# Workshop on Implications and Experiences in Establishing and Using Product Durability Concepts

Mohammad Modarres Professor of Reliability Engineering and Director Center for Risk and Reliability A.J. Clark School of Engineering University of Maryland

> January 27,2023 Orlando, Florida



## **Workshop Objective**

- International organizations and governments have initiatives to institute circular economy and product durability requirements and standards.
- Still there are no universally accepted durability methods, tools and standards to implement a durability paradigm shift.
- This workshop intends to:
  - Better understand the current state of the standards development, worldwide initiatives, definitions and methods developments
  - Discuss technical maturity of the current durability definitions, assessment methods and needs for future research and developments
  - Exchange views on the practical implications of durability assessment requirements for products
  - Express implications of this paradigm shift for the reliability engineering community
  - Offer recommendations for the future directions and involvements with the standards development initiatives



## Workshop Agenda

#### 08:00-09:30 Select Presentations

- Welcome, purpose of the workshop and background presentation M. Modarres (University of Maryland)
- KC Morris, NIST, Ongoing standards activities on circular economy
- J. Herrmann, University of Maryland, Durability assessment
- M. Pourgolmohammad, Teradyn, Corp., Metrics of reliability and maintainability for durability

### 09:30-10:00 Discussions All Participants

### 10:00-10:30 Break for refreshments

### 10:30-12:00 Breakout Group Discussions

- Technical maturity of durability assessment and needs for future work
- Practical implications of requiring durability assessment for products including policy and standard outlooks

### 12:00-12:30 Summary of Breakout Discussions and Final comments-All Participants

### 12:30 Adjourn

Note: The discussions and conclusions will be disseminated later to other stakeholders in this field



#### **THANK YOU!**

