

ASIGURAREA CALITĂȚII – QUALITY ASSURANCE

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The 13th International Conference in Quality and Dependability CCF 2012 - A Jubilee Edition

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Abstract

In the first part of the paper, the coordinators of CCF 2012 present the evolution of the CCF conferences, which became an important international forum for the dissemination of recent information and scientific results in quality and dependability (reliability, maintainability, safety/security). In the second part of the paper, they present the objectives and the topics of CCF 2012. The authors mention that several debates of CCF 2012 will be dedicated to the evolutions in the European quality on the European scene during these last years, as well as to the national evolutions in this field. The International Conference in Quality and Dependability – CCF is now a well established brand of excellence among the international scientific meetings in the interdisciplinary field of quality and dependability.

Keywords: Quality, Dependability, Reliability, International Conference, CCF, Quality policy.

From Quality Management to Sustainable Excellence: EFQM Excellence Model

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Abstract

We can all think of organisations that we would recognise as being excellent. They may well operate in different environments, with different stakeholder constituencies, and come in all shapes and sizes but what they do have in common is a mindset that is based on a number of attributes and ways of working that separate them from the rest of the crowd. This paper describes these attributes, what EFQM calls the Fundamental Concepts of Excellence, essential foundation of achieving Sustainable Excellence for any organisations. The latter are the underlying principles of the EFQM Excellence Model; this is a practical, non-prescriptive framework that can be used to gain a holistic view of any organisation regardless of size, sector or maturity, and improve therefore performances. The EFQM Model is divided into different criteria which are linked and integrated with the dimension of the Fundamental Concepts of Excellence. In the paper you will learn more about the criteria of EFQM, the interrelation with the Fundamental Concepts and how organisations are using the EFQM Excellence model as an overarching framework and experience for developing sustainable excellence.

Keywords: EFQM, model, excellence, organization, EFQM Excellence model, sustainable excellence.

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A Comparative Study of the Motives for Obtaining and the Impacts of ISO 9001 Certification in UK Organisations

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Abstract

Since its introduction in 1987 the ISO 9000 series of standards has become a worldwide success, with it now considered to be the minimum standard for a quality management system with the number of certified companies increasingly annually. This paper presents the results of research which aimed to assess if the motives for obtaining ISO 9001 certification and the perceived impacts to be derived from ISO 9001 certification are seen to vary across different industrial sectors. Using a two-phase sequential explanatory mixed methods design, with quantitative data collected from 111 organisations in the first phase and qualitative data collected from four organisations in the second phase. The results show that there are significant statistical differences in the motives for obtaining ISO 9001 certification and also show statistically significant differences in the impacts of ISO 9001 certification based on industrial sector. The results presented in this paper provide a useful addition to the present knowledge in the study of ISO 9001 certification in terms of impact.

Keywords: Quality, Certification, UK, ISO 9001, Organization, Impact.

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Accelerated Testing of Lead-Free Solder Joints

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Abstract

In order to diminish the test duration, accelerated tests, in harsher conditions than the real life, were designed: (i) Thermal cycling at -55°C / +125°C / 30 minutes at each step and (ii) Cycling damp heat at -40°C / 85°C and 85%RH. The tests were employed for studying the reliability of lead-free SnAgCu solder joints on test structures achieved for three variants of PCB surface finishing: Copper, Gold and HASL (Hot Air Solder Levelling), in an industrial process and for research conditions, respectively. It seems for both industrial process and research conditions the HASL variant ensures the best reliability.

Keywords: lead free, solder joints, reliability, accelerated tests, failure mechanisms

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Asupra securității rețelelor de comunicații mobile LTE

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Abstract

This paper presents the interdisciplinary research developed at EUROQUALROM laboratory regarding Long Term Evolution Mobile Networks. These researches have the purpose to describe and improve reliability and security of mobile telecommunications systems called SAE/LTE (System Architecture Evolution/Long Term Evolution). The number one goal of the 3GPP System Architecture Evolution /Long Term Evolution (SAE/ LTE) is to move mobile networks technology into its fourth generation. The unique features of 3GPP LTE/SAE architecture are creating a number of new challenges in designing the security algorithms. This article will give the necessary background information on cellular networks, relevant security concepts, also will describe LTE architecture and will represent the first step regarding the study of security mechanisms.

Keywords: LTE, mobile networks, security, reliability, confidentiality, integrity.

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