

WHY SHOULD YOU ATTEND?

- Learn from CIMdata's thought leaders and case studies from various industry and solution providers about the role of digitalization and innovation in respect to market trends, business and technology impact in today's networked economy
- Learn about CIMdata's frameworks, maturity models, and research that support model-driven product innovation across the product lifecycle
- Learn and understand how CIMdata sees the role of the digital thread and digital twin, and how they help to enable system modeling and simulation
- Learn about CIMdata's Knowledge Councils and their associated research agendas
- Have the opportunity to share your needs and concerns to guide future research topics
- Meet and network with CIMdata team and others who are interested in workshop topics

AGENDA

1. Opening: 45 minutes
 - a. Introductions
 - b. CIM data overview with focus on the SDDS Practice
 - c. Goals of the Workshop
2. Setting the stage: 2 hours
 - a. Business Challenges and Opportunities in the age of Digitalization and the role of Innovation
 - Market trends
 - Business environment
 - Opportunities through increasing the level of innovation maturity for businesses and organizations
 - b. System Modeling and Simulation, Systems Engineering & MBSE and S&A
 - What is it?
 - c. What is its origin?
 - Benefits and advantages
3. Market reflections based on end user presentations from CIM data's previous workshops and engagements 2 hour
 - a. Various industries
 - b. Benefits they see and achieved
 - c. Challenges they are facing
4. Innovation platforms and the digital thread 2 hours
5. Understanding the maturity / readiness of an organization considering new technologies enabling and supporting digitalization and innovation: An Overview 1 hour
6. Workshop / panel - style discussions: Organization / Process / Technology (for each of the sub-topics we need to have brief opener to start the discussion) 4 hours
 - a. Feedback from the audience on the situation in India
 - Market
 - Academia
 - Government

- b. The need for cultural change
 - Locally
 - Regional
 - Globally
 - c. The role of standards
 - d. How do we justify such changes and how to we communicate with upper management (especially non-technical management)?
7. Summary and wrap-up session

DELEGATION FEE :

Rs 10,000 per participant.

The DD/Cheque to be drawn in favour of " DIAT PLMSS 2017"

REGISTRATION DETAILS FOR PLMSS 2017

Registration can be made through our website www.plmss.org.in/conf/plmss17. Fee details are as follows

- Private Organisation/Academic/R&D Organisation : Rs. 10,000/-
- Group registration (>5 participants): Rs. 8,000/- per person
- Student: Rs. 4,000
- Foreign participant: \$ 450/-

Registration fee can be paid through DD/Multicity cheque/Bank transfer /Online.

Registration fee includes conference kit, snacks during breaks, working lunch on all the days and banquet dinner.

For Bank transfer please mention PLMSS 2017 & Registration Number in remarks. Bank details are given below:

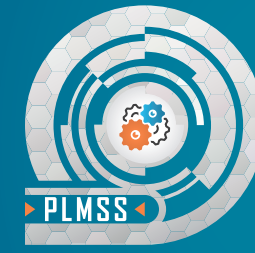
| | |
|----------------|---------------------|
| Account Name | DIAT PLMSS 2017 |
| Account Number | 36770583703 |
| IFSC Code | SBIN0002155 |
| Bank Name | State Bank of India |
| Branch | IAT Girinagar Pune |
| MICR Code | 411002021 |
| Swift Code | SBININBB218 |
| PAN | AAAJD0678B |

Cheque and DD should be in favour of **DIAT PLMSS 2017**

| | Platinum Rs. 5 Lakhs | Diamond Rs. 4 Lakhs | Gold Rs. 3 Lakhs |
|----------------------------------|-------------------------|------------------------|---------------------|
| Color advt. in Souvenir | Full page | Full page | Half page |
| Logo display in Souvenir | ✓ | ✓ | - |
| Brochure insertion for delegates | ✓ | ✓ | ✓ |
| Complimentary registrations | 10 nos | 7 nos | 5 nos |
| Exhibition stall | ✓ | ✓ | ✓ |
| Presentation | 20 min | 15 min | 7 min |
| Banner at venue | ✓ | ✓ | ✓ |

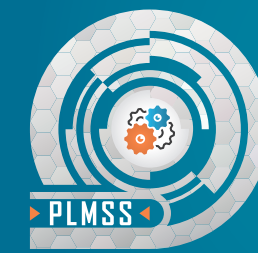
6th series of PLMSS 2017 conference

www.plmss.org.in/conf/plmss17



PLMSS 2017

11-12 DECEMBER



PLMSS 2017

11-12 DECEMBER

Pre-conference Workshop to the PLMSS 2017 conference

VENUE

TECH MAHINDRA CAMPUS

Plot No.1, MIDC Phase III Main Road, Phase 3, Hinjewadi Rajiv Gandhi Infotech Park, Hinjawadi, Pimpri-Chinchwad, Maharashtra 411057.

Registration for the workshop starts at the venue on **11th Dec 2017 at 8:30 am.**



FOR FURTHER DETAILS CONTACT

CONVENER OF THE WORKSHOP

S. Ramachandra Prabhu

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SIMULATION-DRIVEN SYSTEMS DEVELOPMENT - A CIMDATA WORKSHOP

Bringing the worlds of Systems Engineering and Modeling & Simulation together



ORGANIZED BY



Tech Mahindra



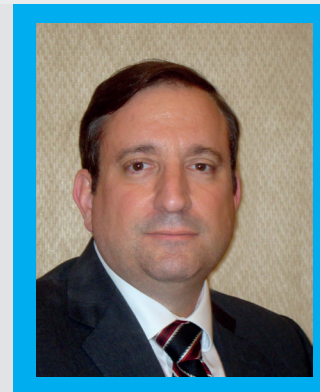
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TECH MAHINDRA CAMPUS
Plot No.1, MIDC Phase III, Hinjewadi
Rajiv Gandhi Infotech Park, Hinjawadi,
Pimpri-Chinchwad, Maharashtra 411057

PREAMBLE

Defence Institute of Advanced Technologies (DIAT), Pune and Tech Mahindra are jointly organizing the 6th International Conference PLMSS 2017 (Product Life Cycle Modeling, Simulation and Synthesis). It is co-sponsored by Defence Research and Development Organization (DRDO) and the PLMSS Trust. PLMSS 2017 is a platform to discuss current Product Life Cycle Management Technologies and their applications for making futuristic products. The conference is being held on Dec 13-15th, 2017 at DIAT, Pune. Prior to the conference there is a Pre Conference Workshop titled Simulation Driven Systems Development on Dec 11 and 12th. The venue for the Workshop is Tech Mahindra, Auditorium III, Hingiwadi, Pune. The workshop is being conducted by CIMdata which is a leading International Recognized Organization and Authority in the area of Product Life Cycle Management. CIMdata is a strategic Management Consulting Firm in the area of PLM and CAD/CAM/CAE. The workshop is being conducted by the very eminent persons from CIMdata, Mr. Peter Bilello, President and Mr. Frank Popillas, Executive Consultant.

WORKSHOP – LED BY PETER A. BILELLO



Peter Bilello, President of the strategic management consulting and research firm CIMdata—an internationally recognized authority on Product Lifecycle Management (PLM)—has more than 30 years of experience in the development of business-enabling information technology (IT) solutions for research, engineering, and manufacturing organizations worldwide. He has held positions in PLM analysis,

selection, implementation, and training; CAD/CAM/CAE/CIM implementation and management; synchronous and lean manufacturing consulting; software engineering; and general data management strategy development and support. He has authored numerous papers and research reports on PLM and related topics, and his articles, commentaries, and perspectives have appeared in publications throughout the United States, Europe, and Asia.

As part of his continuing work in PLM, Mr. Bilello provides in-depth technical analysis, strategic and tactical business planning, market and channel development, and training services to a range of IT, PLM, CAD/CAM, and ERP solution providers, systems integrators, and resellers. Mr. Bilello also provides in-depth technical and business requirements development and assessment; system selection, education, training, and implementation planning; and quality assurance services, to a range of international companies in many discrete and process manufacturing industries, such as automotive (e.g., GM, Tata Motors, Nissan, and Visteon), aerospace (e.g., Boeing,

Airbus, and Embraer), defense (e.g., BAE, General Dynamics, and Rafael), heavy equipment (e.g., JCB, JLG, KONE, and Wärtsilä), high-tech electronics (e.g., AMD, Apple, Bang & Olufsen, Bose, HP, and Shure), consumer packaged goods/consumer products (e.g., Coca-Cola, DFA, GMCR, J&J, Kimberly-Clark, and P&G), telecommunications (e.g., 3COM, Huawei, and Tellabs), medical devices (e.g., BD, Alcon, and Ethicon), utilities/infrastructure (e.g., EDF and PBMR), pharmaceutical (e.g., Alcon and Abbott), and retail and apparel (e.g., Reebok and David Yurman), among others.

Mr. Bilello has been directly involved with consulting on the selection, integration, and implementation of large-scale PLM solutions. He has spoken on many different PLM-related topics in Europe, North and South America, the Middle East, Africa, and Asia.

Prior to joining CIMdata, Mr. Bilello worked for Delphi, where he was responsible, among other things, for the development of Delphi's Enterprise Data Management Strategy and Enterprise Information Architecture, which was developed to integrate IT with business processes. Mr. Bilello was also responsible for the deployment and management of CAD/CAM/CAE systems and services for a \$5 billion unit of Delphi. While at Delphi, Mr. Bilello worked extensively in component/supplier management software development, manufacturing systems engineering, and shop floor and synchronous/lean manufacturing support.

Mr. Bilello also worked for General Motors (GM), where he was responsible for the development and support of systems that ran within GM's "factory of the future" manufacturing research facility. Before joining GM, Mr. Bilello held various research positions including research assistant at the National Synchrotron Light Source at Brookhaven National Laboratory (a U.S. Department of Energy laboratory), and the State University of New York at Stony Brook. At SUNY Stony Brook Mr. Bilello supported various research contracts that were funded by the U.S. Department of the Army, DARPA, NATO, and other international agencies.

Mr. Bilello holds a Bachelor of Science degree in Computer Science with a minor in Physics from the California State University, Fullerton, and a Master of Science in Engineering degree, in Manufacturing Systems Engineering, from The University of Michigan.

WORKSHOP SUPPORTED BY FRANK POPILAS



Frank Popielas is an Executive Consultant for CIMdata in the Simulation-Driven Systems Development (SDSD) Practice - focusing on the integration of physics-based behavior modeling and simulation technologies and processes with systems level engineering methodologies and tools- commonly referred to today as Model-Based Systems Engineering (MBSE). He is also Managing Partner and Co-Founder of SMS_ThinkTank™ (SMS - System Modeling and Simulation) which is engaged with CIMdata

through a strategic partnership focusing on content development and customer support supporting the SDSD Practice.

He has over 20 years of global experience in product engineering, R&D, and IP management as well as testing and materials development, with a specific focus on the development and application of multi-physics and multi-domain modeling and simulation tools. This has included the definition and implementation of the required supporting IT infrastructure for simulation data and process management at Dana Holding Corporation. His expertise includes technology exchange and transfer, business maturity assessments in engineering, and manufacturing focusing on virtual product engineering (like Sytems Engineering, MBSE, SMS, CAE, SPDM, etc.), as well as process development and democratization of software applications in this area.

Mr. Popielas has been a member of the NAFEMS Americas Steering Committee since 2011 and founding chairman of the joint System Modeling and Simulation Working Group (SMSWG) between NAFEMS and INCOSE since 2013. His activities and achievements include over 35 granted patents globally on the areas of sealing, shielding and fuel cells; over 30 publications globally covering all the mentioned areas with the main focus in the past decade on virtual product engineering, its tools and practices; numerous presentations and speaking engagements at industry conferences and various companies; interviews, case studies and teaching engagements at high schools and community colleges.

Mr. Popielas was born in Germany, and received his MSc degree in Engineering, majoring in Theoretical Physics from the Technological University (MIS&A - Institute for Steels and Alloys) in Moscow, Russia. Frank is fluent in English, German, and Russian.

INTRODUCTION

Business growth depends on developing new and improved technologies, products, and processes efficiently and getting those to the market ahead of the competition. With the digitalization of our life today, and subsequent businesses, this has spawned an ever increasing fast-paced environment for almost all businesses. Traditional product development processes that focused on deploying model-based technologies within individual engineering domains without proper integration and consideration of infrastructure and execution are no longer sufficient. Additionally, with rapid advances in digital technology, product complexity has also been increasing drastically with integrated software and electronics being a major driver. To make things even more complex, game changing new product development enabling technologies, such as additive manufacturing, the Internet of Things (IoT), Industry 4.0 and "design to purpose" materials are starting to require new approaches to product development. All of this is pointing to the clear need to engage and collaborate across diverse engineering domains to develop better "systems-oriented" solutions and conduct a much greater amount of "virtual" experimentation to gain insights into key product benefits and performance parameters early and throughout the entire product lifecycle.

It's clear, companies must adopt approaches that allow them to tap into collective intelligence to address their tough problems,

and perform their ideation experiments in the context of systems much more efficiently and rapidly to be competitive in today's globally connected economy. They must also reach out to non-traditional sources for innovative ideas and system performance insights from the abundance of operational data that are becoming available from continuous monitoring of real world product performance via "digital twin" applications. By creating a digital representation of the product from early concept development thru detailed design and manufacturing, as well as by receiving rapid insights from in service operations, successful enterprises are minimizing time to market, as well as product lifecycle and warranty costs. While progress is being achieved, there are still many challenges in successfully adopting and deploying these new technologies and processes.

During this workshop, attendees will explore "model-driven systems innovation" from multiple perspectives including strategy, culture, and process. Key challenges encountered and effective approaches and solutions to deal with these challenges will also be discussed. Additionally, references to CIMdata research and relevant industry case studies will provide inspiration. The panel and breakout discussions will provide ample opportunity to exchange thoughts, identify technology trends, and formulate ideas for implementation that participants can apply to their specific business requirements. Finally, attendees will have the opportunity to voice their concerns and opinions, discuss, and help formulate a unified position the industry can use to jointly guide solutions and move forward.

WHAT TO EXPECT IF YOU ATTEND?

This will be a lively forum where participants can learn about the latest trends across various industries, discuss real issues, identify opportunities, and share their experiences and insights based on the varied discussion topics. Attendees will also have their voices heard by CIMdata's thought leaders. This event provides a forum to network with professionals from diverse industries, academia, CIMdata's subject matter experts, and members of the CIMdata Simulation-Driven Systems Development Knowledge Council. There will be plenty time for open (and private) discussions and networking.

WHO SHOULD ATTEND?

- Managers and SMEs responsible for "digital thread" and "digital twin" product development process initiatives
- R&D, Product Development, and Engineering directors and functional team leaders
- Systems Engineering and Behavior Modeling/Simulation experts
- Industry, government, and academic leaders interested in model-driven product innovation, the role of digitalization and technology partnerships
- Providers of PLM software solutions that support model-based engineering