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FOREWORD

It's our great pleasure to welcome you to the 17th edition of the **IEEE International Conference on Automation, Quality and Testing, Robotics AQTR 2010 - THETA 17th edition**.

The conference follows the tradition of the 16 automation and testing related scientific events, organized in Cluj-Napoca since 1982 under the name THETA- Technologies and Automation Testing. The previous editions – "2008 IEEE –TTTC International Conference on Automation, Quality and Testing, Robotics" have demonstrated the importance of Automation, Quality and Testing, Robotics as part of continuous advancing technologies. A large variety of papers were presented and provided good opportunities for the participants to exchange ideas and share new advancements registered in the field of automation, quality and testing.

This edition of the Conference, organized under the care of IEEE Computer Society – TTTC (Test Technology Technical Council) aegis and reflects the faithful cooperation between R&D institute-IPA and the Department of Automation from the Technical University of Cluj-Napoca.

AQTR Conferences intend to be international forums for the R&D exchanges in the field of fundamental and applied research in automation, quality, testing and robotics. They also bring together researchers and end-users to discuss the current trends and future directions of control and testing technologies and their industrial and social applications in the private and public sectors.

This conference would not have been possible without the hard work of the members of the Technical Program Committee - selecting over 300 papers out of 340 regular submissions. For that, we thank all the reviewers who provided us with such valuable feedback on the submissions.

The AQTR Conference covers a wide range of topics, gathering a community of scientists, engineers, academics and researchers. We have more than 200 registered participants, who come from all over the world, renowned names in their fields of activity.

All these being said, we hope that you enjoy our Conference and provide you with new concepts and ideas in the future "knowledge-based society".

Liviu Miclea Ioan Stoian

IEEE Computer Society

TTTC: Test Technology Technical Council

TTTC IN GENERAL

PURPOSE: The Test Technology Technical Council is a volunteer professional organization sponsored by the IEEE Computer Society. The goals of TTTC are to contribute to members' professional development and advancement and to help them solve engineering problems in electronic test, and help advance the state-of-the art. In particular, TTTC aims at facilitating the knowledge flow in an integrated manner, to ensure overall quality in terms of technical excellence, fairness, openness, and equal opportunities.

MEMBERSHIP: Membership is open to all individuals interested in test engineering at a professional level.

DUES: There are NO dues for TTTC membership and no parent-organization membership requirements.

BENEFITS: The TTTC members benefit from personal association with other test professionals. They may have the opportunity to be involved on a wide range of committees. They receive appropriate and updated information and announcements. There are substantial reductions in fees for TTTC-sponsored meetings and tutorials for members of IEEE and/or IEEE Computer Society.

TTTC ACTIVITIES

TECHNICAL MEETINGS: To spread technical knowledge and advance the state-of-the art, TTTC sponsors many well-known conferences and symposia and holds numerous regional and topical workshops worldwide.

STANDARDS: TTTC initiates, nurtures and encourages new test standards. TTTC-initiated Working Groups have produced numerous IEEE standards, including the 1149 series used throughout the industry.

TECHNICAL ACTIVITIES: TTTC sponsors a number of Technical Activity Committees (TACs) that address emerging test technology topics and guide a wide range of activities.

TUTORIALS and EDUCATION: TTTC sponsors a comprehensive *Test Technology Educational Program (TTEP)*. This program provides opportunities for design and test professionals to update and expand their knowledge base in test technology, and to earn official accreditation from IEEE TTTC, upon the completion of four full day tutorials proposed by TTEP.

TTTC CONTACT

TTTC On-Line: The TTTC Web Site at http://tab.computer.org/tttc offers samples of the TTTC Newsletter, information about technical activities, conferences, workshops and standards, and links to the Web pages of a number of TTTC-sponsored technical meetings.

Becoming a MEMBER: Becoming a TTTC member is extremely simple. You may either contact by phone or e-mail the TTTC office, or fill out and submit a TTTC application form, or visit the membership section of the TTTC web site.

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1/23-1/25	Int'l Sym. on Electronic, Design, Test and Applications (DELTA), Ho Chi Minh City, Vietnam	N.H. Phuc, A. Osseiran
3/8-3/12	Design, Automation and Test in Europe (DATE), Dresden, Germany	G. De Micheli
3/23-3/24	Workshop on Silicon Errors in Logic - System Effects (SELSE), Stanford, CA, USA	A. Wood, I. Parulkar
3/28-3/31	Latin American Test Workshop (LATW), Punta del Este, Uruguay	R. Velazco, Y. Zorian
4/15-4/17	Design & Diagnosis of Electronic Circuits & Systems Workshop (DDECS), Vienna, Austria	Z. Kotásek
4/19-4/22	VLSI Test Symposium (VTS), Santa Cruz, CA, USA	M. Abadir
4/22-4/23	Workshop on Test of Wireless Circuits and Systems (WTW), Santa Cruz, CA, USA	R. Aitken
5/9-5/12	Workshop on Signal Propagation on Interconnects (SPI), Hildesheim, Germany	H. Grabinski
5/24-5/28	European Test Symposium (ETS), Praha, Czech Republic	O. Novák
5/28-5/30	Int'l Conference on Automation, Quality & Testing, Robotics (AQTR), Cluj-Napoca, Romania	L. Miclea
6/7-6/9	Int'l Mixed-Signals, Sensors, and Systems Test Workshop (IMS3TW), La Grande Motte, France	F. Azais
6/10-6/12	Int'l High Level Design Validation and Test Workshop (HLDVT), Anaheim, CA, USA	P. Mishra
6/13-6/14	Int'l Symposium on Hardware-Oriented Security and Trust (HOST), Anaheim, CA, USA	J. Plusquellic
6/14	Int'l Workshop on Design for Manufacturability & Yield (DfM&Y), Anaheim, CA, USA	R. Aitken
7/5-7/7	International On-Line Testing Symposium (IOLTS), Corfu Island, Greece	M. Nicolaidis, A. Paschalis
7/15	ATE: Vision 2020, San Francisco, CA, USA	E. Volkerink
9/14-9/16	Board Test Workshop (BTW), Fort Collins, CO, USA	W. Eklow
9/17-9/20	East-West Design and Test Symposium (EWDTS), St. Petersburg, Russia	V. Hahanov, Y. Zorian
9/27-9/29	International Test Synthesis Workshop (ITSW), Santa Barbara, USA	A. Jas
10/6-10/8	Int'l Symposium on Defect & Fault Tolerance in VLSI Systems (DFT), Kyoto, Japan	H. Ito, S. Tragoudas
10/31-11/5	International Test Conference (ITC), Austin, TX, USA	R. Press
11/4-11/5	Workshop on Test & Validation of High Speed Analog Circuits (TVHSAC), Austin, TX, USA	A. Majumdar
11/4-11/5	Int'l Workshop on Design for Reliability and Variability (DRV), Austin, TX, USA	M. Nicolaidis
11/4-11/5	Int'l Workshop on Defect and Data Driven Testing (D3T), Austin, TX, USA	A. Crouch
12/1-12/4	Asian Test Symposium (ATS), Shanghai, China	S. Xu
12/5-12/6	Workshop on RTL and High Level Testing (WRTLT), Shanghai, China	J. Gao
12/6-12/8	International Workshop on Microprocessor Test and Verification (MTV), Austin, TX, USA	M. Abadir
TBD	International Workshop on Design & Test (IDT), TBD	TBD
TBD	Int'l Workshop on Memory Technology, Design and Testing (MTDT), TBD	C.-W. Wu, R. Rajsuman
TBD	Int'l Workshop on Testing Embedded and Core-Based System-Chips (TECS), Online	Y. Zorian

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