Sessions on Tuesday

Time				
08:00	**Registration starts**			
09:00 - 11:45	**Tutorial** Alan Weber | Cimetrix by PDF Solutions		**MOVIE THEATER 7**	
12:30 - 13:55	**MOVIE THEATER 8** **Conference Opening Session** Session Chairs: Martin Schellenberger | Jochen Kinauer			
12:30	R1	**Opening Remarks**	Martin Schellenberger | Fraunhofer IISB Jochen Kinauer | camLine GmbH	
12:40	K1	**Keynote:**		
13:10	I1	**Invited Talk: MaiMa autofrei - A digital quality gate for tool requalification after maintenance employing MaiMa and Space**	Yvonne Bergmann | Robert Bosch GmbH	
13:55	**Short break to change rooms**			

Time	MOVIE THEATER 8		MOVIE THEATER 7	
14:00 - 15:00	**MOVIE THEATER 8** **Session 1 – Part 1** Session Chair: Bert Müller	SESSION SPONSOR: APPLIED MATERIALS | Applied SmartFactory	**MOVIE THEATER 7** **Session 3 - Part 1** Session Chair: Thomas Müller	SESSION SPONSOR: INFICON
14:00	1.1	**ICP-etching of GaN HFET structures: real time statistical process control of nm-thick GaN layers by means of end point detection** Anthony Martinez | LayTec AG	3.1 **Industry 4.0 boosts predictive maintenance for semiconductor testers** Oleg Fotteler | SPEA GmbH	
14:30	1.2	**Enabling Higher Resolution Measurement to Support Zone Control** John Mc Manus | Nova Ltd	3.2 **Models for Gas Flow Reduction** Michael Klick | Plasmetrex GmbH	
15:00	**Coffee Break**		**CINEMAXX FOYER**	
15:30 - 16:30	**MOVIE THEATER 8** **Session 1 – Part 2** Session Chair: Bert Müller	SESSION SPONSOR: APPLIED MATERIALS | Applied SmartFactory	**MOVIE THEATER 7** **Session 2 - Part 1** Session Chair: Thomas Müller	SESSION SPONSOR: PEERGROUP
15:30	1.3	**"antiPilo AI": First-Time-Right Lithography in a High-Mix, Low-Volume FAB using a Machine Learning boosted R2R controller** Martin Schwarz | X-FAB Dresden	2.1 **Sensor Matching Application Concept Using Cloud Storage, Cloud Analytics and Computing Services** Frank Wagenbreth | GlobalFoundries	
16:00	1.4	**A Digital Twin of a real fab – how to create it?** Torsten Thieme | Deaxo GmbH	2.2 **Harnessing the Power of Event Sequence Analysis for Semiconductor Smart Manufacturing** Alan Weber | Cimetrix by PDF Solutions	
16:30	**Sponsor Talks** Session Chair: Martin Schellenberger		**MOVIE THEATER 8**	
17:00	**Poster & Exhibitor Presentation** Session Chair: Martin Schellenberger		**MOVIE THEATER 8**	
18:00	**Poster Reception**		**CINEMAXX FOYER - LEVEL 2**	

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Sessions on Wednesday - morning

08:00	**Registration starts**	
09:00 – 10:30	**MOVIE THEATER 8** **Opening & Invited Talk** Session Chairs: Martin Schellenberger | Jochen Kinauer	
09:00	**R2** **Opening Remarks**	Martin Schellenberger | Fraunhofer IISB Jochen Kinauer | camLine GmbH
09:10	**I2** **Invited Talk: Novel approach to master the challenges of run-to-run control in high-mix low-volume production – Part 3**	Ulf Seidel | Infineon Technologies Dresden
10:00	**Coffee Break**	**CINEMAXX FOYER**

	MOVIE THEATER 8	MOVIE THEATER 7
10:30 – 12:30	**MOVIE THEATER 8** **Session 2 – Part 2** Session Chair: Christian Knöll SESSION SPONSOR: **PEERGROUP**	**MOVIE THEATER 7** **Session 3 – Part 2** Session Chair: Ulf Seidel SESSION SPONSOR: **INFICON**
10:30	**2.3** **Machine-Learning-based Classification of Via Defects in SEM-Images** Abdelmalek Cherchari | Fraunhofer Institute of Electronic Nano Systems ENAS, Technische Universität Chemnitz	**3.3** **Unit process & equipment productivity shock sentinel on evg wtw bonding system robot handling** Marco Cartotti | STMicroelectronics & Daniele Lavalle | Technofitting
11:00	**2.4** **Unpacking Wafer Analysis Complexity: Using Siamese Networks for a Novel Wafer Map Fingerprint Comparability Approach** Christian Weber | University of Siegen	**3.4** **New generation of equipment/host communication as an enabler for data platforms, AI and digital twin** Marco Grafe | Carl Zeiss Digital Innovation
11:30	**2.5** **R&D³: a modern data stack for imec researchers** Wim Vancuyck | Imec	**3.5** **Digitalisation & AI for Industry 5.0 Applications to Make Semiconductor Manufacturing Sustainable** Germar Schneider | Infineon Technologies Dresden
12:00	**2.6** **Quantum Computing in Semiconductor Manufacturing – Potentials and Outlook** Christoph Eichhammer | Fraunhofer Institute for Integrated Systems and Device Technology (IISB)	**3.6** **From dispatching to autonomous scheduling: a case study at a real wafer fab** Semya Elaoud | Flexciton Ltd.
12:30	**LUNCH** SPONSORED by: **Infineon**	**CINEMAXX FOYER**

Sessions on Wednesday - afternoon

13:30 – 15:30	**Young Talent Session** *Session Chair: Martin Schellenberger*	**MOVIE THEATER 8**
13:30	**T1**	**In-Wafer Etch Process Control Based on real-time PI-VM under MFC aging scenario in Ar/SF6/O2 VHF-CCP** Ji-Won Kwon | Seoul National University
13:50	**T2**	**Machine Learning Prediction Models for Generic Run-to-Run Control in High-Mix Semiconductor Industry** Lucile Terras | EMSE
14:10	**T3**	**CMP Process Modelling using Machine Learning Techniques** Hossam Elwan | Vishay Siliconix Itzehoe GmbH
14:30	**T4**	**Expertise-based optimization of yield prediction on logistic delivery grids** Stefan Stroka | ams OSRAM Group & LMU Munich
14:50	**T5**	**Optimizing Process Capability and Cycle Time through Virtual Metrology** Leonard Yeo | Micron Technology

15:10	**Coffee Break**	**CINEMAXX FOYER**

15:45 – 17:15	**MOVIE THEATER 8** **SESSION 2 - PART 3** Session Chair: Gerd Fischer	SESSION SPONSOR: **PeerGroup**	**MOVIE THEATER 7** **Session 3 – Part 3** Session Chair: Robert McCafferty	SESSION SPONSOR: **INFICON**
15:45	**2.7**	**FDC System Integration and Application for Opto Semiconductor Epitaxy Tools** Thomas Bauer | ams-OSRAM Group	**3.7**	**A Simulation and Evaluation Platform for the Training of a Reinforcement Learning Enabled Dispatch Agent to Reduce Fab Cycle Time** Peter Lendermann | D-SIMLAB Technologies & Patrick Stöckermann | Infineon Technologies Dresden
16:15	**2.8**	**Combining Physical and Virtual Metrology for Adaptive Process Control** Christian Hörr | ZEISS Digital Innovation	**3.8**	**Jointly optimizing intralogistics, WIP flow and stocker management in a segregated high-automation semiconductor font-end fab** Holger Brandl | SYSTEMA GmbH
16:45	**2.9**	**Yield management Equipment Performance Optimization for Yield improvement** Dmitrii Fomin & Massimo Orazio Spata (by remote) | STMicroelectronics	**3.9**	**Development of a Concept for a Dynamic Dispatching Method Based on a Data-Driven Classification of Manufacturing Scenarios: Start at an Academic Level** Rocky Telatko | University of Applied Sciences Dresden

17:15	**Break / End of Conference Day**
18:00 – 21:30	**Bus Transfer / Conference Dinner**

Sessions on Thursday

08:30	**Registration**	
09:00 – 10:30	**MOVIE THEATER 8** **Opening Session** *Session Chairs: Martin Schellenberger | Jochen Kinauer*	
09:00	R3 **Opening Remarks**	Martin Schellenberger | Jochen Kinauer
09:10	K2 **Keynote: Technologies in Generative AI and the Future of Coding**	Frank Schönefeld | Telekom MMS
09:40	I3 **Invited Talk: Rethinking Education and Training for nowadays semiconductor manufacturing by adapted Bauhaus Education Philosophy**	Sabrina Anger | Fraunhofer IISB
10:30	**Coffee Break**	**CINEMAXX FOYER**

	MOVIE THEATER 8	**MOVIE THEATER 7**
11:00 – 12:00	**Session 2 – Part 4** **Session Chair: Alan Weber** SESSION SPONSOR: **PeerGroup**	**Session 3 – Part 4** **Session Chair: Gerd Fischer** SESSION SPONSOR: **INFICON**
11:00	2.10 **Smart device on facilities to prevent unscheduled facilities interruption** Giuseppe Fazio | STMicroelectonic	3.10 **Process and equipment performance optimization** Pietro Petruzza | STMicroelectronics
11:30	2.11 **Getting and staying ahead of the bad guys, an industry plan for cybersecurity** Doug Suerich | PEER Group	3.11 **AI-Enhanced Digital Twin Architecture and local dispatching methods for yield improvement in a microelectronics facility** Roberto Rosario Corsini & Marco Stefano Scroppo | STMicroelectronics
12:00	**LUNCH** SPONSORED by: **Infineon**	**CINEMAXX FOYER**

	MOVIE THEATER 8	**MOVIE THEATER 7**
13:00 – 14:30	**Session 2 – Part 5** **Session Chair: Alan Weber** SESSION SPONSOR: **PeerGroup**	**Session 3 – Part 5** **Session Chair: Gerd Fischer** SESSION SPONSOR: **INFICON**
13:00	2.12 **Machine Learning and Explainable AI to Manage Process Variabilities and Resource Efficiencies in Semiconductor Manufacturing** Venugopal Ramadasu | Vienna University of Economics and Business	3.12 **Processing time and machine availability prediction using neural networks** Jasper van Heugten | minds.ai
13:30	2.13 **Optimizing Yield and Process Efficiency in Semiconductor Fabs through AI** Monica McDonnell | teradata	3.13 **Integrating Transport Loads in Production Planning: A Simulation-Driven Approach** Vincent Betker | TU Dresden
14:00	2.14 **Stratified Boosting with Adaptive Online Learning for Virtual Metrology at a Massive Scale** Brendon Choe | Gauss Labs Inc.	3.14 **AI powered solutions addressing the semiconductor labor shortage** John Behnke | Inficon
14:30	**AWARD CEREMONY & CLOSING**	**MOVIE THEATRE 8**
15:00	**END OF CONFERENCE**	

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