

11th European CMSE Conference

# Components for Military and Space Electronics Conference & Exhibition



25 - 27 June, 2012  
Langstone Hotel, Havant  
Portsmouth, UK

## Announcement & Call for Presentations

**Abstract Deadline 15th February 2012**

The Premier Conference on the Engineering, Design, and Application of  
Electronic Components in Military & Space Systems

In cooperation with:  
COG - Component Obsolescence Group

Organized by:  
Cognition AM Ltd  
Components Technology Institute Inc.

## 11th European CMSE Conference

# Components for Military and Space Electronics Conference & Exhibition

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Organized by engineers for engineers and engineering management, this is the premier meeting for military and space electronics issues. This 11th International CMSE Europe addresses systems, subsystems, circuit boards and components. The Conference continues to specialize in Military and COTS equipment and components whilst also emphasizing new technologies, processes and design practices. Emphasis shall be placed on how to assess the risks of COTS and make cost effective decisions that meet the mission requirements. Tutorials, working groups and discussion sessions are planned on specific topics of concern to the industry.

The major emphasis is on sharing actual experiences, knowledge and data gained from the use of military and commercial components plus embedded electronics in military and space systems. Experts from throughout the world are requested to submit an abstract for a presentation on the Conference topics. Papers reporting on actual experience, knowledge and data gained from the use of commercial and military components in military and space systems are solicited. Specific topics for consideration include:

- *Impact of lead free solders and practices on reliability*
- *Component Issues with Volatile and Non-Volatile Memory*
- *Impact of new IC technology design*
- *Case studies of COTS in military & space systems*
- *Packaging issues with FPGAs, BGAs, etc.*
- *Application practices for both COTS and mil spec Components*
- *Ruggedising practices for harsh environments*
- *Risks of upscreening & uprating commercial components*
- *Conquering harsh environments*
- *New issues in avoiding counterfeit components*

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[www.cmse-eur.com](http://www.cmse-eur.com)

# Conference Topics

The CMSE is the first and largest International Conference on the use of electronic components in military and space systems. This annual Conference is attended by engineers, project personnel quality and offers engineers excellent technical papers on the following subjects:

## Special Topics for 2012

- Sn whiskers with commercial components
- New IC wearout failure mechanisms

### Design Practices

- Open System architectures
- FPGAs, DSPs, & ASICs
- Packaging and special thermal techniques
- Techniques to successfully use PEMs & COTS
- Ruggedising COTS for military use
- PEMs in long term storage conditions
- Critical applications

### Applications

- Avionics, naval, military vehicles and radios
- Missile and weapon systems
- Satellites & launch vehicles

### Case Studies/History

- Business practices
- Industry perspectives
- Life cycle Management
- Designing for obsolescence

### Obsolescence Management

- Designing for obsolescence
- COTS - solution or problem
- Industry perspectives
- Life cycle management
- Lessons Learned

### Radiation Hardness

- Assessing hardness levels of COTS & PEMs
- Maintaining hardness through design changes
- Shielding techniques
- Impact of scaling on RH performance

### Embedded COTS

- Legacy vs new systems
- Control issues
- Counterfeit components

### Technology Trends

- New technology components
- Replacing obsolete technologies
- Life Time of the new technologies

### Risk Management

- System redundancy
- Failure/error detection and correction
- New Reliability

### EEE Components

- ICs, opto-couplers, hybrids, and discretes
- Passives, solid state relays and connectors
- MEMS, optoelectronics, and etc.
- Batteries and sensors

### Selecting COTS & Commercial Suppliers

- How to select suitable suppliers
- Quality issues and acceptable quality levels

### Reliability Analysis and Testing

- COTS and PEMs qualification practices
- Uprating over manufacturers data sheet
- Theory and structure of qualification program
- ESS, screening practices and cost analysis
- Accelerated and step stress testing

Abstracts should be submitted before **15th February 2012** on a single page and include the name, title, and affiliation of presenter, complete address, telephone number, fax number and e-mail address. Please state what an attendee will learn from your talk. Receipt of Abstracts will be confirmed within 7 days after submission. Speakers will be notified by **16th April 2010** of presentation acceptance and asked to supply a copy of their presentation for publication in the Conference Notes.

Please, send your abstract to **abstracts@cmse-eur.com** or if your abstract is not finished and approved, please send the topic you are considering and your e-mail address with company name and telephone number to above address.

*Speakers qualify for a reduced attendance fee to the CMSE event.*

### Cognition AM Ltd

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