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OF BELGRADE
FACULTY OF
MECHANICAL
ENGINEERING



United Association of Serbia for Quality
(UASQ), Belgrade, Serbia

THE 9TH INTERNATIONAL WORKING CONFERENCE

TOTAL QUALITY MANAGEMENT ADVANCED AND INTELLIGENT APPROACHES

3RD CIRCULAR WITH DETAILED PROGRAM

BELGRADE, SERBIA

5TH - 7TH JUNE 2017

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Preface from the Conference President

Quality issues become particularly important, because they acquire new dimensions and often present milestone for survival of an organisation on the global market. Today, engineering-technical dimensions of quality are implied, while business-managing aspects are developing, improving and increasingly applying. In parallel to this, sustainable development issues (ISO 9001:2015 and also 9004:2017), limited resources (energy (ISO 50001:2011) and raw materials), climate changes and global financial crisis further emphasize the need for quality management advancement.

The 9th IWC TQM Conference, Belgrade 2017 has a basic objective to offer the answers, from scientific-research point of view, on challenging issues regarding the progress of quality management, manufacturing metrology and enabling technology based on micro/nano and ICT technologies. From the other side, equally important aspect of this Conference is the application of a new QM models and experiences related to this.

An especially important aspect of the Conference is its contribution to global integrations our country in the scientific-research domain, as well as in business-industrial activities. It has become the world-known scientific-business forum for the exchange of knowledge and ideas and discussion about directions of future quality management concepts, through open-discussions, on a biannual basis.

This conference has a long tradition. A large number of scientists, professors, researchers and organizations have contributed immeasurably to its development since 2001. the present. All of them are very proud, and particularly to:

Professors who have held "Opening Plenary Lecture" at the Conference, as well as the holders of awards for his personal contribution to the development of world theory and practice of QM and manufacturing metrology and also TQM Conference Honorary Chairs, from 2001 to 2017:

Prof. Dr. Günter ARNDT, University of Wollongong, Australia (2001); Prof. Dr. Laszlo MONOSTORI, Hungarian Academy of Science, Budapest, Hungary (2003); Prof. Dr. Gunnar H. SOHLENIUS, The Royal Institute of Technology, Stockholm, Sweden (2005); Prof. Dr. Herbert OSANNA, TU Vienna, Austria (2007); Prof. Dr. Ton van der WIELE, Erasmus University Rotterdam, The Netherlands (2009); Prof. Dr. Francesco JOVANE, Politecnico di Milano, Italy (2011); Prof. Dr. Albert WECKENMANN, University Erlangen-Nuremberg, Germany (2013); Prof. Dr. Numan DURAKBASA, TU Vienna, Austria (2015), Prof. Dr. Stanislav KARAPETROVIC, University Alberta, Canada (2017).

Award for the best paper on PhD student from their PhD thesis, from 2007 to 2017.

The Special Session – Young PhD researches, has been introduced at 2007, where PhD students present their research. The Award winners from 2007 to 2015 were:

The winner in 2007, was:

Laura Catellani, PhD student from Dipartimento di Meccanica – Politecnico di Milano, Milano, Italy, for the paper „Detecting out-of-control samples in customers' satisfaction surveys analysis: the effect of coding the categories of the ordinal scale“.

The laureate for 2009, was:

Michael Giebel, PhD student from University of Kassel, Germany, for the paper „Value Added by Quality Management – Developing a Model Describing the Mechanisms and a Process Approach for Introduction”.

The winner in 2011, was:

Maria Stella Chiacchio, PhD student from Molecular Design Department, Consiglio Nazionale delle Ricerche, Rome, Italy, for the paper „Early Impact Assessment For Sustainable Development Of Enabling Technologies”.

The laureate for 2013, was:

Malte Schröder, PhD student from Chair of Metrology and Quality Management, Laboratory for Machine Tools and Production Engineering WZL, Aachen, Germany, for the paper „Strategies For The Design And Implementation Of Quality Control Loops To Reach Stable Business Processes”.

The winner in 2015, was:

Ina Heine, PhD student from Laboratory for Machine Tools and Production Engineering, RWTH Aachen University, Aachen, Germany, for the paper ”Critical Incidents of Quality Orientation in Lower and Middle Management”.

The laureate for 2017, was:

Sebastian Schötz, PhD student from Chair Manufacturing and Remanufacturing Technology, University of Bayreuth, Bayreuth, Germany, for paper "Quality Management Related Activities in Remanufacturing Operations”.

Professors and researchers from abroad who gave "personal" contribution on the development of the TQM Conference from 2001 to 2017:

Prof. Dr. I. Angeli (Cypres), Prof. Dr. Z. Babic (Croatia), Prof. Dr. G. Barouch (France), Prof. Dr. M. Bobrek (BiH), Prof. Dr. C. Bouzakis (Greece), Prof. D. Brissaud (France), Prof. Dr. A. Brun (Italy), Dr. L. Cagnazzo (Italy), Prof. Dr. P. Castka (New Zeland), Dr. J. Caldeira (Portugal), (Miss) Dr. Eng. Laura Catellani (Italy), (Mrs) Sonja Čerepnalkovska (FRY Macedonia), Dr. M. Debenham (United Kingdom), Prof. Dr. N. Dragulanescu (Romania), Prof. Dr. A. El Kashlan (Egypt), Prof. Dr. M. Frota (Brasil), (Mrs) Prof. Dr. Aida Habul (BiH), (Mrs) Prof. Dr. Dragana Grubišić (Hr), Prof. Dr. R. Isaksson (S), Dr. L. Jalba (Ro), Prof. Dr. A. Jesus (Br), Prof. Dr. J. Jedrzejewski (Poland), Prof. Dr. S. Karapetrovic (Canada), Prof. Dr. P. Kuhlant (Austria), (Mrs) Prof. Dr. Micaela Martínez Costa (Spain), (Mrs) Dr. Iveta Mezinska (Litvania), Prof. Dr. Peter Monka (Slovakia), (Mrs) Prof. Dr. Katarina Monkova (Slovakia), Prof. Dr. D. Mourtzis (Gr), Prof. Dr. S. Naruo (Japan), (Mrs) Dr Boyka Nenkova (Bulgaria), Prof. Dr. J. Ni (USA), (Mrs) Dr. Liliana Nitu (Romania), (Mrs) Dr Augusta Paci (Italy), Dr. R. Paskevicius (Letonia), Prof. Dr. T. Pfeifer (Germany), (Mrs) Prof. Dr. Lidiya Petrova-Galabova (Bulgaria), Dr. S. Rosu (Romania), Prof. Dr. M. Saleem (Pakistan), Prof. Dr. R. Schmitt (G), Dr. I. Sheps (Israel), Prof. Dr. M. Soković (Slovenia), Prof. Dr. T. Sorin (Romania), (Mrs) Prof. Dr. Dana Stancekova (Slovakia), Prof. Dr. H. VanBrussel (Belgium), Prof. Dr. M. Taisch (Italy), (Mrs) Prof. Dr. Kristina Zgodadova (Slovakia), Prof. Dr. N.M. Vaxevanidis (Greece).

Professors from the Serbia that gave "personal" contribution on the development of the TQM Conference from 2001 to 2017:

Prof. Dr. P. Bojanić, Prof. Dr. B. Kamberović, Prof. Dr. B. Đedović, Prof. Dr. D. Đorđević, Prof. Dr. M. Hadžistević, (Mrs) Prof. Dr. Valentina Marinkovic, Prof. Dr. V. Milačić, Prof. Dr. Z. Miljkovic, Prof. Dr. V. Moračanin, (Mrs) Prof. Dr. Snežana Pejčić-Tarle, Prof. Dr. P. Popović, (Mrs) Prof. Dr. Vesna Spasojević-Brkić, Prof. Dr. J. Stanic, Prof. Dr. V. Radlovački, Prof. Dr. M. Trajanovic, (Mrs) Prof. Dr. Ljiljana Tasić, Prof. Dr. D. Stanivuković, Prof. Dr. V. Stojiljković, (Mrs) Prof. Dr. Gordana Ušćebrka, Prof. Dr. D. Čočkaló.

National Honorary Committee from 2001 to 2017.

Prof. Dr. N. Hajdin, Former President of Serbian Academy Science and Arts; Prof. Dr. M. Milovančević, Former Dean of Mechanical Engineering Faculty, Belgrade; Prof. Dr. R. Mitrović, Dean of Mechanical Engineering Faculty, Belgrade; Prof. Dr. M. Nedeljković, Mechanical Engineering Faculty, Belgrade; Prof. Dr. A. Sedmak, Director of Innovation Centre, Mechanical Engineering Faculty, Prof. Dr. N. Zmic, Vice-Dean for IC, Mechanical Engineering Faculty, Prof. Dr. B. Babić, Chief of Production Engineering Department, Mechanical Engineering Faculty, Prof. Dr. Lj. Tanovic, Vice-Dean for Education, Mechanical Engineering Faculty.

National / International Sponsors Honorary Committee from 2001 to 2017.

Prof. Dr. A. Weckenmann, CIRP, Paris; Prof. Dr. D. Kiritsis, IFIP, Laxenburg Austria; Prof. Dr. Y. Takaya, IMEKO, Laxenburg Austria; Prof. Dr. M. Taisch, IMS, Zurich, Swiss; Gainluca Mule, EFQM, Brussels, Belgium; Prof. Dr. A. Douglas, Emerald Publishing, UK; Gabor Bekefi, CEO Carlsberg Srbija doo, Belgrade; Milena Matijašević, Carlsberg Srbija doo, Belgrade; Jovana Mladenović, Carlsberg Srbija doo, Belgrade; MSc. Vida Živković, National Institute for Metrology, Belgrade; P. Jakovljević, Metalac Holding, Gornji Milanovac; D. Lazić, Metalac Holding, Gornji Milanovac; M. Milatović, Energoprojekt Holding, Belgrade; B. Sladić, Energoprojekt oprema, Belgrade; Dr. P. Popović, Institute for Nuclear Science "Vinča" – Department for certification, Belgrade, Dr. L. Jalba, Microelectronica S.A., Bucharest, Romania; M. Luković, Company "Sloboda", Čačak; S. Srećković, Informatika, Beograd; G. Ušendić, Gemont, Belgrade; B. Erčević, IVA 28, Obrenovac, D. Korčok, Abela Pharm, Belgrade, P. Radovanović, Sofins, Belgrade.

International organizations that have supported the development of the TQM Conference, from 2001 to 2017.

The International Academy for Production Engineering (CIRP), Paris, France.

Japanese Union of Scientist and Engineers (JUSE); Tokyo; Japan.

European Organization for Quality (EOQ); Brussels; Belgium.

American Society for Quality (ASQ); Milwaukee; USA

International Federation for Information Processing (IFIP); Laxenburg; Austria.

WG 5.7 Integration and Production Management

International Measurement Confederation (IMEKO); Budapest; Hungary.

TC 14 Measurement of Geometrical Quantities.

International Federation of Automatic Control (IFAC); Laxenburg; Austria.

TC 5. 1 Manufacturing Plant Control.

TC 5.2 Manufacturing Modelling for Management and Control.

TC 5.3 Enterprise Integration and Networking.

Australian Organization for Quality Inc. (AQA), Blackwood, Australia

Asia Pacific Quality Organization (APQO), Rizal, Philippines.

Note: *Ministry of Education, Science and Technology the Republic of Serbia supports this Conference since 2001.*

We all thank them immensely for the growth and development of TQM Conference.

From the Fourth IWC TQM Conference, Belgrade 2007, two novelties have been introduced: (i) *The award for an individual for significant personal contribution to the Conference development, and (ii) award for the best paper of a PhD student from their PhD thesis.*

In 2007. the first winners, were [Prof. Dr. Herbert Osanna, TU Vienna, Austria](#), the honorary president of the Conference. He is one of the Conference founders; at each conference he presented the introduction paper accepted from the audience with the utmost attention. (ii) *The award for a young researcher, for his/her doctoral thesis research.* From this reason, the Special Session – Young researches, has been introduced at 2007 and is awarded to a deserving, PhD student who presented his/her researches at the Conference. This award was won by [Laura Catellani, Dipartimento di Meccanica – Politecnico di Milano, Milano, Italy](#), for the paper „*Detecting out-of-control samples in customers' satisfaction surveys analysis: the effect of coding the categories of the ordinal scale*“.

The laureates for 2009, have been: (i) [Prof. Dr. Ton van der Wiele, Rotterdam School of Management, Erasmus University, Rotterdam, The Netherlands](#). Prof. Wiele was one of the honorary presidents of the Conference, with regular participation since 2003. He is world well-known scientific in QM domain, who has presented introduction papers at each conference from its foundation, showing the way toward QM theory progress, and (ii) the award for the best young researcher belongs to [Michael Giebel, PhD student from University of Kassel, Germany](#), for the paper „*Value Added by Quality Management – Developing a Model Describing the Mechanisms and a Process Approach for Introduction*“.

The winners in 2011, have been: (i) [Prof. Dr. Francesco Jovane, Politecnico di Milano, Manufature Vice-president, Italy](#). Prof. Jovane was one of the honorary presidents of the Conference, with regular participation since 2004. He is worldwide known scientist in Manufacturing engineering and "father" of the EU Manufature Program / Platform, he has presented introduction papers at conference before, showing the way toward Manufacturing theory and practices progress, (ii) the award for the best young researcher belongs to [Maria Stella Chiacchio, Molecular Design Department, Consiglio Nazionale delle Ricerche, Rome, Italy](#), for the paper „*Early Impact Assessment For Sustainable Development Of Enabling Technologies*“.

The laureates for 2013, have been: (i) [Prof. Dr. A. Weckenmann, Friedrich-Alexander-University Erlangen-Nuremberg, Chair Quality Management and Manufacturing Metrology, Erlangen, Germany](#). Prof. Weckenmann was one of the honorary presidents of the Conference, with regular participation since 2001. He is a world renowned scientist in Manufacturing metrology and Quality management. He is also member of CIRP and former President of CIRP STC for Metrology, and also a member of IMEKO and President of TC 14 for Engineering Metrology, (ii) the award for the best young researcher belongs to [Malte Schröder, Chair of Metrology and Quality Management, Laboratory for Machine Tools and Production Engineering WZL, Aachen, Germany](#); for the paper „*Strategies For The Design And Implementation Of Quality Control Loops To Reach Stable Business Processes*“.

The winners for 2015, have been: (i) [Prof. Dr. Numan Durakbasa, TU Vienna, Austria](#), the honorary president of the Conference, with regular participation since 2007, who has presented introduction papers at each conference from its foundation, showing the way toward QM and Manufacturing Metrology theory and practice progress. He is a world renowned scientist in Manufacturing metrology and Quality management and is also a member of IMEKO Board of TC 14 for Engineering Metrology, (ii) this year, the award for the best young researcher belongs to [Ina Heine, PhD student from Laboratory for Machine Tools and Production Engineering, RWTH Aachen University, Aachen, Germany](#), for the paper "Critical Incidents of Quality Orientation in Lower and Middle Management".

With the greatest please, I would like to introduce **the winner for 2017:**

The laureates for 2017, are: (i) [Prof. Dr. Stanislav Karapetrovic, University of Alberta, Canada](#), the honorary president of the Conference, with regular participation since 2007, who has presented introduction papers at each conference after that. He is the Project Leader of ISO/TC176/SC3/WG18 for the revision of ISO 10001, ISO 10002, ISO 10003 and ISO 10004. He is a world known scientist in Quality Management, especially IMS development and application, (ii) the award for the best young researcher belongs to [Sebastian Schötz, PhD student from Chair Manufacturing and Remanufacturing Technology, University of Bayreuth, Bayreuth, Germany](#), for the paper "Quality Management Related Activities in Remanufacturing Operations".

The Conference 2017 includes various scientific-expert contents that add a specific dimension, which could not be found in other conferences from the technical fields held in Serbia, as follows:

Session 1: The Opening Ceremony and Plenary Presentation

THEORY AND PRACTICE OF INTEGRATING MANAGEMENT SYSTEMS IN CONTEXT HIGH LEVEL STRUCTURE, S. Karapetrovic, Department of Mechanical Engineering, University of Alberta, Edmonton, Canada;

Session 2 - Opening Plenary Session: Advanced Quality – World - wide Approaches (State of the Art);

Session 3 - Session: The Fifth Special Conference "Manufuture in Serbia 2017" /Advanced Manufacturing Technology;

Session 4 – Advanced quality management and BE – Plenary Session;

Session 5 - Advanced approaches of quality and metrology;

Session 6: Workshop 1 / Round Table Discussion – Advanced Manufacturing in Industry 4.0 Environment;

Session 7 – Special Conference / 7th Balkan Conference on Quality / 8th Balkan Quality Forum - The Balkan As A Region Of Quality – Plenary Session.

Session 8 - Quality engineering techniques application and development – Plenary session.

Session 9 – Hall 211 (Second floor) - Closing Plenary Session: TQM & QM New Dimensions

Session 10: Workshop 2/ Round Table Discussion – 3D Modelling in Orthodontics by Advanced Approach.

The greatest value of the Conference 2017 refers to the **authors/participants from five continents and 27 countries**. Their high competence and high-quality level of papers have given the crucial contribution to the Conference.

The special gratitude is owed refers to the **Honorary Presidents of the Conference, the members of International Program Committee and the Presidents of the Sessions**, for their personal contribution to the success of the Conference.

A large number of organizations, institutions and individuals contributed to the preparation of the Conference, for which I am especially grateful. Some of them have been supporting us continuously, so they deserve special acknowledgement: CIRP, Paris, France. JUSE (Japanese Union of Scientist and Engineers), Tokyo, Japan, Dr. Isaac Sheps, former Senior Vice President for East Europe, Carlsberg Group, Israel, and Dr. Liviu Jalba, General Manager, Company "Mikroelectronica", Bucharest, Romania .

A special acknowledgment is extended to the **main patron – Carlsberg Serbia**, who, by its contribution, enables a high level of arrangement and organisation of the Conference, **since 2007**. Carlsberg Serbia is also proven as an exceptional host of technical support of the Conference, which added a new dimension to the whole concept. Our gratitude deserves the other sponsors, because without their help this Conference could not be successfully organised.

The Ministry of Education, Science and Technological Development of Republic of Serbia has supported the Conference, since 2001, and I would like to express our sincere gratefulness.

Belgrade, April 15th 2017.

Prof. Dr. Vidosav D. Majstorović,

The President and Founder of TQM Conference

Acknowledgment

The Belgrade University, Mechanical Engineering Faculty, Production Engineering Department, Laboratory for Production Metrology and TQM, wishes to thank all authors, participants, institutions, associations, organizations and companies for their kind contributions and support in organizing the **9th International Working Conference "TOTAL QUALITY MANAGEMENT – ADVANCED AND INTELLIGENT APPROACHES"**. This traditionally Conference will be held as a part of INTERNATIONAL QUALITY CONVENTION, Belgrade - 2017. This Conference will be held between 5th – 9th June, 2017 in Belgrade, Serbia.

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- MPK trade, Valjevo, Serbia,
- Vivex group, Beograd, Serbia,
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Prof. Dr. V. Popovic, State Secretary on Ministry of Education, Science and Technological Development, Prof. Dr. N. Hajdin, Former President of Serbian Academy Science and Arts; Prof. Dr. R. Mitrovic, Dean of Mechanical Engineering Faculty, Belgrade; Prof. Dr. M. Milovančević, Former Dean of Mechanical Engineering Faculty, Belgrade; Prof. Dr. A. Sedmak, Director of Innovation Centre, Mechanical Engineering Faculty, Prof. Dr. N. Zmic, Vice-Dean for IC, Mechanical Engineering Faculty, Prof. Dr. B. Babić, Chief of Production Engineering Department, Mechanical Engineering Faculty.

National / International Sponsors Honorary Committee:

Prof. Dr. A. Weckenmann, CIRP, Paris; Milena Matijašević, Carlsberg Srbija doo, Belgrade; Jovana Mladenović, Carlsberg Srbija doo, Belgrade; Č. Belić, National Institute for Metrology, Belgrade; P. Jakovljević, Metalac Holding, Gornji Milanovac; Dr. P. Popović, Institute for Nuclear Science "Vinča" – Department for certification, Belgrade, Dr. L. Jalba, Microelectronica S.A., Bucharest, Romania; M. Luković, Company "Sloboda", Čačak; G. Ušendić, Gemont, Belgrade; B. Erčević, IVA 28, Obrenovac; D. Korčok, Abela Pharm, Beograd; Dr. P. Popović, Institut "Kirilo Savić", Belgrade, P. Radovanović, Solfins, Belgrade, A. Boskovic, FAB, Valjevo, Vesna Pucar-Grubor, Vivex group, J. Karajovic, MPK trade, Valjevo.

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Conference Chair and Founder : Prof. Dr. V. Majstorovic (Ser).

Members: Prof. Dr. I. Angeli (Cy), Prof. Dr. B. Ačko (SI), Prof. Dr. I. Bacivarov (Ro), Prof. Dr. M. Bobrek (BiH), Prof. Dr. J. Barouch (F), Prof. Dr. A. Bernard (Fr), Prof. Dr. C. Bouzakis (Gr), Prof. D. Brissaud (F), Prof. Dr. A. Brun (I), Dr. L. Cagnazzo (I), Prof. Dr. P. Castka (NZ), Dr. J. Caldeira (PI), (Miss) Dr. Eng. L. Catellani (I), Prof. Dr. E. Chlebus (PI), Prof. Dr. K. Cho (K), Prof. Dr. G. Chryssolours (Gr), Prof. Dr. G. Constantin (Ro), Prof. Dr. P. Cunha (Po), Prof. Dr. L. DeChiffre (DK), B. Dimitrijević (Ca), Dr A. Douglas (UK), Prof. Dr. N. Dragulanescu (Ro), Prof. Dr. J. Duflou (Be), Prof. Dr. D. Djurdjanovic (USA), Prof. Dr. A. El Kashlan (Egypt), Prof. Dr. F. Fang (Ch), (Mrs) Prof. Dr. A. Fisher (Is), Prof. Dr. M. Frota (Br), A. Gentili (I), (Mrs) Prof. Dr. D. Grubišić (Hr), Prof. Dr. I. Inasaki (J), Dr. R. Isaksson (S), Dr. L. Jalba (Ro), Prof. Dr. A. Jesus (Br), Prof. Dr. J. Jedrzejewski (PI), Prof. Dr. R. Jochem (D), Prof. Dr. Z. Katz (SA), Prof. Dr. F. Kimura (J), (Mrs) Prof. Dr. A. Kjellberg (S), Prof. Dr. P. Kopacek (At), Prof. Dr. J. P. Kruth (Be), Prof. Dr. A. Kusiak (USA), Prof. Dr. P. Kuhlman (At), Prof. Dr. S. Lu (USA), (Mrs) Prof. Dr. V. Marinkovic (Ser), Prof. Dr. G. Maropoulos (UK), (Mrs) Prof. Dr. A. Marcheua (Bu), (Mrs) I. Mezinska (Lv), Prof. Dr. V. Milačić (Ser), Prof. Dr. Z. Miljkovic (Ser), Prof. Dr. A. Molina (Mx), Prof. Dr. P. Molnar (H), Prof. Dr. G. Morel (F), Prof. Dr. D. Mourtzis (Gr), Prof. Dr. S. Naruo (J), Prof. Dr. J. Ni (USA), (Mrs) L. Nitu (Ro), (Mrs) Dr A. Paci (I), Prof. Dr. H. Panetto (Fr), Dr. R. Paskevicius (Lt), Dr. G. Pegs (UK), (Mrs) Prof. Dr. S. Pejčić-Tarle (Ser), Prof. Dr. C. Periera (Br), (Mrs) Prof. Dr. L. Petrova-Galabova (Bu), Dr. S. Rosu (Ro), Prof. Dr. R. Roy (UK), Dr. S. Ruprai (Au), Dr. I. Sheps (Is), Prof. Dr. W. Sihn (At), (Miss) Prof. Dr. T. Sibalija (Ser), Prof. Dr. M. Sphitalini (Is), Prof. Dr. M. Soković (SI), Prof. Dr. V. Spasojević-Brkić (Ser), Prof. Dr. S. Takata (J), Prof. Dr. T. Sorin (Ro), Prof. Dr. M. Taisch (I), Prof. Dr. R. Teti (I), Prof. Dr. M. Trajanovic (Ser), Prof. Dr. R. Tuokko (Fi), Prof. Dr. K. Ueda (J), Prof. Dr. G. Zhang (Ch), Prof. Dr. S. Yamada (J), Prof. Dr. F. Vernadat (Fr), Prof. Dr. E. Westkaemper (G).

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WG 5.7 Integration and Production Management

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TC 14 Measurement of Geometrical Quantities

*International Federation of Automatic Control (**IFAC**); Laxenburg; Austria.*

TC 5. 1 Manufacturing Plant Control

TC 5.2 Manufacturing Modelling for Management and Control

TC 5.3 Enterprise Integration and Networking

*Australian Organization for Quality Inc. (**AQA**), Blackwood, Australia*

*Asia Pacific Quality Organization (**APQO**), Rizal, Philippines*

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The University of Belgrade, Mechanical Engineering Faculty, Laboratory for Production Metrology and TQM, Belgrade, Serbia.

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Marija Glišić, FME, Belgrade; Gordana Dojčinović, UASQ, Belgrade, Julija Kostić, FME, Belgrade; Dragana Jevđović, FME, Belgrade; Nemanja Gligorijević, FME, Belgrade; Mirjana Velimirović, FME, Belgrade; Milan Rančić, FME, Belgrade;

CONFERENCE INFORMATION

- **DATE:** 5th – 7th June, 2017.
- **VENUE:** **Mechanical Engineering Faculty**, str. Kraljice Marije 16, Belgrade / Hall 211 (**second floor**), Hall CeNT (**first floor**), Hall 514 (**5th floor**), Hall 518 (**5th floor**), Cocktails / Refreshments: **Club CeNT (first floor)**, Registration desk **Club CeNT (first floor)**.
- **OFFICIAL LANGUAGE**
The official language of the Conference is English.
- **WEB- SITE & E – MAIL**

For further information please visit web-site: www.mas.bg.ac.rs or www.jusk.rs or www.mefics.org

E - mail: vidosav.majstorovic@sbb.rs or jusk@eunet.rs

- **IMPORTANT DATES**

Early Registration:	Before May 15th, 2017.
Late Registration:	After May 15th, 2017.
Opening Session:	June 5 th , 2017.
Opening Cocktail:	June 5 th , 2017.
Conference Dinner (informal):	June 5 th , 2017.
Special Conferences:	June 6 th , 2017.
Closing Plenary Session:	June 7 th , 2017.
Farewell Cocktail:	June 7 th , 2017.
Excursion tour:	June 8 th , 2017.

- **CONFERENCE (Registration Office)**

Prof. Dr. Vidosav D. MAJSTOROVIĆ

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The 9th IWC TQM CONFERENCE PLAN

Date: 5th June, 2017 / Monday

Venue: Faculty of Mechanical Engineering, str. Kraljice Marije 16, Belgrade

Registration: 08:00 – 16:30 Registration desk (Hall CeNT – first floor).

09:00 -
10:00

Hall 211 (Second floor)

TQM 2017 / Session 1: *The Opening Ceremony and Plenary Presentation*

Opening addresses

Awards

Opening Plenary Presentation:

THEORY AND PRACTICE OF INTEGRATING MANAGEMENT SYSTEMS IN CONTEXT HIGH LEVEL STRUCTURE, Prof. Dr. Stanislav Karapetrovic, Department of Mechanical Engineering, University of Alberta, Edmonton, Canada.

10:00 -
10:30

Welcome Cocktails for all participants - Club 210 (Second floor)

10:30 -
12:30

Hall 211 (Second floor)

TQM 2017 / ICQ 2017 Session 2: *Opening Plenary Session – Advanced Quality – Worldwide Approaches*

Introductions Plenary Presentations

12:30-
15:00

Break or Coffee Break – Club CeNT (First floor). Open and free of charge full day for all participants.

15:00-
16.30

Hall CeNT (First floor)

TQM 2017 / Session 3: *The Fifth Special Conference "Manufuture in Serbia 2017" /*

ADVANCED MANUFACTURING TECHNOLOGY

16:30-
17:00

Coffee Break – Club CeNT (First floor). Open and free of charge full day for all participants.

17:00-
18:30

Hall 211 (Second floor)

TQM 2017/ Session 4: *Advanced quality management and BE –*

Plenary Session

20:30

IWC TQM 2017 / Conference Dinner (informal).

The 9th IWC TQM CONFERENCE PLAN

Date: 6th June, 2017 / Tuesday

Venue: Faculty of Mechanical Engineering, str. Kraljice Marije 16, Belgrade

Registration: 08:00 – 16:30 Registration desk (Hall CeNT – first floor).

09:00 - 10:30	<u>Hall 211 (Second floor)</u> TQM 2017 / Session 5: ADVANCED APPROACHES OF QUALITY AND METROLOGY	<u>Hall 514 (Fifth floor)</u> TQM 2017 / Session 6: <i>Workshop 1 /</i> Round Table Discussion – ADVANCED MANUFACTURING IN INDUSTRY 4.0 ENVIRONMENT
10:30 - 11:00	Coffee Break – Club CeNT (First floor). Open and free of charge full day for all participants.	
11:00 - 12:30	<u>Hall 211 (Second floor)</u> TQM 2017 / Session 7: 7 th Balkan Conference on Quality / 8 th Balkan Quality Forum – THE BALKAN AS A REGION OF QUALITY	
12:30- 15:00	Break or Coffee Break – Club CeNT (First floor). Open and free of charge full day for all participants.	
15:00- 16.30	<u>Hall CeNT (First floor)</u> TQM 2017 / Session 8: Quality engineering techniques application and development – Plenary session	
16:30- 17:00	Coffee Break – Club CeNT (First floor). Open and free of charge full day for all participants.	
17:00- 18:30	<u>Hall CeNT (First floor)</u> TQM 2017 / Session 9: Closing Plenary Session: TQM & QM NEW DIMENSIONS	<u>Hall 518 (Second floor)</u> TQM 2017 / Session 10: <i>Workshop 2 /</i> Round Table Discussion – 3D MODELLING IN ORHODOTICS BY ADVANCED APPROACH

The 9th IWC TQM CONFERENCE PLAN

Date: 7th June, 2017 /
Wednesday

Venue: Faculty of Mechanical Engineering, str. Kraljice Marije 16, Belgrade

Hall 211 (Second floor)

NEWTECH Conference and AMP Serbia 2017 / Session 1: *The Opening Ceremony and Plenary
Presentation*

09:00 -
10:00

Opening addresses

Opening Plenary Presentation:

ADVANCED MANUFACTURING PROGRAM CONFERENCE – Mision, Vision, Strategy, Prof. Dr. Jun
Ni, University of Michigan, Ann Arbor, USA.

10:00-
11:00

Farewell Cocktails in Club 210 for participants of TQM Conference (second floor)

Date: 8th June, 2017 / Thursday

Place: Faculty of Mechanical Engineering, str. Kraljice Marije 16, Belgrade

16:30-
18:00

BELGRADE SIGHTSEEING TOUR – Please ask for detailed information on Registration Desk.

The 9th IWC TQM CONFERENCE PROGRAM

Date: 5th June, 2017 / Monday

Venue: Faculty of Mechanical Engineering, str. Kraljice Marije 16, Belgrade

Registration: 08:00 – 16:30 Registration desk (Hall CeNT – first floor).

Hall 211 (Second floor)

TQM 2017 / Session 1: *The Opening Ceremony and Plenary Presentation*

Opening addresses

Awards

09:00 -
10:00

Opening Plenary Presentation:

THEORY AND PRACTICE OF INTEGRATING MANAGEMENT SYSTEMS IN CONTEXT HIGH LEVEL STRUCTURE, Prof. Dr. Stanislav Karapetrovic, Department of Mechanical Engineering, University of Alberta, Edmonton, Canada.

10:00 -
10:30

Welcome Cocktails for all participants - Club 210 (Second floor)

The 9th IWC TQM CONFERENCE PROGRAM

Hall 211 (Second floor)

TQM 2017 / ICQ 2017 Session 2: *Opening Plenary Session – Advanced Quality – Worldwide Approaches*

Introductions Plenary Presentations

Chairmen Session:

Prof. Dr. Steven Y. Liang, George W. Woodruff School of Mechanical Engineering, Georgia Institute of Technology, Atlanta, U.S.A.

Prof. Dr. Kamlakar. P. Rajurkar, University of Nebraska-Lincoln, USA.

Sebastian Schötz, Chair Manufacturing and Remanufacturing Technology, University of Bayreuth, Bayreuth, Germany;

Prof. Dr. Lidia P. Galabova, Department of Economics, Industrial Engineering and Management, Technical University of Sofia, Sofia, Bulgaria,

Prof. Dr. Kristina Zgodavova, Technical University of Kosice, Faculty of Metallurgy, Department of Integrated Management Systems, Letna 9, 042 00 Košice, Slovakia.

Dr. Sheps Isaac, PhD, Chairman, Central committee for MSS, the Standards Institution of Israel
Convenor of ISO/TC176/SC/WG25 for the revision of ISO 9004, Israel.

10:30 -
12:30

Keynote Speakers:

1. **PROCESS AND MICROSTRUCTURE IN MATERIALS-AFFECTED MANUFACTURING**, Prof. Dr. Steven Y. Liang, Zhipeng Pan, George W. Woodruff School of Mechanical Engineering, Georgia Institute of Technology, Atlanta, U.S.A.

2. **RESEARCH ISSUES IN EDM, ECM AND USM AND THEIR HYBRID MACHINING PROCESSES**, Prof. Dr. Kamlakar. P. Rajurkar, University of Nebraska - Lincoln, USA.

3. **QUALITY MANAGEMENT RELATED ACTIVITIES IN REMANUFACTURING OPERATIONS**, Sebastian Schötz 1, Steffen Butzer 1/2, Rolf Steinhilper 1/2, 1 Chair Manufacturing and Remanufacturing Technology, University of Bayreuth, Universitaetsstrasse 9, 95447 Bayreuth, Germany; 2 Fraunhofer Project Group Regenerative Production, Universitaetsstrasse 9, 95447 Bayreuth, Germany.

4. **THE IMPACT OF HUMAN CAPITAL AND ORGANISATIONAL CULTURE ON QUALITY MANAGEMENT AND BUSINESS EXCELLENCE**, Lidia P. Galabova ¹, Boyka G. Nenkova ² ¹. Department of Economics, Industrial Engineering and Management, Technical University of Sofia, 8 Kliment Ohridski Blvd., Sofia 1000, Bulgaria, ². GCR Ltd., 10 Vihren Str., 1618 Sofia, Bulgaria.

5. **QUALITY ASSURANCE IN OPEN INNOVATION ENVIRONMENT: A CONCEPTUAL FRAMEWORK**, Kristina Zgodavova, Pavol Palfy, Andrea Sutoova, Technical University of Kosice, Faculty of Metallurgy, Department of Integrated Management Systems, Letna 9, 042 00 Košice, Slovakia.

6. **ISO/DIS 9004 - QUALITY OF AN ORGANIZATION – GUIDANCE TO ACHIEVE SUSTAINED SUCCESS**, Dr. Sheps Isaac, PhD, Chairman, Central committee for MSS, the Standards Institution of Israel
Convenor of ISO/TC176/SC/WG25 for the revision of ISO 9004, Israel.

12:30-
15:00

Break or Coffee Break – Club CeNT (First floor). Open and free of charge full day for all participants.

The 9th IWC TQM CONFERENCE PROGRAM

Hall CeNT (First floor)

TQM 2017 / Session 3: The Fifth Special Conference "Manufacture in Serbia 2017" /

Advanced Manufacturing Technology –

Plenary Session

Chairmen Session:

Dr. Srdan Živković, Military Technical Institute, Experimental Aerodynamics Division, Belgrade, Ratka Resanovića 1, Serbia

S. Simonović, Technical College, Serbia

Prof. Dr. Predrag Popović, Vinča Institute of Nuclear Sciences, University of Belgrade, Belgrade, Serbia

Prof. Dr. Milorad J. Kilibarda, University of Belgrade, Faculty of Transport and Traffic Engineering, Department of Logistics, Belgrade, Serbia

Biljana K. Tubić, Agency for medicines and medical devices of Bosnia and Herzegovina, Banja Luka, Bosnia and Herzegovina

Mr Velimir R. Komadinić, LOLA Institute, Kneza Višeslava 70a, 11030 Belgrade, Serbia

1. APPLYING DFMA TECHNIQUES IN THE DESIGN AND MANUFACTURE OF WIND TUNNEL MODELS, Srdjan Živković, Dušan Ćurčić, Military Technical Institute, Experimental Aerodynamics Division, Belgrade, Ratka Resanovića 1, Serbia;

2. SOME PROSPECTIVE ELEMENTS OF A NANOFACTORY, S. Simonović, Technical College, Bulevar Zorana Đinđića 152a, Belgrade 11070, Serbia;

3. BUSINESS PROCESS MODEL DEVELOPMENT IN QUALITY IMPROVEMENT, Invited paper, Zoran Nešić¹, Predrag Popović², Miroslav Radojičić³, Leon Ljubić⁴, University of Kragujevac, Faculty of Technical Sciences, Čačak, Svetog Save 65, 32000 Čačak; Vinča Institute of Nuclear Sciences, University of Belgrade, 11001 Belgrade, Serbia; University of Kragujevac, Faculty of Technical Sciences, Čačak, Svetog Save 65, 32000 Čačak; _JKP "Parking Service Kragujevac", Vojislava Kalanovica b.b., 34000, Kragujevac, Serbia;

4. DEVELOPMENT OF PRODUCT DELIVERY SERVICE IN ONLINE SHOPPING APPLYING QFD METHOD, Milorad J. Kilibarda, Milan M. Andrejić, University of Belgrade, Faculty of Transport and Traffic Engineering, Department of Logistics, Vojvode Stepe 305, Belgrade, Serbia;

5. INTER-LABORATORY REPRODUCIBILITY OF BIOANALYTICAL UHPLC-MS/MS METHOD, Biljana K. Tubić^{1,2}, Sandra S. Vladimirov³, Bojan D. Marković⁴ ¹Agency for medicines and medical devices of Bosnia and Herzegovina, Veljka Mladenovića bb, 78000 Banja Luka, Bosnia and Herzegovina; ²Faculty of Medicine - Department of Pharmacy, University of Banja Luka; Save Mrkalja, 78000 Banjaluka, Bosnia and Herzegovina, ³Department of Medical Biochemistry, Faculty of Pharmacy University of Belgrade; Vojvode Stepe 450; 11000 Belgrade, Serbia; ⁴Department of Pharmaceutical Chemistry, Faculty of Pharmacy University of Belgrade; Vojvode Stepe 450; 11000 Belgrade, Serbia;

6. MATURITY MODEL OF INTEGRATED MANAGEMENT SYSTEM, Velimir R. Komadinić ¹, Vidosav D. Majstorović ², ¹:LOLA Institute, Kneza Višeslava 70a, 11030 Belgrade, Serbia; ²:University of Belgrade, Mechanical Engineering Faculty, Laboratory for Production Metrology and TQM, Kraljice marije 16., 11120 Belgrade, Serbia;

15:00-
16:30

The 9th IWC TQM CONFERENCE PROGRAM

16:30-
17:00

Coffee Break – Club CeNT (First floor). Open and free of charge full day for all participants.

Hall CeNT (First floor)

TQM 2017 / Session 4:

Advanced quality management and BE –

Plenary Session

Chairmen Session:

Robin Tuertmann, RWTH Aachen University, Laboratory for Machine Tools and Production Engineering, Aachen, Germany;

Vinko Bogataj, Slovenian Association for Quality and Excellence, Ljubljana, Slovenia;

Peter Marosevic, BMW Group, Quality Management Process Chain Driving Dynamics, München, Germany;

Dr. Nenad Savič, Unikaturn, inštitut za inovativne poslovne modele, Domžale, Slovenia.

17:00-
18:30

1. ANALYZING THE FEEDBACK STRUCTURE OF PRODUCTION DEFECT MANAGEMENT, Robin Tuertmann¹, Henrik Gloeckner², Björn Falk³, Robert Schmitt⁴, RWTH Aachen University, Laboratory for Machine Tools and Production Engineering, Steinbachstrasse 19, 52074 Aachen, Germany;

2. RELATIONSHIPS BETWEEN THE CHARACTERISTICS OF THE QUALITY MANAGEMENT SYSTEM AND BUSINESS RESULTS IN SLOVENIAN ORGANIZATIONS, Vinko Bogataj, Slovenian Association for Quality and Excellence, Dimičeva 13, SI-1000 Ljubljana, Slovenia; Gašper Škulj, Faculty of Mechanical Engineering, University of Ljubljana, Aškerčeva 6, SI-1000 Ljubljana, Slovenia; Drago Bračun Faculty of Mechanical Engineering, University of Ljubljana, Aškerčeva 6, SI-1000, Ljubljana, Slovenia, Alojzij Sluga, Faculty of Mechanical Engineering, University of Ljubljana, Aškerčeva 6, SI-1000, Ljubljana, Slovenia.

3. QUANTIFICATION AND MEASUREMENT OF CUSTOMER SATISFACTION BASED ON KANO'S MODEL, Robert Refflinghaus¹, Elwira Heimbuch¹, Peter Marosevic², ¹ University Kassel, Group Research of Quality- and Process Management, Heinrich-Plett-Str. 40, 34132 Kassel, Germany, ² BMW Group, Quality Management Process Chain Driving Dynamics, Knorrstraße 147, 80788 München, Germany;

4. CULTURE OF EXCELLENCE, A COMPANY'S DNA, Dr. Nenad Savič, Unikaturn, inštitut za inovativne poslovne modele, Adamičeva ulica 11, 1230 Domžale, Slovenia.

20:30

IWC TQM 2017 / Conference Dinner (informal).

The 9th IWC TQM CONFERENCE PROGRAM

Date: 6th June, 2017 / Tuesday

Venue: Faculty of Mechanical Engineering, str. Kraljice Marije 16, Belgrade

Registration: 08:00 – 16:30 Registration desk (Hall CeNT – first floor).

Hall 211 (Second floor)

TQM 2017 / Session 5: Advanced approaches of quality and metrology

Chairmen Session:

Prof. Dr. Ryoshu Furutani, Department of Precision Engineering, Tokyo Denki University, Tokyo, Japan

Robert Hofmann M.Sc., Department: Production Measuring Technology; Chemnitz, University of Technology, Chemnitz, Germany

Frank, D., Laboratory for Machine Tools and Production Engineering of RWTH Aachen University, Chair of Metrology and Quality Management (WZL-MQ), Germany

Prof. Dr. Zoran Babić, Department for quantitative methods, Faculty of Economics Split, Split, Croatia

Nada Nađ, Faculty of Mechanical Engineering and Naval Architecture, University of Zagreb, Zagreb, Croatia

Prof. Dr. Duško Pavletić, University Of Rijeka, Faculty Of Engineering, Rijeka, Croatia

09:00-
10:30

1. UNCERTAINTY ESTIMATION OF CONSTRUCTED METROLOGY FRAME, Prof. Dr. Ryoushu Furutani, Department of Precision Engineering, Tokyo Denki University, Senju-Asahi-cho 5, Adachi, 120-8551 TOKYO, Japan;

2. INTELLIGENT MEASURING DATA FOR PRODUCTION CONTROL, Robert Hofmann M.Sc., Prof. Dr.-Ing. habil. Sophie Gröger, Sven Fiebig M.Sc., Department: Production Measuring Technology; Chemnitz, University of Technology, Reichenhainer Straße 70, 09126 Chemnitz, Germany;

3. AUTONOMOUS DETECTION AND LOCALIZATION OF QUALITY CHARACTERISTICS FOR AUTOMATED INSPECTION SYSTEMS, Frank, D., Gong, Y., Chhor, J., Schmitt, R., Laboratory for Machine Tools and Production Engineering of RWTH Aachen University, Chair of Metrology and Quality Management (WZL-MQ), Steinbachstr.19, Aachen, 52074, Germany;

4. OPTIMIZATION OF PRODUCTION PLAN IN THE METAL INDUSTRY BY THE USE OF DE NOVO PROGRAMMING, Zoran Babić¹, Tunjo Perić², Željko Mandić³ ¹Department for quantitative methods, Faculty of Economics Split, C. Fiskovića 5, 21000 Split, Republic of Croatia; ²Department for mathematics, Faculty of Economics & Business Zagreb, Trg J. F. Kennedyja 6, 10000 Zagreb, Republic of Croatia, ³General manager, Alfe-Mi Živinice d.d. Živinice, Bosnia and Herzegovina;

5. THE ACCURACY OF ULTRASONIC THICKNESS MEASUREMENT OF DISTORTED GRAIN STRUCTURE METAL SAMPLES, Nada Nađ¹, Morana Mihaljević¹, Zdenka Keran¹, Amalija Horvatić – Novak¹, ¹ Faculty of Mechanical Engineering and Naval Architecture, University of Zagreb, Ivana Lučića 5, Zagreb, 10000, Croatia;

6. LEARNING OUTCOMES AND LABOUR MARKET NEEDS - Welding engineering case study, Pavletić, D*, Soković, M.**, Vidolin, T.***, *University of Rijeka, Faculty of Engineering, Rijeka, Croatia, **University Of Ljubljana, Faculty of Mechanical Engineering, Ljubljana, Slovenia ***Shipyard 3. Maj, Rijeka, Croatia.

The 9th IWC TQM CONFERENCE PROGRAM

Hall 514 (Fifth floor)

TQM 2017 / Session 6: [Workshop 1](#) /

Round Table Discussion –

ADVANCED MANUFACTURING IN INDUSTRY 4.0 ENVIRONMENT

09:00-
10:30

AGENT-BASED INTEGRATIVE MANUFACTURING PLANNING, Prof. Dr. Dušan Šormaz, Department of Industrial and Systems Engineering, Ohio University, Athens, OH, USA.

10:30 -
11:00

Coffee Break – Club CeNT (First floor). Open and free of charge full day for all participants.

The 9th IWC TQM CONFERENCE PROGRAM

Hall 211 (Second floor)

TQM 2017 / **Special Conference** / Session 7:

7th Balkan Conference on Quality / 8th Balkan Quality Forum

THE BALKAN AS A REGION OF QUALITY – Plenary Session

Conference Co-Chairs and Founders:

Prof. Dr. V. Majstorovic, Serbia,

Prof. Dr. Lidia Petrova Galabova, Bulgaria,

Prof. Dr. N.M. Vaxevanidis, Greece,

Prof. Dr. N. Dragulanesku, Romania.

Chairmen Session:

Boyka Nenkova, GCR Ltd., Sofia 1618, Bulgaria

Prof. Dr. Dragan Čočkaló, University of Novi Sad, Technical faculty "Mihajlo Pupin" in Zrenjanin, Zrenjanin, Republic of Serbia

Prof. Dr. Slobodan Morača, Department for Industrial Engineering and Management, Faculty of Technical Sciences, Novi Sad, Serbia

Prof. Dr. Predrag Popović, Vinča Institute of Nuclear Sciences, University of Belgrade, Belgrade, Serbia

Dr. Miroslav Tufegdžić, Institute of nuclear sciences "VINČA", Center of explosion protection ENEx, 11001 Beograd, p.o.b. 522.

11:00-
12:30

1. COMPANY PERFORMANCE IMPROVEMENT BY USING OF PROCESS APPROACH AUDITS, Nenkova, B.¹⁾, Manchev, B.¹⁾ Tomov, E.²⁾ 1) GCR Ltd.10, Vihren str., Sofia 1618, Bulgaria; 2) Risk Engineering Ltd., 10, Vihren str., Sofia 1618, Bulgaria;

2. AN ANALISYS OF IMPORTANCE OF CSR CONCEPT APPLICATION IN FUNCTION OF IMPROVING COMPANIES' COMPETITIVENESS, Dr Dragan Čočkaló¹, Dr Srđan Bogetić², Dr Dejan Đorđević³, Dr Cariša Bešić⁴ ¹Associate professor, University of Novi Sad, Technical faculty "Mihajlo Pupin" in Zrenjanin, 23000 Zrenjanin, Djure Djakovica bb, Republic of Serbia, ²Professor, Belgrade Business School, 11000 Belgrade, Kraljice Marije 73, Republic of Serbia, ³Professor, University of Novi Sad, Technical faculty "Mihajlo Pupin" in Zrenjanin, 23000 Zrenjanin, Djure Djakovica bb, Republic of Serbia, ⁴Associate Professor, University of Kragujevac, Faculty of technical science Čačak, 32000 Čačak, Svetog Save 65, Republic of Serbia.

3. A DIGITAL MODEL OF ISO 9001:2015 PROCESSES, Tzvetelin K. Gueorguiev ¹, Petar N. Angelov ² 1,2 Department of Machine Tools and Manufacturing, University of Ruse 'Angel Kanchev', 8 Studentska Street, Ruse, 7017, Bulgaria;

4. IMPLEMENTATION OF BUSINESS EXCELLENCE MODEL IN CLUSTER ENVIRONMENT, S. Morača ¹, N. Cvetković ², A. Fajsi, M. Jovanović, Department for Industrial Engineering and Management, Faculty of Technical Sciences, Trg Dositeja Obradovića 6, Novi Sad, 21000, Serbia;

5. IMPLEMENTATION OF INTERNET PLATFORM IN THE FUNCTION OF QUALITY IN MARKETING ACTIVITIES, Ivana Bulut Bogdanović¹, Zoran Nešić², Predrag Popović³, Miroslav Radojičić⁴ John Naisbitt University, Faculty for Business Studies, Belgrade, Goce Delčeva 8, 11070 Novi Beograd, Serbia; University of Kragujevac, Faculty of Technical Sciences, Čačak, Svetog Save 65, 32000 Čačak; _Vinča Institute of Nuclear Sciences, University of Belgrade, 11001 Belgrade, Serbia; University of Kragujevac, Faculty of Technical Sciences, Čačak, Svetog Save 65, 32000 Čačak;

6. DETERMINING THE ELECTRICAL RESISTIVITY OF COAL DUST IN LAYER AND RISK ASSESSMENT IN EXPLOSION PREVENTION, Miroslav Tufegdžić, Aleksandar Đurđević, Aleksandar Videnović, Institute of nuclear sciences "VINČA", Center of explosion protection CENEx, 11001 Beograd, p.o.b. 522.

The 9th IWC TQM CONFERENCE PROGRAM

12:30-
15:00

Break or Coffee Break – Club CeNT (First floor). Open and free of charge full day for all participants.

Hall CeNT (First floor)

TQM 2017 / Session 8:

QUALITY ENGINEERING TECHNIQUES APPLICATION AND DEVELOPMENT –

Plenary session.

Chairmen Session:

Prof. Dr. Katarina Monkova, Department of manufacturing technologies, Faculty of Manufacturing Technologies with the seat in Presov, Technical University of Kosice, Presov, Slovakia;

Prof. Dr. Sorun Croitoru, Machines and Manufacturing Systems Dept., Faculty of Engineering and Management of Technological Systems, POLITEHNICA University of Bucharest, Bucharest, Romania;

Prof. Dr. Zoran Babić, Department for quantitative methods, Faculty of Economics Split, Split, Republic of Croatia;

Prof. Dr. Laurentiu A. Mihail, Department of Manufacturing Engineering, "Transilvania" University of Brasov, Brasov, Romania;

Prof. Dr. Branko Đedović, School for business applied studies - Cacak; Republic of Serbia;

15:00-
16:30

1. QUALITY AND PRODUCTIVITY ENHANCEMENT AT THE MACHINING OF WEAR RESISTANT HARD COATS, Peter Monka 1,2, Katarina Monkova 1,2, David Kološ 3, Marek Urban 2, ¹Department of manufacturing technologies, Faculty of Manufacturing Technologies with the seat in Presov, Technical University of Kosice, Sturova 31, 080 01 Presov, Slovakia; ²Regional Technological Institute, University of West Bohemia, Univerzitni 8, 306 14 Pilsen, Czech Republic; ³Department of machining technology, University of West Bohemia, Univerzitni 8, 306 14 Pilsen, Czech Republic;

2. QUALITY CHOICE IN METAL CUTTING PROCESS, S. Croitoru, E. Strajescu, I. Tanase, Machines and Manufacturing Systems Dept., Faculty of Engineering and Management of Technological Systems, POLITEHNICA University of Bucharest, 313 Spl. Independentei, Sector 6, 060042-Bucharest, Romania;

3. ASSESSMENT OF INDUSTRIAL MATURITY LEVEL BY MULTI-CRITERIAL ANALYSIS, Zoran Babić^a, Ivica Veža^b, Nikola Banduka^{b,c} ^a Faculty of Economics, University of Split, Cvite Fiskovića 5, 21000 Split, Croatia, ^b Faculty of Electrical Engineering, Mechanical Engineering and Naval Architecture, University of Split, R. Boškovića 32, 21000 Split, Croatia, ^cFaculty of Engineering, University of Kragujevac, Sestre Janjić 6, 34000 Kragujevac, Serbia.

4. ROBUST ENGINEERING CASE STUDY FOR SIMULTANEOUS PARAMETER OPTIMIZATION OF A DEEP DRILLING PROCESS, Laurentiu A. Mihail, Department of Manufacturing Engineering, "Transilvania" University of Brasov, Eroilor Ave. 29, Brasov, 500036, Romania;

5. INNOVATIVE APPROACH TO BUSINESS AND IMPROVEMENT OF QUALITY, Branko Đedović 1, Saša Zdravković 2, School for business applied studies - Cacak; 11080 Belgrade; Str. Gradski park. 2; 2. Road traffic safety agency of the Republic of Serbia;

16:30-
17:00

Coffee Break – Club CeNT (First floor). Open and free of charge full day for all participants.

The 9th IWC TQM CONFERENCE PROGRAM

Hall CeNT (First floor)

TQM 2017 / Session 9: Closing Plenary Session:

TQM & QM NEW DIMENSIONS

Chairmen Session:

Prof. Dr. Stanislav Karapetrovic, Department of Mechanical Engineering, University of Alberta, Edmonton, Canada

Prof. Dr. George Constantin, Machines and Manufacturing Systems Department, University "Politehnica" of Bucharest, Romania

Prof. Dr. Dušan Šormaz, Department of Industrial and Systems Engineering, Ohio University, Ohio University, Athens, OH, USA

Prof. Dr. Vesna Spasojević Brkić, University of Belgrade, Faculty of Mechanical Engineering, Industrial Engineering Department, Belgrade, Serbia

Rebecca Reschke, Chair of Production Metrology and Quality Management, Laboratory for Machine Tools and Production Engineering (WZL) of RWTH Aachen, Aachen, Germany

Prof. Dr. Marijana T. Petrović, University of Belgrade, Faculty of Transport and Traffic Engineering, Belgrade, Serbia

17:00-
18:30

1. THREE EXAMPLES OF INTEGRATIVE AUGMENTATION IN HEALTH CARE AND ENGINEERING EDUCATION SERVICES, E. Fernandez-Ruiz*, M. A. R. Khan**, S. Karapetrovic*** * Department of Mechanical Engineering, University of Alberta, Edmonton, T6G 2G8, Canada; ** School of Applied Sciences and Technology, Northern Alberta Institute of Technology, Edmonton, T5G 2R1, Canada; *** Department of Mechanical Engineering, University of Alberta, Edmonton, T6G 1H9, Canada;

2. INTEGRATION OF CAD-RBS-FEM TECHNIQUES IN REFABRICATION OF A LATHE USED FOR PROFILING WHEELSET, G. Constantin ¹, I. Ghionea ², A. Ghionea ¹, D. Cioboată ³, C.F. Bîșu ⁴ ¹ Prof., PhD, Machines and Manufacturing Systems Department, University "Politehnica" of Bucharest, Romania; ² Lecturer, PhD, Department of Machine Manufacturing Technology, University "Politehnica" of Bucharest, Romania; ³ Senior researcher, PhD, National Institute of Research and Development in Mechatronics and Measurement Technique, Bucharest, Romania; ⁴ Assoc. Prof., PhD, Machines and Manufacturing Systems Department, University "Politehnica" of Bucharest, Romania.

3. RULE-BASED PROCESS PLANNING AND SETUP PLANNING WITH CONSIDERATIONS OF GD&T REQUIREMENTS, Dušan Šormaz, Mayur Wakhare, Nur-Ul Arafat, Department of Industrial and Systems Engineering, Ohio University, 1 Ohio University, Stocker Center 281, Athens, OH, USA.

4. ISO 9000 IMPROVEMENT REQUIREMENTS AND CUSTOMERS BENEFIT, Tomić B. ¹), Spasojević Brkić V.²*¹) Bombardier Aerospace, Quality Management, 123 Garratt Boulevard, Toronto, Canada, , ²) University of Belgrade, Faculty of Mechanical Engineering, Industrial Engineering Department, Kraljice Marije 16, 11000 Belgrade, Serbia;

5. ENABLING ORGANIZATIONAL EXCELLENCE IN HIGHER EDUCATION THROUGH PERFORMANCE INDICATOR ASSESSMENT, Rebecca Reschke, Ina Heine, Robert H. Schmitt, Chair of Production Metrology and Quality Management, Laboratory for Machine Tools and Production Engineering (WZL) of RWTH Aachen, Steinbachstr. 19, Aachen, 52074, Germany;

6. QUALITY MANAGEMENT AUDIT SCHEMES IN SUSTAINABLE URBAN MOBILITY - LEARNING FROM EU EXPERIENCE, Marijana T. Petrović, Nataša Z. Bojković, Snežana A. Pejčić Tarle, Tanja M. Parezanović, University of Belgrade, Faculty of Transport and Traffic Engineering, Vojvode Stepe 305, Belgrade, Serbia;

The 9th IWC TQM CONFERENCE PROGRAM

Hall 518 (Fifth floor)

9th TQM Conference 2017 / Session 10: [Workshop 2 /](#)

Round Table Discussion – 3D Modelling in Orthodontics by Advanced Approach

ENGINEERING MODELING IN ORTHODONTICS DENTAL ARCH 3D MODELLING

Moderators:

Prof. Dr. Davor Kramar, FS, Ljubljana;

Prof. Dr. Mirko Soković, FS, Ljubljana;

Dr. Luka Čerče, FS, Ljubljana;

Prof. Dr. Branislav Glisic, Stomatološki fakultet, Beograd,

Nemanja Majstorović, Stomatološki fakultet, Beograd,

Dr. Srđan Živković, VTI, Beograd,

Prof. Dr. Vidosav Majstorovic, MEF, Beograd

17:00-
18:30

1. Engineering Modeling of Orthodontics Native Geometry EMONA-G State of the art / Serbia-Slovenia Bilateral Project, N. Majstorović¹, S. Živković², L. Čerče³, D. Kramar³, B. Glišić¹, V. Majstorović⁴ ¹Belgrade University, Faculty of Dentistry, Department of Orthodontics, Belgrade, Serbia; ²Military Technical Institute, Coordinate Metrology Lab, Belgrade, Serbia; ³Ljubljana University, Mechanical Engineering Faculty, Ljubljana, Slovenia; ⁴Belgrade University, Mechanical Engineering Faculty, Belgrade, Serbia.

2. DENTAL ARCH MONITORING BY 3D DIGITAL MODELS, S. Živković², N. Majstorović¹, L. Čerče³, D. Kramar³, B. Glišić¹, V. Majstorović⁴ ¹Belgrade University, Faculty of Dentistry, Department of Orthodontics, Belgrade, Serbia; ²Military Technical Institute, Coordinate Metrology Lab, Belgrade, Serbia; ³Ljubljana University, Mechanical Engineering Faculty, Ljubljana, Slovenia; ⁴Belgrade University, Mechanical Engineering Faculty, Belgrade, Serbia.

The 9th IWC TQM CONFERENCE PROGRAM

Date: 7th June, 2017 /
Wednesday

Venue: Faculty of Mechanical Engineering, str. Kraljice Marije 16, Belgrade

Hall 211 (Second floor)

NEWTECH Conference and AMP Serbia 2017 / Session 1: *The Opening Ceremony and Plenary
Presentation*

09:00-
10:00

Opening addresses

Opening Plenary Presentation:

ADVANCED MANUFACTURING PROGRAM CONFERENCE – Mision, Vision, Strategy, Prof. Dr. Jun
Ni, University of Michigan, Ann Arbor, USA.

10:00-
11:00

Farewell Cocktails in Club 210 for participants of TQM Conference (second floor)

Date: 8th June, 2017 / Thursday

Place: Faculty of Mechanical Engineering, str. Kraljice Marije 16, Belgrade

16:30-
18:00

BELGRADE SIGHTSEEING TOUR –

Please ask for detailed information on Registration Desk.

**Welcome to 9th IWC TQM,
Belgrade 2017!**