

2011 International Rolling Mill Academy

HOT & COLD MILL CONTROL & TECHNOLOGY

7-10 June, 2011
Belo Horizonte, Brazil

Converteam is pleased to announce the 2011 International Rolling Mill Academy to be held in Brazil. This follows the success of courses, held previously at Rugby, Pittsburgh, Amsterdam, Shanghai, Kolkata which were attended by delegates from 25 countries and 40 companies.

The course introduces rolling mill engineers to state of the art control theory and practices in hot and cold mills with emphasis on product quality and cost optimization. The focus of the course is on control design for thickness, width, profile, flatness and temperature. The potential of advances in multivariable control, predictive control and mill simulations will be discussed. The lectures are conducted by leading international experts in hot and cold mill control systems. Apart from providing an in-depth understanding of the theory they will also explain the practical issues involved in implementing rolling mill control systems.

Every afternoon there is a practical session with interactive demonstrations on PCs. This will allow the delegates to explore the control principles behind the presented techniques. The wide range of subjects covered in the practical sessions will enable the delegates to focus on their own interests. Places on the course are restricted, to ensure that each delegate receives individual attention. Early registration is advisable. The principal course language is English but Portuguese support will be available.

Past delegates from:

Aceralia Corp, Arcelor-Mittal, Alcan
Alcoa, Allegheny Ludlum, Anshan Iron & Steel
Avesta, Bao Steel, Bethlehem Steel, BHP
Brussels University, Bushan Steel, CET India
China Steel, CST, Corus, Columbus Stainless
Danieli Automation, Danieli United, Duferco
Dunaferr, Elval, Essar, Hindalco, Hylsamex
Impol Seval, Intergrated Industrial Systems
Ispat, JSW, Logan Aluminum, Lloyds Steel
Maanshan Iron & Steel, Mecon, Metal Ravne
Nucor, Novelis, Parsytec Computer
Plansee Metall, Rautaruukki Steel
Sahaviriya Steel Industries, SAIL, Siderar
Stelco, T. Sendzimir, Ternium Sidor, Tata Steel
Tata Tin Plate, Usiminas, US Steel, USS Posco
WCI, Wisco, Wheeling Pittsburgh Steel

What is Included

- 4 days of lectures & computer-based demonstrations.
- Presented by leading industrial and academic experts.
- Control methods with proven industrial applications.
- Comprehensive course notes and self-study notes.
- Reference papers and software sample CD.
- Lunches/refreshments.

For more information regarding the course please contact:

Vera Frey

Converteam Brazil Ltda.
Av Alvares Cabral 1345
Belo Horizonte
Minas Gerais, Brazil

Tel: +55 31 3330 5827

Mobile: +55 31 9791 6214

Fax: +55 31 3330 5815

Email: academy@rolling-academy.com

Target Audience

- ✓ Electrical and Mechanical engineers involved in process control.
- ✓ Technical Engineers working in the metals production and processing industries.
- ✓ Design engineers wishing to refresh their control engineering knowledge.
- ✓ Managers requiring an up-to-date overview of quality-improving technology.

Past Delegates Comments

“Overall, this is probably the best one week class on rolling that I have taken.”

Mittal Steel Delegate, April 2005.

“Organisation was excellent, dynamic presentations.”

U.S. Steel Delegate, April 2005.

“Never heard yield criterion explained so well, wish I'd had this lecture 20 years ago!”

Corus Delegate, March 2006.

“This training has opened up a new dimension for me in approaching and understanding these subjects.”

JSW Delegate, April 2010.

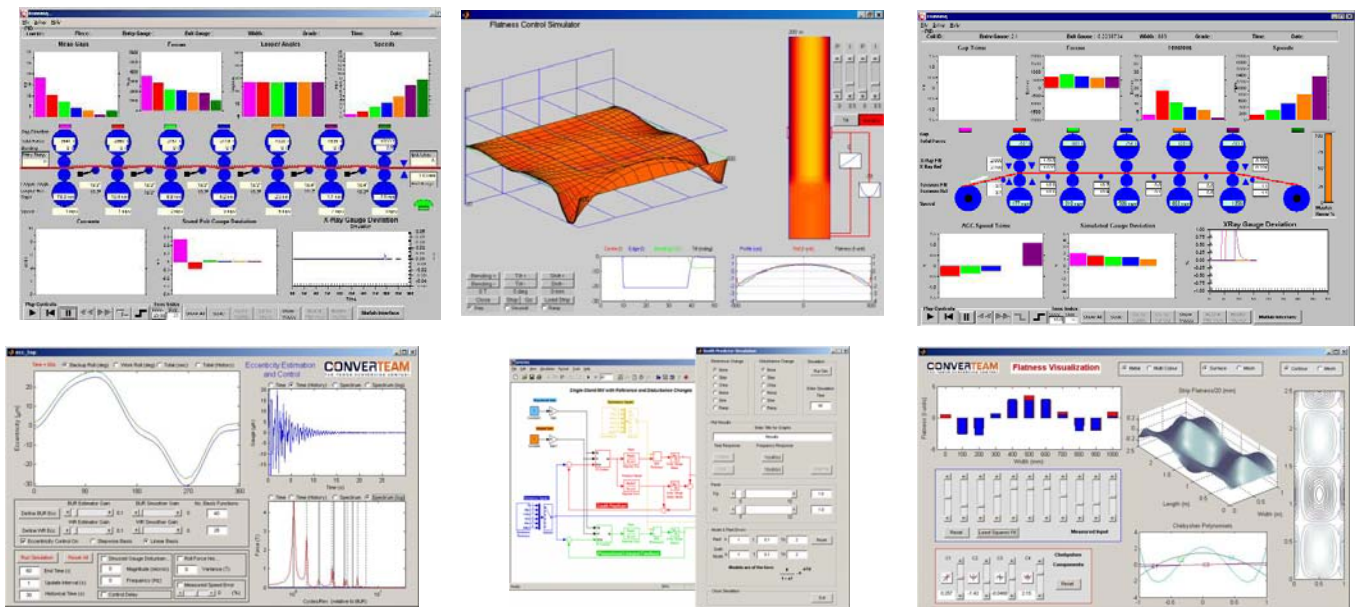


Provisional Course Timetable

Tuesday 7 th June	Wednesday 8 th June	Thursday 9 th June	Friday 10 th June
9.00:9.45 Benefits of Improved Control	9.00:10.30 Gauge Controls for Reversing Cold Mills	9.00:10.30 Roll Eccentricity Controls	9.00:10.30 Mill Drive Systems
9.45:10.30 Systems & Control Introduction			
10.30-10.45 Coffee	10.30-10.45 Coffee	10.30-10.45 Coffee	10.30-10.45 Coffee
10.45:12.15 Rolling Mill Models for On-line Control	10.45:12.15 Plate Mill Modelling & Control	10.45:12.15 Long Products Rolling	10.45:12.15 Hot Strip Shape & Profile Control
12.15-13.15 Lunch	12.15-13.15 Lunch	12.15-13.15 Lunch	12.15-13.15 Lunch
13.15:14.45 Automation Architectures	13.15:14.45 Gauge Control for Tandem Cold Mills	13.15:14.45 Model Adaption	13.15:14.45 Multivariable Looper Control
14.45-15.00 Coffee	14.45-15.00 Coffee	14.45-15.00 Coffee	14.45-15.00 Coffee
15.00:16.30 Hot Strip Mill Gauge Control	15.00:16.30 Flatness Controls in Cold Rolling	15.00:16.30 Blast Furnace Supervisory Control	15.00:16.00 Open Discussion
16.30-18.30 Demonstration	16.30-18.30 Demonstration	16.30:18.30 Demonstration	
Mill Simulation Introduction Hot Rolling Mills	Cold Rolling Mills	Eccentricity Control Flatness Control	

Course Software

All course software is driven by custom written graphical user interfaces to enable the fundamental principles to be learned quickly. The practical demonstrations include hot mill simulation, tandem cold mill simulation, reversing cold mill simulation, eccentricity control, multivariable control, smith predictors, predictive control and flatness control. It is possible for delegates to focus on hot or cold mill control, or a mixture during the practical demonstrations.



Principle Course Lecturers



Chris Fryer, Chief Engineer & Business Manager for metals within Converteam Ltd. Joined Converteam (as GEC Projects) in 1982 and worked in a number of disciplines including dynamic-ship-positioning, cold rolling flatness control, tandem cold mill gauge control, and rolling mill models. Extensive commissioning experience from rolling mills in Europe, North America, and S. Africa.



Dr. Tony Bilkhu has over 20 years experience in process control technology applications for Steel and Aluminium Rolling Mills. He is responsible for the design and development of Hot and Cold rolling Automatic Gauge Control (AGC), Tension controls and Flatness systems. He has a keen interest in applying new control methods and innovative techniques enabling the continuous improvement of the control technologies.



Igor Quintão is the Converteam Brazil Automation department manager at Process Industries. He has over 15 years experience in different steel making process: Blast Furnace, Steelmaking, Process Lines and Rolling Mills. Since 2001 he has developed application software and commissioned different kinds of processing lines (CGL, SKP, RCL).



Dr. Gerald Hearn is a principal systems engineer in Converteam Ltd. He obtained a B.Eng. in Electrical and Mechanical Engineering from Strathclyde University in 1994 and subsequently spent six years in the Industrial Control Centre as a research fellow investigating the advanced control of hot strip mills from which he was awarded a PhD in 1999. He has experience in designing and commissioning of hot strip mill controllers (gauge, profile, temperature, flatness, tension) in Europe, North and South America and has a special interest in the application of advanced controls to hotmills.



Andre Barra is a Senior Automation Engineer at Process Industries, Converteam Brazil. Has over 15 years experience in different steel making process: Blast Furnace, Steelmaking, Process Lines, Rolling Mills. Since 1999 he has developed application software for different kinds of rolling mills that include: Copper Rod Mill (Speed referencing, looper control and free tension control), Tandem Group & Roughing Mill in a Heavy Section Mill (Gap positioning, speed referencing and free tension control), Cold Mill (gap positioning) and Hot Strip Mill (Looper Control).



Francis Vonderscher: Senior engineer in process control and power electronic, Converteam Brazil. He joined Converteam (as CGEE-ALSTHOM) in 1980 and worked with application of drives in industrial processes as steel mills, conveyors, cranes, steel converters, first with DC motors controlled by AC/DC converters and currently, with AC induction motors controlled by LV or MV inverters.



Aleksandar Mechev is a Control Systems Engineer who joined Converteam UK in 2004 specialising in design and implementation Dynamic Process Control Systems for Steel Rolling Mills. He holds a BSc in Electrical Engineering (Germany) and an MSc in Informatics and Control (UK). He has worked in a wide range of disciplines (Elongation and Gauge Control for DCR/Temper mills, Gauge and Flatness Control for tandem cold mills, Hydraulic and Electric Looper/Tension control for hot strip mills) and geographies (Europe, South Africa, South and North America).



Gwyn Jones is the Section Leader for rolling mill models at Converteam (UK) Ltd. He attained a BSc in Mathematics at Bangor University. Since joining Converteam in 1990, he has taken part in the development and commissioning of various rolling mill projects worldwide. His speciality is in the use of cold rolling mill setup and adaption systems. Recent projects include a greenfield hot strip mill in China and a continuous cold mill in the USA.

REGISTRATION ENQUIRY FORM

2011 International Rolling Mill Academy

7-10 June 2011 – Belo Horizonte, Brazil

To register an enquiry for the course please complete in block letters one form per delegate and send to:
International Rolling Mill Academy, Converteam Ltda., Av. Alvares Cabral 1345
Lourdes, CEP 30170-001, Belo Horizonte, Minas Gerais, Brazil
Tel: +55 31 3330 5827
Fax: +55 31 3330 5815

Alternatively, you may register on-line at www.rolling-academy.com

Surname (incl. title)

First Name(s):

Company/Organisation:

Job Title:

Address:

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Tel.:

Fax:

Email:

Current Area of Work:

<p style="text-align: center;">Course Fee: Price on Application Includes: 4 days lectures, course notes, course software, & lunches/refreshments. Rates inclusive of hotel accommodation are available on application.</p>

Please reserve places on the course.

Please indicate your preferred method of payment:

Cheque enclosed payable to Converteam Ltda.

Visa/Mastercard Name on card:

Card number:

Expiry date:

Purchase Order Please invoice my company/organisation at the address below.

Order Number:

Name (if different from above):

Address:

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Tel:

Fax:

IMPORTANT: Course Fees are payable in advance and must be received two weeks prior to the commencement of the course. Full payment, or proof of payment, must accompany all registrations. Your registration is not confirmed until payment is received. Cancellation: Fees will be refunded, less 10% handling charge, for any cancellation received in writing 14 days prior to the course. For cancellations after this and no shows, Converteam reserves the right to charge the full rate. Substitute delegates are welcome at any time. Converteam also reserves the right to modify or cancel training courses, giving adequate notice and refunds to registrants.