



INTERNATIONAL WROUGHT COPPER COUNCIL

**IWCC TECHNICAL SEMINAR
BANGKOK**

28 FEBRUARY - 3 MARCH 2016

**PROGRAMME
AND
DELEGATES ATTENDING**

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HOTEL & MEETING INFORMATION

The Technical Seminar will be held at the Shangri-La Hotel Bangkok:

Shangri-La Hotel Bangkok
89 Soi Wat Suan Plu
New Road
Bangrak
Bangkok 10500

Tel: +66 2236 7777

Credit & Charge Cards

The hotel accepts all major credit and charge cards.

Delegates for whom accommodation has been reserved at the Shangri-La Hotel Bangkok are requested to settle their accounts upon departure.

Please note the quoted bedroom rates include breakfast and internet access but exclude taxes (currently 17.7%).

Venues

The Technical Seminar will be held in Ballroom 1 of the Shangri-La hotel.

The venues for all other events are given in the programme.

SECRETARIAT

The following members of the IWCC Secretariat will be in attendance throughout the meeting:

Mark Loveitt – President
Alastair Warner – Vice President
Sian O'Brien – Conference Manager

INTERPRETATION ARRANGEMENTS

The Technical Seminar will be a four language meeting: English, Japanese, Korean and Mandarin Chinese. Simultaneous interpretation between all four languages will be provided.

IWCC TECHNICAL SEMINAR
CHALLENGES & SOLUTIONS
APPLICATIONS AND PROCESSES FOR COPPER BASED SEMIS

Chairman of the Seminar

Gert Mueller	Wieland-Werke AG Vice President Metal
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Speakers

Daichi Ashida	Engineer AutoNetworks Technologies, Ltd.
Chee Jin Bek	Project Director, South East Asia International Copper Association (ICA)
Peter Böhlke	Head of Technology and Innovation Department KME Germany GmbH & Co. KG
Pierre Burry	Head of Research & Development Gindre Duchavany S.A.
Hendrik Busch	Manager Technology & Development MKM Mansfelder Kupfer und Messing GmbH
Chong Siew Huat	Sales Director Ningbo Powerway Alloy Material Co., Ltd.
Bernd Friedrich	Director Institute of Process Metallurgy and Metal Recycling, RWTH Aachen University
Christoph Haberling	Team Leader, Life Cycle Assessment & Environmental Properties Team Audi AG
Takemi Isomatsu	Researcher Furukawa Electric Co., Ltd.
Jun Hong Kim	Deputy Senior Manager, Casting Team Poongsan Corporation
Anton Klassert	CEO Deutsches Kupferinstitut Berufsverband e.V. (DKI)
Yoshiharu Kousaka	Managing Director, Engineering Division San-etsu Metals Co., Ltd.
Kris Kosmala	General Manager, Asia Pacific Quintiq SDN BHD
Pascal Lepretre	Electrotechnical Expert Schneider-Electric
Timo Loos	Director, Rod Plant Aurubis AG

Masayasu Nishimura	Senior Researcher Kobe Steel, Ltd.
Takayuki Oka	Senior Manager Mitsubishi Shindoh Co., Ltd.
Stefan Priggemeyer	Head of Department Corporate EHS & Standardization Affairs Wieland-Werke AG
Frank Rill	Partner UMS GmbH
Patrick Schneider	General Manager Sales Copper Market SMS Group GmbH
Steffen Sigloch	President Extruded Products Mueller Industries, Inc.
Hidenobu Tameda	Development Group, Manager Kitz Metal Works Corporation
Shinji Tanaka	Manager Mitsubishi Shindoh Co., Ltd.
Masahiko Wada	Secretary General Japan Copper Development Association (JCDA)

Delegates

Austria

ASMAG GmbH

Johannes Sieberer-Kefer
Director, Technology and Strategy

Johann Vielhaber
CEO

Buntmetall Amstetten GmbH

Anton Zierhut
Managing Director

China

Ningbo Powerway Alloy Material
Co., Ltd.

Chong Siew Huat
Sales Director

Zhao Hongbin
R&D Director

Ningbo Powerway Alloy Plate &
Strip Co., Ltd.

Hu Renchang
Technical Director

Powerway Group Co., Ltd.

Lin Xiaofen
Manager

Zhejiang Hailiang Group Co., Ltd.

Cao Jianguo
General Manager

Jiang Feng
Manager

Finland

UPCAST OY

Janne Hosio
Sales Manager

Matti Nordman
Sales Director

France

Gindre Duchavany S.A.

Pierre Burry
Head of Research & Development

Schneider-Electric

Pascal Lepretre
Electrotechnical Expert

Germany

Audi AG	Christoph Haberling Team Leader, Life Cycle Assessment & Environmental Properties Team
Aurubis AG	Michael Hoppe Vice President, Operations & Technology Development Timo Loos Director, Rod Plant
Aurubis Stolberg GmbH & Co. KG	Helge Lehmann Senior Manager, Global Technical Marketing
Deutsches Kupferinstitut Berufsverband e.V. (DKI)	Anton Klassert CEO
Diehl Metal Applications	Michael Köhler Director of Technology
KME Germany GmbH & Co. KG	Peter Böhlke Head of Technology and Innovation Department
MKM Mansfelder Kupfer und Messing GmbH	Max Brandt Director Sales, Marketing and R&D Hendrik Busch Manager Technology & Development Roland Harings Chief Executive Officer (CEO)
Otto Junker GmbH	Jan van Treek Sales Manager Thermoprocessing Plants for Extrusion Plants
RWTH Aachen University	Bernd Friedrich Director, Institute of Process Metallurgy and Metal Recycling, RWTH Aachen University
SMS Group GmbH	Patrick Schneider General Manager Sales Copper Market
UMS GmbH	Frank Rill Partner
Wieland-Werke AG	Ulrich Altstetter Member of the Executive Board Gert Mueller Vice President Metal Stefan Priggemeyer Head of Department Corporate EHS & Standardization Affairs

Greece

Halcor S.A.

Apostolos Kaimenopoulos
Plant ManagerPanos Lolos
Commercial Director**India**

Agrawal Metal Works Pvt Ltd,

Deepak Sanghi
General Manager

Arcotech Limited

Rishabh Saraf
Director

Rashtriya Metal Industries Ltd.

Balkrishna Binani
Managing Director**Italy**

Trafilerie Carlo Gnutti S.p.A.

Dario Gandaglia
Export Manager**Japan**

AutoNetworks Technologies, Ltd.

Daichi Ashida
Engineer

Furukawa Electric Co., Ltd.

Takemi Isomatsu
Researcher

Harada Metal Industry Co., Ltd.

Mario Harada
PresidentJapan Copper and Brass Association
(JCBA)Teruo Kanamori
General Manager, Technical DivisionJapan Copper Development
Association (JCDA)Masahiko Wada
Secretary GeneralJapan Wrought Copper Council
(JWCC)Takanori Kamei
Executive Director

Kitz Metal Works Corporation

Koichi Hagiwara
Senior AdviserHidenobu Tameda
Development Group, Manager

Kobe Steel, Ltd.

Masayasu Nishimura
Senior ResearcherHiroshi Sakamoto
Manager

Kobelco & Materials Copper Tube, Ltd. Akinori Tsuchiya
General Manager, Technical Department

Metal Economics Research Institute,
Japan (MERI/J) Yoshimasa Ohyama
Senior Analyst

Mitsubishi Shindoh Co., Ltd. Kazumasa Hori
President
Katsuhiko Masuda
Executive Advisor

Takayuki Oka
Senior Manager

Shinji Tanaka
Manager

San-etsu Metals Co., Ltd. Nobuyuki Ashie
Engineering Division, Manager

Masayuki Hirochi
Quality Control Division Chief Clerk

Yoshiharu Kousaka
Managing Director, Engineering Division

Toshinori Mori
Quality Control Division Assistant Manager

Nobuyuki Tsuruya
Sales Division Senior Vice President

Takateru Umeda
Advisor

Korea

Daechang Co., Ltd. EuiHan Yoon
R&D Director

Poongsan Corporation Min Jae Jeong
Research Engineer of Institute of Material
Technology

Byung-Gon Kim
Director of Casting, Tubing & Extruding,
Coin Blank Production Team

Jun Hong Kim
Deputy Senior Manager, Casting Team

Malaysia

Quintiq SDN BHD

Kris Kosmala
General Manager, Asia Pacific**Singapore**International Copper Association,
(ICA)Chee Jin Bek
Project Director, South East Asia**Spain**

La Farga Group

Francesc Farriol
Head of Engineering**Switzerland**

Alfred Wertli AG

Christian Wertli
CEO**Thailand**

Siam Poongsan Metal Co., Ltd.

Harry Park
Sales DirectorJe-Won Woo
President**Turkey**Kayalar Bakır Ala ımları
San. ve Tic. A. .Cengiz Kaya
Vice President

Sarbak Metal Tic. ve San. A.

Hürkan Karata
Extrusion & Drawing Unit Assistant
ManagerTu han Özçamsirti
Factory Manager

Sarkuysan A. .

Mete Tarhan
Tube Plant Chief**United Kingdom**

Rautomead Limited

Brian Frame
Managing Director**United States of America**

Mueller Industries, Inc.

Steffen Sigloch
President Extruded Products

IWCC Consultant

Jean-Marie Welter

Interpreters

Nanae Fujiware
Yoshiro Hidaka
Ann Kao
MinJee Kim
Woo-Chul Lee
Zhang Yunpeng

IWCC TECHNICAL SEMINAR PROGRAMME
CHALLENGES & SOLUTIONS
APPLICATIONS AND PROCESSES FOR COPPER BASED SEMIS

Sunday 28 February

Bangkok City Tour

See page 15 for list of participants

1330 Depart Shangri-La hotel by river boat for the Grand Palace
Dress code for religious reasons: ladies must wear either long trousers or skirts that fall below the knee and shoulders must be covered. Gentlemen must wear long trousers and sleeved shirts

1630 Arrive Shangri-La hotel

IWCC Technical Committee

1700 to 1800 IWCC Technical Committee Meeting (Corundum Room 3rd Floor)
Please note this meeting is for IWCC Technical Committee members only.

Welcome Reception

1800 to 2000 Welcome Reception for all delegates to be held on the River Terrace (1st floor)

Monday 29 February

IWCC Technical Seminar – Challenges & Solutions
Applications and Processes for Copper Based Semis

Venue: Ballroom 1

0900 **Opening Remarks**, Gert Mueller, Chairman IWCC Technical Seminar

Topic 1 General Overviews

Paper 1. The Thai copper industry: ASEAN copper flow model, Chee Jin Bek, International Copper Association (ICA)

Paper 2. Global megatrends, Jun Hong Kim, Poongsan Corporation

Topic 2 Challenges from the End-user Market and Fabricator Solutions

Paper 3. Developments of aluminium wiring harnessing, Daichi Ashida, AutoNetworks Technologies, Ltd.

Paper 4. Fish cages, Shinji Tanaka, Mitsubishi Shindoh Co., Ltd.

Refreshment Break

- Paper 5. Microgroove tube, Masahiko Wada, Japan Copper Development Association (JDCA)
- Paper 6. Properties required for lead frames and KOBELCO solutions, Masayasu Nishimura, Kobe Steel, Ltd.
- Paper 7. Connections in power systems, Pascal Lepretre, Schneider Electric
- Paper 8. Requirements for copper and copper alloy strips for new connectors and Furukawa's solution, Takemi Isomatsu, Furukawa Electric Co., Ltd.

1340 -
1440

Buffet Lunch

Topic 3	Improving Manufacturing Efficiency
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- Paper 9. Comparison of modern process routes for the production of high quality copper tubes, Patrick Schneider, SMS Group GmbH
- Paper 10. Transformation to excellence – the driver for significant improvements of metallurgy business, Frank Rill, UMS GmbH
- Paper 11. How modern supply chain planning and optimization software from Quintiq can support copper and copper alloy semis fabricating industry, Kris Kosmala, Quintiq SDN BHD
- Paper 12. Methods of quality improvement in casting of wire rod, Timo Loos, Aurubis AG

1640

Technical Seminar adjourns with refreshments

Industry Dinner

- 1915 Depart Shangri-La hotel by coach
- 2000 Dinner for all delegates at Baan Khanitha restaurant to be hosted by Siam Poongsan & Sumitomo Electric Industries, Ltd.
- 2215 Depart restaurant
- 2230 Arrive Shangri-La hotel

Tuesday 1 March

**IWCC Technical Seminar – Challenges & Solutions
Applications and Processes for Copper Based Semis**

Venue: Ballroom 1

0900

Opening Comments, Gert Mueller, Chairman IWCC
Technical Seminar

Topic 3 Improving Manufacturing Efficiency – continued

Paper 13. Conti M[®] technology – smart solution for the high efficient production of Cu-OFE strip, Hendrik Busch, MKM Mansfelder Kupfer und Messing GmbH

Paper 14. Lifecycle analysis of copper components, Pierre Burry, Gindre Duchavany S.A.

Paper 15. Manufacturing consolidation for tube production at KME, Peter Böhlke, KME Germany GmbH & Co. KG

Refreshment Break

Topic 4 Environmental, Health & Sustainability Challenges

Paper 16. The impact on copper alloys from environmental legislation, Stefan Priggemeyer, Wieland-Werke AG

Paper 17. Leaded and lead free copper alloys for automotive applications, Christoph Haberling, Audi AG

Paper 18. State of the art in removing lead from brass scrap, Bernd Friedrich, Institute of Process Metallurgy and Metal Recycling, RWTH Aachen University

Paper 19. EcoBrass[®], Takayuki Oka, Mitsubishi Shindoh Co., Ltd.

Paper 20. Development of new low-lead brass material – KEEPALLOY[®] II, Hidenobu Tameda, Kitz Metal Works Corporation

1330 to
1430

Buffet Lunch

Topic 5	Drinking Water Issues
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Paper 21. Drinking water regulations in Europe – challenges for manufacturing, Anton Klassert, Deutsches Kupferinstitut Berufsverband e.V. (DKI)

Paper 22. U.S. drinking water lead regulations: impact on the brass industry, Steffen Sigloch, Mueller Industries, Inc.

Paper 23. Environmental alloy development in Boway, Chong Siew Huat, Ningbo Powerway Alloy Material Co., Ltd.

Paper 24. Japanese regulations concerning nickel in drinking water and the effects of regulation, Yoshiharu Kousaka, San-etsu Metals Co., Ltd.

Closing Remarks, Gert Mueller, Chairman IWCC
Technical Seminar

1640

Technical Seminar closes with refreshments

Dinner for all delegates

1930 Depart Shangri-La hotel by coach

2000 Arrive Blue Elephant restaurant for dinner

2200 Depart restaurant

2215 Arrive Shangri-La hotel

PLANT VISIT PROGRAMME

Wednesday 2 March

Siam Poongsan Metal Co., Ltd.

See page 16 for list of participants.

- 0800 Depart Shangri-La hotel by coach
- Arrive Siam Poongsan for introduction to the company followed by plant tour
- Lunch at Bangkapong Riverside Country Club
- 1530 Arrive Shangri-La hotel
- Evening No formal arrangements

Thursday 3 March

SEI Thai Electric Conductor Co., Ltd. and Kobelco & Materials Copper Tube (Thailand) Co., Ltd. (KMCT)

See page 17 for list of participants

- 0745 Depart Shangri-La hotel by coach
- Arrive SEI Thai Electric for introduction to the company followed by plant tour
- Lunch at Pattana Golf Club
- Arrive KMCT for introduction to the company followed by plant tour
- After the plant tour, there will be three coaches departing KMCT:
- two coaches will return direct to the Shangri-La hotel, arriving the Shangri-La hotel at 1800
 - one coach will go to Suvarnabhumi Airport (BKK) only (for delegates leaving late evening), arriving BKK at 1800
- Evening No formal arrangements
- Departure of delegates

Participants

City Tour – 28 February

Ulrich Altstetter
Nobuyuki Ashie
Peter Böhlke
Max Brandt
Hendrik Busch
Cao Jianguo
Chong Siw Huat
Francesc Farriol
Brian Frame
Christoph Haberling
Roland Harings
Masayuki Hirochi
Michael Hoppe
Hu Renchang
Takemi Isomatsu
Jiang Feng
Cheena Jain
Takanori Kamei
Teruo Kanamori
Hürkan Karatas
Cengiz Kaya
Michael Köhler
Yoshiharu Kousaka

Pascal Lepretre
Lin Xiaofen
Panos Lolos
Mark Loveitt
Toshinori Mori
Gert Mueller
Masayasu Nishimura
Sian O'Brien
Tu han Özçamsirti
Stefan Priggemeyer
Hiroshi Sakamoto
Deepak Sanghi
Rishabh Saraf
Patrick Schneider
Steffen Sigloch
Mete Tarhan
Jan van Treek
Nobuyuki Tsuruya
Takateru Umeda
Alastair Warner
Jean-Marie Welter
Christian Wertli
Zhao Hongbin

Plant Visit Poongsan – 2 March

Ulrich Altstetter
Nobuyuki Ashie
Chee Jin Bek
Balkrishna Binani
Peter Böhlke
Pierre Burry
Hendrik Busch
Cao Jianguo
Chong Siew Huat
Francesc Farriol
Brian Frame
Bernd Friedrich
Christoph Haberling
Koichi Hagiwara
Mario Harada
Roland Harings
Masayuki Hirochi
Michael Hoppe
Kazumasa Hori
Hu Renchang
Takemi Isomatsu
Min Jae Jeong
Jiang Feng
Apostolos Kaimenopoulos
Takanori Kamei
Teruo Kanamori
Hürkan Karatas
Cengiz Kaya
Byung-Gon Kim
Jun Hong Kim
Anton Klassert
Michael Köhler
Yoshiharu Kousaka
Helge Lehmann

Pascal Lepretre
Lin Xiaofen
Panos Lolos
Timo Loos
Mark Loveitt
Katsuhiko Masuda
Toshinori Mori
Gert Mueller
Masayasu Nishimura
Sian O'Brien
Yoshimasa Ohyama
Takayuki Oka
Tu han Özçamsirti
Stefan Priggemeyer
Hiroshi Sakamoto
Deepak Sanghi
Rishabh Saraf
Johannes Sieberer-Kefer
Steffen Sigloch
Hidenobu Tameda
Shinji Tanaka
Meté Tarhan
Jan van Treek
Akinori Tsuchiya
Nobuyuki Tsuruya
Takateru Umeda
Johann Vielhaber
Masahiko Wada
Alastair Warner
Jean-Marie Welter
Christian Wertli
EuiHan Yoon
Zhao Hongbin
Anton Zierhut

Plant Visit SEI Thai Electric & KMCT – 3 March

Ulrich Altstetter
Nobuyuki Ashie
Chee Jin Bek
Peter Böhlke
Pierre Burry
Hendrik Busch
Cao Jianguo
Chong Siew Huat
Francesc Farriol
Brian Frame
Roland Harings
Masayuki Hirochi
Michael Hoppe
Janne Hosio
Hu Renchang
Takemi Isomatsu
Min Jae Jeong
Jiang Feng
Apostolos Kaimenopoulos
Takanori Kamei
Teruo Kanamori
Hürkan Karatas
Cengiz Kaya
Byung-Gon Kim
Jun Hong Kim
Anton Klässert
Michael Köhler
Yoshiharu Kousaka
Helge Lehmann
Pascal Lepretre

Lin Xiaofen
Panos Lolos
Timo Loos
Mark Loveitt
Toshinori Mori
Gert Mueller
Matti Nordman
Sian O'Brien
Yoshimasa Ohyama
Takayuki Oka
Tu han Özçamsirti
Harry Park
Stefan Priggemeyer
Johannes Sieberer-Kefer
Steffen Sigloch
Shinji Tanaka
Meté Tarhan
Jan van Treek
Akinori Tsuchiya
Takateru Umeda
Johann Vielhaber
Masahiko Wada
Alastair Warner
Jean-Marie Welter
Christian Wertli
Je-Won Woo
Zhao Hongbin
Anton Zierhut

LOCATIONS & TOPICS FOR PREVIOUS TECHNICAL SEMINARS		
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1984	s'Hertogenbosch	Casting
1985	Berne	Extrusion & Hot Rolling
1986	Florence	The Cold Rolling of Flat Products
1987	Chester	The Cold Drawing of Round Products
1988	Baden bei Wien	Annealing
1989	Paris	The Finishing of Flat Products
1990	Tokyo	New Products & Processes
1991	Hannover	The Finishing of Round Products and Quality Certification Control
1992	Lisbon	Scrap Recycling & the Environment
1993	Pori	Degreasing
1994	Krakow	The Packaging of Semi-Manufactures
1995	Maastricht	Casting
1996	Cordoba	The Production of Flat Products - from Hot Rolling to Finishing
1997	Singapore	Advanced Transformation Technologies
1998	Ulm	Cutting & Slitting
1999	Castelvecchio Pascoli	Copper – The Metal for the New Millennium
2000	Buffalo	Fabrication of drawn and extruded products
2001	Paris	Conventional and Advanced Technologies for the production of rolled products
2002	Seoul	Copper Tube – Production, Performance and Properties
2003	Denizli	Melting and Casting
2004	Basel	Heat and Surface Treatment
2005	Tokyo	New Materials and Applications for Copper and Copper Alloys
2007	Shanghai	Forming of Copper and Copper Alloys – Theory and Practice
2008	Chicago	Sheet and Strip for Modern Applications
2009	Barcelona	Melting and Casting
2010	Athens	Hot Deformation of Copper and Copper Alloys
2011	Kuala Lumpur	Finishing & Products
2012	Seoul	Casting
2013	Santiago	Melting, Refining & Casting
2014	Mumbai	Rolling – Flat & Other Products
2015	Istanbul	Extrusion
2016	Bangkok	Challenges & Solutions: Applications and Processes for Copper Based Semis