

BROCHURE



Smart Development Engineering Limited (SDEL)

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Company Introduction

Smart Development Engineering Limited (SDEL) is a multidisciplinary Planning and Engineering company that has built a strong reputation for delivering a quality service. We pride ourselves on being skilled and experienced in all aspects of Urban planning, Design and construction of retrofitting works and Networking and IT solutions.

In recent years, urbanization is emerging with increasing population and resulting disparity in economy in the development process. Urban areas are flourishing and creating pressure on social, economic and environmental issues. Inclusive and integrated development is now a demand for healthy and sustainable urban life for future generation.

SDEL is committed to contributing towards sustainable development through multidisciplinary approach and has the resources and

expertise to meet current and future challenges. Having diversified projects on urban planning and structural development we now offer multidisciplinary services including Urban Planning, Civil and Structural Engineering, Project management and IT based solution.

Our commitment to innovation and excellence invariably results in a successfully completed project. We understand and promote the idea of working as a partnership with our clients to ensure their goals are met.

We look forward to embracing the challenges of the future with renewed energy.



MISSION, VISION AND VALUES

Mission Statement

To continuously provide professional efficient services to our clients, driven by our dynamism, innovation and creativity through inclusive development involving multi-disciplinary professionals and experts standards for engineering excellence.

Our Values

SDEL constantly commits itself to fairness, honesty, trustworthiness and integrity. SDEL rewards their staff for work well done; ensuring that projects are completed on time and most importantly to clients' satisfaction. By showing commitment and taking

Vision Statement

To be a smart service provider with efficient multidisciplinary professionals for a better sustainable future development.

responsibility for our actions, SDEL produces high quality services and products. SDEL prides itself on teamwork, excellence and our commitment to corporate citizenship and the environment.

Wherever it operates, SDEL strives to live by its core values of:



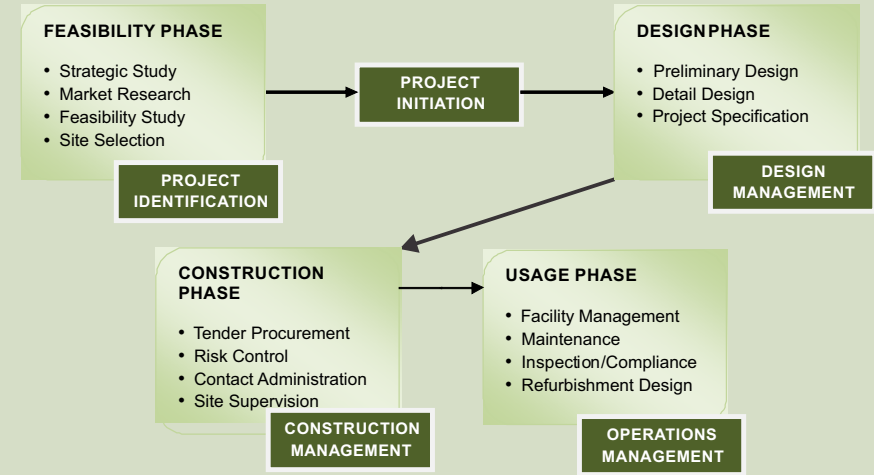
Quality Management

We, the management team and employees of SDEL have set ourselves standards for quality in the delivery of engineering services and project management services.

WE WILL:

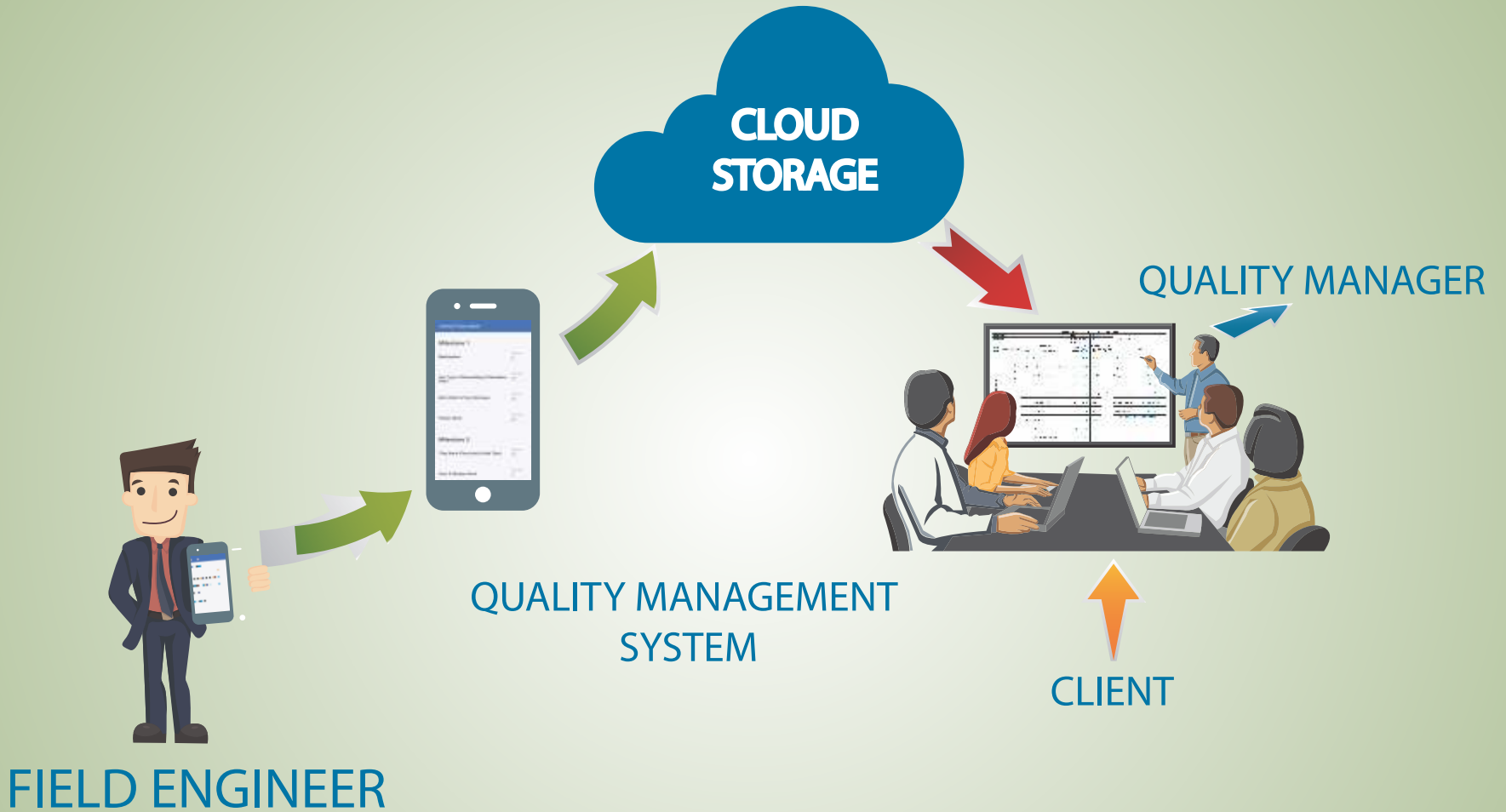
- Be responsive to our customers needs and strive to exceed their expectations
- Provide effective and reliable professional consulting engineering services, project management services and support to all our customers
- Identify, provide and ensure the effective and efficient use of our resources
- Work towards achieving service excellence in our operations,
- Continually improve the effectiveness of our quality management system, ensure that quality is communicated and understood throughout the organization and
- Periodically review our quality policy along with associated quality objectives to ensure that it remains relevant.

Project Realization



Our Services

- Risk and vulnerability study
- Earthquake hazard assessment
- Occupancy certification
- Water supply and sanitation planning
- Building design services
- Civil engineering projects
- Environmental assessment and permitting
- System design and development
- Network Design Implementation
- Architectural services
- Project management
- Topographical surveys
- Hydrological surveys
- Site supervision



HOW THE QUALITY MANAGEMENT SYSTEM WORKS

Business Approach

SDEL's businesses are supported by an integrated quality management system that underpins every aspect of its operations.

By strategically positioning quality management at the heart of its operations, SDEL has bound together the full value chain of an infrastructure company, thus embedding the concept of a triple bottom line management culture, which is central to reinforcing sustainability and delivering a quality outcome to all stakeholders.

Major Activities

- SDEL services related to urbanization, urban planning and management
- Designing and setting up the network, maintaining the network, Expanding the network
- Service related to IT Development & software solutions.
- Services to conduct the Visual inspection and detail engineering assessment of the infrastructure of both public and private entity
- Retrofitting Design, Construction and Monitoring
- Feasibility Study on alternative solutions for Infrastructure Development
- Geotechnical Investigation, Assessment and Management Solutions.

Key Resources

In-house we have competent multidisciplinary quality professionals and experts. In the team, there are members working as Advisor for Urban Planning. Besides, multidisciplinary professionals include Economist, Sociologist, Environmentalist, Civil engineer and Architects. The core part of the team is IT professionals having sound knowledge in Web-development, System design and Networking.

Building Inspection & Checking

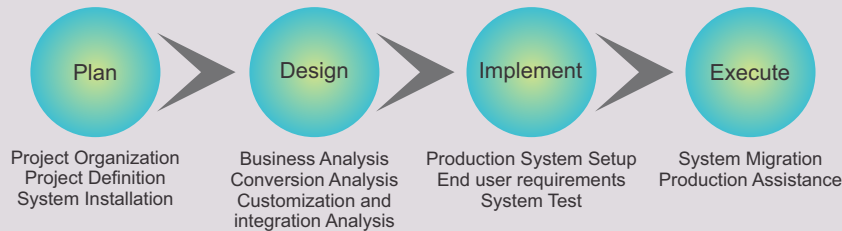
SDEL offers building inspection and checking of existing structures with expert engineers and assesses the vulnerability analysis with modern tools and techniques. SDE has inspected a number of buildings which includes several garments buildings and conducted detailed structural vulnerability assessment of numerous Garments factories.



Project Management (Implementation):

SDE provides following services such as:

- Prepare the cost estimates, Bill of quantity (BOQ) etc.;
- Implementation of project plan and assist in ensuring the quality of materials and services involved in the construction works;
- Implementation, supervision, monitoring and evaluation of overall construction works;
- Dealings with suppliers and contractors;



IT services

- System Design: developing programs for expense calculation, budget determination, cost estimation and attendance management as per client requirements.
- Network Design Implementation: network design services for medium to large sized workplaces. Server and database setting up and management integrated with high-speed connectivity are ensured for the clients.
- Web-based UI: build data-driven progressive web-applications.

Our projects

1. Urban Development Projects
2. Quality Assessment and Monitoring of construction/ rehabilitation of Water Supply Facilities in Six Districts of Bangladesh
3. Water Quality Monitoring of Water Points
4. Constructed as part of Arsenic Safe Union Project
5. Full Networking services of Shathe Fashions Ltd., and Knit Zone mode office
6. Installation of Digital Security System
7. Retrofitting Construction of Well Dresses Limited, Chittagong
8. Retrofitting Construction of South China Building
9. Retrofitting Construction of Beautiful Jackets Ltd.
10. RMG Factory Building: WG8-3, Opex-Sinha Group Ltd.
11. RMG Factory Building: WG-2, Opex-Sinha Group Ltd.
12. RMG Factory Building: WG-5, Opex-Sinha Group Ltd.
13. Security Building, Opex-Sinha Group Ltd.
14. Detail Engineering Assessment - PTI Building, Rangpur (LGED)

IT Services

*the right solutions
to fit your IT needs*

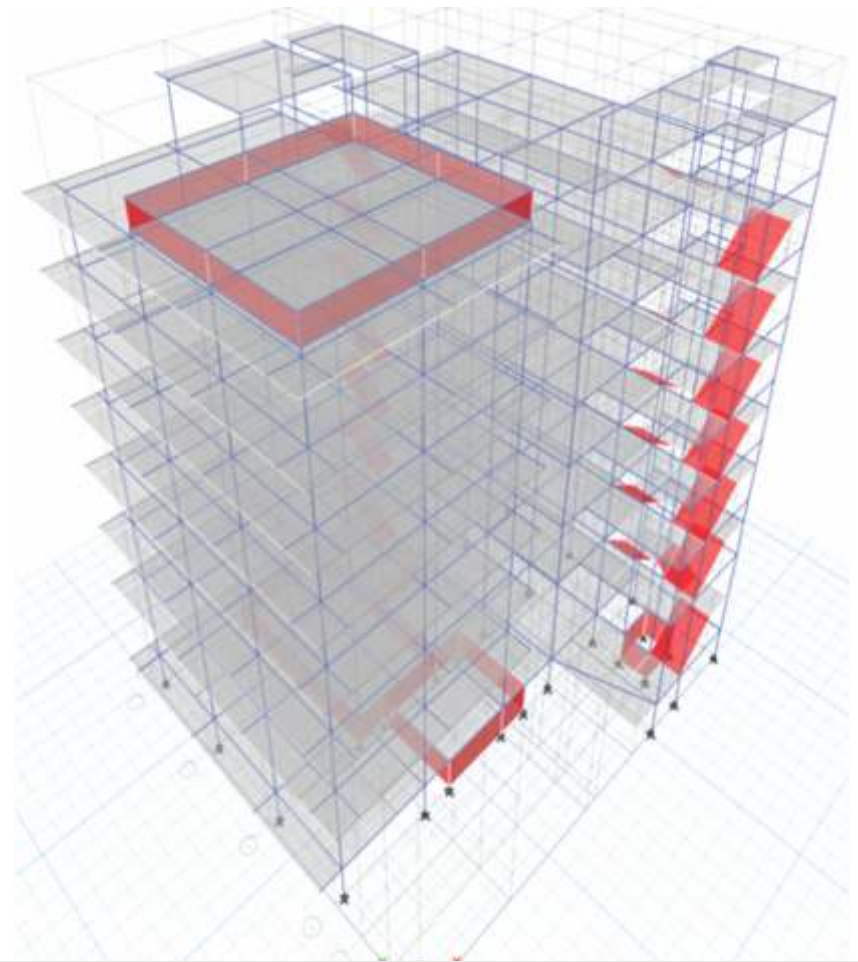
*servicing small and
medium businesses*

Urban Planning Project:

- Risk sensitivity analysis (structural and non-structural)
- Vulnerability study of urban environment
- GIS application in urban planning, hazard assessment, hydrological analysis
- Assessing to clients for getting the occupancy certificate
- Simulation of soil structure interaction using PLAXIS
- Climate Change Impact assessment in different sectors of Bangladesh
- Integrated Water Supply, Sanitation and Hygiene (WASH) Planning

Structural Design, supervision and retrofitting:

- Summary of the structural design services are mentioned below:
- Structural Design of RCC and Steel Structures
- Seismic Retrofitting of Existing Structures
- Structural Safety Assessment/Evaluation.
- Destructive and Non-Destructive Test of Concrete and Steel Structures
- Linear/Non-Linear Analysis and design of Structures
- Retrofitting construction works.



Structural Integrity Assessment

SDEL has successfully completed Structural integrity assessment by Visual inspection of number of garments building at DEPZ, Ganakbari, Savar, Dhaka.

Urban Development Projects

SDEL has a good number of resource professionals working with different urban planning and climate change related projects such as:

- Preliminary landscape planning and master plan of Jhilmil project
- Conceptual drainage framework design for Jhilmil project
- Initial assessment for foundation design of multi-storied building for proposed Jhilmil project



Installation of Digital Security System

- Full-fledged digital security system was installed for clients:
- F18-ID ZKAccess fingerprint device was installed
- Office premises were covered in CCTV cameras
- Attendance management system was provided in a web UI format.



Extension Building Design-Well Dresses Ltd., Chittagong

Well Dresses Limited is a six storied concrete structured building. This structural system requires retrofitting civil and steel works. Total 99 column of the six storied building is being retrofitted as per clients supplied approved design by Alliance. The major tasks of the retrofitting works are as follows:

- 1 Architectural Design
- 2 Structural Design
- 3 Foundation Design
- 4 Design Report
- 5 Construction Supervision



Joint Research on Detail Engineering Assessment of PTI Building, Rangpur

As built drawing:

- Details structural as built drawing
- Four (4) side elevation with two (2) sectional view
- Load management and layout plan (if needed)

Testing for material strength

- Concrete core collection and testing (both destructive and non-destruction) for concrete strength.
- Foundation exploration and corresponding size investigation at least 3 locations (Corner, Edge, middle)
- Soil investigation report (Bore logged data at least two locations)

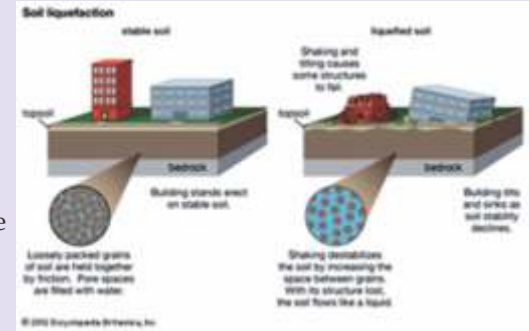
- Collection of existing Rebar and yield strength test
- Rebar-scanning in columns, beam and slab for detecting existing condition.
- Investigation of embedded pile length (if needed).

Testing of Masonry Building

- Direct shear test
- Mortar strength test
- Brick strength test.

Description of actual services provided:

- Design methodology & review of the reports
- Proper investigation on the area & produce the results and reports.



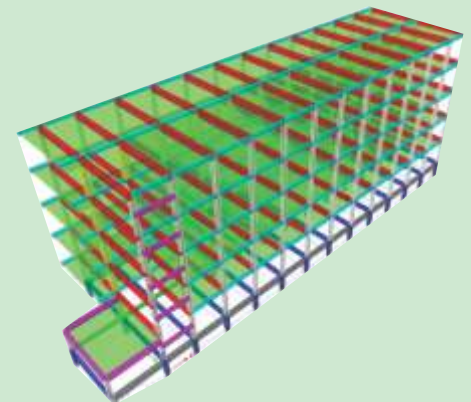
South China Bleaching & Dyeing Factory Limited

Retrofitting works of South China Bleaching and Dyeing Factory Buildings is a single storied main shed with mezzanine floor and a single storied boiler shed. Total 32 column and 31 rafter steel structure will be retrofitted.



Retrofitting Construction of Beautiful Jackets Ltd.

Detail Engineering Assessment (DEA) was conducted. A full 3D computer simulated model was generated for Finite Element Analysis using software and all the inputs along with the field data were given in the FEM model. A convenient retrofitting scheme was proposed to strengthen the over stressed members.



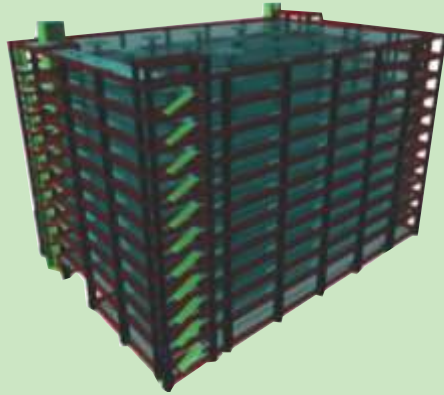
RMG Factory Building: Weaving Garments-2, Opex-Sinha Group Ltd.

Detail Engineering Assessment (DEA) was conducted for the WG-2 factory building of Beautiful Jackets Ltd. The actual condition of the whole building was analyzed as per BNBC 2006 and other international building codes. Certain number of columns and beams were found inadequate after the analysis.

For retrofitting of column and beam, concrete jacketing system was followed. In this method, size was increased and additional rebar was inserted to strengthen the existing section.

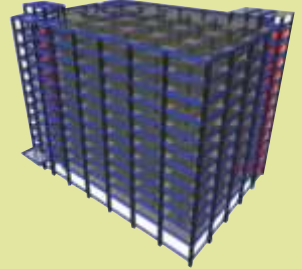
Detail Engineering Assessment of Opex Designers Limited (Weaving Garments -3).

- Concrete core collection and testing (both destructive and non-destruction) for concrete strength.
- • Foundation exploration and corresponding size investigation at least 3 locations (Corner, Edge, middle)
- Soil investigation report (Bore logged data at least two locations)
- Collection of existing Rebar and yield strength test
- Rebar-scanning in columns, beam and slab for detecting existing condition.
- Investigation of embedded pile length (if needed).



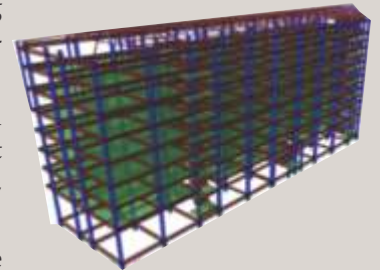
Detail Engineering Assessment of Sinha Denim Wear Limited (Weaving Garments-4)

- Concrete core collection and testing (both destructive and non-destruction) for concrete strength.
- Foundation exploration and corresponding size investigation at least 3 locations (Corner, Edge, middle)
- Soil investigation report (Bore logged data at least two locations)
- Collection of existing Rebar and yield strength test
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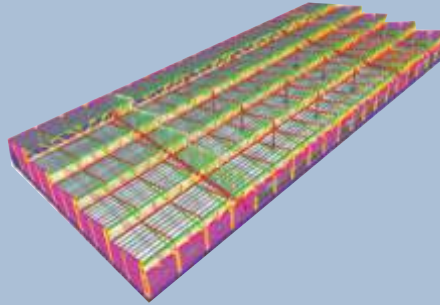
Detail Engineering Assessment of Security Building

- Concrete core collection and testing (both destructive and non-destruction) for concrete strength.
- Foundation exploration and corresponding size investigation at least 3 locations (Corner, Edge, middle)
- Soil investigation report (Bore logged data at least two locations)
- Collection of existing Rebar and yield strength test
- Rebar-scanning in columns, beam and slab for detecting existing condition.
- Investigation of embedded pile length (if needed).



Detail Engineering Assessment of Kwun Tong Apparel Limited

- Foundation exploration and corresponding size investigation at least 3 locations (Corner, Edge, middle)
- Soil investigation report (Bore logged data at least two locations)
- Collection of existing Rebar and yield strength test
- Complete numerical analysis using licensed software (SAP 2000) and reporting
- Retrofitting design (if needed), Optimization



Institutional Data Collection survey on Geo-Spatial Information in Bangladesh

- Jointly develop the questionnaire and list of stakeholders
- Conduct survey of relevant stakeholders - Support senior consultant for collecting data on decision making landscape study
- Compile the inventory into a database for submission
- Prepare a report



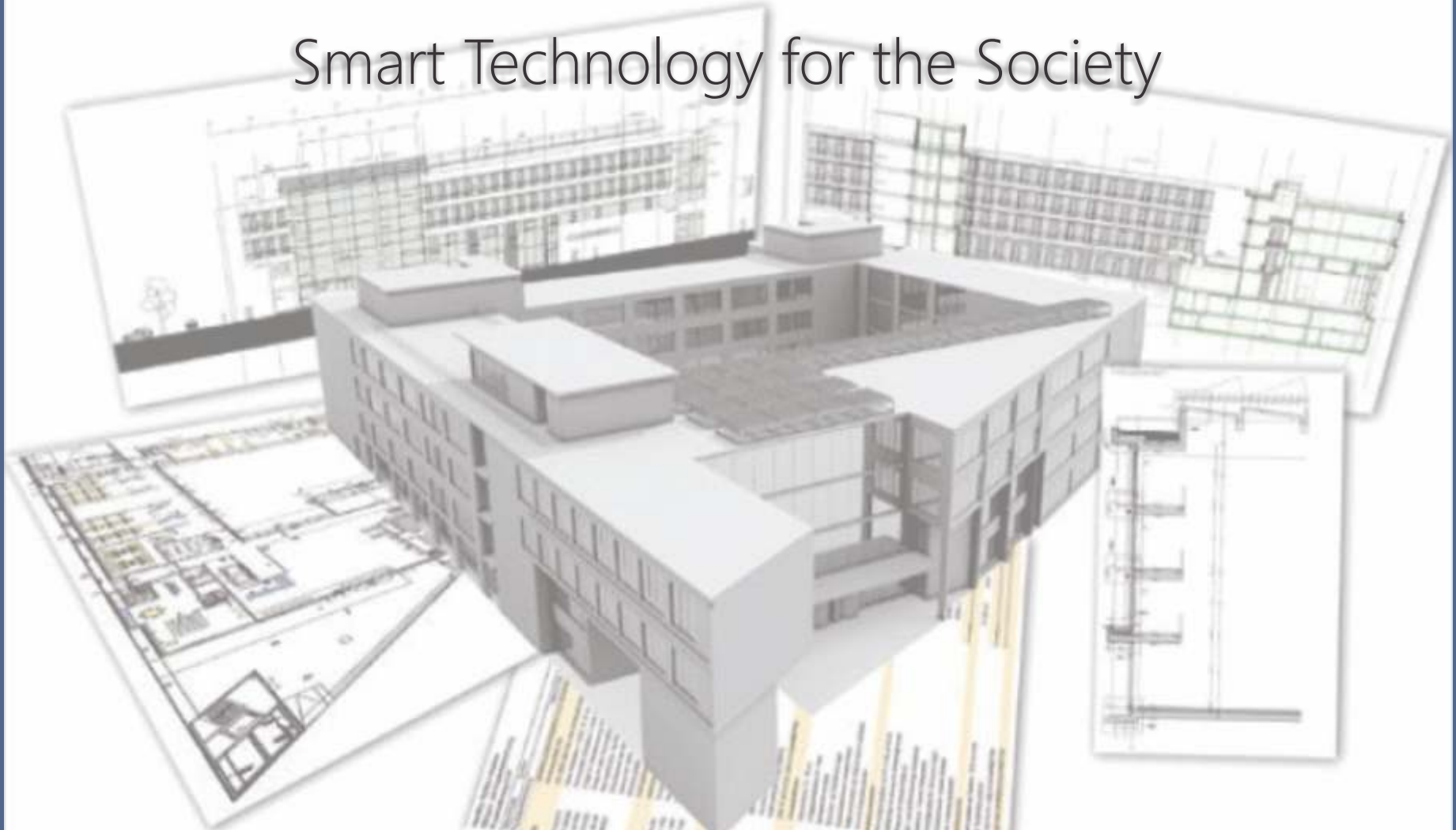
Installation of full Network Server System of Shathe Fashion Apparels and Knit Zone Mode



- System Design: developing programs for expense calculation, budget determination, and cost estimation and attendance management as per client requirements.
- Network Design Implementation: network design services for medium to large sized workplaces. Server and database setting up and management integrated with high-speed connectivity are ensured for the clients.



Smart Technology for the Society

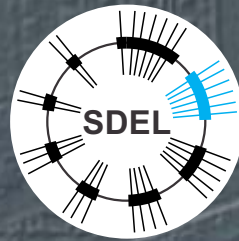


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