



## **EMBEDDED AUTOMATION TECHNOLOGY (INDIA) PVT. LTD.**

**(An ISO 9001:2015 Certified Company)**

**[WWW.EMBEDDEDAUTOMATION.IN](http://WWW.EMBEDDEDAUTOMATION.IN)**

**REGISTERED OFFICE:  
PLOT No. 167-B,  
1<sup>ST</sup>FLOOR, FOREST PARK,  
BHUBANESWAR-751009  
(ODISHA)**

**BRANCH OFFICE :  
FLAT NO 208,  
2<sup>ND</sup> FLOOR, AKASHDEEP PLAZA,  
GOLMURI  
JAMSHEDPUR – 831003  
(JHARKHAND)**



## Introduction

---

EMBEDDED AUTOMATION TECHNOLOGY (INDIA) PRIVATE LIMITED started with a vision of being professionally managed, knowledge based, innovative and committed to total customer satisfaction Company.

Our mission is to deliver consistently best-of-breed and to be a fully committed best business partner for its customers in the field of EPC and Totally Integrated Automation. We can take up Engineering, Procurement, Construction & Commissioning assignments for the projects in the domain of Electrical, Instrumentation and Automation in any of the following:

- Steel Plants
- Power Plants
- Oil & Gas Plants
- Reheating Furnaces
- Waste Water Treatment
- Effluent Treatment System
- Sewage Treatment Plant
- Electrical Sub-Stations & Substation Automation Systems
- Electrical Distribution lines
- Utilities for BPP Areas.

We have accomplished the unique status of Industrial Automation Software solution and service provider serving various verticals. In collaboration with various partners it offers solutions for a broad spectrum of needs for manufacturing industry. We are experts at leveraging information systems to solve manufacturing and Process Business issues.



## Engineering, Procurement, Construction & Commissioning Services

---

We provide multidiscipline Design, Engineering, Procurement, Construction & commissioning service to the industry with the highest level of precision, total commitment to project schedule and at optimum cost. Therefore, from the very inception emphasis has been given in building a set-up consistent with modern engineering practices and update the knowledge base through Internet, technical interaction with the industry circle and reference to technical magazines/books. Maximum usage of software for Electrical and Instrumentation design drawing, project management etc. is encouraged within the organization.

The experience of the core team is predominantly in Electrical, Instrumentation and Automation Design of Steel Industries in the areas like Blast Furnaces, Sinter Plant, Coke Oven, Rolling Mill and utilities in the areas like WTP, ETP, STP, RCPH, PRS, and Compressed Air System etc. Also, our core team member have wide experience in Power plants, Oil & Gas , Industrial Electronics and Manufacturing Execution System design for the process industries like Foundry, Forging and Reheating Furnaces.

Our team members have been involved in engineering and design of process industries installed in India in the 80's and have, therefore, been able to absorb the new technology associated with the development. The core team members have worked for many steel plant projects either as a consultant to the project developer or as the engineer for a EPC company implementing the project.



## Engineering, Procurement, Construction & Commissioning Services

---

Embedded Automation has been well at ease in each type of assignment be it a feasibility study, preparation of plant specification, optimization studies or layout development and in all steel plant capacities ranging from a 0.3 MTPA to 2.3 MTPA. The expertise in Steel Plant and Oil & Gas domain has helped Embedded Automation prove its excellence in the Utility Engineering such as Water Treatment Plant, Process Piping, Electrical Sub-Stations, Power Distribution and Substation Automation System etc.

We can take up Engineering, Procurement, Commissioning assignments for the projects in the domain of Electrical, Mechanical Instrumentation and Automation in any of the following fields:

- Steel Plants
- Power Plants
- Oil & Gas Plants
- 33 kV/11kV/0.4kV Distribution Line/ Substation
- Reheating Furnaces
- Waste Water Treatment
- Effluent Treatment System
- Sewage Treatment Plant
- Electrical Substation & Substation Automation
- Utilities of BPP Areas



# Scope of Work

---

- ❖ Preparation of Feasibility & Detailed Project Reports
- ❖ Preparation of Basic Concepts of Systems, Plant Layout, Design Philosophies, Detailed Design, Layout, Finalization of System/Equipment Parameters
- ❖ Procurement Specifications, Bill of Quantities
- ❖ Technical & Commercial Evaluation of Bids
  - Administration of Contracts, Review & Approval of Vendor Documents
  - Inspection and Quality Audit
  - Preparation & Monitoring of Project Schedules
- ❖ Supervision of Erection & Commissioning of Electrical, Instrumentation and Automation system
- ❖ Design and Engineering of complete Electrical, Instrumentation and Automation system of the plant
- ❖ Procurement, Construction & Commissioning services of Electrical, Instrumentation and Automation system for complete plant in the field of STEEL, POWER, OIL & GAS and OEM.
- ❖ These are categorized as under:
  - Electrical
  - Instruments
  - HVAC
  - Operation and Maintenance Services
  - Fire Protection & Fire Alarm System
  - Renewable Energy



## Scope of Work *Electrical*

---

- 33/11/0.4 KV Substation / Distribution Lines
- Power Transformers
- DG Set
- HT & LT Motors
- Soft Starters
- Variable Frequency Drives
- HT Panels (33kV, 11kV, 3.3 kV)
- LT Panels (PCC, MCC, PMCC)
- HT Cables & Conductors
- LT Cables & Conductors (Power & Control)
- Cable Tray
- Battery & Battery Charger
- UPS
- Lighting Transformer & Distribution Transformer
- Lighting DBs (LDB, MLDB, ELDB)
- Lighting Fixtures
- High Mast
- LED Lights (Street Lights, domestic Lights)

We are Executing following HT/LT activities in many state Govt. agencies as well as PSU

- Turnkey execution of switchyard/substation for 11kv and 33 KV
- Overhead transmission lines up to 33kv
- Supplying, installation, testing and commissioning of Transformers, HT Panels, DG sets, LT Panels, Bus ducts, AMF Panels
- Supply and installation of rising main, cable trays, raceways for internal and external electrification
- Supply, installation, testing & commissioning of Industrial lighting/street lighting /pathway lighting works
- Supply, installation, testing and commissioning of HT/LT cables , earthing systems





## Scope of Work *Instruments & HVAC*

### Instruments

- Transmitters/monitors/meters/analyzers for the measurement of pressure level, flow, temperature, speed, vibration, weight, density, turbidity, PH and Conductivity
- Gauges for pressure, temperature and level
- Switches for pressure, temperature, flow, vibration, level, speed and distance
- Flow elements (venture, orifice, pilot tubes and annubars) and Control/On-Off valves
- Humidity analyzers (RH and Dew point type), moisture analyzers (nucleonic and infrared type), opacity meters, dust monitors, temperature elements, dampers, flame scanners, temperature scanners, hot metal immersion lances, sludge concentration monitor, sludge bed monitor, pyrometers, CO monitoring system, gas analyzers, Waste Gas monitoring system
- CCTV, PA system, FDA, telephones and radio communication systems
- Special instruments like encoders, sonic detectors, radar stock line detector, burden probe analyzer, profile meters and amanoscope (furnace camera)

### HVAC

including installation, commissioning, building WOF inspections, mainOur service can be as comprehensive as you require. We can provide a total HVAC solution tenance and repairs, or you can use us for one or a specific combination of services

- ✓ We have the experience and expertise to successfully complete all types of **Commercial and Industrial projects**
- ✓ Installation, testing and commissioning of HVAC System. Which includes, Central Chiller Plants; VRF Air-conditioning Systems; Precision Air-conditioning Systems; Packaged Air-conditioning Systems (both Air & Water Cooled); Ducted-Split AC Systems; Window & Split Air-conditioners.
- ✓ The complete ducting work
- ✓ The complete piping work
- ✓ The Installation and commissioning of Pumps



## Scope of Work

---

### Operation & Maintenance Services

- The Service Department caters for :
  - I. Multi floor office buildings
  - II. Commercial offices
  - III. Industries

The company operates a team of Service Technicians that are fully qualified and experienced in all facets of their field.

- We provide total Maintenance & Repair Services for :
  - I. Air Conditioning
  - II. Refrigeration
  - III. Heating
  - IV. Ventilation
  - V. Maintenance and repairs to a variety of facilities, ranging from landmark buildings with central plant and full time presence on site to smaller installation of all types.
  - VI. We offer **24 hour/7 days a week** service with response being immediate, depending on the nature of the call.
  - VII. Repairs (service call charge)
  - VIII. Maintenance (obligation free quotes)

### FDA and Fire Protection Systems

In our commitment to provide quality service to our client, We are providing the installation, testing & commissioning of following Services under our Fire Fighting and Fire alarm Systems Section.

- Water based Hydrant Systems
- Water based Sprinkler Systems
- Pump room installation
- Conventional Detection Systems
- Intelligent Addressable Systems
- Public Address System





## Scope of Work **Renewable Energy**

---

We have significant expertise in Design, Engineering, Integration & Installation of a broad range of solar thermal & solar photovoltaic systems using the latest technology and practices.

We aim to become a leading company in distributed solar space and contribute towards building an eco-friendly environment. We ensure that we deliver tailor-made solar technology solutions to fulfill the energy requirements of all our customers.

Our products are designed as per the guidelines of Ministry of New & Renewable Energy (MNRE), Govt. of India, and come with quality assurance & warranty.

- **Customer Satisfaction:** We aim at delivering innovative solar solutions to help customer fulfill specific requirements. We aim to be known as one of the leading customer centric solar firms in East Region.
- **Trust and Quality Promise:** We give equal importance to every customer and deliver the highest standards of integrity at all levels of business.
- **Pledge to the Environment:** Solar energy is environment friendly and our endeavor is to promote the benefits of the solar energy and maintain our eco-environment.
- **Unmatched Quality:** We give high importance to quality and this is attained with the help of pre-defined parameters for all solar energy related products/services. We follow these processes and methodologies promptly and closely all throughout the various levels of business.

We offer Solar power plant both On Grid & Off-Grid, Solar Water Heater & Solar water Pumping System solutions for captive requirements. Our team has vast experience & knowledge in setting up:

1. Solar PV Power Plant ranging up to Mega Watt project for captive (in-house) consumption as well as Solar Farm developers under various schemes.
2. Solar Water Heating project ranging from 100 LPD to 100000 LPD with a temperature ranging from 60 to 80 degree depending upon client's requirement.
3. Solar Submersible & Surface Pumping System both AC & DC ranging from 0.5 HP to 10 HP.



## Scope of Work *Industrial, Automation Electronics Repairs & Spares*

---

Fully equipped to repair all makes and models of industrial automation components.

- **PLC-** We provide a service of high-quality, cost-effective repairs for an extensive range of products including: Interface Modules, Communication Modules, I/O Modules, Processors, Power Supplies and complete PLC racks. Our extensive stock of PLCs covers a range of different manufacturers including Siemens S5, S7, ABB, GE Fanuc, GEM80, Omron and many more...
- **AC Drives and DC Drives** - We provide repair of AC variable speed Drives from 0.37kw up to 500kw and above. We also provide repair of DC Drives from 0.5kw to over 300kw. We have the capabilities to repair all types of industrial drives including:
  - AC & DC DRIVES
  - SERVO DRIVES
  - SPINDLE DRIVES
  - STEPPER DRIVES
- **Process Control Instruments** - All makes of instruments like Temperature, pressure, flow, humidity level controllers are all fully tested.
- **PCBs** - Our experienced engineers have tried and tested methods to repair your PCB. We can reverse engineer your PCB and check the functionality of your components. We provide repair of PCBs that are single sided, double sided and multilayer. With the latest rework equipment we cater for through hole and surface mount technologies
- **PSUs** - We have the skills and experience to resolve your problem whether your unit is a switch mode, linear, regenerative, single output, multi-rail, uninterruptible or a phase sensitive power supply. Whether your item is old or new, we can load test via a dynamic loading system to guarantee your PSU is working .
- **Relay Repairing-**
  - Any type of Relay ranging from Electromechanical to Numerical including configuration of Numerical Relays
  - Any MAKE OF Relay viz: AREVA, ALSTHOM, SCHNEIDER, BB, SIEMENS, GE Multilin, C&S, Easun Reyrolle, ASHIDA, ALIND, ANDREW YULE, JVS, SCHLUMBEGGER etc.
  - Any Application, Protection of Feeder, Transformer, Generator, Motor, Bus Bar etc.



# JV Partners

---

Embedded Automation Technology (I) Pvt Ltd, has ventured with various organization to provide prominent execution of projects, robust service and satisfy customer needs in different verticals.

**RedBis Corporation,** is a venture which is collaborated with Embedded Automation Pvt Ltd for support of activities in African continent. It is one of the emerging merchant exporters and project management professionals based in Odisha, India. Focused on electrical projects- (transmission, substation and distribution), automobile rubber components and industrial - cutting tools and other wide range of product categories.

**Shree Radhe Krishna Electricals,** is a venture collaborated with Embedded Automation Technology (I) Pvt. Ltd, with mission to provide services in HT and LT electrical projects including transmission and distribution up to 33kV class, across the country



# Track Record

With a successful track record of serving the most demanding needs and focused to provide solutions to exceed the expectation of the customers.

Following are the key customer we have served:

S.No	Project	Client	End User
1	Erection & Commissioning of Electrical & Instrumentation	PUNJ LLOYED LIMITED	IOCL, Paradip Refinery
2	Erection & Commissioning of Electrics and Instrumentation	KSS(Kazakhstan's KazStroy Service)	IOCL, Paradip Refinery
3	Annual Maintenance Contract for Fire & Toxic Gas Detectors	IOT Infrastructure & Energy Services Ltd	IOCL, Paradip Refinery
4	Annual Maintenance Contract for HVAC System	IOT Infrastructure & Energy Services Ltd .	IOCL, Paradip Refinery
5	Complete Electrical Work	ITD Cementation India Limited	IOCL, Paradip Refinery
6	Metallurgical Process Model for Hot metal Desulphurization Plant Level II automation System	SIEMENS LIMITED	VIZAG STEEL PLANT
7	Visualization System Development , Installation and Commissioning of Level II SCADA System	Wondersys Automation	MRF Chennai
8	Visualization System Development , Installation and Commissioning of Level II SCADA System	Wondersys Automation	NESTLE INDIA
9	Level I Automation System	ARDEE TECHNOLOGIES	TATA STEEL Ltd



# Track Record

S.No	Project	Client	Employer
10	Visualization System Development, Installation and Commissioning of Ammonia Vacuum Furnace	Hindustan Aeronautics Limited	Hindustan Aeronautics Limited
11	Development, Installation & Commissioning of PLC system for Boiler	HINDALCO	HINDALCO
12	System Development , Installation and Commissioning of Level I automation System	JK Paper Limited	JK Paper Limited
13	System Development , Installation and Commissioning of Level I Furnace automation System	FRONTAIER Kanpur	FRONTAIER Kanpur
14	Bio-Metric Attendance System	Jindal Steel & Power Ltd	Jindal Steel & Power Ltd
15	Supply, Erection & Commissioning of <ul style="list-style-type: none"><li>- 33kV Line 7Km</li><li>- 1MVA 33/.4kV trafo sub station erection, testing &amp; commissioning</li><li>- 25KVA &amp; 500 KVA DG erection, testing and commissioning</li></ul>	Bhatia International Ltd, Jharsuguda	Bhatia International Ltd,
16	Supply, Erection & Commissioning of <ol style="list-style-type: none"><li>1. 16MVA, 33/11kV power transformer</li><li>2. 500KVA, 11/.4 kv</li></ol>	Action Ispat & Power, Jharsuguda	Action Ispat & Power, Jharsuguda
17	Supply & Erection of 2.9 KM3ph, 3 wire, 33kv HT Power Line	Power Grid Corp of India Ltd, Sundargarh	Power Grid Corp of India Ltd,
18	Construction of 11kV and 0.4kV Line in Sambalpur District. 80 Borewell Connection done with HT line, transformers, LT Line.	Odisha Lift Irrigation Corp Ltd, Sambalpur	Odisha Lift Irrigation Corp Ltd, Sambalpur



# Track Record

## Track Record- Overseas

Year	Project Name	Status	End User
2017	Study of Rehabilitation of Generation plant, Union des Comoros	Completed	MAMWE, Comores
2016	Mont Kigali Substation Project Supply, Construction, Consultation and Supervision, Rwanda	Completed	EUCL, Rwanda
2015	Supply and Consultation of Electrical Materials of Kamonyi District, Rwanda	Completed	MRL, Rwanda
2015	Supply of Electrical Materials of Gatsibo District, Rwanda	Completed	MRL, Rwanda
2014	Supply of Transformers, Rwanda	Completed	MRL, Rwanda
2014	Supply of Electrical materials, Rwanda	Completed	Top2020, Rwanda

## Upcoming Projects 2020

S.No	Project Name	Remark
1	NCAMC for HC & Toxic Detectors for Boot-3	Paradip IOT
2	Rural Electrification in madanpur and Deo block in Aurangabad district, Bihar under DDUGJY	33kv/11kv/0.4kv line augmentation and new line erection
3	Installation & Commissioning of electrical equipment in Gishoma 15mw plant, Rwanda	Installation & commissioning of power transformer, SF6 breaker, Underground cable etc.





# THANK YOU

CONTACT PERSON :

D. CHANDAN REDDY : +91 8260536763

[chandan@embeddedautomation.in](mailto:chandan@embeddedautomation.in)