



EWICS TC7

European Workshop on Industrial Computer Systems

TC on Reliability, Safety, and Security

Subgroup Education and Training

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EWICS - European Workshop on Industrial Computer Systems

**Founded 1974 as the European branch (Purdue Europe) of
the International Purdue Workshop on Industrial Computer
Systems (IPWICS)**

TC 7 on Reliability, Safety, and Security
Only remaining TC (out of 14)



Mission of EWICS

"To promote the economical and efficient realisation of programmable industrial systems through education, information exchange, and the elaboration of standards and guidelines."



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- ***Assess the state of the art methods and tools for critical software and system development and maintenance in industrial environments.***
- ***Develop standards and guidelines for the development and assessment of safe and secure systems.***
- ***Disseminate information and knowledge in this field.***



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Method of Work of EWICS

- **Three to four meetings a year.**
- **Several subgroups.**
- **Organisation of workshops.**
- **Yearly Safecomp conference.**
- **Liaisons with standardisation bodies and other organisations.**



Current Subgroups

- **Maintenance of Diverse Systems (MDS)**
- **Safety of Medical Devices (MeD)**
- **Security of Industrial Safety-Critical Computer Systems (SEC)**
- **Education and Training in Dependable Systems Engineering (E&T)**



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Membership

- **Cross sector - chemical, nuclear, transport, medical, security, energy, ...**
- **Industry, users, regulators, R&D, government.**
- **Supported by member companies, "free" (no costs, no reimbursement).**
- **Well balanced – No single group can impose its views.**



Membership

- **Active members**
 - **Obligations:**
 - Participate in meetings at least once in two years, or
 - Provide input (reviewing or contributing to working papers) at least once a year.
 - **Benefits:**
 - Receive invitations and other information by e-mail.
 - Receive minutes and working papers from plenary and chosen subgroup(s).
 - Read access to members-only area at www.ewics.org.



Membership

- **Passive members**

- **Obligations:**

- **None! But free to attend meetings or to provide input (it would be much appreciated ...).**

- **Benefits:**

- **Receive invitations by e-mail.**
 - **Receive minutes from plenary and chosen subgroup(s).**
 - **Can change status by attending meetings or providing inputs.**



Membership

- **Liaison members**
 - **Obligations:**
 - Spread information about EWICS to own organisation.
 - Supply information to EWICS about own organisation.
 - No obligation to attend meetings or provide inputs.
 - **Benefits:**
 - Receive invitations by e-mail.
 - Receive minutes from plenary and chosen subgroup(s).
 - Receive working papers on request if useful for liaison purposes.



Education and Training in Dependable Systems Engineering Subgroup

Current goal:

- **Develop a guideline containing a list of courses and topics that are considered necessary for a safety engineer working in the area of safe and secure operation of high dependable systems.**



Education and Training in Dependable Systems Engineering Subgroup

- **Education and training for achieving the degree of a Master of Science in Safety Engineering.**
- **Graduates shall be able to work in responsible positions in assessing organizations, in regulating bodies, for manufacturers of safety-related equipment or at utilities.**



Basic Structure of Guideline (1)

Book of Knowledge for Safety Engineering Concerning Computer-based Systems

Part I Introduction

1. Scope and Objective
2. Intended Audience
3. Structure of the Guidelines
4. Explanations
5. Terms and Definitions



Basic Structure of Guideline (2)

Part II Guideline

1. **Mandatory courses**
2. **Optional courses**
3. **Additional courses**
4. **List of relevant standards**
5. **References and links**



Subgroup E & T – Contacts

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<http://www.ewics.org>