



## **INTEGRATED PHOTONICS MANUFACTURING IPSR SPRING 2017 MEETING**

March 28-30, 2017

# **STATUS 2017 AND STRATEGIES FOR 2025 THE INTEGRATED PHOTONICS SYSTEM ROADMAP**

**Co-Organized By:**

**AIM Photonics Institute • The MIT Microphotonics Center • INEMI**

*Samberg Conference Center, E52, 50 Memorial Drive, Cambridge, MA*

***Integrated Photonics Professionals, Academics, Students  
AIM Photonics Membership***

### **TUESDAY, MARCH 28**

#### **SESSION 1: MANUFACTURING INDUSTRY DYNAMICS**

- Wall Street report
- Photonics in the Electronics Supply Chain: volatility and opportunity
- 2025 Platform Potential for InP
- Silicon Photonics and ‘Moore’s Law’

#### **SESSION 2: AUGMENTED REALITY**

- AR Hardware-Software Convergence: trends and challenges
- Human-Machine Interfaces: industrial and consumer applications
- LIDAR for Logistics
- Integrated Photonics for Driver Assisted Transportation

#### **LUNCH AND IPSR AND MPH C CONSORTIUM BOARD MEETINGS**

#### **SESSION 3: REVENUE ACCELERATORS**

- Data Center Architecture and Components: Networks, Systems and Boards
- RF Optical Signal Processors
- Chemical Sensor Integration for Sensitivity and Selectivity
- Optical Packaging: functionality/cost solutions by heterogeneous integration
- Automated Design: a standard gateway to reducing time to market

#### **SESSION 4: IPSR WORKSHOP (IPSR 2016 DISTRIBUTED TO ALL ATTENDEES).**

- Breakout meetings of the IPSR Technical Working Groups and Product Emulator Groups with the AIM MCE/KTMA teams.

#### **NETWORKING RECEPTION AND POSTER SESSION**



## **WEDNESDAY, MARCH 29**

### **SESSION 5: BOARD-LEVEL OPTICAL INTERCONNECTION**

- System Requirements
- Chip, Package, Substrate, Waveguide and Connector Solutions
- Technology Supply Chain Gaps and Challenges
- Roadmap for Embedded Integrated Photonic Components

### **SESSION 6: DESIGN AUTOMATION**

- Bridging the Electronics-Photonics Design Infrastructure Gap
- Five Technology Nodes: Design 2017 vs. Design 2035
- The AIM Design Center and MPW Gateway

### **SESSION 7: SYSTEM SOLUTIONS FOR OPTICAL PACKAGING**

- Wafer-Level Packaging Trends
- Simplification of the Interconnection Hierarchy
- Packaging Foundries: Europe, Asia and the US

### **SESSION 8: PANEL DISCUSSION BY AIM INDUSTRIAL MEMBERS**

- Evaluation of integrated photonics supply chain preparedness

### **SESSION 9: INTEGRATED PHOTONICS ROADMAP**

#### *Roadmap Workshop Report Back*

- IPSR TWG/PEG updates
- Workforce Roadmap: skills

## **THURSDAY, MARCH 30**

### **MORNING SESSION: LATENT COMPETENCIES IN INTEGRATED PHOTONICS**

- Translating Skill Sets from Fiber and Lenses to Integrated Photonics
- Education Needs and Resources: 2017-2035
- The NIST-MEP Program and Regional Practice Facilities
- Community College Networks
- Apprenticeships and Credentialing PIC Manufacturing Skills

### **AFTERNOON SESSION: BUILDING VALUE WITH OEM-SME PARTNERSHIPS**

- Internships: Student and Professional Exchange
- State and Local Government Incentives and Infrastructure
- SME Commercial Engagement in Integrated Photonics Supply Chain
- OEM Panel: Can Local Supply Chains Accelerate Technology Transitions?