

ASIGURAREA CALITĂȚII – QUALITY ASSURANCE

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2014: Un an aniversar pentru calitate. 90 de ani de la nașterea calității moderne

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Abstract

The author presents some great personalities and events that have marked the history of quality and for which 2014 is an anniversary year. We could mention among these, the anniversary dates for the great quality gurus Walter A. Shewhart (the „father“ of modern quality), Joseph M. Juran and Genichi Taguchi, as well as the anniversary of some representatives ISO standards and EU important documents in quality fields.

Keywords: Quality, Quality management, History, 2014, Walter Shewhart, Joseph Juran, Genichi Taguchi, EC, ISO 9000.

The Quality Trilogy. A Universal Approach to Managing for Quality

Joseph M. JURAN

Abstract

Dr. Juran left us with many important fundamental methods and tools during his years as the leading expert in the field of Quality Management. The Juran Quality Trilogy is made up of three important managerial tools that work together to help organizations realize the full benefits of Quality Management in the pursuit of Quality Leadership. Dr. Juran's Trilogy represents the concepts of Quality Planning, Quality Control, and Quality Improvement. In the Six Sigma language, the Quality Planning and Quality Improvement processes are called DMADV and DMAIC. Juran referred to these processes as „universal“. These processes represent the sequences of events to effectively Plan, Control, and Improve Quality. These processes have been used widely in all industries around the world for many years.

Keywords: Quality, Quality Management, Juran, Quality Trilogy, Plan, Control, Improvement.

User Generated Content: Reviews and Perspectives

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Abstract

This article has put the various aspects of UGC in perspective by building and discussing a framework that contains the relevant stages and elements in the development and use of UGC. For each of the framework's elements there is a need for sound research that generates answers to the many questions that remain. How do users make sense of user generated reviews? Why are some reviews considered more helpful than others? To what extent do reviews replace other means of information gathering about products and services that have traditionally been used for decision making by buyers? What strategic options do companies have in dealing with UGC? The review presented in this article has shown that UGC is an important development for both customers and companies. At the same time, it is clear that research into this area is still limited. Many of the currently available sources provide anecdotal evidence that lacks a clear research methodology.

Keywords: Information, Information technology, Review, Perspectives, Content, User Generated Content, UGC, Security, Web 2.0

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A Dynamic Fault Tree Analysis Model

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Abstract

In this paper a model for dynamic fault tree (FT) analysis is developed. The model is used for the analysis of a cold standby redundant system. It is shown that a typical modern fault tree analysis (FTA), resulting in the Boolean domain in a short pseudopolynomial, i.e., a polynomial in the literals of the FT input variables, can yield grave errors in case of cold standby, even though the single terms are apparently evaluated correctly via convolution. Expanding the FT terms to minterms gives correct results, yet with considerable computational effort. Hence, here the FT is transformed to a special syntax tree based mainly on dual functions and on convolution which can be readily evaluated to give (strict sense) system reliability.

Keywords: Reliability, Fault Tree, Fault Tree Analysis, Minterm, Syntax tree, Cold Standby Redundancy, Convolution, Dual function, Priority AND.

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Aspecte fiabiliste ale amplificatoarelor RF cu zgomot redus

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Abstract

pHEMTs have become the technology of choice for current system requirements. A key requirement for all systems is high reliability components which do not fail or degrade in performance during the life cycle of the product. The paper takes a fresh look at lessons learned and where things stand today. The mobile telecommunication industry is currently at a much more vulnerable position than it appears. A full understanding of the physics and statistics of the defect generation is required to investigate the ultimate reliability limitations for amplification with reduced noise.

Keywords: pHEMT, CMOS, BiCMOS, skin effect, amplification with reduced noise, substrate losses, reliability tests.

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On Reliability of Electroplated Thin Copper Films

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Abstract

Micro-tensile experiments are useful to determine the mechanical response of thin films and coatings used in most microelectronic devices. Two aspects of reliability issues have been addressed on this sort of film on substrate systems: one corresponds to the degradation of a film on a substrate, when submitted to several cyclic mechanical solicitations; the other one, corresponds to the effect produced by geometrical and material discontinuities at the interfaces, on the local stress fields.

Keywords: Reliability, Microelectronic devices, Thin films, Degradation, Stress.

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ASIGURAREA CALITĂȚII – QUALITY ASSURANCE

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A 14-a Conferință Internațională „Calitate și Siguranță în Funcționare” – CCF 2014 Sinaia, 18-19 septembrie 2014

- Cea de a 14-a ediție a celei mai importante reuniuni științifice în domeniu ce se desfășoară în România, **Conferința Internațională „Calitate și Siguranță în Funcționare” – CCF 2014**, va fi organizată – conform periodicității deja stabilite – în perioada **18-19 septembrie 2014**, în pitorescul cadru oferit de perla Carpaților românești, stațiunea Sinaia, în sălile elegantului hotel Palace din localitate.
- Conferința Internațională „Calitate și Siguranță în Funcționare” – CCF 2014 este organizată de către **Asociația Societatea Română pentru Asigurarea Calității** în cooperare cu mai multe organizații naționale și internaționale în domeniu și se va desfășura sub egida științifică a prestigiosului *Institute of Electrical and Electronics Engineers – IEEE*, ceea ce este în măsură să crească importanța evenimentului și să-i accentueze deschiderea internațională.
- Potențialii autori trebuie să aibă în vedere la elaborarea lucrărilor că în cadrul **CCF 2014** pot fi abordate toate laturile: *inginerească, socio-tehnică, managerială, economică, juridică* ș.a. și implicațiile **calității și siguranței în funcționare** (fiabilitate, mentenabilitate, disponibilitate, securitate ș.a.). În consecință, diferitele puncte de vedere, inclusiv cele polemice, privind *ingineria, managementul și certificarea calității și a siguranței în funcționare* sunt binevenite în cadrul **CCF 2014**, organizatorii având în vedere organizarea mai multor dezbateri și „mese rotunde” asupra unor aspecte controversate ale acestui domeniu interdisciplinar de mare actualitate.
- **Tematica orientativă a conferinței** – prezentată alăturat – dorește să reflecte progresele, oportunitățile, dar și problemele și provocările în domeniul calității pentru societatea și economia românească la acest debut de mileniu, în condițiile particulare ale crizei economice mondiale: *cum poate contribui calitatea – ca principal factor al competitivității – la ieșirea din criză*, salvagardarea și rolul sistemelor de management dintr-o companie în condiții de criză etc. Prin caracterul ei internațional și, în consecință, prin participarea unor specialiști cunoscuți în domeniu (în principal din țări ale Uniunii Europene), **CCF 2014** poate constitui un veritabil *benchmarking* și „moment al adevărului” pentru organizațiile și specialiștii români: unde ne situăm – în raport cu celelalte țări ale Uniunii Europene – din punct de vedere al cercetărilor, educației, managementului și legislației în domeniul calității și al siguranței în funcționare și ce avem de făcut în această direcție. O sesiune specială consacrată celor „9 decenii de calitate modernă” aniversate în 2014 va fi organizată în cadrul **CCF 2014**.
- Se recomandă transmiterea rezumatelor lucrărilor propuse pentru **CCF 2014** (în limbile engleză/română) *pe cale electronică* la adresele CCF2014@srac.ro (*General Chairman CCF2014* – dr. ing. **Dan G. Stoichițoiu**) și bacivaro@euroqual.pub.ro / ibacivarov@yahoo.com (*Chairman International Scientific Committee CCF2014* – prof. univ. dr. ing. **Ioan C. Bacivarov**) până la data de 30 aprilie 2014.

TEMATICA ORIENTATIVĂ a CCF2014

- Managementul calității: ISO 9000 după două decenii și jumătate
- Managementul mediului: ISO 14000
- Managementul sănătății și securității ocupaționale: OHSAS 18001
- Managementul siguranței alimentare: HACCP, ISO 22000
- Managementul securității informației: ISO 27000
- Noi abordări: managementul responsabilității sociale (SA 8000)
- Managementul riscului
- Sisteme integrate de management
- Managementul calității serviciilor (învățământ, sănătate, turism, sistemul bancar etc.) și evaluarea satisfacției clienților
- Business Continuity Management (BCM)
- TQM, Six Sigma, Instrumente ale managementului calității
- Acreditare (organisme de certificare, laboratoare, personal), certificare (sisteme de management, produse și servicii) și audit
- Tehnici moderne de control și evaluare a conformității
- Evaluarea conformității produselor în domenii reglementate
- Costurile calității (gestiunea calității)
- Abordări moderne în dependabilitate, reziliență și evolvabilitate
- Fiabilitate (metode matematice, proiectare, fiabilitatea previzională, experimentală și operațională, fiabilitatea factorului uman)
- Mentenabilitate (managementul mentenanței, tehnici de mentenanță preventivă și corectivă, RCM)
- Studiul asistat de calculator al calității și siguranței în funcționare
- Calitate, fiabilitate și securitate în sectorul tehnologiei informațiilor și comunicațiilor (IT&C)
- Legislație și standardizare în calitate și siguranță în funcționare