

Accelerated Reliability Testing

Date: 2021
Venue: webinar

The goal of the course is to enable the designers and test engineers to conduct accelerated reliability tests (AST, ALT/ HALT) in practice. The methods with examples are presented and can be used in product design projects. Previous knowledge needed: basics of statistics. **Bring a scientific calculator with you.**

| Accelerated Reliability Testing | |
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| 9:00 | <i>WELCOME and introduction</i> |
| 9:05 | 1. Introduction: Traditional Lifetime Testing and Reliability Testing Today - Traditional: Reliability determination tests and Reliability development tests (accelerated tests) - Problems with traditional reliability testing |
| | 2. Design for Reliability, Role of Testing - Managing product reliability - Reliability methods supporting the tests: Risk Analysis and FMECA - Scheduling of testing in product development |
| | 3. Methods of Accelerated Life Testing (ALT) - Test time compression with elevated stresses - Failure models and failure distributions, life time determination |
| 11:30 | <i>LUNCH</i> |
| 12:00 | 4. Techniques of Accelerated Stress Testing (AST) - Elevated stresses in revealing product weak links - Failure mechanisms as sources of failure modes |
| | 5. Conditioning in AST - Test cycle planning to reveal relevant failure modes - Selecting proper stresses, system vs. subsystem testing, functional tests |
| | 6. Implementation of AST - Effective approaches to stress testing - Failure analyses, failure database and Lessons Learned |
| 16:00 | <i>CONCLUSIONS, discussion</i> |

Contact/ Lecturers: Mr.Arto Salminen, Tech.Lic., +358-40-505 8885
 Mr.Antti Lyytikäinen, M.Sc., +358-400-800 022
 email: info@alsafety.com

Price: eur/ team. Included: Course materials in pdf.