Lear India Engineering Center, Pune

Functional Safety Team

Date: July 4, 2022

Making every drive better™

About Lear Corporation

- Lear Corporation (NYSE: LEA), a global automotive technology leader in Seating and E-Systems, enables superior in-vehicle experiences for consumers around the world.
- Lear, headquartered in Southfield, Michigan, USA serves every major automaker in the world and ranks 185 on the Fortune 500 list of Worlds Most Admired Companies 2021.
- Lear's diverse team of talented 160000+ employees and 257 facilities in 38 countries is driven by a commitment to innovation, operational excellence, and sustainability.
- Lear is Making every drive better™ by providing the technology for safer, smarter, and more comfortable journeys.
- Lear's E–Systems Product portfolio includes:
  - **Electronics**
    - Electrification – On-Board Chargers, DC-DC Converters, Battery Monitoring Systems, Battery Disconnect Units
    - Connectivity - Telecommunications Unit (TCU), Gateways
    - Core Electronics – Body Domain Controllers / Body Control Modules, Headlamp Control Modules, etc.
  - **Electrical Distribution Systems**
    - From traditional 12V to 48V, mild hybrid, and high voltage wire harnesses, Lear is a world leader in Electrical Distribution Systems with the capability to provide any level of service, from full service, built to print, and systems integrator.
  - **Connection Systems**
    - Lear's Connection Systems portfolio offers high-performance, ultra-compact, light-weight, cost-effective systems engineered for optimal performance anywhere in the vehicle.
- Further information about Lear is available at lear.com or on Twitter @LearCorporation.

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About Lear India Engineering Center for E-Systems

- At Lear's India Engineering Center for E–Systems, product development activities are executed with full responsibility for Lear's Electronics products:
  - Electrification – On-Board Chargers, DC-DC Converters, Battery Monitoring Systems, Battery Disconnect Units
  - Connectivity - Telecommunications Unit (TCU), Gateways
  - Core Electronics – Body Domain Controllers / Body Control Modules, Headlamp Control Modules, etc.

- The activities includes the ISO-26262 Par 2, Part 4, Part 5, Part 6, Part 8, Part 9.
  - Product Development at System Level according to ISO-26262 Part 4, Part, 8, Part 9
    - Technical Safety Requirements Specification,
    - Technical Safety Concept / System Architecture,
    - System Safety Analysis
      - Fault Tree Analysis,
      - Failure Modes and Effects Analysis,
      - Dependent Failures Analysis
    - System Integration Test
    - System Test

  - Product Development at Hardware Level according to ISO-26262 Part 5, Part, 8, Part 9
    - Hardware Safety Requirements
    - Hardware Design
    - Hardware Safety Analysis
      - Fault Tree Analysis,
      - Design Failure Modes and Effects Analysis,
      - Determination of Single Point Fault Metric and Latent Fault Metric,
      - Determination of Probabilistic Metric of Random Hardware Failures

  - Product Development at Software Level according to ISO-26262 Part 6, Part, 8, Part 9
    - SW Safety Requirements specification
    - SW Architecture Design
    - SW Safety Analysis
    - SW Implementation
    - SW Unit Test
    - SW Integration Test
    - SW Test

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About Lear India – Functional Safety Team

- Functional Safety Team at Lear India Engineering Center for E-Systems consists of two parts:
  - **Functional Safety Engineering**
    - Performs Product Development at System Level according to ISO-26262 Part 4, Part, 8, Part 9
      - Create and maintain the Technical Safety Requirements Specification, Technical Safety Concept / System Architecture,
      - Perform System Safety Analysis - Fault Tree Analysis, Failure Modes and Effects Analysis, Dependent Failures Analysis.
      - Define verification criteria, test scope and test method for System Integration Test, System Test
    - Performs Product Development at Hardware Level according to ISO-26262 Part 5, Part, 8, Part 9
      - Create, maintain, review the Hardware Safety Requirements, Hardware Design
      - Hardware Safety Analysis
        - Perform Fault Tree Analysis, Perform Design Failure Modes and Effects Analysis,
        - Determine Single Point Fault Metric and Latent Fault Metric,
        - Determine Probabilistic Metric of Random Hardware Failures,
    - Performs Product Development at Software Level according to ISO-26262 Part 6, Part, 8, Part 9
      - Create and maintain SW Safety Requirements specification and SW Architecture Design
      - Perform SW Safety Analysis
      - Review SW Unit Design, SW Implementation
      - Define verification criteria, test scope and test method for SW Integration Test and SW Test
  - **Functional Safety Management**
    - Performs Functional Safety Management activities during product development:
      - Prepare and finalize Development Interface Agreement with Customer
      - Create and maintain Project Safety Plan, Monitor Functional Safety activities within
        - Product development at System level for compliance to ISO26262 Part 4, Part 9.
        - Product development at Hardware for compliance to ISO26262 Part 5, Part 9.
        - Product development at Software Level for compliance to ISO26262 Part 6, Part 9.
      - Monitor product development for adherence and fulfillment of supporting processes as per ISO26262 Part 8.
      - Mentor and guide System Engineers, Software Engineers, Hardware Engineers on Functional Safety.
      - Plan and conduct confirmation reviews according to ISO26262.
      - Plan and conduct Functional Safety Assessments according to ISO26262.
      - Identify safety anomalies in the product development, plan the mitigation measures, report safety anomalies to Organization in timely manner.
      - Plan and participate the Customer Joint Reviews, ensure timely closure of action items from Customer Joint Reviews.
    - Plan, Monitor, Maintain the safety management activities during production, operation, service, decommissioning
      - Production plan, Production control plan including test plan
      - Service plan, service instructions, Decommissioning instructions
      - Control measures report, Production process capability report
    - Prepare and maintain safety case, deliver safety case to Customer.
    - Prepare and maintain release for production report

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Summary

- Considering the Lear Product Portfolio, product development activities carried out at Lear India Engineering Center and the responsibilities of the Lear India functional Safety team, the membership of ISO/ TC 22/ SC 32 is humbly requested.

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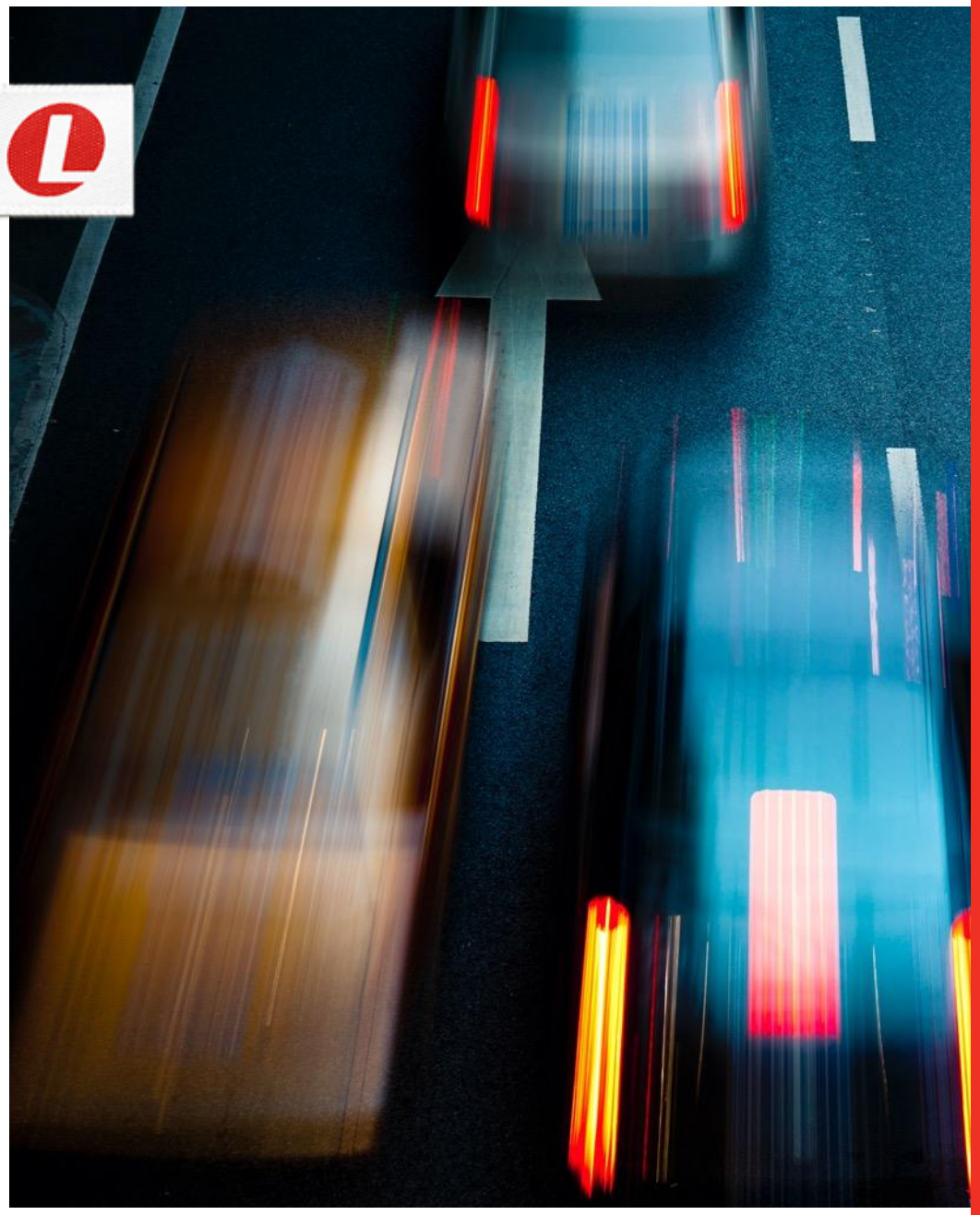
Thank you



Making every drive better™

Be Inclusive
Be Inventive
Get Results the Right Way