

# DR SARBENDU SANYAL

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## EXECUTIVE SUMMARY

Strategic Planning  
Plant / Project Management  
Operations Management  
Engineering & Development  
Liaison Work  
Site Administration  
Quality Assurance  
Planning & Execution  
Contract Management  
Research & Development  
Resource Management  
Team Management  
Time Management

- **Over 26 years'** widespread experience in Research & Development, Steel Making Operations, Project Management, Quality Management, Process Enhancement and Team Management.
- Expertise in handling the complete operations in production, research and QA entailing planning, resource utilization, maintenance, quality management & manpower management.
- Demonstrated excellence in planning, executing, managing and spearheading engineering activities.
- A strategist with expertise in planning and executing projects with a flair for adopting modern methodologies in compliance with quality standards.
- An enterprising leader with proven abilities in leading teams towards the achievement of organisational goals and industry best practices.
- Excellent relationship management, analytical and negotiation skills with deftness in swiftly ramping up projects / production operations.

## EMPLOYMENT RECITAL

JSW Steel Ltd., Bellary	General Manager – Technology Excellence Steelmaking	Dec'11 (current)
Gontermann-Peipers (I) LTD, Kolkata	General Manager - R&D	June '09 – Dec '11
SEFORGE Ltd., Coimbatore	General Manager - R&D & QA, DI Foundry	Sept'08 – May'09
TATA Steel Ltd., Jamshedpur		Apr'90 - Aug'08

*Joined as Operative Trainee in 1990*

*Involved in Steel Melting (LD) Shop Operations from Apr'92 – Dec'98 and*

*As a faculty and trainer at SNTI, Tata Steel, Jamshedpur from Dec '98 – May 2002*

*Continued Steel Technology Research in Research & Development Department since 2002 till Aug'08*

UMIL, Ranchi	Supervisor - Quality Control Department	Jan'89 - Apr'90
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## AREAS OF EXPERTISE

- ↻ Conceptualizing & screening projects and conducting feasibility studies & research and coordinating to determine the viability based on the technical, financial & economic parameters.
- ↻ Monitoring cost & time over-runs to ensure execution of projects within budget; preparing various project reports, etc.
- ↻ Spearheading production activities involving working out requirements & monitoring overall plant operations for ensuring timely completion.
- ↻ Assigning work schedules for smooth functioning of operations and leading the people in organisation.
- ↻ Establishing manufacturing quality standards, methods, policies and procedures.
- ↻ Designing & implementing systems, processes and procedures to facilitate smooth functioning of process operations and enhance efficiency.
- ↻ Interpreting operations for new products or improvement of existing products with thrust on reducing product cost.
- ↻ Aligning product development customization functions including requirement analysis, finalizing specifications, designing, prototype development & testing activities.
- ↻ Formulating standard operating procedures for new processes / equipments for ensuring environment, health & safety aspects.
- ↻ Leading, mentoring & monitoring the performance of team members to ensure efficiency in process operations and meeting of production targets.
- ↻ Creating and sustaining a dynamic environment that fosters development opportunities and motivates high performance amongst team.
- ↻ Addressing emergency / production crisis situations.

### **Highlights:**

- ↻ Bagged major awards and more than ten appreciation letters for successfully handling emergency situations and production crisis situations.
- ↻ Holds the distinction of resolving the problem of wrong placement of coupons in the castings at SEFORGE Ltd. and furnishing suggestions to eliminate the root cause.
- ↻ Significantly facilitated 50% savings through plant trial of modified cored wire injection process.
- ↻ Effectively enhanced the efficiency of cored wire injection process and high carbon steel wire rolling process at Tata Steel Ltd. to provide consistent result.
- ↻ Successfully carried out the assessment of up-gradation plan for one wire rod rolling mill at Tata Steel Ltd. based on which the plan for the location and capacity of the blowers has been completely modified.
- ↻ Processes revised / reengineered:
  - ↳ The type, size and speed of injecting cored wires have been completely revised and linked to actual operating parameters.
  - ↳ Selection of blower opening and air velocity have been revised and linked to the type and size of steel rod being rolled.

### **Awards Received:**

- ↻ SAIL Gold Medal, 2005 - Best Paper in Transactions of IIM - IIM, Kolkata.
- ↻ P. Banerjee Memorial Silver Medal, 2004-Best Paper in Indian Foundry Journal - IIF, Kolkata.
- ↻ S. Vishwanathan Medal, 2004 - Best Paper in Tata Search.
- ↻ Best Presentation Award, 2003 – CRSMSE (2003) - IIT, Kharagpur.
- ↻ Best Project Award, 2004 & 2005 - Best R&D Project, Tata Steel Ltd.

### **Major Projects Executed**

- ↻ Set up of R&D, Laboratory and Quality Assurance Department in an upcoming foundry.
- ↻ Development of a new regime for rolling high carbon steel wire rods at Tata Steel Ltd.
- ↻ Development of a new regime for cooling of high carbon steel wire rods at Stelmor Conveyor at Tata Steel Ltd.

## **PUBLICATIONS**

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- ↻ 'A Mathematical Model to Optimise Aluminium Wire Injection in Steel Melts', *Steel Research International*, 2009. <http://onlinelibrary.wiley.com/doi/10.2374/SRI08SP128/abstract>
- ↻ 'Model Based Optimisation of Aluminium Wire Injection in Steel Melts', *ISIJ International*, V-46(5), 2006. [https://www.jstage.jst.go.jp/article/isijinternational/46/5/46\\_5\\_779/\\_article](https://www.jstage.jst.go.jp/article/isijinternational/46/5/46_5_779/_article)
- ↻ 'Dissolution Kinetics of Cored Wire in Molten Steel', *Steel Research International*, 2006. <http://cat.inist.fr/?aModele=afficheN&cpsid=18030739>
- ↻ 'An Improved Model of Cored Wire Injection in Steel Melts', *ISIJ International*, V-44(7), 2004. [https://www.jstage.jst.go.jp/article/isijinternational/44/7/44\\_7\\_1157/\\_article](https://www.jstage.jst.go.jp/article/isijinternational/44/7/44_7_1157/_article)
- ↻ 'Development of Norms for Cored Wire Injection in Steel Melts', *SCANMET – II (2nd International Conference on Process Development in Iron and Steelmaking)*, Lulea, Sweden, 2004.
- ↻ 'Modelling Cored Wire Injection in Steel Melts', *The Transactions of The Indian Institute of Metals*, V-57(2), 2004.
- ↻ 'Modelling and Simulation in Metallurgical Processes with Some Case Studies Related to Steel Refining and Casting', *Indian Foundry Journal*, V-50(2), 2004, 29.
- ↻ 'Kinetics of Cored Wire Dissolution in Molten Steel', *Tata Search*, 2004, 190. (Awarded Best Paper)
- ↻ 'Optimising Aluminium Wire Injection in Steelmaking', *Tata Search*, 2006.
- ↻ 'Assessment of Nitrogen Pick-up in Steel from Coal Based DRI', *Tata Search*, 2006.
- ↻ 'Dissolution of Cored Wire Additions in Steelmaking', *Conference of Research Scholars on Material Science and Engineering (CRSMSE - 2003)*, Indian Institute of Technology, Kharagpur.
- ↻ 'Enhancing Calcium Yield in Billet Caster through Modelling Cored Wire Injection', *RDCIS Workshop on 'Quality Enhancement Cast Bloom / Billets'*, Ranchi, 2004.
- ↻ 'Measurement of Metallic Iron in Steel Making Slags', submitted to *Measurement* in January 2016.
- ↻ 'Optimization of process parameters for calcium treatment', *NMD-ATM 2016 (Under Submission)*
- ↻ 'Minimization of defects in high thickness bar rolling', *NMD-ATM 2016 (Under Submission)*
- ↻ 'Improvement in recovery of Metallic Iron from Processed Steelmaking Slags', *NMD-ATM 2016 (Under Submission)*

## IPR

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### ↵ PCT

↳ Cored wire injection process in steel melts. <https://www.google.com/patents/US7682418>

### ↵ National Patent

- ↳ A cored wire injection process in steel melts.
- ↳ An aluminium wire injection practice in steel melts.
- ↳ De-sulphurisation of HC ferrochrome in covered induction melting furnace.
- ↳ A process of wire injection in steel melts for aluminium with steel cladding.
- ↳ A device for bottom pouring of liquid steel to produce steel roll casting in a foundry.
- ↳ Super chrome alloy development for Hot strip mill roll as an improved alternatives of HiCr (Iron) roll family.

### ↵ Copyright

↳ Software for cored wire injection.

## SCHOLASTICS

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↵ PGDBM - Executive PGP (Strategy and Operations) from XLRI, Jamshedpur in 2008.

↵ Ph.D. in Metallurgical Engineering from IIT, Kharagpur in 2005.

↵ M.Sc. Engineering (Process Metallurgy) from NIT, Jamshedpur in 1997.

↵ AMIIM (B.E. in Metallurgy) from Indian Institute of Metals, Kolkata in 1990.

↵ Diploma in Metallurgical Engineering from Asansol Polytechnic, India in 1988.

## ACADEMIC PROJECTS

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↵ M.Sc. Dissertation – “Effect of Six-Hole Lance on LD Steel Making”. Paper was presented at ATM of IIM, Calcutta in 1997. Abstract was published in ‘Abstracts’ of ATM in 1997.

↵ Ph.D. Work – “Dissolution of Cored Wire Additions in Steel Making”. Residential Course Work completed at IIT, Kharagpur in 1997.

## PERSONAL DETAILS

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Date of Birth : 16<sup>th</sup> October, 1968

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