Twenty-First Annual
Automotive Electronics
Reliability Workshop

Call for Presentations
and Registration Notice

April 30 – May 2, 2019

Sheraton Detroit Novi Hotel

21111 Haggerty Road
Novi, Michigan 48375
(248) 349-4000

organized by the AEC Component Technical Committee:
The 2019 Automotive Electronics Reliability Workshop will be held at Sheraton Detroit Novi Hotel from April 30th to May 2nd. Previous workshops have been providing a forum and structured environment to discuss quality and reliability problems and philosophies related to all aspects of passive component, discrete semiconductor, and integrated circuit design, test, analysis, fabrication, assembly, and field performance. The environment is a highly interactive technical presentation and panel discussion format promoting open and frank communications within the international automotive component supplier base.

Call For Presentations

This call for presentations solicits your submission of abstracts of less than 200 words dealing with current automotive electronic component issues. The abstracts and topics will be reviewed and selected for presentation based upon technical merit, innovation, automotive focus, and relevancy. Company commercials and/or endorsements are not allowed. Company logos may be used on presentation slide borders only. Each presentation will be allotted 20-25 minutes, followed by a question and answer session.

Some areas and topics that are relevant to and presented by workshop participants previously are listed below. Items in bold text are those of particular interest for this year’s workshop. Works involved in Integrated Circuits, Discrete and Passive Components are welcome. Presentations and late breaking contributions relevant to today’s activities and tomorrow’s ideas are also requested.

**Q100/Q101/Q200 Revisions - Impact**
- Field Quality Performance
- Accelerated Stresses
- Wafer Level Reliability
- Product Characterization
- Board Level Simulation

**MCM Qualification/Screen**
- Reliability Simulation
- Emerging Challenges
- FMEA
- Advanced Packaging

**Technical Issues with 40nm and Below**
- Impact of OEM Automotive Environment
- New Failure Analysis Methodologies

**OEM/End-Customer Requirements**
- New Test/Screen Techniques
- Quality System/Methodology Trends
- Reliability Monitoring Usefulness
- Burn-In/Test Screen Elimination
- Application Specific Qualification
- Criteria for Using Non-Automotive Parts
- OEM System Reliability
- Mission Profile Standardization
- Extended Qualification Duration
- EOS/ESD/NTF Reduction

**Cu Wire Reliability**
- Best Practices
- Field Performance

**Emerging Technology**
- Autonomous Driving
- Driver Assist/RF/Radar
- MEM’s
- LED’s
- ISO Specification/ASIL
- EMC/Latch-Up
- Vehicle Communications/V2V
- Internet-of-Things (IoT) in Vehicles

**"Zero Defects" Implementation**
- New/Suspect Failure Mechanisms
- Known Good Die (KGD)
- Maverick Lot/Wafer Methodology
- Design for Test/Analysis/FA/etc.
- Safe Launch

Submit an electronic version of your abstract (in both Word & PDF format) and finished presentation (in both PowerPoint & PDF format) to:

**Andy Mackie**
Indium Corporation
Office Phone: (315) 266-7007
Email: amackie@indium.com

**Steven Sibrel**
Harman International
Office Phone: (248) 985-0061
Email: steven.sibrel@harman.com
2019 – Twenty-First Annual Automotive Electronics Reliability Workshop
April 30 – May 2, 2019
Sheraton Detroit Novi Hotel
Novi, MI

**AEC Objective:** The purpose of this workshop is to continuously improve communications between automotive electronic component users and their supplier base. The goal of the Automotive Electronics Council is the development of uniform automotive industry specifications and requirements to improve automotive product quality and reliability while reducing cost and time to market.

**Who Should Attend:** Engineers and managers who are involved in the qualification, testing, reliability, and failure analysis of automotive passive components, discrete semiconductor devices, and integrated circuit devices. It would also be helpful to those who are responsible for establishing quality and reliability policies for automotive components.

**Registration Fee:** There is NO REGISTRATION FEE, but workshop participants must register with the hotel before Tuesday, April 9, 2019 to ensure that the block room rate of $162 per night is available. Hotel room reservations requests received after 5:00 pm (EST) on Tuesday, April 9, 2019 will be accepted at the prevailing rate.

The AEC negotiated a minimum hotel room commitment to minimize room rates and meeting expenses. In order to remain a free Workshop event for attendees, the AEC must meet the sleeping room commitment. Please use the Sheraton Detroit Novi Hotel when making your room reservation, and clearly state that you are attending the 2019 AEC Reliability Workshop.

This is your workshop. Please come with an open mind and be prepared to share and learn about new ideas and accomplishments. Your ideas on how to improve future workshops are always welcomed.

**Workshop Registration**

Registering for the workshop can be done by accessing the AEC website at [http://www.aecouncil.com](http://www.aecouncil.com) and clicking on "Updated: Annual AEC Reliability Workshop & Registration Information", then click on "Registration Form" to fill out and submit the form. Please complete all fields on the registration form.

**Hotel Reservation**

Reserving a room at the hotel can be accomplished by accessing the hotel reservation website for the 2019 AEC Reliability Workshop at the following link and entering the requested information:

[Book your Group Rate Room for the 2019 AEC Reliability Workshop](http://www.aecouncil.com)

If you choose to make your reservations by phone at (248) 349-4000 or (866) 837-4180, request a room from the block reserved under the meeting "Automotive Electronics Reliability Workshop". The room rate for the block is $162 per night. Room block rates will be accepted until the Tuesday, April 9 cut-off date. Reservation requests received after 5:00 pm (EST) on Tuesday, April 9 will be accepted at the prevailing rate.
# Tentative Agenda
(subject to change based on abstracts received)

<table>
<thead>
<tr>
<th>Tuesday, April 30, 2019</th>
<th>Wednesday, May 1, 2019</th>
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<tbody>
<tr>
<td>7:30 am - 8:00 am Refreshments/Registration</td>
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<tr>
<td>8:00 am - 8:30 am Opening Remarks</td>
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<tr>
<td>8:30 am - 10:00 am Session 1: Passive Components</td>
<td>8:30 am - 10:00 am Session 3: Integrated Circuits</td>
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<td>10:00 am - 10:30 am Break</td>
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<td>10:30 am - 11:30 am Lunch (on own)</td>
<td>10:30 am - 12:00 noon Lunch (on own)</td>
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<td>11:30 am - 1:00 pm Session 2: Discrete Semiconductors</td>
<td>12:00 noon - 1:30 pm Lunch (on own)</td>
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<td>1:00 pm - 2:30 pm Break</td>
<td>1:30 pm - 3:00 pm Session 4: Integrated Circuits</td>
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<td>2:30 pm - 3:00 pm Break</td>
<td>3:00 pm - 3:30 pm Session 5: Integrated Circuits</td>
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<td>3:00 pm - 4:00 pm Workshop W.2 – Q101 Review</td>
<td>3:30 pm - 5:00 pm Session 6: Integrated Circuits</td>
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<td>4:00 pm - 5:00 pm Workshop W.3 – Q102 Review</td>
<td>5:00 pm - 6:00 pm Workshop W.4 – Q100 Review</td>
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<tr>
<th>Thursday, May 2, 2019</th>
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<tr>
<td>7:30 am - 8:00 am Refreshments/Registration</td>
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<td>8:00 am - 10:00 am Session 7: Integrated Circuits</td>
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<td>10:00 am - 10:30 am Break</td>
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<td>10:30 am - 11:30 noon Workshop W.5 (TBD)</td>
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<td>11:30 am - 12:00 noon Workshop W.6 (TBD)</td>
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<td>12:00 noon - 12:30 pm Closing Remarks</td>
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## Key Workshop Dates

- Preliminary Call for Presentations: December 14, 2018
- Abstract Submittal Deadline: February 23, 2019
- Presentation Selection & Final Agenda: March 4, 2019
- Hotel Reservation Deadline **: April 9, 2019
- Final Copy of Presentation Due: April 12, 2019
- Workshop Pre-Registration Closes **: April 12, 2019
- Workshop Begins: April 30, 2019

** Walk-ins welcome pending space availability

*Recording devices (video and/or audio) are prohibited at the workshop*
Lodging: A block of rooms has been set aside for workshop participants at the Sheraton Detroit Novi Hotel in Novi, Michigan. Participants should make reservations directly with the hotel by clicking on the hotel reservation link shown on the previous page, or by phone at (248) 349-4000 or (800) 325-3535, no later than April 9, 2019. When making reservations, mention the 2019 AEC Reliability Workshop to get the group rate of $162 per night. Failure to identify yourself as an AEC Workshop attendee will result in a higher room rate. Room block rates will be accepted until the April 9 cut-off date. Reservation requests received after 5:00 pm (EST) on April 9 will be accepted at the prevailing rate.

Ground Transportation: Car rental, limousine and taxi service are available at the Detroit Metropolitan Airport.

Directions: The Sheraton Detroit Novi Hotel is located within 25 miles of the Detroit Metropolitan Airport (see map below). From Detroit Metropolitan Airport: Take the service road to Interstate 94 West. Proceed on I-94 to Interstate 275 North. Continue on I-275 and exit onto 8 Mile Road. Take 8 Mile Road west to Haggerty Road. Turn right (North) and continue 0.25 miles to the hotel. Detailed directions are available via the Sheraton Detroit Novi Hotel webpage: (http://www.starwoodhotels.com/sheraton/property/overview/index.html?propertyID=2019).