

**A
WRITE-UP
ON
DEVELOPMENT CONSULTANTS**

1.0 INTRODUCTION

Development Consultants Private Limited [DCPL] is an Indian Owned trans-national Consulting Engineering House rendering entire gamut of Project Engineering services, from concept to commissioning, for diverse core sector as well as speciality projects in India and abroad.

Having started its business as the Indian arm of renowned Consulting Engineers – *The Kuljian Corporation (TKC) of USA*, in 1950, *DCPL* has grown to an organizational strength of around 600 Technocrats in all pertinent fields of Engineering & Technology in its present name (DCPL) which was incorporated in 1970. It is accredited with **ISO- 9001** Certification since 1997, subsequently with **ISO 9001:2015** since 2017. Also DC is certified with **ISO 14001:2015** and **ISO 45001 : 2018** for HSE Management. Starting with Power Plant Engineering, its horizon expanded to a diverse range of industries namely Cement, Pulp & Paper, Chemicals, Petro-chemicals, Mining & Mineral Processing, Architecture, Environmental, Green Energy, Infrastructure Development, Management Consultancy etc.

DCPL has its Corporate Headquarters in Kolkata, India with Networks in Delhi, Mumbai, Chennai, Hyderabad and Liaison Office in Vadodara. DC Head Quarters together with its other Offices occupy a total office floor area slightly over 1,71,000 Sq.ft. To cater its Global Operation, DC Group has offices in USA & Hong Kong and has, till date, executed / being executed assignments in over Sixty-five(65) Countries across the world.

2.0 OFFICE LOCATIONS

Locations of The Headquarters, other Networks in India and Overseas Subsidiaries of DC Group of Companies are :

DEVELOPMENT CONSULTANTS

PRIVATE LIMITED [DCPL] :

REGISTERED OFFICE : **Development Consultants Private Limited**
Mr Pallav Mukherjee, Sr. Executive Director /
Mr Prabir Purkayastha, Executive Director

24, Park Street,
Kolkata - 700016, India
Phone: (91) 33 2226-7601/7604
2249-7603/05/09/10/12
Fax: (91) 33 2249-2340/2897/3338

CITY OFFICE : "Development Consultants House"
DG-4, Sector-II; Salt Lake, Kolkata – 700091
Phone: (91) 33 4012 5000 / 5300
Fax: (91) 33 4012-5089

Email: dcl@dclgroup.com
Website: www.dcpl.net.in

DCPL NETWORK IN INDIA

NEW DELHI : **Mr Ranjit Kr Das, In-charge**
House No. 8, Pocket 40 (40/8), Chittaranjan Park,
New Delhi-110019
Phone: (91) 011-4248-1914
Fax: (91) 011 4152-0536
Email: delhi.corporate@dclgroup.com

MUMBAI : **Ms. Amrita Banerjee, Director**
Apejay Commercial Complex – 4th Floor
Plot No. 87; Sector – 17; Vashi
New Mumbai - 400703
Phone: (91) 022 2789-2863/2978
Fax: (91) 022 2789-2933
Email: dclbom@dclgroup.com

CHENNAI : **Mr V Selvam, Sr. Manager, Admn. & Accounts**
"Hameed Building" Basement; 191, Anna Salai,
Chennai – 600006
Phone: (91) 044 2852-1476
Email: vselvam@in.dclgroup.com

HYDERABAD : **Mr L Govinda Raju, Chief Engineer (Civil)**
304 Diamond Block – 3rd Floor;
6-3-571/1 to 7, Rockdale Compound
Somajiguda, (Beside Vidyut Soudha)
Hyderabad – 500 082
Phone: (91) 040 4007-2518
Email: l.govindaraju@in.dclgroup.com

DCPL LIAISON OFFICE

VADODARA : **Mr R C Shah, Tech. Advisor & In-charge**
801-3, SIGNET HUB – 8th Floor; Near Akshar Chowk;
Old Padra Road; Vadodara – 390020
Phone: (91) 0265 6554404
Email: Rashmikant.shah@in.dclgroup.com

SUBSIDIARY COMPANY (OVERSEAS)

▶ **DEVELOPMENT CONSULTANTS
INTERNATIONAL LIMITED [DCIL]**
[INCORPORATED IN BAHAMAS]

EXECUTIVE OFFICE : **Ms Jasbir Sandhu, General Manager**
1609 HARCOURT HOUSE
39, GLOUCESTER ROAD
WANCHAI, HONG KONG
Phone: (852) 2877 0707
Fax: (852) 2802 2100
Email: dcilhk8@biznetvigator.com

AFFILIATE COMPANY

▶ **THE KULJIAN CORPORATION [TKC]**

REGISTERED OFFICE : **Mr Amit Gangulee, Exe. Vice President – Mktg.**
1880 JOHN F KENNEDY BOULEVARD (15TH FLR)
PHILADELPHIA, PA 19103, USA,
Phone: 001 215 243 1900/1956
Fax: 001 215 243 1909
Email: amit@kuljian.com

3.0 PRINCIPAL OFFICERS

Names and designations of Board Members of DCPL are given below :

Ms. Shanta Ghosh	:	Chairperson
Mr. Dip K Das	:	Director
Mr. Sandip Ghosh	:	Director
Mr. Jiban K Chaudhury	:	Director
Dr. Amar R Ghosal	:	Director
Ms. Amrita Banerjee	:	Director
Dr. Santi Pada Gon Chaudhuri	:	Director
Dr. Bhaskar Banerjee	:	Director
Mr. Dipta Sundar Mallick	:	Director

4.0 TRANS-NATIONAL SPREAD

DC has been in a continuous process of expanding its activity horizon presently spreading over Sixty-five(65) Countries across the world.

The Kuljian Corporation [TKC] of Philadelphia, a well-known name in Engineering Consultancy in United States, is an Affiliate Company of DC. Having been established in 1930s, TKC has a long legacy of engineering a large number of significant Industrial Projects mainly in Power Generation, Desalination and Transmission & Distribution sectors across the globe. DC enjoys the privilege of accessing their Data Bank, specific expertise and tapping their wealth of exposure to relevant state-of-the-art-technology.

5.0 DC'S AWARDS AND RECOGNITION WITH INTERNATIONAL BODIES

Development Consultants has been instrumental in large-scale transfer of Technical Expertise Worldwide. In recognition its Export Performance, it has won more than Twenty-two(22) consecutive Annual Export Excellence Awards from the “**Engineering Export Promotion Council**” (**EEPC**) of India. Its services have been recognized by the following International Financial Institutions / Multi-lateral Development Banks (MDBs) of the world :

- ★ International Bank for Reconstruction and Development [The World Bank]
- ★ Asian Development Bank [ADB]
- ★ Overseas Economic Co-operation Fund [OECF]
- ★ Japan Bank for International Co-operation [JBIC]
- ★ Japan International Co-operation Agency [JICA]
- ★ Islamic Development Bank [IDB]
- ★ Kuwait Fund for Arab Economic Development
- ★ African Development Bank [AFDB]
- ★ Arab Bank for Economic Development in Africa
- ★ Arab Fund for Economic and Social Development, Kuwait
- ★ Abu Dhabi Fund for Arab Economic Development
- ★ Ministry of Planning, Libya
- ★ United Nations Industrial Development Organization
- ★ World Health Organization [WHO]
- ★ DC is pre-qualified in U.A.E. with ADNOC; TAKREER; ESNAAD; BOROUGE; FERTIL; MUSANADA besides Emirates Nuclear Energy Corporation (ENEC).

Various other Government and Special Bodies in the Middle East, Africa and Latin America also consider DC, eligible to participate in their funded projects.

6.0 FIELDS OF EXPERTISE

- ★ Power Generation
 - Fossil Fuelled including Lignite
 - Gas Turbine-based
 - Nuclear
 - Solar / Renewable Energy (Biomass)
 - Diesel Engine based
- ★ Desalination
- ★ Power Transmission & Distribution
- ★ Refinery & Petrochemicals
- ★ Chemical & Process
- ★ Cement
- ★ Pulp & Paper
- ★ Material Handling
- ★ Mining & Mineral Beneficiation
- ★ Architecture & Town Planning
- ★ Air-conditioning & Ventilation
- ★ Industrial Utilities & Offsite
- ★ Environmental Engineering, Green Energy
- ★ Water Engineering
- ★ Drainage, Sewerage and Effluent Treatment

7.0 SERVICES RENDERED

DCPL renders services for the complete range of Project Engineering and other pertinent activities namely:

- ★ Pre-Investment Studies
- ★ Feasibility Studies, Project Reports, Detailed Project Reports
- ★ Environmental Studies
- ★ Raw Material Investigation
- ★ Planning, Scheduling & Monitoring
- ★ Site Selection
- ★ Conceptual Design
- ★ Systems Design
- ★ Preparation of Specifications, Bid Evaluation & Procurement Assistance
- ★ Vendors Design & Drawing Review
- ★ Detailed Engineering for EPC Contractors
- ★ Shop Inspection & Expediting
- ★ Construction Management & Site Supervision
- ★ Start-up & Commissioning Supervision
- ★ Energy Audit
- ★ Survey, Valuation & Take-over Assistance
- ★ Due Diligence Study
- ★ Power System Study
- ★ Lender's Independent Engineer

8.0 IT RESOURCES & DESIGN TOOLS

VIDEO CONFERENCING SYSTEM OVER IP.

	SOFTWARE	APPLICATION
A) MECHANICAL INCLUDING PIPING & HVAC SOFTWARE		
1	CAESAR II (Ver.2017)	Stress Analysis of Pipelines
2	KpipeSTRESS This Software consists of following components : CAEPIPE v7.80 CPTOPS PepS (PIPESTRESS+Edit Pipe v6.10)	Stress Analysis of Pipelines for Nuclear Piping
3	PIPEDATA PRO (Ver.10.0)	Piping Design Software
4	SS Pipe	3D Drafting Software for Piping
5	TRIFLEX	Stress Analysis of Pipelines
6	KORF	Line Hydraulic Check and Line Sizing, Pressure Drop Calculation for Liquid Vapour and 2 Phases Flow
7	TANK 2019 (Intergraph)	Welded Tank for Oil Storage
8	GATE CYCLE	Heat & Mass Balance
9	PIPENET/SPRAY/SPRINKLER v1.8 (Sunrise System)	Analysis of Flow in Pipe & Duct Network
10	SURGE2000	Transient System Analysis
11	WHAM	Transient System Analysis
12	CAMACON	Calculation of Conveyor Power & Tension by CEMA Method
13	AutoDesk (Arch. Engg & Construction Collection) 2019	AutoDesk AEC Collection (including P&ID,Revit,AutoCAD,Civil3D)
14	AutoDesk One AutoCAD	AutoDesk
15	ELITE (Ver.8.02.29) (Intergraph)	Heat Load Calculation (HVAC Software)
16	FRICDROP (in-house developed)	Pressure Drop in Pipeline carrying Water/ Steam

	SOFTWARE	APPLICATION
B) ELECTRICAL		
1	ETAP, Ver. 19 (300 Bus)	Load Flow, Short Circuit, Transient Stability, Relay Analysis, Motor Acceleration, Grounding Grid Design, Harmonic Analysis
2	CGLUX	Lighting Design (Vendor Specific Illumination Calculation)
3	CALCULUX	Lighting Design (Vendor Specific Illumination Calculation)
4	SUNLUX	Lighting Design (Vendor Specific Illumination Calculation)
5	DIALUX	Lighting Design (Vendor Specific Illumination Calculation)
6	SAFT	Ni-Cad Battery Sizing software
7	LVMOTCAB (In-house developed)	Cable Size selection for motor
8	Corona Loss Calculation (In-house developed)	Calculation of corona loss
9	Relay Coordination (In-house developed)	IDMT relay coordination
10	Bus Support Span Calculation (in-house developed)	Calculation of allowable support span for pipe bus
11	Battery Sizing Calculation (in-house developed)	Selection of Rating based on IEEE
12	Sag Tension Calculation (in-house developed)	Calculation of conductor sag
13	Substation Structure / Equipment Short Circuit Force Calculation (in-house developed)	Calculation of short circuit force as per IEC 865
14	Conductor sizing [Pipe Bus / Stranded Conductor] (in-house developed)	Calculation of Ampacity as per IEC & IEEE
15	Field Potential Calculation (in-house developed)	Calculation Electric & Magnetic Field
16	Substation Direct Stroke Lightning Protection (in-house developed)	Calculation of Protective Area using Rolling Sphere Method as per IEEE
C) CIVIL & STRUCTURAL, ARCHITECTURE AND INFRASTRUCTURE		
1	STAADPRO, Ver. connect edn. 3	Structural Analysis and Design
2	GEO-STUDIO	Analysis for Slope Stability, Seepage, Body Stress, Earth Quake and Contaminant Transport

	SOFTWARE	APPLICATION
3	SAP 2000, Ver.20	Structural Analysis
4	NISA, Ver.19	Structural Analysis Software
5	MX ROADS (Ver. 2.6)	Design of Road Geometry, Alignment and Profile Design , Qty. Estimate
6	HEADS-2000	Design of Road Geometry
7	STORM NET	Storm Water & Waste Water Modeling Software
8	ETABS (Ver.9.1.1)	Building Analysis and Design
9	SAFE (Ver. 8.0.7)	Slab Analysis (Flat Slab Raft)
10	SewerGEMS (Bentley)	Sewer Line Design
11	WaterGEMS (Bentley)	Solution of Distribution Network of Potable Water
12	AutoDesk Civil 3D 2019 (NLM)	AutoDesk Civil Design Suite
13	AutoDesk AEC (NLM)	AutoDesk Architecture Revit Suite & Building Design Suite
D) CEMENT & MINING		
1	RAWMIX (in-house developed)	Raw mix of cement design
2	Heat Balance Calculation (in-house developed)	Capacity Calculation
E) ENVIRO-PROTECTION		
1	ISC AERMOD VIEW	Dispersion modeling to predict ground level concentration of Air Pollutants due to emission from stationary sources
2	BREEZE INCIDENT ANALYST	Quantitative Risk Assessment
3	HAZOP MANAGER Ver.6.0	Hazard and Operability Studies
F) SOLAR POWER		
1	PVSYST V 5.5	Study, Sizing and Data Analysis of complete Photo-Voltaic (PV) System
G) PROJECT MANAGEMENT		
1	PRIMAVERA E&C, P6	Planning, Monitoring & Scheduling
2	MS PROJECT 2013	Planning, Monitoring & Scheduling

	SOFTWARE	APPLICATION
H) 3D MODELING & DRAFTING TOOLS		
1	INTERGRAPH PDS	3D Modeling Software
2	AVEVA PDMS	3D Modeling Software
3	AutoDesk AEC Collection	3D Modeling Software
4	BENTLEY MICRO STATION	Drafting Tool
5	CAD RC / STEEL 2018	Drafting Tool
6	AutoCAD Pl. follow Product List below :	Drafting Tool
a.	AutoDesk AutoCAD AEC 2019 (NLM)	Drafting Tool
b.	AutoDesk AutoCAD 2018 (NLM)	Drafting Tool
c.	AutoDesk AutoCAD 2019 (NLM)	Drafting Tool
d.	AutoDesk One AutoCAD (NLM)	Drafting Tool
g.	AutoDesk AutoCAD 2019 LT	Drafting Tool
h.	AutoDesk AutoCAD 2016 LT	Drafting Tool
i.	AutoDesk AutoCAD 2010 LT	Drafting Tool
j.	AutoDesk ARCHITECTURE REVIT SUITE 2012 (NLM)	Drafting Tool
I) SOFTWARE DEVELOPMENT		
1	VB; FORTRAN; C++; Dot-Net	Basic Compilers
2	ORACLE; MySql	Database Systems

Apart from that we have a host of In-house generated Software for various purposes.

9.0 DATA CENTRE

DC's Headquarters houses a Data Centre that is extensively used by its engineers located at its various design and site offices in India and abroad. The Centre operates an integrated system to collect, process and retrieve scientific and technical data, generated from multiple sources worldwide. For the purpose, the Data Centre maintains up-to-date data-base and files on country profile, product profile, industry profile, techno-economic data, commercial and marketing data etc., and a comprehensive inventory of available technology - domestic and foreign, pertaining to DC's diverse areas of activity.

The Data Centre possesses around 25,000 engineering products and Patent literature of more than 3000 Indian and Foreign manufacturers plus around 20,000 Codes, Specifications and Standards of Indian and Fifty-five international professional bodies. The Data Centre has got a rich collection of over 6000 reference books and it subscribes to over 300 Technical Magazines and Journals published worldwide.

Besides the conventional Library Services it also renders CAS, SDI, Bibliographical [on-line], Micro-graphic and Translation services and provides Information Packages according to users' needs.

10.0 ACHIEVEMENT PROFILE

<u>Fields of Services</u>	<u>Major Assignments Executed More Than</u>
Power Generation including Thermal, Nuclear, GT	375
Power Transmission & Distribution	152
Cement	175
Paper	125
Chemical	62
Refinery & Petrochemical	18
Mining & Mineral Beneficiation	75
Architecture	200
Environmental	160
Material Handling	70
Civil Infrastructure	68
Fertilizer [Primarily Utilities & Off-sites]	36

There are large number of assignments in other fields & technology, executed by DCPL but not specifically appearing in the above list.