GMM VDE/VDI-GESELLSCHAFT MIKROELEKTRONIK, MIKROSYSTEM- UND FEINWERKTECHNIK

Program

The 31st European Mask and Lithography Conference EMLC 2015

June 22 – 23, 2015
Pullman Hotel
Eindhoven, The Netherlands

www.EMLC2015.com

VDI

VDE

Welcome to the EMLC 2015 in Eindhoven

31st European Mask and Lithography Conference
EMLC 2015
at the Pullman Hotel, Eindhoven, The Netherlands
on June 22nd and June 23rd, 2015

On behalf of VDE/VDI-GMM, the Sponsors, and the Organizing Committee, we would like to welcome you to the 31st European Mask and Lithography Conference, EMLC2015 at the Pullman Hotel in the City of Eindhoven, The Netherlands.

The conference has annually brought together scientists, researchers, engineers, and technologists from research institutes and companies from around the world to present innovations at the forefront of mask lithography and mask technology.

The two days conference (starting on Monday, June 22nd at 09:00 am, ending on Tuesday, June 23rd at 06:00 pm) is dedicated to the science, technology, engineering and application of mask and lithography technologies and associated processes, giving an overview of the present status in mask and lithography technologies and the future strategy where mask producers and users have the opportunity of becoming acquainted with new developments and results. This year's sessions include:

"Extension of Immersion Lithography"; "EUV Lithography"; "High NA EUV Lithography"; "EUV Mask Technology"; "Toward 7nm Technology"; "Mask Preparation and OPC"; "Mask Metrology"; "Mask writing" and last but not least there will be a "DSA Session".

As Welcome Speaker we are pleased to announce Rob van Gijzel, Mayor of the City of Eindhoven.

As Welcome Speaker from ASML we are pleased to have Lucas van Grinsven, Head of Communication from ASML with us. The title of his presentation is: "From Shed to Global Leader, ASML to the Brainport of the Netherlands".

His presentation will be followed by the first Keynote Speaker Hans Meiling from ASML. He will explain his statement: "EUV Lithography into High Volume Manufacturing: "WHEN", not "IF".

Our second Keynote Speaker is Greg McIntyre from imec. He will talk about "Scaling Trends and Options: Plenty of reason to be Hopeful".

The Monday morning will be continued, as every year, with the presentation of the Best Paper from PMJ 2015 and the Best Poster from BACUS 2014 by Ingo Bork from Mentor Graphics Corporation.

Poster Session

On Monday late afternoon a poster session will take place. This year some posters are organized by ASML, the co-partner of the EMLC2015. These selected posters are part of the ASML internal Technology DAY on Wednesday; June 24th 2015.

Technical Exhibition

Parallel to the Conference Presentations, a Technical Exhibition will take place on Monday (09:00 AM to 06:00 PM) and on Tuesday (09:00 AM to 04:00 PM) where companies (mask suppliers, material suppliers and equipment suppliers) will exhibit their companies and products.

To foster the exchange between the conference attendees and the exhibitors, the exhibition area will also be the place for all coffee and lunch breaks.

Conference Dinner Banquet

For Monday evening we have organized the Conference Banquet Dinner. In the year of Light we will go to the Philips Light Museum in Eindhoven.

Visiting ASML on Wednesday, June 24th, 2015.
The Program includes a tour at ASML premises

10:30 Bus leaves from the Pullman in Eindhoven to ASML in Veldhoven.

Program at ASML (including tour at ASML premises):

11:30 Lunch at ASML
12:30 Opening & Introduction ASML
13:00 EUV presentation (we are trying to get an interactive movie in place)
13:30 Timeslot for technical presentation
14:30 Break
15:00 Campus tour
16:00 End (refreshments)

Please be aware that the tour to ASML is limited to 50 people (first in first served)

So, please enjoy the Technical Sessions of the EMLC2015 as well as the Technical Exhibition, but also allow yourself to visit the beautiful city of Eindhoven.

Uwe Behringer
EMLC2015 Conference Chair

List of Contents

Committee Members 5, 6

Organizers 7

Program Overview 8
- Monday, June 22, 2015 8
- Tuesday, June 23, 2015 14
- Wednesday, June 24, 2015 – Visiting ASML 20

Conference Information 21
- Conference Hours 21
- Registration Hours 21
- Technical Exhibition 21

Information for Authors 22
- Presentation and CV 22
- Manuscripts and Proceedings 22
- Best Paper Award 22

General Information 23
- Conference Fees 23
- Conference Registration 23
- Online Registration 24
- Payment 24
- Cancellation 24
- Proceedings 24
- Venue 24
- Transport 25
- Parking, Hotel Reservation 26
- Banquet Dinner 27
- Insurance 27
- Passport and Visa Requirements 27
- About Eindhoven 27

Cooperating Partners .... outside back cover

Cover picture:
Courtesy of Toppan Photomasks

The EMLC 2015 International Program Committee

Conference Chair

Uwe Behringer,	UBC Microelectronics, Ammerbuch, Germany
Jo Finders	ASML, The Netherlands

Co-Conference Chairs

Chris Gale	Applied Materials, Dresden, Germany
Naoya Hayashi	Dai Nippon Printing Co. Ltd., Saitama, Japan

Program Chairs

Daniel Sarlette	Infineon, Dresden, Germany
Brid Connolly	Toppan Photomasks GmbH, Dresden, Germany
Rolf Seltmann	GLOBALFOUNDRIES, Dresden, Germany

Continued on next page

The EMLC 2015
International Program Committee

Other Members

Paul Ackmann, Globalfoundries Inc., Santa Clara, USA

Michael Arnz, Carl Zeiss SMT AG, Oberkochen, Germany

Carola Blaesing, Carl Zeiss SMS GmbH, Jena, Germany

Parkson Chen, Taiwan Mask Corp., Hsinchu,Taiwan

Natalia Davydova, ASML, Veldhoven, The Netherlands

Dave Farrar, HOYA Corporation, London, UK

Rik Jonckheere, IMEC vzw, Leuven, Belgium

Barbara Lauche, Photronics MZD GmbH, Dresden, Germany

Carlos Lee, EPIC – European Photonics Industry Consortium, Brussels, Belgium

Bertrand Le Gratiet, STMicroelectronics, Crolles, Cedex, France

Hans Löschner, IMS Nanofabrication AG, Vienna, Austria

Wilhelm Maurer, Infineon, Munich, Germany

Hiroaki Morimoto, Toppan Printing Co., Ltd, Tokyo, Japan

Jan Hendrik Peters, Carl Zeiss SMS GmbH, Jena, Germany

Emmanuel Rausa, Plasma-Therm USA, St. Petersburg, FL, USA

Douglas J. Resnick, Molecular Imprints, Austin, TX, USA

Klaus-Dieter Röth, KLA-Tencor MIE, Weilburg, Germany

Thomas Scherübl, Carl Zeiss SMS GmbH, Jena, Germany

Ronald Schnabel, VDE/VDI-GMM, Frankfurt a. M., Germany

Steffen Schulze, Mentor Graphics Corp., Wilsonville, OR, USA

Ines Stolberg, Vistec Electron Beam GmbH, Jena, Germany

Jacques Waelpoel, ASML, Veldhoven, The Netherlands

John Whittey, KLA-Tencor, San José, USA

Jim Wiley, ASML US, Inc., Santa Clara, CA, USA

Carlton Willson, University of Texas, Austin, USA

Hermann Wolf, Photronics MZD GmbH, Dresden, Germany

Stefan Wurm, SEMATECH, Albany , NY, USA

Larry Zurbrick, Agilent Technologies, Santa Clara, CA, USA

Organizers

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Program Overview

Monday, June 22nd, 2015

08:00-08:50 **Welcome Coffee in the Winteruin Hall**
(at the Technical Exhibition)

09:00 **Welcome and Introduction**
U. Behringer, UBC Microelectronics, Ammerbuch, Germany, Conference Chair

09:15 **Invited Welcome Speaker from Eindhoven**
Rob van Gijzel, Mayor of the City of Eindhoven

09:45 **Invited Welcome Speaker from ASML**
From Shed to Global Leader, ASML in the Brainport of the Netherlands
Lucas van Grinsven, Head of Communication, ASML, The Netherlands

Session 1 – Plenary Session I

Session Chairs:
J. Finders, ASML, Veldhoven, The Netherlands;
R. Seltmann, Globalfoundries, Dresden, Germany

10:15 **Keynote Speaker I (Invited)**
EUV Lithography into High Volume Manufacturing: "WHEN", not "IF"
H. Meiling, ASML, The Netherlands

11:00 **Coffee Break in the Winteruin Hall**
(at the Technical Exhibition)

Session 2 – Plenary Session II

Session Chairs:
B. Connolly, Toppan Photomasks GmbH, Dresden, Germany;
P. Buck, Mentor Graphics Corporation, Wilsonville, OR, USA

11:30 **Keynote Speaker 2 (Invited)**
Scaling Trends and Options: Plenty of Reasons to be Hopeful
G. Mcintyre, imec, Leuven, Belgium

12:10 **MEMS Market and Technology trends: Bringing Challenges for advanced Packaging Lithography (Invited)**
C. Troadec, Yole Development, Lyon-Villeurbanne, France

12:30 **Best Paper of PMJ 2015 (Invited)**
N.N.

12:50 **Best Poster BACUS 2015 (Invited)**
Using rule-based Shot Dose Assignment in model-based MPC application
I. Bork, Mentor Graphics, San José, USA

13:10 **Lunch Break in the Winteruin Hall**
(at the Technical Exhibition)

Program Overview

Session 3 – Patterning & Process Characterization

Session Chairs:
J. Wiley, ASML US, Inc., Santa Clara, CA, USA;
U. Behringer, UBC Microelectronics, Ammerbuch, Germany

14:20 Mask and Lithography Techniques for FPD (Invited)
T. Sandström, Micronic Laser Systems, Täby, Sweden

14:50 SLM based Semiconductor Mask Writer
S. Diez, A. Jehle, Heidelberg Instruments Mikrotechnik GmbH, Heidelberg, Germany

15:10 A Lossless Layout Image Compression Algorithm for Electron-Beam Direct-Write Lithography
N. Chaudhary, Y. Luo, S.A. Savari, Texas A&M University, USA

15:30 Advanced Process Characterization of a 10nm Metal 1 Logic Layer using Light Source Modulation and Monitoring
P. Alagna[1], O. Zurita[2], V. Timoshkov[4], P. Wong[5], G. Rechtsteiner[2], J. Baselmans[4], J. Mailfert[5], W. Conley[2], S. Hsieh[3]
[1] Cymer LLC, Leuven, Belgium
[2] Cymer LLC, San Diego, CA, USA
[3] Cymer LLC, HsinChu City, Taiwan R.O.C
[4] ASML Netherlands B.V., Veldhoven, The Netherlands
[5] imec, Leuven, Belgium

Monday, June 22nd, 2015

Session 4 – DSA

Session Chairs:
L. van Look, IMEC, Leuven, Belgium;
J. Bekaert, imec vzw, Leuven, Belgium

15:50 N7 Logic Via Patterning using Templated DSA: Implementation Aspects (Invited)
J. Bekaert[1], J. Doise[1,2], R. Gronheid[1], J. Ryckaert[1], G. Vandenberghe[1], Y. J. Her[3], Y. Cao[3]
[1] imec vzw, Leuven, Belgium
[2] K. U. Leuven, Leuven, Belgium
[3] Merck Performance Materials, Branchburg, NJ, USA

16:20 Skeleton-Based OPC Application for DSA full Chip Mask Correction
L. Schneider, V. Farys, E. Serret, ST Microelectronics, Crolles, France

16:40 Directed Self-Assembly for 15nm HP and Beyond
Y. Cao, S.-E. Hong, JH. Kim, E. Hirahara, G. Lin, EMD Performance Materials Corp., Somervile, NY, USA

17:00 Coffee Break in the Winteruin Hall
(at the Technical Exhibition)

Program Overview

Session 5 – Poster Session

17:30 - 18:40 **(in the Winteruin Hall, at the Technical Exhibition)**

Direct Laser Writing at 1nm Resolution by Quantum Optical Lithography
E. Pavel, Storex Technologies, Bucharest, Romania; S. I. Jinga, Bogdan S. Vasile, University of Bucharest, Romania; A. Dinescu, National Institute for R&D in Microtechnologies, Bucharest, Romania; V. Marinescu, National Institute for R&D in Electrical Engineering, Bucharest, Romania; R. Trusca, METAV R&D, Bucharest, Romania; N. Tosa, National Institute for R&D of Isotopic and Molecular Technologies, Cluj-Napoca, Romania

Reverse Replication of Circular Micro Grating Structures with soft Lithography
X. Shang, J. Missinne, N. Teigell Beneitez, M. Jablonski, J. De Smet, P. Joshi, D. Cuypers, imec and Ghent University; M. Vervaeke, H. Thienpont, Vrije Universiteit Brussel; H. De Smet, imec and Ghent University

Characterization of Optical Material Parameters for EUV Lithography Applications at PTB
C. Laubis, A. Haase, V. Soltwisch, F. Scholze, Physikalisch-Technische Bundesanstalt, Berlin, Germany

Molecular Dynamics Study on Polymer Orientation phenomena in Nanoimprint Lithography
K. Tada, National Institute of Technology, Toyama College, Toyama, Japan; M. Yasuda, H. Kawata, Y. Hirai, Osaka Prefecture University, Osaka, Japan

Monday, June 22nd, 2015

Quickly Identifying and Resolving Particle Issues in Photolithographic Scanners
A. Jackson, CyberOptics Corporation, Golden Hills, Golden Valley, Minnesota, USA

A selected number of posters from ASML internal technology conference, held on Wednesday after EMLC, will be shown as well.

It provides an excellent opportunity to discuss relevant topics in more detail with the authors.

A list of the poster titles will be published on the web page in the next weeks.

19:00 **Meet in the Lobby of the Pullman Hotel**

19:10 **Walk to the Philips Light Museum**

19:30 **Dinner at the Philips Light Museum**

Program Overview

Tuesday, June 23rd, 2015

08:00- 08:40 **Welcome Coffee in the Winteruin Hall**
(at the Technical Exhibition)

Session 6 – EUV Lithography

Session Chairs:
J. H. Peters, Carl Zeiss SMS GmbH, Jena, Germany;
J. Bekaert, imec, Leuven, Belgium

08:40 **EUV Pellicle complete solution (Invited)**
C. Zoldesi, B. Verbrugge, B. Verhoeven, D. Smith, D. Brouns, E. van Setten, E. Casimiri, E. Bogaart, J. Zimmerman, K. Ricken, H. Harrold, G. Bock, G. van den Bosch, J. de Hoogh, J. Hofman, J. Lima, M. Jansen, M. Leenders, M. Kruizinga, N. Harned, P. Broman, P. Janssen, P. Colsters, P. Limpens, P. Peterson, R. de Kruif, S. Houweling, T. Maas, ASML Netherlands B.V., Veldhoven, and ASML Wilton, CT, USA

09:10 **Experimental Validation of Novel EUV Mask Technology to Reduce Mask 3D Effects**
L. Van Look, V. Philipsen, E. Hendrickx, imec, Leuven, Belgium; N. Davydova, F. Wittebrood, R. de Kruif, A. van Oosten, J. Miyazaki, T. Fliervoet, J. van Schoot, ASML BV, Veldhoven, The Netherlands; J. T. Neumann, Carl Zeiss SMT GmbH, Oberkochen, Germany

09:30 **Understanding the Litho-impact of Phase due to 3D Mask-Effects when using off-axis illumination**
L. de Winter, T. Last, N. Davydova, J. Finders, ASML, Netherlands B.V., Veldhoven, The Netherlands

09:50 **Understanding of Out-of-Band DUV light in EUV Lithography: Controlling Impact on Imaging and Mitigation Strategies**
N. Davydova, R. Kottumakulal, J. Hageman, J. McNamara, R. Hoefnagels, V. Vaenkatesan, A. van Dijk, K. Ricken, L. de Winter; T. Hollink, R. de Kruif, G. Schiffelers, E. van Setten, P. Colsters, W. Liebregts, H. Ashraf, R. Pellens, J. van Dijk, ASML Netherlands B.V.,Veldhoven, The Netherlands

10:10 **Coffee Break in the Winteruin Hall**
(at the Technical Exhibition)

Session 7 – Mask Preparation and OPC

Session Chairs:
J.N. Wiley, ASML Inc., Santa Clara, CA, USA;
P. Buck, Mentor Graphics Corporation, Wilsonville, OR, USA

10:40 **Mask Proximity Compensation for Advanced Optical and EUV Reticles (Invited)**
P. Buck, Mentor Graphics Corporation, Wilsonville, Oregon, USA; I. Bork, L. Wang, Mentor Graphics Corporation, Fremont, CA, USA

11:10 **Optimization of rule-based OPC Fragmentation to Improve Wafer Image Rippling**
J. Wang, Globalfoundries Inc., Dresden, Germany; A. Wei, Mentor Graphics Corporation, Malta, NY, USA; P. Verma, W. Wilkinson, Globalfoundries Inc., Malta, NY, USA

11:30 **OPC Verification considering CMP Induced Topography**
R. K. Kuncha [1], A. N. Samy [1], U. Katakamsetty [2]
[1] Globalfoundries, Dresden, Germany;
[2] Globalfoundries, Singapore

Program Overview

Session 8 – Towards 7nm Technology

Session Chairs:
N. Davydova, ASML, Veldhoven, The Netherlands,
D. Sarlette, Infineon, Dresden, Germany

11:50 Getting ready for the 7nm Node
G. Dicker, D. De Bruin, B. Peterson, P. Wöltgens, B. Sluijk, P. Jenkins, ASML, Veldhoven, The Netherlands

12:10 Patterning Options for N7 logic – Prospects and Challenges for EUV
E. van Setten, F. Wittebrood, E. Psara, T. Fliervoet, M. Dusa, G. Schiffelers, J. McNamara, N. Davydova, J. van Dijk, G. Rispens, T. Hollink, R. Hoefnagels, C. Verspaget, O. Yildirim, D. Oorschot, ASML Netherlands B.V., Veldhoven, The Netherlands; V. Philipsen, L. van Look, G. Lorusso, J. Hermans, E. Hendrickx, IMEC, Heverlee, Belgium

12:30 Lunch Break in the Winteruin Hall
(at the Technical Exhibition)

Session 9 – Mask Metrology

Session Chairs:
C. Bläsing, Carl Zeiss SMS GmbH, Oberkochen, Germany;
K.-D. Röth, KLA-Tencor MIE, Weilburg, Germany

13:30 In-die Mask Registration Metrology and the Impact of High Resolution and Low Aberrations
D. Beyer[1], D. Seidel[1], S. Heisig[1], S. Steinert[1], S. Töpfer[1], T. Scherübl[1], J. Hetzler[2]
[1] Carl Zeiss SMS GmbH, Jena, Germany
[2] Carl Zeiss SMT GmbH, Oberkochen, Germany

13:50 Actinic EUV Mask Metrology with Laboratory Sources – Filling the Gap between Beamline Installation and Industrial Demand
S. Herbert[2], L. Bahrenberg[2], S. Danylyuk[2], P. Loosen[2], R. Lebert[1], C. Phiesel[1], T. Mißalla[1], C. Piel[1], L. Juschkin[2]
[1] RI Research Instruments GmbH, Bergisch-Gladbach, Germany
[2] RWTH Aachen University, 52074 Aachen, Germany

14:10 Fast Alternative Method for Measuring the Wavefront of Lithography Exposure Systems
A. Kabardiadi[1], H. Aßmann[2], A. Greiner[2], T. Baselt[1], C. Taudt[1], P. Hartmann[1]
[1] Westsächsische Hochschule Zwickau,
[2] Infineon Technologies Dresden GmbH

14:30 Challenges in Constructing EUV Metrology Tools to qualify EuV Masks for HVM Implementation
R.C.C. Perera, EUV Tech, Martinez, CA, USA

14:50 Coffee Break in the Winteruin Hall
(at the Technical Exhibition)

Program Overview

Session 10 – Measurement & Inspection Techniques

Session Chairs:
D. Sarlette, Infineon, Dresden, Germany;
I. Stolberg, Vistec Electron Beam GmbH, Jena, Germany

15:20 Investigations for an Alternative to contact Angle Measurement after Hexamethyl-disilazane
H. Aßmann, A. Krause, R. Maurer, M. Dankelmann, M. Specht, Infineon Dresden GmbH, Germany; B. Usry, R. Newcomb, Qcept Technologies Inc., Atlanta, Georgia, USA

15:40 Productivity Enhancement and Reliability through Auto Analysis
A. Garetto, T. Rademacher, K. Schulz, Carl Zeiss SMS, Jena, Germany

16:00 YieldStar based Reticle 3D Measurements and its Application
V. Vaenkatesan, T. Schellekens, N. Davydova, H. Dillen, J. van Dijk, ASML Netherlands B.V., Veldhoven, The Netherlands

16:20 Enabling Inspection Solutions for Future Mask Technologies Through the Development of Massively Parallel E-Beam Inspection
M. Malloy[1], B. Thiel[2], B. D. Bunday[1], V. Jindal[1], S. Wurm[1], T. Kemen[3], D. Zeidler[3], A. L. Eberle[3], T. Garbowski[3], G. Dellemann[3], J. H. Peters[4]
[1] SEMATECH, Albany, NY, USA
[2] SUNY Polytechnic Institute, Albany, NY USA
[3] Carl Zeiss Microscopy GmbH, Oberkochen, Germany
[4] Carl Zeiss SMS GmbH, Jena, Germany

Tuesday, June 23rd, 2015

Session 11 – Extension of Immersion Lithography

Session Chairs:
J. Finders, ASML, Veldhoven, The Netherlands;
J. H. Peters, Carl Zeiss SMS GmbH, Jena, Germany

16:40 AGILE Integration into APC for High Mix Logic Fab (Invited)
M. Gatefait, A. Lam, B. Le-Gratiet, M. Mikolajczak, V. Morin, N. Chojnowski, Z. Kocsis, I. Smith, J. Decaunes, A. Ostrovsky, C. Monget, ST Micro-electronics, Crolles, France

17:10 Enabling the 14nm Node Contact Patterning using advanced RET Solutions
N. Zeggaoui, Mentor Graphics Corporation, Montbonnot Saint Martin, France; G. Landie, V. Farys, E. Yesilada, ST Microelectronics, Crolles, France; A. Tritchkov, J. Word, Mentor Graphics Corporation, Wilsonville, OR, USA

17:30 Product Layout Induced Topography Effects on Intrafield Levelling
J.-G. Simiz, B. Le-Gratiet, ST Microelectronics, Crolles, France; W.T. Tel, ASML, Veldhoven, The Netherlands; C. Prentice, ASML, Bernin, France; A. Tishchenko, LaHC CNRS-UMR, Saint Étienne, France

Program Overview

Session 12 – High NA EUV Lithography

Session Chairs:
C. Zoldesi, N. Davydova, ASML, Veldhoven, The Netherlands

17:50 Imaging Performance of high NA Anamorphic Exposure Tools
K. van Ingen Schenau, G. Bottiglieri, J. van Schoot, ASML Netherlands B.V., The Netherlands;
J. T. Neumann, M. Roesch, Carl Zeiss SMT GmbH, Oberkochen, Germany;

18:10 Anamophic high-NA EUV Lithography Optics
B. Kneer, S. Migura, W. Kaiser, J. T. Neumann, Carl Zeiss SMT GmbH, Oberkochen, Germany;
J. van Schoot, ASML Netherlands B.V., Veldhoven, The Netherlands

18:30 Farewell

18:40 End of Conference EMLC 2015

Wednesday, June 24th, 2015

Visiting ASML. The program includes a tour at ASML premises.

10:30 Bus leaves from the Pullman in Eindhoven to ASML, Veldhoven.

Program at ASML, including tour at ASML premises:

11:30 Lunch at ASML

12:30 Opening & Introduction of ASML

13:00 EUV presentation (we are trying to get an interactive movie in place)

13:30 Timeslot for technical presentation

14:30 Break

15:00 Campus Tour

16:00 End

Conference Information

Conference Hours

Monday, June 22, 2015	09:00 am to 06:10 pm
Tuesday, June 23, 2015	09:00 am to 06:50 pm

Registration Hours

Monday, June 22, 2015	04:00 pm to 06:00 pm
Tuesday, June 23, 2015	07:30 am to 05:00 pm

Technical Exhibition

Parallel to the conference presentations on Monday and Tuesday we offer you to take part in a technical exhibition.

If you intend to participate in the technical exhibition as an exhibitor, please contact the chairperson as soon as possible as the exhibition area is limited.

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Your Presentation and CV

The most convenient way for you and the organizers is to provide your slides in the form of MS-Powerpoint format (ppt) on a USB-stick, as early as possible, but latest during the break before your session. You should download and test them on the presentation computer. Your Session Chair will surely be glad to assist you. You may also use your own laptop computer, but experience has shown to do better not.

Please send in – if not yet done – your short CV to the Conference Chairs and to your Session Chair, so that he may introduce you appropriately to the audience.

Manuscripts and Proceedings

The official deadline for manuscripts is is **June 15th, 2015**.

All manuscripts will be subject to a critical peer review before they are accepted for publication in the SPIE Digital Library.

Please note: Late submissions may not be published.

Information on the format of the manuscripts and further details is also provided at the conference web site: www.emlc2015.com

The conference manuscripts will be published by SPIE

Manuscripts which are not delivered until the first day of the conference, Monday, June 22nd, 2015, will not be published in the combined SPIE/VDE volume and will not be a part of the SPIE Digital Library.

Each attendee of the conference will receive one copy of the proceedings as a CD which will be sent after the event.

Best Paper Award

All conference attendees will elect the Best Paper of the EMLC 2015. Manuscripts not received until the first day of the conference can not be elected for Best Paper.

The Best Paper will be invited to present at PMJ2015 in Yokohama, Japan, in April 2015 and at BACUS in Monterey, CA, USA in September 2015.

EMLC 2015 Office

For detailed information please contact:

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e-Mail: gmm@vde.com

Conference Fees

	until May 23rd, 2015	after May 23rd, 2015
Non-Members	€ 500.00	€ 650.00*
VDE, VDI Members**	€ 480.00	€ 630.00
Lecturer	€ 450.00	€ 550.00
Student Members***	€ 150.00	€ 200.00

* Prices are subject to 21% VAT

** Participants claiming for the membership fee must attach a copy of their membership card to the registration form.

*** A photocopy of the student card must be attached.

The conference fee includes admission to all sessions as well as to the daily coffee-breaks, lunches and conference banquet dinner as well as one copy of the CD-ROM-proceedings

Conference Registration

To register for EMLC 2015, please fill in the registration form attached to this booklet and return it to VDE Conference Services, Stresemannallee 15, 60596 Frankfurt, Germany. To benefit from the “early-bird-discount”, VDE Conference Services must receive the form before May 23, 2015. Full payment or credit card information must accompany all registrations in order to be accepted. Completed forms may be sent by fax (++49 (0)69 6308 144) or e-Mail (vde-conferences@vde.com). A confirmation of the registration will be sent upon receipt of full payment.

Online Registration

Registrations for the conference and payment by credit card may be done online. More detailed information, please see on the conference's homepage which is www.EMLC2015.com

Payment of Conference Fee

Payment for registration, including bank charges and processing fees, must be made in Euro. The conference fee has to be fully paid in advance by credit card. Your registration can only be confirmed if VDE-Conference Services has recorded receipt of your full payment.

Cancellation

In case of cancellation, provided that written notice has been given to VDE-Conference Services before May 22, 2015, the registration fee will be fully refunded less a handling fee of EURO 80.00. After May 23, 2015, no refund will be made. Proceedings and CD-ROM-proceedings will then be sent to the registrant after the conference.

Proceedings

All papers accepted for presentation at the conference will be published with the proceedings on a SPIE CD-ROM. The proceedings will be sent after the conference to all delegates who attended the event. All Manuscripts will also be published in the SPIE Digital Library.

Conference Venue

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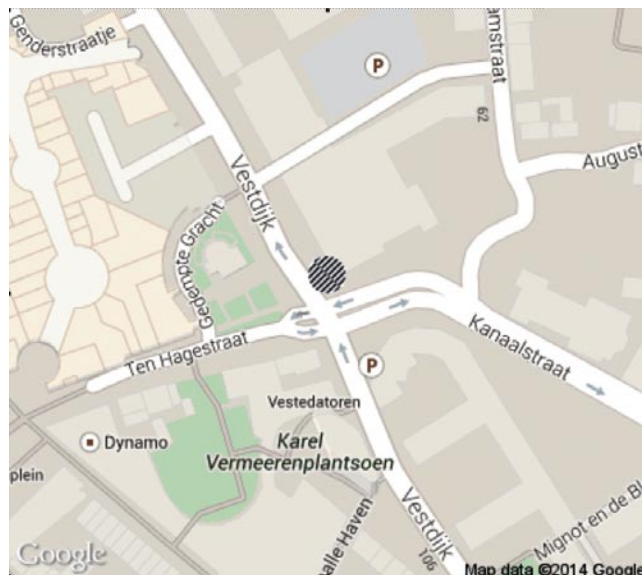
5611 CA Eindhoven - The Netherlands
Phone: +31 40 232 6190 - Fax +31 40 232 6155
e-Mail: H5374-RE@accor.com



Transport

By plane:

Airport

- Eindhoven Airport – 8.00 km / 4.97 minutes
  Eindhoven Airport is only 15 minutes' drive away.
- Amsterdam – 125.00 km / 77.68 minutes
- Brussels – 150.00 km / 93.21 minutes

Railway Station

- Eindhoven – 1.00 km / 0.62 minutes

By car

From Amsterdam/Utrecht/Den Bosch:

Take the A2/E25, exit at "Centrum/Son/Helmond". Follow A58 until it ends. Turn right at the traffic lights toward "Centrum". Turn right at 2nd set of lights. At the T intersection, follow signs for "Heuvel Galerie". The hotel is opposite Heuvel Galerie.

From Maastricht: A2/E25 or Venlo A67/E34, exit at "Eindhoven Centrum-Tongelreep". Follow signs for "Centrum". Eindhoven central station is only 547 yds (500 meters) away.

Parking

The hotel car park has got 136 spaces. Parking costs EURO 21.00 per day. There is a valet service at no extra charge. Please book your parking space when booking your room at the hotel.

Hotel Reservation

The hotel car park has got 136 spaces. Parking costs EURO 21.00 per day. There is a valet service at no extra charge. Please book your parking space when booking your room at the hotel.

Hotel Reservation

A block of rooms has been reserved for the EMLC 2015 participants at the Pullman Eindhoven Cocagne Hotel

The special hotel room rate including breakfast is:

Classic room for single use	129.00 EUR
Superior twin room for single use	149.00 EUR
Superior queen room for single use	159.00 EUR

The special room rate excluding breakfast is:

Classic room for single use	119.00 EUR
Superior twin room for single use	139.00 EUR
Superior queen room for single use	149.00 EUR

Accomodation is NOT included in the conference fee.

For room reservations, please visit our EMLC Conference website: www.emlc2015.com or book directly with the hotel:

Pullman Hotel Eindhoven Cocagne
Vestdijk 47
5611 CA Eindhoven, The Netherlands
Phone: +31 (0)40 232 6190
Fax: +31 (0)40 232 6155
e-Mail: H5374-RE@accor.com

http://www.accorhotels.com

You should reserve your rooms by May 1, 2015, as after that date our rooms blocked at a group rate might be released by the hotel for general reservations. Please use the following code for booking: “EMLC 2015”

All payments related to accommodation have to be made in the hotel before departure.

Banquet Dinner at the Philips Light Museum
June 22, 07:30 pm – 11:00 pm

Meeting-point for the banquet dinner will be the lobby of the Pullman Hotel, Eindhoven.

Departure of the first bus to the Philips Light Museum is 07:00pm, the second bus will leave some minutes later.

Insurance

The organisers may not be held responsible for any injury to participants or damage, theft and loss of personal belongings.

Passport and Visa Requirements

Foreign visitors entering Germany have to present a valid Identity Card or Passport. Delegates who need a visa should contact the German consular offices or embassies in their home countries. Please note that neither the VDE-Conference Services nor the VDE/VDI-Society Micro-electronics, Microsystems- and Precision Engineering (GMM) or the supporting bodies are able to extend any "Invitation" for application of visa.

About Eindhoven

Eindhoven is one of the oldest cities in the Netherlands, but you’d never know it from the high-tech industry and cutting-edge design it’s currently known for. If you are obsessed by all things wheeled, you will love the trucks at the DAF Museum.

More information you can find at:
http://www.tripadvisor.de/Tourism-g188582-Eindhoven_North_Brabant_Province-Vacations.html

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