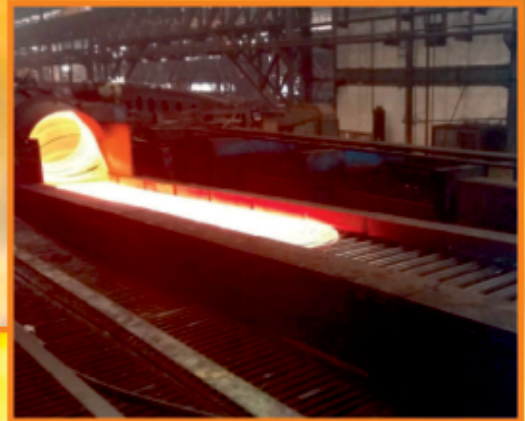


Total Process Solution for Automation, Electrical & Instrumentation



Real Time Engineering
Embedded with Technology



Real Time Engineering Pvt. Ltd.



From Field Sensors To Cloud Computing...

www.realtimegroup.co.in



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Contents:

A brief history of time
Field of Activities & Expertise
Philosophy & Companions
Dreams





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A brief history of time since 1994...

Real Time Engineering Pvt. Ltd. (RTEPL) : (Previously known as Real Time Micro System) is the key concern of Real Time Group of companies, best known in the business field of Electrical, Instrumentation & Automation Engineering since 1994. The company is driven by a balanced team of senior as well as young yet experienced engineering professionals with experiences & exposures in national and international industries.

People have always been Real Time's true strength : Most of the engineering, sales & service staffs have come up through the ranks of the organization. **RTEPL** 's field teams have developed unique skill sets to see a project through from kick-off to commissioning.

Our hands-on approach to designing and engineering has created satisfied clients throughout the World.

In **1994** RTEPL entered the

Automation arena in **Northern Coalfields Ltd**, Kankri, India with PLC Based Automation System for Permanent Coal Crushing Unit. This job involved complete Design, Engineering, Supply, Software Development and Commissioning of the system.

In **1995** Automation System of Gas Cleaning (ESP) System was executed in **Starlite Copper Ltd**, Tuticorin, India.

Simultaneously , Up-gradation and Revamping of Control System and Electrics of both Primary & Secondary Cigarette making Plant at **ITC, Munger** was initiated. This project continued till 2002 and RTEPL received the



repeat orders from ITC thereafter.

In **1996-97** RTEPL entered the Control, Electric and Automation of Traction application field. One of the most challenging assignment was executed in style for **Damodar Ropeways** , Science City, Kolkata, India for joy-ride of passenger ropeways.



In **1997-98** RTEPL was given the responsibility by **L&T** to execute complete automation of Wagon-Tipper for **Jindal Steel**.

Success of the above projects



made **Megatherm** feel comfortable in the year **1998** to introduce automation in Various Automobile Spare Part induction hardening of machinery Manufacturing in India. In **1999** TLT Engineering India Pvt. Ltd. India showed confidence in



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RTEPL to develop comprehensive PLC Based Automation & Instrumentation System of Steel Plant Oriented Gas Boosting Station in various plants at SAIL and **the business continues till date.**

The continuity of business with **IPSEN India Pvt. Ltd.** since **1995** till date in the field of PLC Based Automation System for Heat



Treatment Furnaces is also a major relational milestone in the history of RTEPL.

In the year **Y2K**, for Automation and Electrics of Coal Washeries



and Coal Beneficiation Plant, RTEPL was selected as the preferred partner by **Humboldt**

& Wedag Ltd., for various Coal Mines and Steel Plants in India and various projects were undertaken and completed till year **2008**. The same relationship and multi-project activities were performed in Automation System of ESP Gas Cleaning System. **RTEPL** collaborated with Alstom Power Projects Ltd. for Various Aluminium Process Plants in India. This was a seven year long pursuit.



Year **Y2K** was celebrated by **RTEPL** by cracking prestigious orders abroad in PLC Based Control System for ARC and Laddle Furnace in **Oman Steel**, Oman in collaboration with 21st

A brief history of time since 1994...contd.

Century Engineering Projects Ltd. India.

In the year **2001**, **RTEPL** successfully completed PLC Automation System for Combined Blowing of LD Converter at **SAIL, Bokaro Steel Plant India**, in association with Otto India Ltd, India.

Year **2002** was highlighted by the PLC Based Automation System of Slag Granulation Plant at **Tata Projects**.

SCADA System for 3 x 7.3MW Tista Canal Fall Hydel Power Plant, was executed in the year **2002**. Automation and Electric System of Iron Ore Handling and Processing plant in **Tata Steel** was initiated in the year **2003**.





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Automation of Gas Gathering and Gas Cleaning System in various plants at **ONGC, India** was executed in the year **2003** at Kuthalam.



Another long standing relationship got initiated in the year **2004-2005** for Automation of Emergency Shut Down System for Oxygen Plant with Linde, India at various Steel Plants across the country. CO gas fired 110 TPH Re-Bar Mill Walking Beam Type Re-Heating Furnace Automation for Tata Steel was executed simultaneously with **Bricmont** as O.E.M.



In the year **2006** the turnkey execution of Automation of Gas Gathering and Separation System was awarded by **L&T** for **ONGC**.

Mixed gas fired 100 TPH Walking Beam Type Re-Heating Furnace for Bar and Billet Mill at Durgapur Steel Plant was executed after the confidence of **Bricmont** as O.E.M. got established in Tata Steel.



Automation System of Flare Gas Recovery System was executed in the year **2008** at IOCL, Haldia, India. Bar Mill Walking Beam Re-Heating Furnace at JSPL, Raigara, Chhattisgarh, INDIA through **Bricmont** once again in the year

A brief history of time since 1994...contd.

2007. speaks high of **RTEPL's** customer commitment.

Yet Another O.E.M. relationship emerged in the year **2008** when Automation System of De-Sulphurisation Plant for LD Converter was awarded to RTEPL



by **MICCO (Gillanders Arbuthnot & Co.Ltd.)**, India for Tata Steel. Automation System of Sulphuric Acid Concentration Plant for India Defence was also concluded in the same year

PLC Based Automation and Instrumentation System of Steel Plant Oriented Gas Mixing Station for various SAIL and Private Steel Plant in India was initiated in the year **2009** by **TLT Engineering India Pvt. Ltd.**

Automation of Cooling Water System for Caster at **Tata Steel Ltd, India** was executed successfully in year **2009** tying-up with **NICCO Projects, India.**



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A brief history of time since 1994...contd.

Year **2010** was celebrated with a new break-thru in the history of automation as Level-1 Automation System of 60 Ton AOD Converter, Gas Cleaning System and FAFA System was awarded to RTEPL by **IgH Raine**, Germany for making stainless steel in SAIL, **Salem Steel Plant**, India.

In the same year Linde India's faith on **RTEPL** for Automation of Emergency Shut Down System for Nitrogen Plant was proved to be a myth for various Steel Plants, Oil Refineries.

A Turn -Key contract for Automaton, Instrumentation and Safety PLC System of LD Gas Holder and Gas Export Plant for Tata Steel Ltd, India was awarded to RTEPL by **MICCO (Gillanders Arbuthnot & Co.Ltd.)**, India in the year **2011**. When 160 TPH Stainless Steel Walking Beam Type Re-Heating Furnace at Bhuvée Steel, Orissa, INDIA was conceived, Bricmont recalled **RTEPL** for the same. Automation, Instrumentation

and Electrical System for Emergency Water Supply System for Laddle Furnace-3 for Tata Steel Ltd, India was awarded to **RTEPL** by **MICCO (Gillanders Arbuthnot & Co.Ltd.)**

Another challenging job emerged in the same year as contract from **Durgapur Steel Plant, SAIL-India** for Automation, Instrumentation and Electrical System for Emergency Water Supply System for Bloom and Round Caster (BRC) was awarded.

2012 was celebrated by a very special order from SAIL, Bokaro Steel Plant, India for Automation & Instrumentation System of Cast House Slag Granulation Plant for Blast Furnace 1, 2 & 3 in technical collaboration with CET, Ranchi, India.

For automation of 220 TPH Walking Beam Type Re-Heating Furnace for Medium Structural Mill at Durgapur Steel Plant, Steel Authority of India Ltd, INDIA, **RTEPL** was the automatic choice of **Bricmont** once again.

220 TPH Walking Beam Type Re-Heating Furnace for Medium Structural Mill automation at **Durgapur Steel Plant** was awarded simultaneously to **RTEPL** by Bricmont.

Upgradation of Automation and Instrumentation System for Sinter Machine-1 for SAIL, Bokaro Steel Plant, India was awarded to **RTEPL** by **MICCO (GACL)**, India in the year **2013**.

Automation, Instrumentation System for Cooling Water Supply System for BF-1 at RINL, Vizag Steel Plant was executed in the year **2014**.

Safety PLC System of LD Gas Holder and Gas Export Plant was a unique application at Tata Steel Ltd, India where the Design, Engineering, Supply, Erection, Software Development and Commissioning of Complete Instrumentation & Automation (SIEMENS Safety PLC) System was successfully implemented by **RTEPL** in the year **2014**.



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Emergency Water Supply System for Laddle Furnace-3 at Durgapur Steel Plant got commissioned at the same time proving **RTEPL**'s competence in handling simultaneous projects at different Geographical locations and with varied technological challengers. In both the two cases **MICCO (GACL)** was the O.E.M. partner.

In the year **2014** when Indonesian Steel maker Ms.PT. Gunung Raja Pakshi was looking for an Automation Expert who could handle execution abroad in style. **RTEPL** rose to the occasion and proved the worth by accepting the complete Engineering, Manufacturing, Commissioning of Level-1 Automation & Instrumentation System for Material Handling process for EAF and LF of SMS-2. Simultaneously, another package

for Natural Gas Fired 100TPH Walking Beam Type Re-Heating Furnace for Beam Plant-1 was off-loaded to **RTEPL**.



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The complete Design, Engineering, Manufacturing, Supply, Erection Supervision & Commissioning of Complete Electrical (MCC, PCC, PDB), Automation, VFD and Instrumentation System could be completed in the year 2015 in perfect time schedule.

A brief history of time since 1994...contd.

The engineering excellence and perfection in time schedule adherence has made **RTEPL** an international expert in the field of complete Design and Engineering of Automation, Electrics and Instrumentation.

RTEPL at present executing with the same client in Indonesia that is expected to be executed in the year **2016**.

1. Beam PLANT1 Automation Hardware and HMI Up-Gradation of Level1 and Rolling Schedule.
2. Automation Revamping of Wire & Rod Mill (WRM-1).
3. Automation, Revamping, Tracking and Scheduling of Beam Plant-2 Tandem Rolling Mill.



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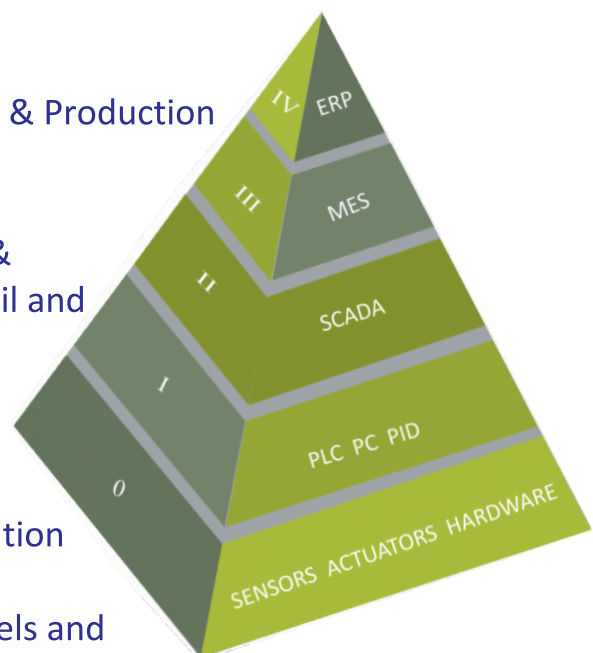
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Field of Activities & Expertise

Total Process Solution for...

■ Automation ■ Electrical ■ Instrumentation

- ▶ Level-I Automation System & Level-II Optimization System
- ▶ Data Base Management
- ▶ Production Scheduling and Reporting & Production Planning and Tracking
- ▶ Customized Web Based MIS System & Predictive Maintenance through Email and SMS
- ▶ Instrumentation and SCADA System
- ▶ 3rd Party Interfacing and Communication
- ▶ VFD & MCC Panels & Instrument Panels and Control Desk
- ▶ Energy Monitoring and Reporting





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Total Process Solution for Automation, Electrical & Instrumentation

Field of Activities & Expertise...contd.

In **RTEPL** physicists, metallurgists and chemical engineers share the thought process with the Automation experts and thus the organisation operates as a well synchronised orchestra. While the automation of

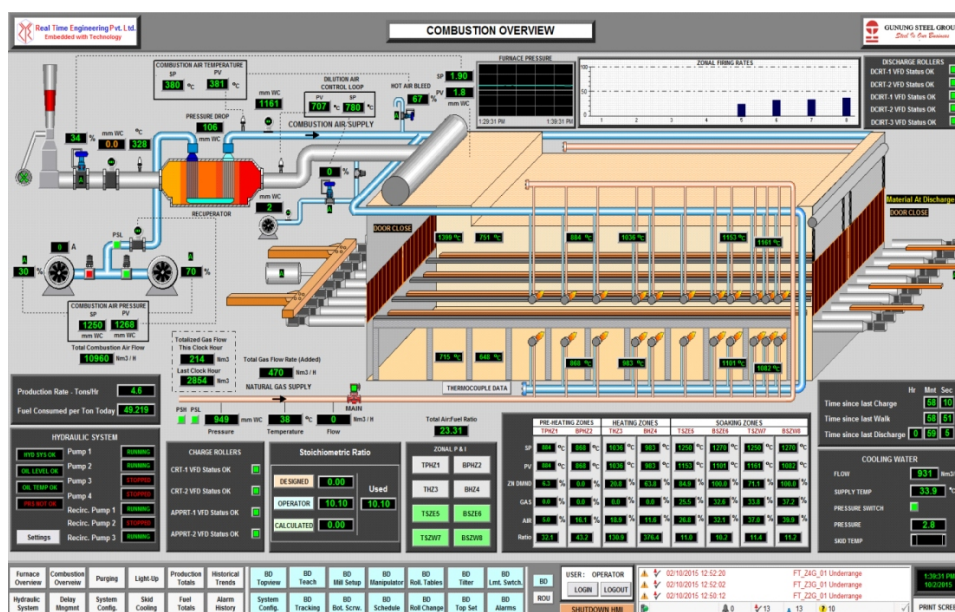


Combustion System of Reheating Furnace is designed, **RTEPL** gives the highest priority to the process engineers. The human-machine interfacing is depicted in

the screen layout of the HMI with intense care to make it as realistic as possible.

RTEPL has gained the competence of developing the latest tools to make the HMI-the kind of its own with state of the art cutting edge technology. Despite dramatic improvement in the display technology, HMI software development has fallen behind, producing many difficult user interfaces.

As because present modern devices come with custom



Combustion System Overview of a typical Reheating Furnace



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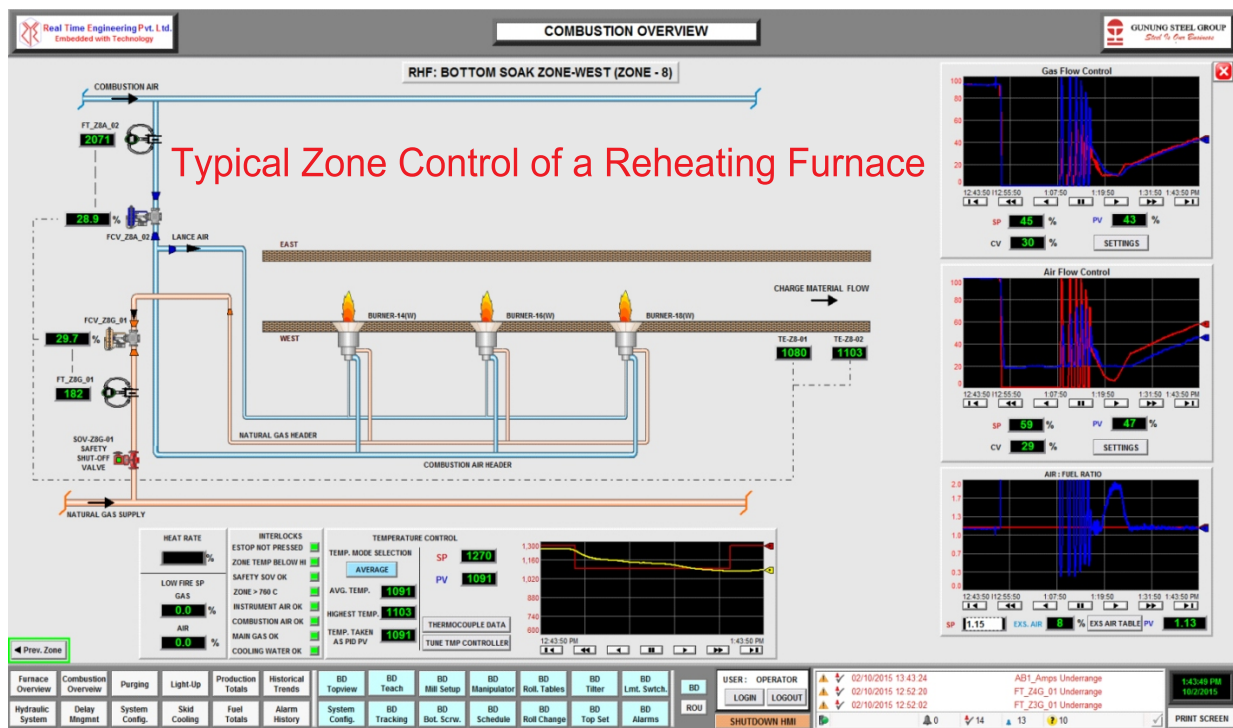
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Field of Activities & Expertise...contd.

processors and/or Operating Systems (OSs), building user interfaces requires special skill and

cohesive, easy-to-use HMI development tools that wrap high-level modelling and graphical tools around detailed

generator produces code for the chosen processor architecture, and everything from graphics to logic gets



knowledge.

RTEPL emphasizes on such issues to aid designers in this difficult task, RTEPL provides

custom programming. The tools hide the processor from developers so they can focus on their applications. A code

used and reused.

RTEPL respects the Level Zero and One of Customer Application & as understanding of



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Field of Activities & Expertise...contd.

man-machine interface is highest there.

In order to achieve this, the organisation arranges regular exchanges with field level technicians and original instrument manufacturers.

RTEPL's respect to Level Zero has enabled us to accept any or all Automation Hardware - be it **Rockwell, Siemens, Schneider** or any other as **RTEPL**

sincerely believes that **Customization is the Key.**

In the journey of over Two Decades, the organisation has acquired expertise in

Design & Engineering of Instrumentation and Automation System for **Natural Gas gathering and collection station** in the inception years.

IOCL during formative period of the journey in 2007-08.

Design and Engineering of Instrumentation, Electrical & Automation



Design & Engineering of Automation System for **Flare Gas Recovery System** in **Oil & Gas Industries** was a natural outcome in knowledge base while working with

System for **Cooling Water Plant** for **Blast Furnace, Ladle Furnace, caster, Re-Heating Furnace**, etc. in major steel plants in India was achieved in association with Technology Partner



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Field of Activities & Expertise...contd.

Bricmont (Andritz Metals). The expertise and special knowledge base in this engineering application was conceptualized during the execution in the most prestigious steel plants like Tata Steel, Durgapur Steel Plant, Bokaro steel Plant, Vizag Steel Plant, Salem Steel Plant and of late in Indonesia.

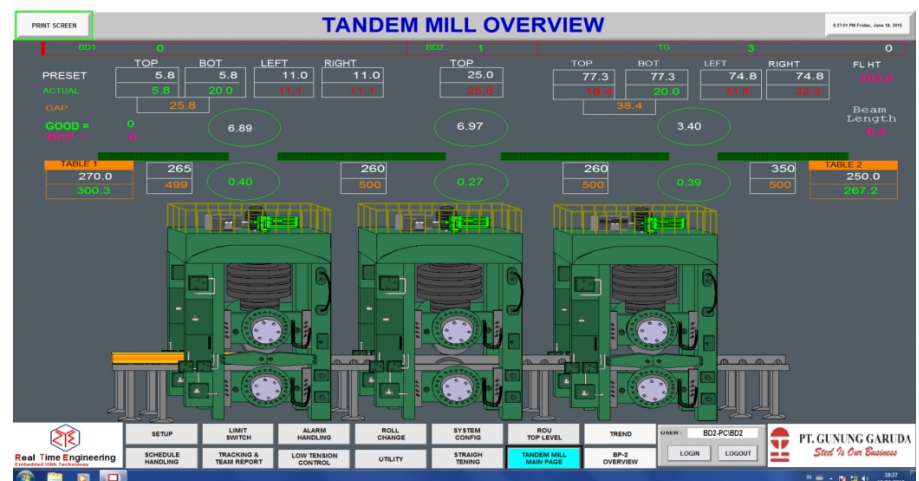
Experience and Expertise of Design & Engineering of Electrical, Automation and Instrumentation system for Material Handling System for Electric Arc Furnace, Ladle Furnace, Sinter Plant was acquired with long lasting relationship with organisations of

global repute like Linde, Bricmont, Alstom, Ipsen and others.

RTEPL through the process of implementing the expertise in Design and Engineering of Electrical, Automation and Instrumentation system

Handling Systems for Electric Arc Furnaces, Ladle Furnaces, Sinter Plant became the automatic choice of leading O.E.M.s and end-users.

Wide experience in Design & Engineering of Electrical, Automation



for Slag Granulation Plant, Design & Engineering of Electrical, Automation and Instrumentation system for Material

and Instrumentation system for Re-Heating Furnaces for Steel Industry gave **RTEPL** the technology edge over



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Field of Activities & Expertise...contd.

In the field of Automation, Customers quite often feel uncomfortable owing to problem of handshaking between Electrical & Instrumentation.

Generally, the integration of PLC & SCADA is the most sensitive element of Automation.

Real Time Engineering offers comprehensive solution for both PLC & SCADA .

Customer like TATA STEEL showed its faith in **RTEPL** when SCADA & PLC were to be integrated in the most prestigious 3 MT per annum Expansion project.

3rd Party Interfacing and Communication-

As **RTEPL** is a multi platform operator, **RTEPL** addresses the interfacing needs of the



customers. In medium size organisations, retrofit in every aspect of engineering is a challenge and this becomes manifold when it is Automation.

RTEPL's two decades of experience in instrumentation and

integration has opened up a new vista in Energy Monitoring and Reporting. The knowledge of placement of right transducers and integrating the usage and prediction through customized software can effectively help the user to bring down the energy expenditure in user specific format.



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Philosophy & Companions

We started with an interrogation.

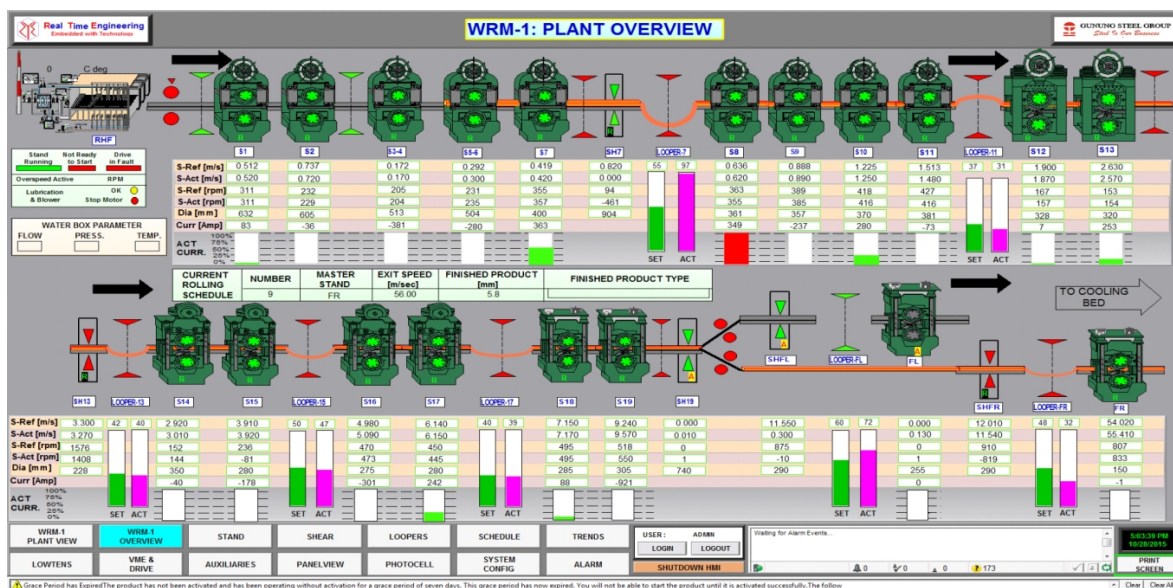
It was a first generation enterprise



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Field of Activities & Expertise...contd.



others while addressing international enquiries.

Design & Engineering of Electrical, Automation and Instrumentation system for Heat Treatment Shops and special Furnaces for Automobile Industries.

Design & Engineering of Electrical, Automation and Instrumentation system for Gas Boosting

& Mixing Station (BF & CO Gas) for Steel Plants.

RTEPL's Expertise in Design, supply & Engineering of Electrical and Instrumentation system for Automation & Level-2 Communication for AOD Converter & Level-2 Communication for Ladle Furnance enabled EAF & LF Supplied by **SMS-Group** to accept

RTEPL as the chosen automation partner in PT. Gunung Raja Pakshi, INDONESIA. steel plant.

The flexibility in using Customized hardware has enabled **RTEPL** to meet the Automation Challenges in the past and it shall be carried forward in the future.

The integrated works at Kolkata, India has the



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Field of Activities & Expertise...contd.

state of the art facilities for fabrication, panel building, testing and integration.

Real Time Engineering

the project manager who in turn assimilates the feed back from the application engineers in the field.

RTEPL to deliver Data Base Management Solutions that becomes simpler for the MES, MIS and ERP layer to become effective.



The Art of manufacturing

manufactures and integrates State of the Art Control Panels, Variable Frequency Drives, Instrument Panels, MCC and Control Desks as per the customer specifications.

Acquired Expertise in Machine



Apart from this, a fully dedicated software development team co-ordinates the project activity through



Level Software as well in Higher Platform software has enabled

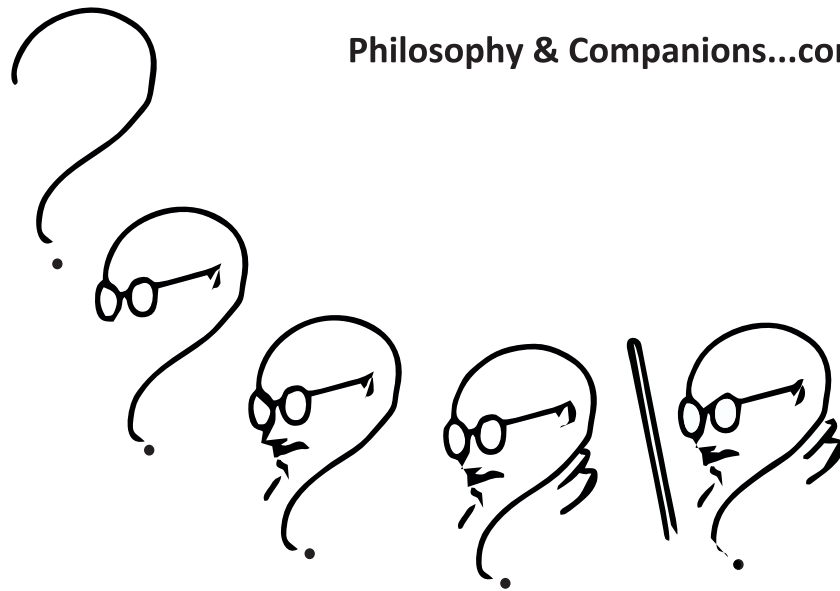
sectionalized panels has enabled RTE to meet the stringent specifications of Steel Plants both in Indoor and outdoor duties.



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Philosophy & Companions...contd.



A customer is the most important visitor on our premises. He is not dependent on us. We are dependent on him. He is not an interruption of our work. He is the purpose of it. He is not an outsider of our business. He is part of it. We are not doing him a favour by serving him. He is doing us a favour by giving us the opportunity to do so...

RTEPL is a Customer Driven Company



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Philosophy & Companions...contd.

RTEPL is a Customer Driven Company

Customer is the top priority in **RTEPL's** business. Any repeat order that flows in enlivens the organisation and sends a message to become more alert from the viewpoint of better performance.



as an Indian joint family, the mutual trust amongst the employees get reflected to customer in return.

SatiSfaction- The internal satisfaction of each employee is the key tool to performance. The organisation pays highest respect to this element of mind. this leads towards customer satisfaction as well.

RTEPL's long-standing relationship with world renowned O.E.M.s and customers proves the worth of above statement.

Conviction: Organisation believes in internal conviction and every employee must be internally strong to deliver in personal capacity.

TrUst-As the organisation operates





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Philosophy & Companions...contd.

RTEPL is a Customer Driven Company

LoyalTy- Loyalty to customer is considered to be of highest importance.

GoOdwill- The organisation strongly feels goodwill of business is built on the conviction, trust, internal satisfaction and loyalty. **RTEPL** feels that the business goodwill is more important than tangible business profit.

Com Mitment- **RTEPL** believes and emphasises that personal conviction gives rise to individual commitment and an integration of individual's commitment ultimately become collective commitment of the organisation.

DElight-RTEPL focuses on the happiness factor for every transaction be that in-house or ef-house.

ExpeRience- Based on **Conviction, TrUst, Sati Sfaction, Loyal Ty, Go Odwill, ComMitment** and **Delight** the **ExpeRience** that organisation has gained is dedicated to**CUSTOMER**.

Apart from customer commitment, **RTEPL** believes in up-gradation of technology and manpower. People have always been Real Time's true strength. Most of the engineering, sales & service staffs have come up through the ranks of the organization.

RTEPL's field teams have developed unique skill sets to see a project through from kick-off to commissioning. Our hands-on approach to designing and engineering has created satisfied clients throughout the World.

Periodic inter departmental training and project simulation off-line program keeps the engineers and trainees up to date.





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Philosophy & Companions...contd.

RTEPL is a Customer Driven Company

1.Motivation - The organisation puts highest efforts to put right men on right slot. The organisation carries out motivational programmes and incentive



plans are framed for further participation and employment of employees in a concern. Therefore, all types of incentive plans become integral part of staffing function.

2.Effacious Utilization - The organisation Efficiently manages

the personnels considering it to be an important function in the industrialization world of today.

3.Better human relationship - The organisation promotes the philosophy of a joint Indian Family where inter-dependance plays the key role amongst the employees. The organisation organises out of office assimilation programs out side the office in the bounty of Nature.





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Philosophy & Companions...contd.



Our Companions



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Dreams

As eminent nature lover Arijit Bannerjee suggests through his photograph. Look back and learn from the past.



Use the learnings to make a better tomorrow- for yourself and others...



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The very very special experience of over Two decades in the field of Automation, Electrics & Instrumentation has given birth to a few dreams involving core strength and CORPORATE SOCIAL RESPONSIBILITY in India .

While operating in a State of the Art Technological field it sometimes becomes extremely difficult to find out the right human resource to achieve the objective.

RTEPL wants to bridge this gap by setting up a finishing school for the under privileged but bright students.

RTEPL has collaborated with a society that operates in the fringe of The Sundarbans, a National Tiger Reserve. Through this society RTEPL organizes Medical Camps in the rural area where the economy is subsistent type and the basic amenities are yet to reach the benchmark. There is no dearth of talent in that area and RTEPL feels committed to uplift the intellectual students of the area by introducing a finishing School.

Apart from this dream, the organization encourages to volunteer services in this fringe area where man-animal conflict is



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Dreams...contd.



Picture Courtesy: Seshadri Moitra

highest. This volunteer effort not only enriches the basic human being but also generates a fellow feeling amongst the colleagues.

The challenges of this particular geographical area are manifold. One of the most important parameter is absence of electricity as the place is a cluster of riverine deltas and islands. While addressing the challenges the

solar power generation became the most effective alternative for the organization. **RTEPL** wants to expand in this trade and has already made substantial progress by adapting a tech-savvy small scale manufacturing company and in near future has the dream of becoming a major player in the field of solar power generation.

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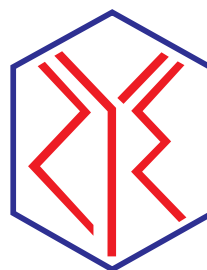
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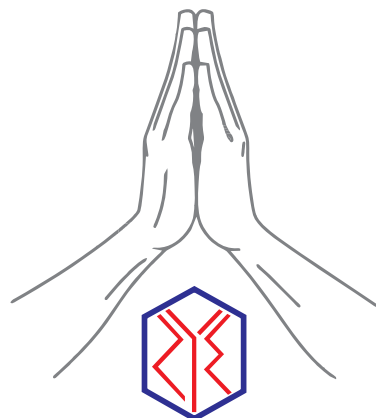
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"The most pathetic person in the world is someone who has sight but no vision."

Helen Keller



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