



International Conference Quality and Dependability

The 14th Edition

AGENDA

CCF 2014



**Sinaia, Romania
September 17th-19th, 2014**

The Romanian Society for Quality Assurance, a professional, non-governmental and non-profit association from Romania, is actively involved in promoting the quality culture nationwide, by the means of conferences, seminars, forums, symposia.

The Conference on Quality and Dependability CCF 2014, organized by The Romanian Society for Quality Assurance at every 2 years, is part of the circuit of the successful international conferences, opinion unanimously expressed by the participants to the previous editions.

Every edition of the conference enjoys the presence of many officials and personalities, distinguished guests and well-known specialists nation- and worldwide, representatives of the business and academic environment.

The topics approached highlight new information, trends, ideas and concepts, which are essential for a market-driven functional economy.

CCF – A TRADITIONAL CONFERENCE

The first National Conference on Quality and Reliability (CCF '87), took place at Hotel 'Teleferic' from Poiana Brasov, in 1987, with the occasion of the organisation of the Central Reliability Group of MIET. It was then decided that this conference should become a tradition.

Therefore, the second edition of the Conference took place at the premises of 'Minerva', 'Diana' and 'Afrodita' hotels from Baile Herculane, in 1988.

The Romanian Society for Quality Assurance took over this tradition, by organizing the third edition of the Conference at Hotel 'Roman' from Baile Herculane, in September 1996.

The fourth edition took place in Sinaia on the 2nd-3rd of October 1997, and the fifth edition CCF '98 was organized in the period 28th – 30th of October 1998, in Sinaia as well.

The sixth edition of the Conference CCF '99 was organized in 1999, the 22nd – 24th of October, at Hotel 'Sport' from Poiana Brasov, and in 2000, between 27th – 29th of September, the seventh edition was organized, at Hotel 'Palace' from Sinaia.

The eighth edition of the Conference, CCF 2002, was organized at the Casino from Sinaia, in the period 18th-20th of September 2002 and it enjoyed the presence of distinguished guests from abroad and well-known specialists from Romania.

The last editions of CCF – the ninth, (29th of Sept. – 1st of Oct.2004, Hotel Mara, Sinaia), the tenth (27 – 29 of September 2006, Casino Sinaia), the eleventh (24 - 26 of September 2008, Casino Sinaia), the twelfth (22 – 24 of September, Casino Sinaia) and the thirteenth (5 – 7 of September 2012, Complex Doina, Neptun) enjoyed the presence of distinguished guests from abroad and well-known specialists from Romania and were a real success.

This year, the event that marks 27 years since the first CCF conference is organized at Sinaia, at Palace Hotel. The XIVth edition of the Conference brings a special event in the first day – Wednesday, the 17th of September – The EFQM Open Doors Day in Romania, organized by SRAC and EFQM and with the participation of Grundfos Romania and the Hungarian Association for Excellence.

BOARDS

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Allan BROWN	Professor at the University of Perth, Australia
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Remy GAUTIER	Professor at ENSAM, Paris, France
Fabrice GUERIN	Professor at the University of Angers, France
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Paul PENCIOIU	Manager ICPE IE S.R.L. Bucharest

USEFUL INFORMATION

Registration of participants:

- **Tuesday, 16.09.2014, starting with 17⁰⁰**, in the lobby of Palace Hotel
- **Wednesday, 17.09.2014, starting with 8³⁰** in the lobby of Palace Hotel, CCF 2014 Secretariat

Coffee break:

Between the 17th – 19th of September 2014 coffee breaks will take place in the lobby of Palace Hotel

Gala Dinner: Thursday, 18.09.2014, 19⁰⁰

The CCF 2014 Secretariat will be open daily at Palace Hotel, between 8³⁰ – 16⁰⁰

SECRETARIAT

Carmen ENACHE, Lorena CHIRIȚĂ, Tudor MĂRUNȚELU, Marius RÂMARU, Margareta ZAHARIA

CCF 2014 PROGRAM

WEDNESDAY, 17th of SEPTEMBER 2014 PLENARY SESSION EFQM Open Doors Day in Romania

09 ³⁰ – 11 ¹⁵	EFQM Day
11 ¹⁵ – 11 ³⁰	Coffee break
11 ³⁰ – 12 ⁴⁵	EFQM Day
12 ⁴⁵ – 13 ³⁰	Lunch
13 ⁰⁰ – 15 ⁰⁰	EFQM Day
15 ⁰⁰ – 15 ¹⁵	Coffee break
15 ¹⁵ – 16 ¹⁵	EFQM Day
16 ¹⁵	Closing of EFQM Day

THURSDAY, 18th of SEPTEMBER 2014

09 ⁰⁰ – 11 ¹⁰	PLENARY SESSION 1 – Quality Management
11 ¹⁰ – 11 ³⁰	Coffee break
11 ³⁰ – 13 ⁰⁰	PLENARY SESSION 2 – Dependability, risk, security
13 ⁰⁰ – 14 ⁰⁰	Lunch
14 ⁰⁰ – 15 ³⁰	PLENARY SESSION 3 – Reliability of components and systems
15 ³⁰ – 16 ⁰⁰	POSTER SESSION
19 ⁰⁰	Gala Dinner

FRIDAY, 19th of SEPTEMBER 2014

09 ⁰⁰ – 10 ⁴⁰	PLENARY SESSION 4 – Environment Management, Education
10 ⁴⁰ – 11 ⁰⁰	Coffee break
11 ⁰⁰ – 12 ⁴⁰	PLENARY SESSION 5 – Dependability: theories and models
12 ⁴⁰ – 13 ³⁰	Lunch
13 ³⁰ – 16 ⁰⁰	PLENARY SESSION 6 – Certification of Management Systems

PLENARY SESSION

EFQM Open Doors Day in Romania

09 ³⁰	Welcome & introduction by SRAC
10 ⁰⁰	Introducing EFQM and the Excellence Model
11 ¹⁵	Coffee break
11 ³⁰	Does the model work?
12 ⁴⁵	Lunch
13 ³⁰	Grundfos Romania
14 ¹⁵	Hungarian Association for Excellence
15 ⁰⁰	Coffee break
15 ¹⁵	Supporting your journey
15 ⁴⁵	Way forward for EFQM in Romania
16 ¹⁵	Closing

THURSDAY, 18th of SEPTEMBRIE 2014

PLENARY SESSION 1: QUALITY MANAGEMENT

Chairmen

Prof. dr. Abdessamad KOBI - *ISTIA, University of Angers, France*

Prof. dr. Vidosav D. MAJSTOROVIĆ - *University of Belgrade, Serbia*

09 ⁰⁰ – 09 ³⁰	<i>ISO 9001:2015 and ISO 14001:2015 - Advanced QMS and EMS versions</i> Vidosav D. MAJSTOROVIĆ – University of Belgrade, Serbia
09 ³⁰ – 10 ⁰⁰	<i>ISO 9001:2015: What to expect in the new version – Revision overview</i> Alex EZRAKHOVICH – AE Conformity Pty Ltd, Sidney, Australia
10 ⁰⁰ – 10 ³⁰	<i>Lean and Six Sigma: comparative study</i> Abdessamad KOBI - ISTIA, University of Angers, France
10 ³⁰ – 10 ⁵⁰	<i>Modern Quality:Nine Decades of Progress</i> Ioan C. BACIVAROV - University Politehnica of Bucharest
10 ⁵⁰ – 11 ¹⁰	<i>Paradigms of “Quality university” and of academic rankings</i> Nicolae-George DRĂGULĂNESCU - University Politehnica of Bucharest, Romania
11 ¹⁰ – 11 ³⁰	Coffee Break

PLENARY SESSION 2: DEPENDABILITY, RISK, SECURITY

Chairmen

Prof. univ. dr. eng. Ioan BACIVAROV - *University Politehnica of Bucharest*
- *President of ARASEC*

Lect. univ. dr. eng. Ioan-Cosmin MIHAI - *Police Academy “Alexandru Ioan Cuza”*
- *Vice-president of ARASEC*

11 ³⁰ – 11 ⁵⁰	<i>The Heartbleed Bug - a Vulnerability in the OpenSSL Cryptographic Library</i> Ionuț-Daniel BARBU, Ioan BACIVAROV - University Politehnica of Bucharest
11 ⁵⁰ – 12 ¹⁰	<i>Comparative study on cyber security assurance models</i> Ioan-Cosmin MIHAI - <i>Police Academy, Bucharest</i> , Ioan BACIVAROV, Gabriel PETRICĂ - EUROQUALROM, University Politehnica of Bucharest
12 ¹⁰ – 12 ³⁰	<i>Analysis of the cyber attacker profile</i> Ioan-Cosmin MIHAI, Ștefan PRUNĂ – <i>Police Academy, Bucharest</i>

12 ³⁰ – 12 ⁵⁰	<i>Convergence of security risks in the physical security systems and IT infrastructures – a new approach in the risk management</i> Ioan BACIVAROV, Marian FIROIU - EUROQUALROM, University Politehnica of Bucharest
12 ⁵⁰ – 13 ¹⁰	<i>Functional Safety of Medical Devices: An Improvement Approach</i> Steli LOZNEN – I.T.L (Product Testing) Ltd., Israel
13 ¹⁰ – 14 ³⁰	LUNCH

PLENARY SESSION 3: RELIABILITY OF COMPONENTS AND SYSTEMS

Chairs

Prof. univ. PhD. eng. Angelica BACIVAROV – University Politehnica of Bucharest

PhD. eng. Marius BĂZU – National Institute for Research and Development in Micro technologies Bucharest (IMT)

14 ³⁰ – 14 ⁵⁰	<i>Thermography as a tool in the development of micro devices</i> Virgil Emil Ilian*, Marius Băzu*, Virgil Liviu Mircea Ilian**, Lucian Gălățeanu*, Dragoș Vârșescu*, Nicolae Dumbrăvescu*, Roxana Marinescu* * National Institute for Research and Development in Microtechnologies Bucharest (IMT) ** EUROQUALROM, University Politehnica of Bucharest
14 ⁵⁰ – 15 ¹⁰	<i>Failure Modes and Mechanisms of Electrolytic Capacitors</i> Titu-Marius I. BĂJENESCU - C.F.C., La Conversion, Switzerland, Marius BĂZU – IMT Bucharest
15 ¹⁰ – 15 ³⁰	<i>Failure risks for silicon and non-silicon transistors</i> Marius BĂZU – IMT Bucharest, Titu-Marius I. BĂJENESCU - C.F.C., La Conversion, Switzerland
15 ³⁰ – 15 ⁵⁰	<i>Rethinking robotic arms for research: a reliable, high precision, low cost design</i> Virgil Liviu Mircea ILIAN, Ioan C. BACIVAROV - EUROQUALROM, University Politehnica of Bucharest
15 ⁵⁰ – 16 ¹⁰	<i>Environmental performance indicators in maintenance activity of industrial equipments</i> Ovidiu ȚUȚUIANU - Nova Industrial S.A. Bucharest
16 ¹⁰ – 16 ³⁰	POSTER SESSION Chairman Prof. univ. PhD. eng. Ioan BACIVAROV - Director EUROQUALROM, University Politehnica of Bucharest - President of ARASEC

Investigating the Relationship between Downsizing and Total Quality Management

Alan BROWN - Edith Cowan University, Churchlands, Australia, Ton van der WIELE - Erasmus University, Rotterdam, The Netherlands

A Methodology for Test and Correction of Software Errors in Complex Software Systems

R. GAUTIER, M. SIMBA - Ecole Nationale Supérieure d'Arts et Métiers, Paris, France, B. MONTARON - Schlumberger-Clamart France

Quantitative modeling of User Specifications and Properties of the Software Delivered Product

N.J. RAJARAM, A. K. VERMA - Reliability Engineering Group, Indian Institute of Technology, Bombay, Mumbai, India

On Analysis of Security and Survivability of Complex Web Systems

Costel CIUCHI – Secretariat-General of the Government, Bucharest, Angelica BACIVAROV, Ioan BACIVAROV - EUROQUALROM, University Politehnica of Bucharest

Software Fault Tree Reliability Analysis Using A Java-based Reliability Library

Constantin-Eugen CORNEL, Angelica BACIVAROV, Ioan BACIVAROV - EUROQUALROM, University Politehnica of Bucharest

On Security of Mobile Communication Networks. A Critical Analysis of ZUC Algorithm

Laura IANCU - Huawei Romania, Ioan BACIVAROV - EUROQUALROM, University Politehnica of Bucharest

Interactive Mobile Telecommunications Systems

Cătălina GHERGHINA, Angelica BACIVAROV - EUROQUALROM, University Politehnica of Bucharest

Interoperability and Security Management for Complex Systems

Costel CIUCHI, Cătălina GHERGHINA, Gabriel PETRICĂ - EUROQUALROM, University Politehnica of Bucharest

New framework of security risks management and of the protection of actives in the context of ISO 31000:2009 standard

Ioan BACIVAROV, Marian FIROIU - EUROQUALROM, University Politehnica of Bucharest

Implementation of Quality Management System Using QFD Analysis

Sabina-Daniela AXINTE, Ioan BACIVAROV - EUROQUALROM, University Politehnica of Bucharest

Metrology in Total Productive Maintenance

Alexandru GIURA – ALRO S.A.

On Design of resilient communication networks

PhD. Dorina Luminita COPACI, Prof. PhD. Angelica BACIVAROV - EUROQUALROM, University Politehnica of Bucharest

PLENARY SESSION 4: ENVIRONMENT MANAGEMENT, EDUCATION**Chairwomen****Elena ZINCA** – Technical Manager, SRAC CERT S.R.L.**Prof. Michele CANO** – Professor at University of West of Scotland, UK

09 ⁰⁰ – 09 ²⁰	<i>Best practices of environment management implemented in a EMAS –environment management system (for the public administration sector)</i> Elena ZINCA – SRAC CERT S.R.L.
09 ²⁰ – 09 ⁴⁰	<i>Solutions to improve the environment and quality life by implementation of environmental management system</i> Violeta-Monica RADU, Andreea ANTOHE – The National Institute for Research-Development in Environmental Protection
09 ⁴⁰ – 10 ⁰⁰	<i>Lean Manufacturing: Can it be applied successfully within the higher education sector?</i> Prof. Michele CANO, University of the West of Scotland, Scotland U.K.
10 ⁰⁰ – 10 ²⁰	<i>Standardization in education versus education about standardization. Paradigm shift in the education of XXI-th century?</i> Remus CHINĂ – Ministry of National Education
10 ²⁰ – 10 ⁴⁰	<i>Institutional self – evaluation. Study case: Anadolu University, Eskişehir, Turkey</i> Manuela STOICA - University Anadolu, Turkey
10 ⁴⁰ – 11 ⁰⁰	Coffee break

PLENARY SESSION 5: DEPENDABILITY: THEORIES AND MODELS**Chairmen****Prof. PhD. eng. Alexandru STAMATIU** – Technical University of Civil Engineering Bucharest**Prof. PhD. eng. Adrian Stere PARIS** – University Politehnica of Bucharest

11 ⁰⁰ – 11 ²⁰	<i>Performance degradation and reliability</i> Adrian Stere PARIS, Constantin TÂRCOLEA - University Politehnica of Bucharest
11 ²⁰ – 11 ⁴⁰	<i>Considerations on a probability-gravity-fault cost three-dimensional model used for improving equipments performance</i> Irina TIHAN - ICPE SAERP SA, Bucharest
11 ⁴⁰ – 12 ⁰⁰	<i>New confirmations of the entropic models</i> Alexandru STAMATIU - Technical University of Civil Engineering Bucharest
12 ⁰⁰ – 12 ²⁰	<i>Canonical entropic graph, an heuristic model of the action through contiguity</i> Alexandru STAMATIU - Technical University of Civil Engineering Bucharest
12 ²⁰ – 12 ⁴⁰	<i>Optimization of the structure of redundant schemes with the entropic risk criteria</i> Bogdan IVAN - Haintz Consulting S.R.L.
12 ⁴⁰ – 13 ³⁰	LUNCH

PLENARY SESSION 6: CERTIFICATION OF MANAGEMENT SYSTEMS**Chairmen****M.Sc. Steli LOZHEN** - Israel Testing Laboratories Ltd., Israel**PhD. Eng. Paul PENCIOIU** - Manager ICPE IE S.R.L.

13 ³⁰ – 13 ⁵⁰	<i>Management of electrical energy quality and energetical efficiency</i> Nicolae GOLOVANOV, Paul PENCIOIU - ICPE IE S.R.L.
13 ⁵⁰ – 14 ¹⁰	<i>Quality Management of cultural services in the context of world economical crisis</i> Aurica DVORACIC - University "Alexandru Ioan Cuza" Iași - SDEAA
14 ¹⁰ – 14 ³⁰	<i>Audit Management Systems In The Context Of Economic Development In The Early Decades Of The XXI Century</i> Cristinel RONCEA – SRAC CERT S.R.L.
14 ³⁰ – 14 ⁵⁰	<i>Particularities of the occupational health and safety management for small and medium-seized enterprises</i> Steluța NISIPEANU - The National Institute for Research-Development in Environmental Protection, Bucharest
14 ⁵⁰ – 15 ¹⁰	<i>Audits from integrity program of business social compliance initiative</i> Romeo DENUNTZIO – SRAC CERT S.R.L.
15 ¹⁰ – 15 ³⁰	<i>Six Sigma Project. Improvement of the process of decision making in quality</i> Marius FLORESCU – CALITATE TOP 21 S.R.L.
15 ³⁰ – 15 ⁵⁰	<i>Validation in food safety standards</i> Cornelia ȘULEA – SRAC CERT S.R.L.
15 ⁵⁰ – 16 ⁵⁰	<i>Usability - a new challenge for quality of medical devices</i> Steli LOZHEN – I.T.L (Product Testing) Ltd., Israel

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Closing of the CCF 2014