CURRICULUM VITAE

HOP's ENGINEER: ELECTRICAL–INSTRUMENTATION & CONTROL (EI&C)

NAME:	**BIPLAB SEN**
SUMMARY:	Graduate engineer with broad (15 yrs. +) experience in **Proposal, Engineering, Installation & Commissioning** of different types of water treatment projects and wastewater projects. Ultra-filtration (UF), **Desalination (SWRO + BWRO)**, sewage treatment (MBBR & SBR based), effluent treatment (ETP), tertiary treatment (TTP-RO), zero liquid discharge (ZLD – UF –RO Based), Demineralization (CATION + ANION), etc.
SKILLS:	➢ Proposal & Estimation ➢ Design & Engineering ➢ Procurement & Negotiation ➢ Construction & Commissioning ➢ Project Management (Leadership) ➢ Relationship and Team Building
DUTIES & RESPONSIBILITYS SIDEM – VEOLIA :	➢ 150 MIGD Desalination (SWRO) projects (**Project Value 792 Million USD**) Instrumentation & Control**.** ➢ Preparation of Instrument list, Test Pack ➢ QC review upon receipt of I&C equipment ➢ Instrumentation & Marshalling Boxes location drawing ➢ Preparation of Installation and commissioning documents for I&C ➢ Inspection and Quality check of I&C. ➢ DCS (22 numbers ovation controllers)System with Network & Server Architecture ➢ ESD System for High Pressure Pumps operation. ➢ DMZ cyber security for Plant automation, PASS & Enterprise IT System. ➢ Water Metering System (OMNI Flow Computer) ➢ IP Camera, NVR for surveillance of the entire Plant. ➢ 11 KV MV VFD (Rockwell) – 80 numbers used for this project. ➢ Different types of online Analyser panels applicable for Desalination projects.
DUTIES & RESPONSIBILITYS IN QUALITY INTERNATIONAL :	➢ Develop and maintain the engineering standards and design best practices. ➢ Develop and review material take-offs and data sheets for EI&C equipment. ➢ Review and evaluate the capabilities of vendors and contractors to determine their acceptability to perform major services. Act as the department representative in dealings with vendors and manufacturers. ➢ Evaluate the techno commercial offer & finalization of the E&I vendors. ➢ Perform cost analyses and value engineering studies as appropriate. ➢ Undertake special assignments requiring extensive technical experience and discretion when dealing with outside organizations. ➢ Provide expert advice and assistance to the vendors and manufacturers on EI&C engineering matters. ➢ Preparation of Method statement. ➢ Develop and review the L-3 schedule for engineering, procurement and installation activities. ➢ Review daily, weekly progress reports.

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	➢ Preparation of chronology for change order for additional project items. ➢ Inspect EI&C equipment installations in the field (Module yard & job site). ➢ Work on or with task forces assigned to investigate incidents or solve specific problems. ➢ Conduct meetings/seminars in the resolution of technical problems with personnel from client/vendor/sub agency. ➢ Electrical heat tracing (EHT) installation. ➢ Review of project completion documents (e.g. OSD, NCR, GRN, DO, ITR etc.) ➢ Review the red mark-up drawings. ➢ Module wise reconciliation of EI&C and EHT items. ➢ Working like a professional mentor to less senior specialists and engineers.
TYPE – A - EXPERIENCE IN PROPOSAL & ESTIMATION:	➢ Understanding the proposed project requirement from the tender specification and commercial terms & conditions. ➢ Originate and carry out engineering studies to determine potential problems and remedies to existing problems, resolve complex technical problems, and review tender data sheets for EI&C. ➢ Preparation of clarification/deviation/pre bid queries documents. ➢ Preparation of techno-commercial proposal (EI&C). ➢ Presence on technical meetings with client/consultant personnel. ➢ Value added ideas imposing on projects. ➢ Close coordination with the sales & marketing team to win the tender. ➢ Preparation of PID and drawings & documents for Bid (tender) submission. ➢ L-3 Schedule for Engineering, Procurement, Installation & Commissioning. ➢ Basic Knowledge of Primavera (P6) for project schedule.
TYPE – B - EXPERIENCE IN ENGINEERING & DESIGN:	**Develop, review and maintain the engineering standards (IEC, IEEE & NEC) and design best practices (Proficient) of the below mentioned drawings & documents: -** ➢ Single line diagram (SLD): MV (11 & 6.6 KV), LV & lighting system. ➢ Layout – cable trays (power, control & instrumentation), illumination system, earthing, lightning protection, instrument air etc. ➢ Schematic Feeder drawings for MCC feeder, LPBS, local starter panel. etc. ➢ Cable sizing calculations, – MV & LV power cable selection method. ➢ Cable schedule – MV, LV, control & lighting. ➢ Cable gland schedule - MV, LV, control, instrumentation & lighting. ➢ Selection of electrical panels MV, PCC, PMCC, MCC, VFD etc. ➢ GA drawings – MV panel, PCC, PMCC, MCC, VFD, PLC/DCS, UPS, MLDB, battery charger. ➢ Transformer sizing calculation & selection method. ➢ UPS sizing calculation & selection method. ➢ Lightning protection calculations. ➢ Earthing calculation. ➢ Main bus bar sizing calculation for MV & LV panels. ➢ Heat dissipation calculation for electrical panel, UPS & VFD panel. ➢ Data sheet – transformer, motor, cable, cable tray, earthing material, LPBS, VFD, UPS etc. ➢ Bulk material take-offs (MTO/BOQ). ➢ **PID (process & instrumentation diagram).** ➢ Instrument index. ➢ Interlock details.

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	➢ Technical data sheets for field Instruments (Gauges & Transmitters). ➢ Instrument wire and cable (Conductive type) Selection to minimize electrical interference (EMI). ➢ Grouping of Instrument cables and cable schedule. ➢ Junction box schedule. ➢ Instrument hook-up drawings. ➢ Cause & Effect Diagrams. ➢ I/O List with Alarm / Trip / Parameter Settings. ➢ System OVERVIEW Drawings / Block Diagrams. ➢ Architecture of Process Control System, GA, Power distribution and earthing. ➢ Selection of PLC & SCADA system (SIL verification) with communication protocol (MODBUS RTU / TCP IP & Ethernet TCP/IP). ➢ Selection of communication (Serial, Ethernet & Fiber-optic) cable, like RS 232, RS 485, Cat 5/6 or Single mode/Multi mode. ➢ Knowledge of Safety Instrumented System (SIS), Logic solver, F&G, Anti-Surge control, Bently Nevada (BN) rack and Package PLC system network. ➢ Control philosophy & Logic Narratives. ➢ Technical data sheet for PLC/DCS. ➢ Participate in FATs & SAT of I&C packages. ➢ Instrument air distribution drawings.
TYPE – C - EXPERIENCE IN INSTALLATION AND COMMISSIONING:	➢ Develop and review EI&C material preservation procedure. ➢ Develop and review the installation procedure for all major items. Like, MV & LV Panels, transformer, PLC/DCS, VFD panels, and cable trays. ➢ Develop and review power, control & instrumentation cable pulling procedure. ➢ Originate and carry out Insulation check format for transformers, panels & power cables. ➢ Originate and carry out earthing Resistance parameter & report. ➢ Originate and carry out motor no load testing procedure & report. ➢ MV, LV, PLC Panels Power ON procedure. ➢ Loop Checking from PLC/DCS to field equipment. ➢ Preparation of calibration procedure for field instruments. ➢ Testing of transformer, electrical panels (MV&LV), vfd, plc/dcs, ups etc. ➢ Control valve stock checking. ➢ Troubleshoot complex instrumentation and control system issues in operational facilities. ➢ Participate in SATs of EI&C packages.
SOFTWARE:	➢ ETAP PS ➢ SPI INTOOLS ➢ AutoCAD ➢ DIALux ➢ SAP B1 ➢ Primavera P6
ESSENTIAL SKILLS:	➢ Familiar with design, maintenance and operation of SIS (Safety Instrumented Systems). Also be competent with safety standards (IEC 61507/61511), ATEC Standards and Instrumentation Design Standards (IEC 70079-14). ➢ Familiar with BS7671 ➢ NEMA VE2 ➢ NEC 2014

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EDUCATION:

Graduate Engineer – Telecommunication (B.E)

Duration : 4 Years (2001 – 2005)

Year of passing : 2005

Institute : Atria Institute of Technology (Bangalore) – INDIA

University : Visvesvaraya Technological University (VTU) - INDIA

OUR FEW CUSTOMERS :

GLOBAL CLIENT / CONSULTANT	DOMESTIC CLIENT / CONSULTANT
☞ MCD & CB&I – USA ☞ SHELL ☞ KBR – USA ☞ BASF - USA ☞ FLUOR ☞ BECHTEL ☞ PETROFAC ☞ JACOBS ☞ TOYO ENGINEERING ...ETC ☞ TECHNIP ☞ TOTAL – USA ☞ MOTT MACDONALD ☞ YINSON (NORWAY) ☞ ENTROPIE/VEOLIA (FRANCE)	☞ DUBAI WATER AND ELECTRICITY (DEWA) ☞ (SEWA) – UAE ☞ FEWA ☞ ILF CONSULTING ☞ ADNOC ☞ ONGC ☞ INDIAN OIL ☞ EIL ☞ SAUDI ARAMCO ☞ KUWAIT NATIONAL PETROLIUM

EMPLOYERS DETAILS :

Total work experience **15 years 01 Month.**

2020 - Present **Position** Type of Experience	**: SIDEM – VEOLIA - UAE** **:** HOP's – E&I - Engineer : C
2018 - 2020 **Position** Type of Experience	**: QUALITY INTERNATIONAL FZC – UAE** **:** MANAGER – E&I : A + B + C
2015 - 2018 **Position** Type of Experience	**: AQUALYNG – INDIA** **:** Dy. MANAGER : A + B
2011 - 2015 **Position** Type of Experience	**: THERMAX LTD – INDIA** **:** Sr. ENGINEER : A + B + C
2008 - 2011 **Position** Type of Experience	**:RAMKY INFRASTRUCTURE LTD - INDIA** **:** Sr. ENGINEER : A + B + C
2006 – 2008 **Position** Type of Experience	**: VATECH WABAG LTD – EPC - INDIA** **:** ENGINEER : C

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DESALINATION – SWRO PROJECT:

SIDEM - VEOLIA: 2020 T0 TILL DATE	
Customer Name	**NAQAA DESALINATION PLANT – FEWA & ACWA POWER JV**
Project Value	792 Million USD
Project Location	UMM AL QUWAIN, UAE
Project Name	150 MIGD DESALINATION (SWRO) PROJECT
Project Capacity	50 MIGD X 3 STREAM

REVERSE OSMOSIS **(RO)** PROJECT DETAILS :

AQUALYNG: 2015 T0 2018	
Customer Name	**NIRMA LIMITED**
Consultant Name	AVANT-GARDE ENGINEERS AND CONSULTANTS (P) LTD.
Project Location	KALATALAV VILLAGE, BHAV NAGAR DISTRICT, GUJARAT STATE, INDIA
Project Name	SEAWATER DESALINATION PLANT
Project Size	Feed Flow – 5 X 535 M3/hr. SWRO Permeate Flow - 5 X 214 M3/hr. SWRO

	Recovery 40%.
Plant Specification	TDS – 51332 mg/l. @ 20-40 deg. C.
Number of SWRO unit	5 Working

Customer Name	**THANE MUNICIPAL CORPORATION**
Project Location	THANE, MUMBAI, INDIA
Project Name	20 MLD SEA WATER DESALINATION PLANT
Project Size	Permeate Flow - 278 M3/hr. SWRO Recovery 45%.
Plant Specification	TDS – 42000 mg/l. @ 22-34 deg. C.
Number of SWRO unit	4 (3 Working + 1 Standby)

Customer Name	**SEWA – LAYYAH POWER STATION**
Consultant Name	IFL - ABUDHABI
Project Location	SHARJAH – UAE.
Project Name	5 MIGD – SWRO PLANT

THERMAX LTD – 2011 T0 2015	
Customer Name	**KWPCL**
Consultant Name	FICHTNER - CHENNAI
Project Location	RAIGARH - INDIA
Project Name	160 M3 / HR – (UF-RO-MB) for 600 MW THERMAL POWER PLANT.

Customer Name	**BHARAT PETROLEUM**
Consultant Name	ENGINEERS INDIA LIMITED
Project Location	KERALA - INDIA

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Project Name	1200 M3 / HR – (UF-RO-MB) for 660 MW THERMAL POWER PLANT.

VATECH WABAG – 2006 TO 2008	
Customer Name	**INDIAN OIL CORPORATION LTD**
Consultant Name	ENGINEERS INDIA LIMITED
Project Location	PANIPATH - INDIA
Project Name	1200 M3 / HR – **REVERSE OSMOSIS BASED TERTIARY TREATMENT PLANT (TTP –RO) – EPCC 04**

Customer Name	**INDIAN OIL CORPORATION LTD**
Consultant Name	ENGINEERS INDIA LIMITED
Project Location	PANIPAT - INDIA
Project Name	950 M3 / HR – **REVERSE OSMOSIS BASED DM PLANT (UF –RO DM) – EPCC 06**

PERSONAL DETAILS:

- Pass Port No. : P8742426 – expiry ON 16th March 2027
- Visa Status : Resident type
- Date of Birth : 06th JAN 1982
- Sex : Male
- Behavior : Versatile, Soft spoken, Positive motivation.
- Marital Status : Married
- Location : Sharjah (UAE) – Presently.
- Nationality : Indian
- Religion : Hindu
- Nature : Knowledge sharing, Learning, Accept new technology.
- Hobby : Listening news, songs, motivational speech etc.
- Mobile : (+917) 581593371 & (+91) 9932149094
- Email : sen.bubai@gmail.com / biplab_burdwan@rediffmail.com

❒ I hereby declare that the information furnished above is true to the best of my knowledge.

(BIPLAB SEN)