

Profile:

More than **thirty six** (36) years of experience out of which **nine years of experience in teaching** in the field of Civil Engineering and twenty seven (27) years of **industrial experience in renowned consultancy firm named ATKINS, FICHTNER CONSULTING ENGINEERS LIMITED, M.N. Dastur & Company Limited.**

Started carrier as Government of India trainee in **M N Dastur & Company**, one of the premier Consulting Engineering organizations in Steel Plant Industry and promoted to **Deputy Chief Engineer** within a span of 19years.

In the year 2005 joined **BIRLA INSTITUTE OF TECHNOLOGY MESRA**, one of the best institutes in India, as a **Reader**.

In the year 2008 joined **ATKINS** as a **DESIGN MANAGER** for a very short period and in the year 2009 joined **FICHTNER** as a **Chief Engineer**, one of the premier Consulting Engineering organization in Power Plant Industry and promoted to **DEPUTY GENERAL MANAGER** within a period of three years.

In the year 2015 joined **National Institute of Technology-Arunachal Pradesh** as an Associate Professor. After serving the post of Head of the department currently hold the post of Dean (Planning & Development).

Key Experience:

Teaching:

Courses handled at undergraduate level: Design of Concrete Structure, Design of Steel structure, Analysis of structure, Estimation and costing etc.

Courses handled at postgraduate level: Pre-stressed concrete, Stability of structure etc.

Guided students for the preparation of thesis (at Master's Level).

Guided students for the preparation of STRUCTURAL model in the competition (organized by various industrial institutes like INSDAG etc).

Teaching the methodology for learning design software like STAAD-PRO, AUTOCAD etc.

Also helped Institute for getting the sanction of grant of 2 (two) crores from TEQIP fund and in other consultancy jobs like preparation of MIX DESIGN REPORT, GEO-TECHNICAL INVESTGATION REPORT as a Key Structural Engineer (Civil).

Co PI of the project "Experimental and numerical investigation on enhanced nitrate contamination in groundwater from wastewater applied agricultural field in the presence of colloidal particles" approved by SERB.

With the vast experience in industry the practical knowledge can be shared with the students.

Industrial:

Handled design work of various types of industrial and technological structures related to Steel, Power, Cement Plants, Marine, Oil & Gas conversant

with working in computerized environment and familiar with all Indian and International Standards (viz. BS).

Structural design & detailed engineering by 3D & FEM analysis using STAAD-Pro, cost & manpower estimation, preparation of bill of quantities and specifications, inter-disciplinary co-ordination, interaction with client and equipment suppliers, scrutiny of vendor drawings for different types of industrial and technological structures.

Conducting courses for the junior engineers for various branches of system like water retaining structure, coal handling system, ash handling system, power plant etc.

Structures planned, designed & reviewed:

Power Plant Structures:

Power House Building, Mill & Bunker bay, R.C. Chimney(65m and 78M High), RC Chimney (275m), R.C. Hopper, Administrative Building, Service Building, Electrical Substations and Switchyard, Transmission towers and Gantry Structures, Electrical Control Buildings, Pump houses, Repair Shops, Cooling Towers, TG Building etc. with piled & open foundations.

Technological Structures & Foundations:

Vertical Shaft Kiln for Lime Calcining Plant with Blower House, 500 TPD Rotary Kiln and Cooler with other technological structures for Sponge Iron Plant, Tunnel Kiln foundation for Dolomite Refractory Plant, Limestone & Iron Ore Crushing Building with R.C. Hopper and Conveyor Tunnel & galleries, Steel Melt Shop with BOF Converter & Mixer, Caster House, Cement mill foundation etc., Conveyor Gallery and Trestle Tower foundation for Coal Handling System, Ash Silo for Ash handling system etc.

Machine foundations – 10MW/25MW/36MW Turbo Generator Foundation, FD/ID/SA fan, Mill fan foundation, Boiler Feed Pumps, Blower, Crusher foundations with pile and open foundation.

Water Retaining Structures:

For Steel Plant: Cable Torq Thickener, Hydro-treator, Sedimentation Tank, Overhead Water Tank (with different capacity and staging height), On-ground Reservoir (with different capacity and staging height), Main Re-circulating Pump House etc.

For Power Plant: For-bay, Cooling Water Pump House, Raw water Pump House, Raw water reservoir, IDCT, NDCT, Pre-treatment plant for Cooling Water etc.

Marine Structures- Quay Wall, Crown Wall, Breakwater, Revetment etc.

Oil & gas sector - Extractor, Pipe rack, Equipment foundation

Overseas Assignment

Deputed as key **Design Engineer** in Tokyo, Japan and Manila, Philippines for the supervision the design and drawings for concrete structures related to CEMENT PLANT at Oman and Yemen.

Deputed as **Design Manager** in Epsom, United Kingdom for the preparation of Conceptual Design Report on Sabah Oil and Gas Terminal, Petronas, Malaysia.

Education:

| Examination passed | Year of passing | Class obtained | University / Institute |
|-----------------------------------------------------------------------------------------------------------------------|-----------------|--------------------------------|--------------------------------------------|
| Doctoral Degree Ph.D. (Civil Engineering) (research work pertaining to Structural Engineering) | 2001 | Awarded | Jadavpur University, West Bengal, India |
| B.E. (Civil Engineering) | 1986 | First class (Gold Medalist) | Jadavpur University, West Bengal, India |

Professional Affiliation: Membership of Professional Bodies

| | |
|---------------------------------------------|----------------------------------|
| 1. The Institution of Engineers, India | Grade-Fellow, Chartered Engineer |
| 2. American Society of Civil Engineers, USA | Grade-Member |

Personal achievement:

Recipient of University GOLD medal and S N Bando Gold Medal for securing first position in B.C.E.

Date of Birth:

19th January 1965

Nationality:

Indian

Employment Record:

- NATIONAL INSTITUTE OF TECHNOLOGY-Yupia, Arunachal Pradesh- Associate Professor**

PERIOD: December 2015 to till date

RESPONSIBILITIES

- **Dean (Planning and Development)**
- **Role as Head of the Department (2016-17)**
- **Member in Board of Governor**
- **Member in Senate**
- **Chairman, Construction Committee (2016-17)**
- **Chairman, Anti-ragging Committee**
- Deliver classes on Design of Concrete Structure, Design of steel structure, Analysis of structure
- Setting up laboratories for Structural analysis
- Consultancy work on Concrete Mix-design
- Consultancy work on proof checking for Bridge Design
- Consultancy work on design/drawing of various buildings from CPWD

2. FICHTNER CONSULTING ENGINEERS (INDIA) PRIVATE LIMITED – DEPUTY GENERAL MANAGER

PERIOD : March 2009 to November 2015

RESPONSIBILITIES

- **Role as Lead Engineer for the following projects:**
- 1X600 MW JPL Seoni Project - Main Plant Civil Works- Design of fan foundations, Boiler structure foundations, ESP foundations, Mill & Bunker bay structure foundation and Balance of Plant Civil works- Review of vendor drawings for CHS, AHS, WTP.
- 1X600MW TPCIL Project – Review of vendor design / drawing for External Coal handling System.
- 1X600MW NCCPPL Project – Review of vendor design / drawing for External Coal handling System.
- 1X33MW TPP ABCL, Palamau, Jharkhand - Design of TG Foundation and BFP foundation
- 2X270MW TPP GVK- Main Plant Civil works - Design of fan foundations, Boiler structure foundations, ESP foundations, Mill & Bunker bay structure foundation
- 2x270 MW Coal base Power Plant for Sunil Hi Tech Engineers Ltd near Village Bela, Nagpur, Maharashtra _ - Pre-bid engineering for Civil and structural work
- **Assisting for the following projects:**
- 2X250MW Sikka Thermal Power Project – Design engineering for Fore-bay, water channel and Raw Mill building foundation
- 3X18MW CPP KPC/PTMP- Preparation of BDR for Civil and structural works
- 2X250 MW Satpura Thermal Power Project - Review of vendor drawings for Fan foundations
- 1X600MW Rayalaseema Thermal Power Project, APGENCO - Design and detail engineering of Pipe rack for BOP
- 1X100MW Combined Cyclic Power Plant- Panduranga Energy system- Review of vendor drawings for GTG foundation, HRSG foundation etc.
- Petronas Rapid Project, Pegerang – Design of Foundation for Extractor, pipe rack, equipment etc.

3. W. S. ATKINS (INDIA) PRIVATE LIMITED - DESIGN MANAGER (CIVIL)

PERIOD : February 2009 – April 2008

RESPONSIBILITIES

- Sabah Oil and Gas Terminal, Malaysia:
- Preparation of Conceptual Design Report on Tank Foundation, Road and Drainage Layout, Existing

Design Calculation.

- Fort Jalali Revetment Project, Muscat, Oman
- Checking of design of Revetment Armor Height, filter, Crown Wall and wave heights
- Jumeriah World Inception
- Design of Quay Wall

4. BIRLA INSTITUTE OF TECHNOLOGY, MESRA , RANCHI - READER

PERIOD : April 2008 – December 2005

RESPONSIBILITIES

- Teaching subjects related to structural design and analysis at undergraduate and post-graduate level
- Consultancy project under the Institute banner for the following :
- Central Instrumentation Laboratory
- Lecture Hall Complex
- Polytechnic Institute at Bhaga, Dhanbad.
- Preparation of MIX-Design report
- Preparation of Geo-technical investigation report
- Guiding students for ME thesis.

5. M. N. DASTUR & COMPANY (P) LIMITED, CALCUTTA - DEPUTY CHIEF ENGINEER

PERIOD : December 2006- July 1986

RESPONSIBILITIES

- **Jindal Steel & Power Limited, Raigarh, India – 2X25 MW Captive Power Plant.**
- Design of Boiler Foundation, I.D. Fan foundation, 25MW T.G. Foundation and other structure and foundation in TG Building and checking of design and drawing for 78m High R.C. Chimney, structures for water system viz. DM Plant, Clarifier, Coal Handling System etc.
- **ARAB COMPANY FOR SPECIAL STEEL, CAIRO:**
- Design of pre-cast over-head water tank (355cu.m capacity) etc.
- **Qassim Cement Company – Production line no. 3, (4500 TPD) Saudi Arabia.**
- Supervision and checking of Design and drawings for Pre-heater Tower foundation, Kiln Foundation, Clinker Cooler Burner Platform, Cement Mill Building, Stacker / Reclaimer Track with Storage hall for Additive Gypsum, Iron Ore & Sand, Limestone etc.
- **Amran Cement Plant Expansion (3300 TPD), Yemen.**
- Design of foundations for Power Station and Main substation, Cement Mill Building, Explosive Storage

Building.etc.

- **Tata Steel, Jamshedpur, India. – Electrolytic Cleaning Line for CRM.**
- Design of ECR Building, Equipment foundations, Tunnels, Basement, pits for various equipment, W.B. Conveyor, Hydraulic & lubrication units and various Cleaning Tank.
- **Tata Sponge Iron Limited, Orissa, India. – Installation of 375tpd Rotary Kiln.**
- Design of Rotary Kiln & Cooler Foundations with other associated Building foundations, GCT & ESP foundations, Design of Foundations of structures for Raw Material Handling System etc.
- **Ispat Industries Limited, Dolvi, India – Lime Calcining Plant.**
- Design of Foundation for vertical shaft Kiln, Blower House, LDO Day Tank Foundation, Kiln Feed Building foundation including Skip Hoist foundation & Foundation for Winch Room, Junction Houses and Material Stockpiles..
- **Tata Refractories Limited, Belpahar, India – Expansion of Dolomite Brick Plant.**
- Design of foundation for 72m long Dolomite Tunnel Kiln & 180m long Silica Tunnel Kiln and Transfer Tracks.
- **West Bengal State Electricity Board – Restructuring of Power Transmission System.**
- Planning and approval of civil engineering design and drawings for Transformer Foundation, Switchyard Control Buildings, Tower Foundations and other foundations for various equipment inside switchyard and Over-Head Water Tank.
- **Bellary Steel & Alloys Limited, Karnataka - Steel Melt Shop.**
- Planning and approval of civil engineering design and drawings for Mixer Foundation, 50ton Converter Foundation, Metal & Sludge Transfer Track below Converter, Charging Platforms, Cable Tunnel, Building Foundations and other various structures inside the shop.
- **Stollberg India (P) Limited, Durgapore, West Bengal – 7500tpa Continuous Casting Granule Plant**
- Planning and approval of civil engineering design and drawings for structures like On-Ground & Overhead Water Tank, Pump House and Administrative Building etc.
- **Rourkela Steel Plant, Rourkela, Orissa,**
- Review / approval of vendor's design / drawing for various packages of civil items of Water Treatment Plant M. P Boiler Plant, Control Building.
- **Sunflag Iron and Steel Company, Bhandra, Nagpur**
- Design and preparation of drawings for various civil

items for Water Treatment Plant, Raw Material handling System, Nitrogen Plant, Electrical substation and Yard.

Certification:

I, the undersigned, certify that to the best of my knowledge and belief, these data correctly describe me, my qualifications, and my experience.

A handwritten signature in black ink, appearing to read 'Mainak Mallik', written over a horizontal line.

Date: 14.04.20

MAINAK MALLIK