Conference Objective

Over the last 20 years, Chemical Mechanical Polishing (CMP) has developed into one of the key technologies in the ULSI fabrication process. CMP has become an enabling technology for manufacturing of state-of-the-art processors, high-density memories, and other advanced microelectronic circuits. Mastering this technology is a prerequisite for printing present chip structures of 22nm and below. Multilevel interconnection, copper metallization, metal replacement gates and other developments of the past years would not have been possible without CMP. Emerging CMP applications include MEMS and nanotechnology, but advancements in CMP also stimulate related areas like polishing of substrates and production of optical surfaces.

As the result of increased co-operation between local CMP users groups in Europe, Japan, Korea, Taiwan, and the United States of America, the International Conference on Planarization/CMP Technology ICPT has been established as the most respected annual gathering on this topic. After a very successful ICPT 2011 in Seoul, this year's conference takes place in Grenoble, France, and will be held at Minatec conference center, located in close neighborhood to CEA-Leti, the renowned French microelectronics R&D center.

The ICPT program 2012 covers the following topical interests

- front-end dielectrics
- front-end metals
- equipment, endpoint and control
- 3D, TSV & MEMS
- consumables metrology
- fundamentals
- new CMP applications
- consumables

which will be discussed as oral as well as poster presentations. Keynote speeches by industry and R&D leaders from STMicroelectronics and CEA-Leti as well as invited talks from Intel, Samsung, GlobalFoundries, IMEC, Kyushu Institute of Technology and Fudan University will give overviews on recent CMP-related research and manufacturing subjects.

The organization committee is looking forward to an exciting meeting with many fruitful discussions and warmly welcomes the CMP community in Grenoble.

Gerfried Zwicker  
(Conference Chair)  
Fraunhofer ISIT

Maurice Rivoire  
(Program Chair)  
STMicroelectronics

Ronald Schnabel  
(Conference Organizer)  
VDE-VDI Frankfurt
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Olivier Joubert, LTM CNRS, Grenoble, France
Claude Massit, CEA-LETI, Grenoble, France

Conference Chair
Gerfried Zwicker, Fraunhofer Institute for Silicon Technology ISIT Itzehoe, Germany

Program Chair
Maurice Rivoire, STMicroelectronics, Grenoble, France

Organizer
VDE/VDI-Society Microelectronics, Microsystems and Precision Engineering (GMM)
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E-Mail: gmm@vde.com

Program Overview

Monday, October 15, 2012

07:30 Registration
08:40 - 09:10 Opening Remarks
09:10 - 09:40 Plenary (1)
09:10 CMOS Evolutions and CMP Applications
D. Labrunye, STMicroelectronics, France
09:40 - 10:30 Session 1: FRONT-END Dielectrics (1)
09:40 Overview of FRONT-END CMP processes for 28nm and Beyond (invited)
K. Devriendt, P. Ong, IMEC, Belgium
10:10 Slurry Selectivity influence on STI and POP processes for RMG application
C. Euvrard, A. Seignard CEA-LETI-MINATEC, France; C. Perrot, F. Dettoni, M. Rivoire
STMicroelectronics, France
10:30 - 11:00 Coffee Break, Posters and Exhibition
11:00 - 12:00 Session 1: FRONT-END Dielectrics (2)
11:00 CMP process development for high mobility channel materials
P. Ong, L. Leunissen, IMEC, Belgium;
C. Gillot, BASF, Belgium; S. Ansar, BASF, Germany, B. Noller, Y. Li, BASF SE, Germany
11:20 Scratch Reduction by using Nano-colloidal Ceria Slurry with Multi-selectivity of SiO2/Si3N4/Poly-Si Films in STI-CMP
H.G.Kang, J. D. Koh, S.W.Han, J.W. Lee, B. K. Lee, S. H. Pyi, B. S. Lee, J. W. Kim,
SKhynix, Korea; J. D. Jeong, Y. Jang,
K. S. Choi, Cabot Microelectronics, Korea;
B. Resis, C. W. Nam, J. Dysard, D. Woodland, Cabot Microelectronics, USA
11:40  Performance of a Novel Slurry Injection System on an Ebara FREX200 Polisher for an Silicon Dioxide CMP Application
L. Borucki, Y. Sampurno, A. Philippian, Araca, Inc., USA; F. Durix, H. Peters, Ebara Precision Machinery Europe GmbH, Germany; Y. Zhuang, Araca, Inc. & University of Arizona, USA; S. Kreutzer, Vishay Siliconix Itzehoe GmbH, Germany

12:00 - 12:50  Session 2: FRONT-END Metals (1)

12:00  Challenges in CMP process for 14nm Logic Technology (Invited)
Y. Moon, GlobalFoundries, USA

12:30  Buried Tungsten Metal Gate Formation with Chemical Mechanical Polishing Technique and Involved Issues
K. Hwang, H. Kwon, H. Kim, H. Kang, SK Hynix, Korea

12:50 - 14:00  Lunch, Posters and Exhibition

14:00 - 15:00  Session 2: FRONT-END Metals (2)

14:00  Topography Understanding of Tungsten Chemical Mechanical Polishing for Advanced Technology
H. Yu, Y. Moon, L. Huang, GlobalFoundries, USA

14:20  Innovative barrier CMP process – High Selective approach
O. Robin, O. Hinsinger, D. Galpin, M. Rivoire, STMicroelectronics, France; F. Nemouchi, E. Charroin, CEA-LETI-MINATEC, France

14:40  The study of material removal of Cu and low-k during CMP using atomic force microscopy
C. Liao, D. Guo, S. Wen, X. Lu, Tsinghua University, P.R. China

15:00 - 15:51  Poster Session (1)

15:00  Direct Polish STI HSS CMP with Improved Planarity and Defect Performance
A. Iyer, T. Yang, T. Li, J. Diao, C. Lee, G. Leung, T. Osterheld, Applied Materials, Inc., USA

15:03  Planarization Efficiency of Copper Protrusion
J. Lin, C. Poutasse, Fujimi Corporation, USA

15:06  Acidic Barrier Slurry for Cu/Low-k CMP
J. Cai, R. Wen, Fujifilm Planar Solution, USA

15:09  Global Thickness Measurement System for Metal Layer on Wafer
Q. Yu, H. Li, Z. Qu, Y. Meng, Tsinghua University, Beijing, P.R. China; D. Zhao, Q. Zhao, X. Lu, Tsinghua University, P.R. China

15:12  Haze used as wafer, die and local indirect characterization technique for advanced CMP processes on patterned wafers
F. Dettoni, Y. Morand, S. Gaillard, O. Hinsinger, M. Rivoire, STMicroelectronics, France; C. Beitia, C. Euvrard, F. Bertin CEA-LETI-MINATEC, France; G. Bast, N. Ulea, V. Aristov, G. Simpson, KLA-Tencor, France

15:15  Feature analysis and simulation of 670 nm laser optical endpoint traces in tungsten CMP
G. Mazzone, D. M. Gianni, L. Castelletti, S. Borsari, Micron, Italy; G. Bano, STMicroelectronics, Italy

15:18  Cu Layer thickness monitoring in CMP process by using eddy current sensor
Z. Qu, Q. Yu, H. Li, Y. Meng, Q. Zhao, D. Zhao, X. Lu, Tsinghua University, Beijing, P.R. China
15:21 STI CMP stop in Silicon Nitride controlled by FullVision™ endpoint
C. Perrot, S. Del Medico, S. Gaillard, O. Hinsinger, STMicroelectronics, France; F. Pitard, Applied Materials, France; S. Cui, G. Lam, Applied Materials, USA

15:24 In Situ Profile Control with Titan Edge™ Heads for Dielectric Planarization of Advanced CMOS Devices
S. Dhandapani, J. Qian, B. J. Cherian, G. Menk, C. Garretson, H. Lee, D. Bennett T. Osterheld, Applied Materials, USA

15:27 Reduction of edge exclusion by EPC ring in CMP process
Y. Park, Y. Lee, Pusan National University, Korea; M. Yuh, G&P Technology, Korea; H. Jeong, Pusan National University and G&P Technology, Korea

15:30 Development of linear roll CMP system for large area micropatterns
S. Kim, J. Kim, H. Jeong, Pusan National University, Korea; H. Jeong, Pusan National University and G&P Technology, Korea

15:33 Smart pad dressing for double side polishing
J. Kanzow, S. Werth, G. Moersch, Peter Wolters GmbH, Germany

15:36 Effect of process parameter on particle removal efficiency in brush scrubber cleaning
H. Mei, X. Lu, J. Wang, Tsinghua University, P.R. China

15:39 Particle Reduction in W-CMP Process through Optimizing Post Cleaner

15:42 The Synergetic Effect of Polishing Debris Cleaning in Real-time
H. Kim, M. Kim, H. Qin, H. Choi, T. Kim, Sungkyunkwan University, Korea; J. C. Yang, D. Lim, SAMSUNG Electronics, Korea

15:45 Development of new copper post-CMP cleaning solutions that allow direct bonding
A. Ouerd, H. Dulphy, Air Liquide Electronics Systems, France; V. Lelièvre, Air Liquide Balasz, France; L. Di Cioccio, CEA-DRT/Leti, France; M. Rivoire, STMicroelectronics, France

15:48 Post-CMP Cleaning Formulations Compatible With Advanced Interconnects
P. Bernatis, A. Kuroda, A. Otake, C. Shang, F. Coder, V. Wang, DuPont Electronics & Communications, EKC Technology, USA

15:51 Study of Frictional Forces Generated by Novel Post-CMP Clean Brush Nodule Geometries During pCMP Cleaning
B. Wood, C. Patel, P. Magoon, Entegris Inc., USA

15:51 - 16:45 Coffee Break, Posters and Exhibition
16:45 - 18:05
Session 3: Equipment, Endpoint and Control

16:45
**Interferometry: a direct die level characterization technique**
F. Dettoni, Y. Morand, S. Gaillard, O. Hinskienger, M. Rivoire, STMicroelectronics, France; C. Beitia, F. Bertin, C. Euvrard, V. Balan, CEA-LETI-MINATEC, France; J. Peak, T. Johnson, Nanometrics, France

17:05
**FullVision™ Endpoint for CMP of SiGe Fin Structures**
G. Menk, S. Dhandapani, Y. C. Huang, B. Wood, J. Qian, B. J. Cherian, C. Garretson, Applied Materials, USA; T. Osterheld, Applied Materials, Inc, USA

17:25
**CMP Defect Monitoring in HKMG Loop on Monitor Wafers**
C. Prasad Palamadai Subramanian, KLA-TENCOR SOFTWARE INDIA PVT LTD, India; T. Wang, E. Huang, D. Hu, KLA-Tencor Corporation, Taiwan; R. Peng, W. Lin, C. W. Hsu, D. Hsieh, United Microelectronics Corporation, Taiwan; P. Sapre, T. Chang, KLA-Tencor Corporation, USA

17:45
**Improvements in Profile Control using ISPC during the stop-in-oxide CMP step in the RMG Process Flow on IBM 20nm Short-Loop Wafers**
P. Komarenko, J. Qian, J. Salfelder, Applied Materials, USA; D. Levedakis, L. Economikos, IBM, USA

18:05
**Transfer by Tram & Bubbles to Dinner “à la Bastille”**
Tram leaving in front of Minatec

18:30 - 22:00
Banquet “à la Bastille”

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**Tuesday, October 16, 2012**

08:20  Opening Remarks
08:30 - 9:00  Plenary (2)
08:30  Disruptive Planar & 3D Solutions for Energy Efficiency
L. Malier, CEA-LETI, MINIATEC, France

09:00 - 10:20
Session 4: 3D, TSV & MEMS (1)

09:00  CMP Process Optimization for Bonding Applications
V. Balan, A. Seignard, L. Di Cioccio, CEA-DRT/LETI-MINATEC, France; D. Scevola, J. F. Lugand, M. Rivoire, STMicroelectronics

09:20  Process Optimization of Grinding and CMP for Thinning of Si
P. Feeney, Axus Technology, USA

09:40  Influence of different anneal processes on copper surfaces pre- and post-CMP
S. Dobritz, C. Rudolph, S. Dobritz, J. Grafe, H. Wachsmuth, I. Bartusseeck, J. Wolf, Fraunhofer Institute, Germany

10:20 - 10:50  Coffee Break, Posters and Exhibition
Session 4: 3D, TSV & MEMS (2)

10:50  Advances in CMP for TSV Reveal
R. L. Rhoades, Entrepix, Inc., USA; D. Malta, RTI, Inc., USA

11:10  Application of an Abrasive-Free Cu Slurry for MEMS Devices
B. Steible, M. Stoldt, M. Tack, G. Zwicker, Fraunhofer ISIT, Germany

Session 5: Consumables Metrology

11:30  Relationship between Spatial Wavelength Pad Surface Profile and Pattern Step-height Reduction with 28nm Ceria Particle Slurry (Invited)
J. Moon, Samsung Electronics. Co., Ltd. & Hanyang University, Korea; J. Y. Bae, U. Paik, WCU Department of Energy Engineering, Korea; K. H. Oh, R&D Dept., Korea

12:00  Challenges of CMP consumables metrology
A. Tregub, Intel Corporation, USA

12:20  Identification of nonlinear viscoelasticity of polishing pad using an on-machine compression tester
N. Suzuki, M. Asaba, Y. Hashimoto, E. Shamoto, Nagoya University, Japan

12:40 - 14:00 Lunch, Posters and Exhibition

Session 6: Fundamentals (1)

14:00  Additive/Abrasive Interactions in Solution: Investigation of the Surface Chemistry and Adsorption Behavior of CMP Abrasives (Invited)
M. Moinpour, A. Rawat, Intel Corporation, USA; E. Remsen, A. England, Bradley University, USA

14:30  Experimental Studies on Interfacial Fluid Lubrication and Wafer Status during Chemical Mechanical Polishing of 12-inch Wafer
D. Zhao, T. Wang, Y. He, X. Lu, Tsinghua University, P.R. China

14:50  Effect of Slurry Chemistry on W CMP Performance
M. Kang, J. Park, T. Jung, H.Park, H. Kim, H. Kang, SK Hynix, Inc., Korea

15:10 - 16:16 Poster Session (2)

15:10  Microreplicated Pad Conditioner for Copper Barrier CMP Applications
J. Zabasajja, D. Le-huu, C. Gould, 3M Company, USA

15:13  CVD Diamond-Coated CMP Polishing Pad Conditioner With Asperity Height Variation
J. H. Choi, Y. B. Lee, B. K. Kim, S. K. Kim, Shinhan Diamond Ind.Co, Korea

15:16  Chemical Mechanical Polishing Slurry for Aluminum Substrate
L. Wang, Chinese Academy of Sciences, P.R. China; W. Liu, Z. Song, Shanghai Institute of Microsystem and Information Technology, P.R. China
Surface adsorption mechanism of water-soluble polymer in polishing slurry
K. Tsuchiya, S. Takahashi, M. Kubo, H. Morinaga, Fujimi Incorporated, Japan

Oxide Rate and Selectivity as a Function of Pad Chemistry
P. Renteln, InnoPad Company, USA

Slurry Development for Copper/Barrier CMP
B. Zhang, Y. Liu, Hebei University of Technology, P.R. China

CMP Evaluation of Reusable Polishing Pads using Auxiliary Plate
N. Davventure, AMAT, France; S. Del Monaco, M. Rivoire, STMicroelectronics, France; T. Suzuki, Toho Engineering Co, Ltd, Japan; V. Balan, CEA/Leti Minatec, France

Role of Abrasive Type and Media Surface Energy on Nanoparticle Adsorption
J. Kaiser, J. Keleher, Lewis University, USA; P. Connor, P. Levy, Pall Microelectronics, USA

Low Surface Roughness Epic™ D2xx soft pads for CMP Applications
J. Nair, J. Page, G. Gaudet, Cabot Microelectronics, USA; G. Bigoin, Cabot Microelectronics, France

The study of POU filters performance and life-time in the CMP slurry supply system
S. Jang, T. Kim, H. Kim, Sungkyunkwan University, Korea; D. Lim, SAMSUNG Electronics, Korea; M. Nam, Woongjin Chemical, Korea; J. C. Yang, SAMSUNG Semiconductor, Korea

Chemical Mechanical Planarization (CMP) In-Situ pad groove monitor through Fault Detection and Classification (FDC) system
S. Del Monaco, F. Calderone, A. Laurent, M. Fritah, STMicroelectronics, France; T. Le Tiec, ESIPE Marne la Vallée, France

Chemical Mechanical Planarization (CMP) metrology: how to meet the industry demand
R. Mavliev, Vantage Technology Corp., USA

The Study to Minimize the Variation of Polishing Time According to the Pad Used Time
J. C. Yang, W. M. Jang, J. H. Won, Samsung Electronics, Korea

An Optimization Technique of Membrane Design of Chemical Mechanical Planarization Model for Minimizing Edge Exclusion
S. H. Shin, C. G. Woo, J. Nam, K. Cho, Samsung Electronics, Korea

Determination of adhesion force of particles on substrate surface using atomic force microscopy
W. Shin, J. An, G&P Technology, Korea; J. Kim, Pusan National University, Korea; H. Jeong, H. Lee, Pusan National University & GnP Technology, Korea

Investigation on Analysis and Design of Pad Conditioning Process in Double Side Polishing
S. Lee, H. Kim, Korea Institute of Industrial Technology, Korea; H. Lee, H. Jeong, Pusan National University & GnP Technology, Korea

M. Uneda, Y. Fukuta, K. I. Ishikawa Kanazawa Institute of Technology, Japan; K. Hotta, H. Sugiyama, H. Morinaga, Fujimi Incorporated, Japan

Biomedical Applications of CMP
G. Bahar Basim, Z. Özdemir, Özyeğin University, Turkey; O. Mutlu, Marmara University, Turkey
16:04  
Research on the controlling technology of deliquescent action in polishing of KDP crystals based on deliquescent action
S. Guo, Tsinghua University, P.R. China; F. Zhang, Y. Zhang, Harbin Institute of Technology, P.R. China

16:07  
Processing Properties of Strong Oxidizing Slurry and Effect of Processing Atmosphere in SiC-CMP
T. Yin, S. Kurokawa, T. Yamazaki, Z. Wang, Zhe Tan, T. Doi, Kyushu University, Japan; O. Ohnishi, University of Miyazaki, Japan

16:10  
A Study on the Damaged Layer Characteristic of Initial Wafer by using Chemical-Mechanical Polishing
C. J. Park, Korea Institute of Industrial Technology & Inje University, Korea; M. Jeon, Inje University, Korea; S. Lee, T. Lee, H. Kim, D. Kim, Korea Institute of Industrial Technology, Korea

16:13  
Adsorption Mechanism of Benzotriazole on Copper Surface in CMP Based Slurries Containing Peroxide and Glycine
J. Li, X. Lu, J. Ou, J. Cheng, Tsinghua University, P.R. China

16:16 - 16:55  
Coffee Break, Posters and Exhibition

16:55 - 18:05  
Session 6: Fundamentals (2)

16:55  
Study on fine particles behavior in slurry flow between wafer and polishing pad as a material removal process in CMP (Invited)
K. Kimura, K. Suzuki, P. Khajornrungruang, Kyushu Institute of Technology, Japan; Y. Idei, Ebara Corporation

17:25  
Slurry Particle Agglomeration Experimentation & Modeling for Chemical Mechanical Planarization (CMP)
J. Johnson, D. Boning, Massachusetts Institute of Technology, USA; G. S. Kim, K. Knutson, P. Safier, Intel Corporation, USA

17:45  
Tribological, Thermal, and Kinetic Attributes of 300 vs. 450 mm Chemical Mechanical Planarization Processes
Y. Jiao, X. Liao, C. Wu, A. Philippossian, University of Arizona, USA; Y. Zhuang, Araca, Inc. & University of Arizona, USA; S. Theng, Y. Sampurno, Araca, Inc., USA; M. Goldstein, Intel Corporation, USA

18:30 - 22:00  
Wine and Cheese Degustation
### Wednesday, October 17, 2012

<table>
<thead>
<tr>
<th>Time</th>
<th>Session 7: New CMP Applications</th>
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<tr>
<td>08:30</td>
<td><strong>Chemical mechanical polishing for Co and Mo Based Metal Film (Invited)</strong></td>
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<td><em>X. P. Qu, Fudan University, P.R. China</em></td>
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<tr>
<td>09:00</td>
<td><strong>Development of chemical mechanical polishing process for carbon nanotube interconnects on 300 mm wafer</strong></td>
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<td>09:20</td>
<td><strong>Chemical-Mechanical Planarization of Aluminum Damascene Structures</strong></td>
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<td><em>U. Künzelmann, Dresden University of Technology &amp; Faculty of Electrical and Computer Engineering, Germany; M. Müller, F. Schütte, Intelligente Mikrosysteme (IMS) TU Dortmund, Germany; K. Kallis, Technical University of Dortmund, Germany; I. Petrov, Ruhr-Universität Bochum, Germany; J. Fong, C. A. Lin, J. Dysard, Cabot Microelectronics Corporation, USA; J. W. Bartha, Dresden University of Technology, Germany; J. Knoch, RWTH Aachen, Germany</em></td>
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<td>09:40</td>
<td><strong>The effect of H2O2 and Ammonia sulfate on the CMP of Molybdenum</strong></td>
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<td><em>F. Chen, J. B. Xu, H.S. Lu, X. Zeng, X. P. Qu, Fudan University, P.R. China</em></td>
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<tr>
<td>10:00</td>
<td><strong>Study on Polishing Properties for Phase Change Memory</strong></td>
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<td><em>W. Lee, J. Bae, S. Park, J. D. Lee, I. Hwang, S. W. Nam, Samsung Electronics CO., LTD, Korea</em></td>
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<th>Time</th>
<th>Session 8: Consumables</th>
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<tr>
<td>10:50</td>
<td><strong>Correlation of Polishing Pad Property and Pad debris on Scratch Formation during CMP</strong></td>
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<td><em>T. Y. Kwon, B. J. Cho, P. Venkatesh, J. G. Park, Hanyang University, Korea</em></td>
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<tr>
<td>11:10</td>
<td><strong>Development of Innovative Tunable Polishing Formulations for Chemical Mechanical Planarization of Silicon Nitride, Silicon Carbide, and Silicon Oxide Materials</strong></td>
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<td><em>J. Schlueter, S. Stoeva, M. Graham, T. Shi, DA Nanomaterials, an Air Products Company, USA</em></td>
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<td>11:30</td>
<td><strong>The Synthesis of PS-inorganic Oxide Nanoparticle for CMP Slurry</strong></td>
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<td><em>H. Qin, H. Kim, H. Choi, M. Kim, T. Kim, Sungkyunkwan University, Korea</em></td>
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<tr>
<td>11:50</td>
<td><strong>Evaluation of Glass Lapping Using Fixed Abrasive Pad</strong></td>
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<td><em>H. M. Kim, R. Manivannan, T. Y. Kwon, J. H. Noh, D. J. Moon, J. G. Park, Hanyang University, Korea</em></td>
</tr>
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**12:30 - 12:45 Closing Remarks**

**12:45**

**Lunch**

**13:30 - 15:30**

**Event 1:** Guided tour of the historic city of Grenoble (pls. see page 22)

**13:30 - 15:30**

**Event 2:** Visit of the CEA-Leti showroom (pls. see page 23)
Social Events

Sunday afternoon, October 14, 2012
Time: 14:00 - 18:00, buses starting from MINATEC

Visit of the Château de Vizille

The Château de Vizille is a castle in the French town of Vizille near Grenoble. It is one of the most prestigious and important castles of the Dauphiné Region. The Dauphiné has traditionally been the homeland of the inheritor of the French throne since the 14th century. The former castle was held during the French Wars of Religion by the Catholics. With the peace settlement in 1593, the property was bought by the leader of the Protestant Army, François de Bonne, Duc de Lesdiguières.

Today the Château de Vizille houses the Musée de la Révolution française de Vizille. The park was classified as a historic monument on 23 August 1991.

If you are interested in visiting the castle, please do not forget to register for it along with your conference registration.

Wednesday afternoon, October 17, 2012
Time for both events: 13:30 - 15:30, starting from MINATEC

Event 1: Tour of the historic city of Grenoble

Grenoble is a city of great age and name changes. Originally its celtic name was Cularo, and then under the Romans, "Gratianopolis". In the French revolution the name even became "Grelibre". But now it’s well known as a thriving university town (one of the oldest universities in Europe – 1339) with a strong cultural, technology, literal, economic base – that makes it an exciting place to live.

May we invite you to take part in a guided city-tour of the “historic Grenoble”? Please do not forget to register for this tour. You can do this on the conference’s registration form.

Event 2: Visit of the CEA-Leti showroom

A showcase for CEA-Leti’s many achievements, the 800 m² showroom at MINATEC, is not only intended for industrial and institutional partners, but also for the general public. The CEA-Leti tour aims at spotlighting the activities of Leti. If you are interested in learning more about CEA-Leti, please register for the tour along with your conference registration.

Conference Information

Conference Hours

<table>
<thead>
<tr>
<th>Day</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday, October 15</td>
<td>08:40 h to 18:30 h</td>
</tr>
<tr>
<td>Tuesday, October 16</td>
<td>08:30 h to 18:05 h</td>
</tr>
<tr>
<td>Wednesday, October 17</td>
<td>08:30 h to 12:45 h</td>
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Registration Hours

<table>
<thead>
<tr>
<th>Day</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday, October 15</td>
<td>07:30 h to 18:00 h</td>
</tr>
<tr>
<td>Tuesday, October 16</td>
<td>07.30 h to 18:00 h</td>
</tr>
<tr>
<td>Wednesday, October 17</td>
<td>07:30 h to 15:30 h</td>
</tr>
</tbody>
</table>

Exhibition

The two-day tabletop exhibition is an integral part of the ICPT 2012 conference and takes place at an exhibition area close to the conference lecture room which can be visited during all coffee and lunch breaks.
Exhibition space of 4 m² or 6 m² (40 sqft or 60 sqft) with table, two chairs and poster board are available. Registration for the exhibition includes two full access badges, two copies of the proceedings and a company name listing in all promotional materials.

For further information on the exhibition, please contact

VDE/VDI-Society Microelectronics, Microsystems and Precision Engineering (GMM)
Dr. Ronald Schnabel
Stresemannallee 15
D-60596 Frankfurt am Main, Germany
Phone: +49-69-6308-330
Fax: +49-69-6308-9828
E-Mail: gmm@vde.com

Information for Authors

Manuscripts and Proceedings
Manuscripts should be uploaded electronically by August 24, 2012. Together with their notification of acceptance, authors will be informed about the uploading process, as well as the time frame and the formatting guidelines of their papers. The “Instructions for paper preparation” will also be available at the conference’s website under www.ICPT2012.com.

The conference proceedings and CD-ROM will be published by the VDE/VDI Society Microelectronics, Microsystems- and Precision Engineering and will be delivered to the conference participants at the registration desk.

Please note that late submissions may not be considered in the conference proceedings.

General Information

ICPT 2012 Secretariat
For detailed Information please contact:
VDE/VDI-Society Microelectronics, Microsystems and Precision Engineering (GMM)
Dr. Ronald Schnabel
Stresemannallee 15
D-60596 Frankfurt am Main, Germany
Phone: +49 69 6308-227
Fax: +49 69 6308-9828
E-Mail: gmm@vde.com

During the conference:
Phone: +49 171 4695 118

Conference Fees

<table>
<thead>
<tr>
<th></th>
<th>until</th>
<th>after</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Members</td>
<td>€ 380,00</td>
<td>€ 560,00</td>
</tr>
<tr>
<td>Committee</td>
<td>€ 250,00</td>
<td>€ 300,00</td>
</tr>
<tr>
<td>Students*</td>
<td>€ 200,00</td>
<td>€ 270,00</td>
</tr>
</tbody>
</table>

*A photocopy of the student card must be included.

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

Conference Registration
To subscribe to ICPT 2012, please fill in the registration form which you can find at the conference’s website www.icpt2012.com under “Registration”.

Would you please return this form to VDE Conference Services, Stresemannallee 15, 60596 Frankfurt, Germany by fax (+49 69 6308 144) or e-mail (vde-conferences@vde.com).

To benefit from the “early-bird-discount”, VDE Conference Services must receive the form before September 14, 2012.

Online Registration
Registrations for the conference may be done online on the conference homepage www.icpt2012.com
**Payment to the VDE/VDI Society**

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

The following methods of payment are accepted:

- Payment by credit card authorisation as per registration form. The 16 digit card number, expiry date, security No. (last 3 digits on rear side of credit card) and holder’s name must be indicated on the registration form. Signature of the card holder is mandatory.

- Cash payment on-site in EURO (€). Presenting authors have to register and pay the fees in advance.

**Cancellation**

In case of cancellation, provided that written notice has been given to the VDE-Conference Services before Sept. 14, 2012, the registration fee will be fully refunded less a handling fee of EURO 80,00. After Sept. 14, 2012, no refund will be made. Proceedings and CD-ROM 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 and a CD-ROM. The proceedings will be handed on-site to all delegates attending the event.

Additional proceedings and CD-ROM are on sale during the conference (upon availability) at EURO 60,00

**Conference Venue**

Minatec Conference Center, Parvis Louis Néel, F-38054 Grenoble Cedex 9, France.

**Transport**

*Arriving by plane:*

For the conference attendees coming from overseas we recommend to fly to Paris:


  From Airport Paris take the railway TGV. Some trains start directly from the airport to Grenoble railway station. As others leave from Paris, “Gare de Lyon”, you then would first have to take the RER subway at the Paris airport to “Gare de Lyon” station in order to catch the TGV to Grenoble.


  1 hour drive by car, Taxi costs: approx. 140 €, Tel +33 (0)687 97 4790

  Airport shuttle: Please note that the French word for "shuttle" is "navette" or simply "bus". It starts from 7:30 am to 23:59 pm from Lyon St Exupery to Grenoble and from 4:00 am to 21:00 pm from Grenoble to Lyon St Exupery. Would you please also consider that in case you travel via bus or train you would have to underpass the train station to join the Minatec center or a couple of nearby hotels.

**Arriving by train:**

- High Speed Train (TGV) Grenoble-Paris 3 hours
  7 trains every day (other TGV from Lille, Nantes,...)

- Grenoble Gare SNCF: Tel : +33 (0)8 92 35 35 35 (registration) – www.sncf.fr
Hotel Reservation

A block of rooms has been reserved for ICPT 2012 participants for the nights from October 14 to October 17, 2012 (3 nights).

Mercure Grenoble Centre Alpotel
12 Boulevard Maréchal Joffre
38000 Grenoble, France

Contact: Pascal Joubert
Phone: 0033 4 7687 8841
Fax: 0033 4 7647 5852
E-mail: H0652-rd@accor.com

Room rate 129.00 €
Buffet breakfast 17.50 €
Visitors’ tax 0.99 €

40 rooms have been blocked until August 15, 2012
Pre-payment is required. Payment via credit-card.

Additional information: The Mercure Grenoble Centre Alpotel is situated in the city center of Grenoble.

Mercure Grenoble Président
11 rue Général Mangin
38100 Grenoble, France

Contact: Christophe Foretti
Phone: 0033 4 7656 2656
Fax: 0033 4 7656 2682
E-mail: h2947-fo@accor.com

Room rate 139.00 €
Buffet breakfast 17.50 €
Visitors’ tax 0.99 €

40 rooms have been blocked until September 15, 2012.
Pre-payment is required. Payment via credit-card.

Mercure Grenoble Président Hotel is situated in the city center of Grenoble.

Would you please use the reservation form for your bookings which you can find at the conference’s homepage at www.icpt2012.com
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 France have to present a valid Identity Card or Passport. Delegates who need a visa should contact the French consular offices or embassies in their home countries. Please note that neither the VDE-Conference Services nor the VDE/VDI-Society Microelectronics, Microsystems- and Precision Engineering (GMM) or the supporting bodies are able to extend any "Invitation" for application of visa.

List of Exhibitors
So far, the following companies have registered as exhibitors:

- Alpsitec, France
- Araca Incorporated, USA
- Cabot Microelectronics, USA
- Levitronix GmbH, Switzerland
- Morgan Technical, USA
- S3 Alliance GmbH, Germany
- TOHO Engineering Co., Ltd, Japan
The IPCT 2012 Organizing Committee would like to express its sincere appreciation to the following companies for their support:

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![TOHO Logo]

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