You are invited to submit a presentation proposal that addresses the Symposium theme:

"Sharing applications, success stories and lessons learned in reliability, durability and maintainability engineering."

Please complete the following presentation proposal form and return it via e-mail to present@ardconference.com.

### Presentation Proposal

1. **The title of the presentation (remember that attendees have a choice of sessions to attend so the title should be interesting and also must accurately reflect the content of your presentation)**

   Making FMEA a More Powerful and Effective Reliability Tool

2. **A short summary to describe the presentation in the brochure and on the website (must be “print-ready” and approximately 100 – 200 words)**

   Failure Mode and Effects Analysis (FMEA) has had varying degrees of success, as implemented by companies worldwide. When implemented effectively, this tool has the potential to be a powerful aid in reducing or eliminating the risk from product designs and manufacturing processes to bring about more successful product launches. This presentation examines why FMEA has not been living up to its potential in some organizations, and describes how to get better results with individual FMEAs and how to implement a more effective overall FMEA process. Four key “success factors” are highlighted: 1) an effective FMEA process, 2) strong management sponsorship, 3) adequate FMEA resources and 4) “best practice” FMEA application.

3. **A detailed outline of the presentation including the introduction, the major points to be covered and the conclusion (see the sample proposal for guidance – insert additional lines below as needed)**

   Few reliability tools elicit stronger responses from quality and reliability professionals than Failure Mode and Effects Analysis (FMEA). Reactions around the virtual “water cooler” range from “waste of time, lack of support” and “don’t want anything to do with it” all the way to “powerful tool, effective way to prevent problems” and “needs to be done across the board.” In fact, the success of this potentially powerful tool depends largely on how FMEAs are performed and managed within the organization. There are four broad success factors that are critical to uniformity of success in the application of FMEA in any company: 1) an effective FMEA process, 2) strong management sponsorship, 3) adequate FMEA resources and 4) “best practice” FMEA application. This presentation highlights lessons learned from the presenter’s many years of experience performing and managing FMEA activities for General Motors, participating in the development of the SAE J1739 standard for Design, Process and Machinery FMEAs and facilitating FMEAs for clients in government and industry.
The major points to be covered in the presentation include:

- The primary reasons for ineffective FMEAs (based on practical experience)
- The essential elements of an effective FMEA process
  - FMEA Strategic Plan
    - Projects should be selected based on risk.
    - Analyses should be done during the “window of opportunity.”
  - FMEA Resource Plan
    - A “homeroom” can be important to process and execution.
    - Training for FMEA team members, facilitators and management is essential.
  - Generic FMEAs
    - A resource of historic (empirical) and potential failure modes, effects, causes and controls at the generic level of the system, subsystem or component.
  - Program-Specific FMEAs
    - Performed by a team of a manageable size with the required expertise during the “window of opportunity” that maximizes the impact of the analysis to drive improvements.
  - Basic FMEA Steps
  - Management Reviews
    - High risk issues should be escalated to the Failure Review Board process to bring proper context and ownership to the issue.
  - Quality Audits
    - Provides feedback loop to improve the FMEA process.
    - “Quality Objectives” samples are provided in the appendices of the SAE J1739 standard.
  - Supplier FMEAs
    - Include the requirement for FMEAs of supplier components that are identified as higher risk into the contracts.
    - Review supplier FMEAs based on the organization’s quality objectives.
  - Execution of Recommended Actions
    - FMEAs have little value unless the recommended actions are fully executed.
    - FMEA team should stay intact during the execution stage and should be empowered to initiate actions that will reduce the risk to an acceptable level.
  - Linkage to Other Processes
    - Potential linkages include DFMEA to DVP&R; DFMEA to PFMEA, PFMEA to Process Flow Diagram and Control Plan.
  - Test and Field Failures
    - One of the common mistakes when implementing an FMEA is to omit subsequent test and field failures.
  - Integrated Software Support
Relational database software can manage multiple FMEA projects and help to ensure consistency, provide charts and other reports to highlight portions of the analysis, make “lessons learned” from past FMEAs easily accessible, etc.

- Management Sponsorship and Support
  - Management support is often led by an FMEA champion at the executive level – describe role.
- Best Practice FMEA Application
  - Put together the right team
  - Do your homework
  - Understand FMEA basics and provide experienced and effective FMEA facilitation
  - Get the “level of detail” right

This presentation has highlighted “lessons learned” and tips for maximizing the potential of your FMEAs by establishing an effective process, developing strong management sponsorship for FMEA activities, providing adequate resources for analysis activities and striving for “best practice” FMEA application. By mastering the four success factors described in this presentation, an organization will be able to make FMEA a more powerful and effective reliability tool.

4. A short explanation of how this presentation will be of use to the reliability professionals who attend the Symposium (the “business case”)

FMEA is a potentially powerful reliability tool that can help an organization to assess and reduce the risk associated with product and process designs. Used effectively, the tool can help the organization to improve designs early in the development process when modifications are the most cost-effective. The presenter’s extensive experience performing, managing and facilitating FMEAs make him well-qualified to share practical insights to greatly improve the effectiveness of an organization’s FMEA projects.

5. Keywords to identify the main theme(s) of the presentation

FMEA, FMECA, Risk Assessment, Reliability Management
Please identify a single primary author for this presentation and provide his/her contact information in #1 – #4 below. If there are contributing authors, please list in #5 and #6. (All correspondence from the Applied Reliability and Durability Conference will be addressed to the primary author, and only the primary author will receive complimentary registration to the event.)

NOTE: If your presentation is selected for inclusion in the Symposium, it will be assigned to a Room and Session (i.e., time slot) at the discretion of the Applied Reliability and Durability Conference Review Board. If you have any special schedule constraints, please notify Applied Reliability and Durability Conference in advance.

1. Primary Author’s Name (Last Name, First Name format)
   Lastname, Firstname

2. Primary Author’s Title and Company
   Application Engineer
   Sample Company

3. Primary Author’s Mailing Address and Contact Info
   Address:

   Phone:

   Fax:

   E-mail:

   Company Website URL, if any:

4. Primary Author’s Bio (in a concise format that would be suitable for publication, if needed)
   Highlights of experience, expertise, current employer, and other relevant information

5. Contributing Author(s) who MAY be sharing the stage at the event (include e-mail addresses) [Please provide the names in Last Name, First Name order]
   None
6. Contributing Author(s) who WILL NOT be sharing the stage at the event (Please provide the names in Last Name, First Name order)

None

By submitting this presentation proposal, the primary author and any contributing authors who will be sharing the stage confirm that you have read and understand the Summary of Applied Reliability and Durability Conference Presenter Responsibilities (as outlined on the next page), and you agree to comply with the stated requirements if your proposal is selected and you accept that selection.
An Applied Reliability and Durability Conference representative will contact you in early-January 2017 regarding the status of your presentation proposal. Here is a summary of what you can expect if your proposal is selected and you agree to participate in the event as a presenter.

- **Accept Your Selection:** Please notify Applied Reliability and Durability Conference via e-mail no later than January 16, 2017 to accept your selection. Please do not agree to present if you are not able to make a firm commitment to comply with the deadlines for submitting presentation materials and deliver your presentation at the event.
- **Registration:** If you are the primary author for a presentation, your complimentary registration will be processed automatically and you will receive confirmation via e-mail in February 2017. If you do not receive confirmation via e-mail, please contact AdminUS@ReliaSoft.com.
  - Co-authors who plan to attend the event must register separately on their own (see http://www.ARSymposium.org/register.htm).
  - All ARDC attendees must make travel and hotel arrangements on their own.
- **Submit All Required Presentation Materials and Forms:** The required templates and forms are posted at http://www.ARSymposium.org/present.htm.
  - **Use ARDC PowerPoint Template:** All presentations must use the ARDC PowerPoint template, which can be downloaded from the website. Please make sure your slide count is appropriate for the time available:
    - Regular presentations are scheduled for 50 minutes (usually about 30 – 60 slides), plus 10 minutes for Q&A.
    - Tutorials are scheduled for 75 minutes (usually about 45 – 90 slides), plus 15 minutes for Q&A.
  - **Submit Complete Final Draft:** You must submit a complete final draft of the presentation no later than April 28, 2017. After you submit the file, changes will not be accepted unless requested by ARDC to make the document print-ready.
  - **Submit Publication Release Form:** Please make sure all of the content in your presentation can be released for publication, and prepare for any approval process necessary within your organization. You must submit the signed publication release no later than April 28, 2017.
- **At the Symposium:**
  - **Presenter Orientation:** There will be a brief (optional) presenter orientation on the evening before the Symposium begins. In addition, please plan to arrive at the podium 5 – 10 minutes before your session.
  - **Dress Code:** Although the general attire at the Symposium tends to be “business casual,” most presenters choose to dress more professionally for their own presentations.
  - **PowerPoints are Pre-Loaded:** All PowerPoint presentations will be pre-loaded on laptops furnished by the Symposium. If your presentation requires additional multimedia files, please submit them in advance so we can confirm that they will play correctly at the event.
  - **Timing:** As a courtesy to attendees and other presenters at the event, we make every effort to follow the published program schedule. Please conclude your prepared remarks with sufficient time to accept questions from the audience before ending the session at the specified time.
  - **Questions from the Audience:** Please make sure that the audience can hear the questions. You may need to ask audience members to use a microphone or repeat the questions yourself before answering.
• **Photo/Video Personal Release:**
  
  - By accepting to present at the ARDC, the primary author and any contributing authors who will be sharing the stage understand that ARDC may be videotaping any or all presentations, including yours. You understand, consent and authorize the Applied Reliability and Durability Conference, and its organizers, to take, edit, use and publish the video/audio of your presentation in the ARDC Video Proceedings. You further understand that at the organizer’s discretion, portions of your videotaped presentation, including still images, may be used for promoting these Video Proceedings (e.g., samples) and the Symposium overall.

  - There is no time limit on the validity of this release, nor is there any geographic limitation on where the ARDC Video Proceedings may be provided.

  - You therefore waive any current or future claims against the Applied Reliability and Durability Conference and its organizers, relating to the use of the video of your presentation and release them from any obligations to you with regard to royalties or compensation, editing, alteration, copyright, distribution, privacy and/or publicity.