahati consisting of Academic Blocks, Admin Block, Animal House, Staff Apartments, Recreation and Dining Blocks.



Engineering Consultancy of various projects carried out since 2011





Engineering Consultancy of various projects carried out since 2011

Haldwani, Nainital, Uttarakand, India

Indira Gandhi International Sports Complex



SIE scope includes comprehensive structural design services for the Sports complex which involve:

- **Cricket Stadium**-10000 seating capacity
- **Indoor Stadium** – Badminton, Boxing, TT, Gym,
- **Athletic Stadium** – 8 Lane 400m Track, 5000 capacity
- **Outdoor Sports** such as Swimming Pool, Volleyball, Hockey, Basketball, Tennis Courts etc.,
- **Students Hostel** – 75 capacity
- **Infrastructural** works such as U.G.Tank, Sub-Stations, External Works, Boundary Walls, Protective Works etc.,



Date: 2014 - Ongoing

Client: IGISCS / NCC Ltd.

Project Cost: 2250 Millions

Type: Reinforced Concrete & Structural Steel

Firm's Responsibilities: Structural Design & Construction Advice





AGARTALA GOVT. MEDICAL COLLEGE, SUPERSPECIALITY HOSPITAL, AGARTALA





S.I.E. Capabilities

SECTORS

- **Buildings** Residential ● Commercial ● Educational ● High Rise Tall Buildings
- Shopping Malls ● Stadiums ● Function Halls ● **Industrial** ● Large Roof Structures
- Plant Buildings ● Storage Warehouses ● Silos ● Oil & Gas Storage Tanks
- Chimneys ● Cooling Towers ● Power House Structures ● Transmission Towers
- **Infrastructure** ● Bridges ● Water Tanks ● Airports

SPECIALISATIONS

- **Structural Designs** ● Safety ● Stability ● Durability ● **High Rise Structures** ● Shear Walls ● Core Walls ● Outriggers ● Robustness Checks ● Ductile Detailing ● Prevention of Progressive Collapse
- **Earthquake Resistant Design and Detailing** ● National and International Code Expertise ● **Wind Engineering** ● Aerodynamic Instability Checks ● Wind Tunnel Testing Tuned Mass Dampers ● **Fast Track Construction** ● Prestressed ● Composite Construction
- Modular Steel Structures ● **Green Initiatives** ● Economical Designs
- Latest Technologies ● **Water Resistant Construction**
- Basements ● Swimming Pools ● High Performance Concrete ● Waterproofing Membrane ● **High Strength Concrete Design and Detailing** ● Ductile Design ● Ingredients ● Specialist Advice ● **Long Span Structures** ● Grid Floors ● Ribbed ● Post-Tensioned Structures
- Steel work Roofs ● Timber Structures Glulam ● **Fatigue Resistant Designs** ● Bridges ● Chimneys ● Tall & Slender Structures ● Wind Induced Vibrations ● **Foundations and Soil Retaining Systems**
- Loose/Weak Soils ● Raft Foundations ● Piled Foundations ● Buttressed Retaining ● Sheet Piling



Satyanarayana Illindra

B.Tech(Civil), M.Tech(Structures),
M.ASCE, CMSEI, NAFEMS(Regd.),
M.I.E, Chartered Engineer(India)
Owner & Chief Consultant
M/s Satya Illindra Engineers

Mr. Satyanarayana is holding the qualifications of B.Tech Civil Engineering (1988) from JNTU, Kakinada and M.Tech Engineering Structures(1991) from Regional Engineering College, Warangal. He possesses 32 years of professional experience in various land mark projects. More than 13 years in the Middle East in the fields of High rise, Low rise Building structures, Industrial, Oil and Gas structures.

His works include Lead Engineer (2005-2010) for the Structural Design Verification and Adoption of World's Tallest Building Burj Khalifa, Dubai. Ongoing projects include Indira Gandhi International Sports Complex with state of art Cricket, Indoor, Athletic Stadiums and other anchillary facilities at Haldwani, Nainital and NIPER at Guwahati. He is also the Lead Engineer from concept to commission for the Sky walk Towers and Link Bridge, the world's longest pedestrian bridge connecting two buildings. His contributions in late nineties include the landmark projects such as Burj Al Arab and Emirates Twin Towers.

He worked on Structural Stability, Wind & Earthquake Resistant Designs of several high rise structures in Dubai, Riyadh and Turkey whilst working as Senior/Lead Engineer and subsequently as external Consultant for Hyder Consulting M.E.Ltd (150 year old U.K.based International Consulting firm at Dubai; formerly Acer Freeman Fox International).

He served as Structural Consultant for M.E.S establishments at Hyderabad, Pune, Kochi, Vizag, Kanpur, Jabalpur, Calcutta, Bangalore etc., namely Multi storey water tanks(40m high), Swimming pools, Function Halls, Factories, Warehouses etc., He also contributed for a Race Course Stadium and several Mini Hydel Schemes earlier in India.

He is NAFEMS Registered with Advanced level in Building Structures. Member of several professional bodies such as American Society of Civil Engineers, Institution of Engineers (India). He is a Licensed Structural Engineer and Chartered Engineer (India). Listed in Who's Who in Science and Engineering an US Publication. Recipient of Bharat Gaurav Award (2007) by India International Friendship Society.
