

# XII International Siberian Conference on Control and Communications

(SIBCON-2016)













May 12-14, 2016 Moscow

## Welcome message from the Technical Program Committee Chairs

Dear Colleagues,

On behalf of the National Research University "Higher School of Economics" and Tomsk IEEE Chapter & Student Branch it is an honor and pleasure to cordially invite you to participate in the International Siberian Conference on Control and Communications SIBCON-2016, jointly organized by the Siberian IEEE community and National Instruments R&D. The meeting continues traditions of international conference SIBCON since 1995.

Communication and control systems will be a major player in the global word market. The technical challenges and opportunities in communications and control are progressing at an unprecedented pace. The merging of technical research and business applications is increasingly important as traditional circuit and data services are intertwined with the Internet. Extending communication technologies to wideband services stimulates the development of new types of circuits and systems oriented toward the realization of low-cost, low-voltage, and portable devices. These reasons have determined the choice of the conference topics.

The Technical Committee has carefully considered submissions to design a comprehensive program of technical papers that spans most of the key areas. We have been able to put together a very interesting technical program with assistance of an excellent Technical Program Committee. Among the topics receiving the largest numbers of papers for Conference were signal processing, computer measurement technologies, and various control systems. As is evident from just those categories alone, the technical program will almost assuredly provide some topics of interest for all attendees. In the opinion of the Organizing Committee, session topics include the main part of perspective questions and problems, for example, sensors for Internet of things.

When we planned the SIBCON conference, we envisioned a meeting that engineers and scientists would gather and openly discuss all aspects of control and communications. Thus, it would be more inclusive than the traditional event in material physics, microwave and wireless circuits and systems, electron devices. Instead, aspects from each of these different, individual symposia would be brought together under one symposium to unify a single community of engineers interested in developing the next generation technique. Furthermore, we wanted to include the contributions from engineers throughout the world since progress is always accelerated when everyone's ideas are heard. We believe this tradition conference succeeded to meet both of these goals.

A record number of 590 papers were submitted, and 228 papers accepted for 12 sessions. Because the Conference is limited to three days, it was necessary to reject almost twice as many papers contributed. The Conference program is a result of the rigorous selection procedure: the acceptance ratio was 38.5 %. Papers both of academia and industry were accepted. The unique industry program prepared by National Instruments R&D is intended to have attendees share an industry trends. So, the motto of our Conference is "Renaissance of academy and industry during dark day season". The conference program is completed with a post-conference day including several sessions and social program.

No event can be successful without the support and encouragement of sponsors. So, thanks go to HSE, NI, and Russia Siberia Section. This inaugural collaboration between the Tomsk IEEE Chapter and sponsors promises to be a milestone event promoting the interaction of our researchers with leading companies.

We also encourage you to take advantage of the wonderful opportunity to meet and exchange ideas with colleagues. We think that's the spirit of good technical conferences to share as by-products. Once we are here in the hope of meeting old acquaintances to know what they are doing, and above all, of making new friends with similar technical expertise and interests.

This year the Conference has new venue – Moscow. We are proud that SIBCON traditionally held in Siberia has whirlwind to capital of Russia. Moscow is a beautiful city with many historic spots and various natural view scopes. A lot of tourists from abroad visited Moscow this year. We certainly hope that you will enjoy our environment.

The success of any event is due to the efforts of many people, and this conference is no different. Gratitude is also deserved for the IEEE Electron Devices Society for continuous technical support. I would like to welcome all the participants, and especially, to express the warmest gratitude to all the paper presenters for sharing their valuable experiences with us, on behalf of the organizing committee of the conference. Many thanks bring to Ilya A. Ivanov for his outstanding efforts. My special thanks go to my good friends and reviewers, without whose help this conference would not have taken place.

Welcome to SIBCON and welcome to Moscow!

Boris G. Lvov Higher School of Economics Oleg V. Stukach Tomsk Polytechnic University

### International Siberian Conference on Control and Communications



May 12–14, 2016 National Research University "Higher School of Economics" Moscow, 34 Tallinskaya Str. http://sibcon.hse.ru

Time		Ma	ay 12, Thursday	
9.00 - 10.00			participants, lobby 1st floor	
10:00 - 10:50			RY OPEN SESSION	
10.00 - 10.30		ILENA	Room 506	
11:00 - 12:00	Session S1	Session U1	Session M1	Session N1
	(room 506)	(room 214)	(room 408)	(room 413)
	Communications	Control Systems	The Computer	National Instruments
			Measurements	Academic program for
			Tricusur criterius	technical Universities
12:10 - 13:10	Session S2	Session U2	Session M2	
	(room 506)	(room 214)	(room 408)	
	Communications	Control Systems	Methods of Measurement	
13:10 - 14:30			Lunch	
14:30 - 15:30	Session S3	Session V1	Session T1	Session N2
	(room 506)	(room 214)	(room 408)	(room 413)
	Communications	Process Control	Internet of Things	LabVIEW Hands-on
15:40 - 16:40	Session S4	Session U3	Session T2	Session N3
15.10 10.10	(room 506)	(room 214)	(room 408)	(room 314)
	Communications	Theory of control	Internet of Things	Hands-on "VitrualBench
	Communications	rincory or control	internet of Timigo	- Basics of Automation
				in Measurements"
16:50 - 17:50	Session S5	Session U4	Session T3	Session N4
10.50 17.50	(room 506)	(room 214)	(room 408)	(room 314)
	Communications	Theory of control	Internet of Things	Hands-on "Design Real
	Communications	Theory of control	internet of Timigs	Systems, Fast", NI
				myRIO
18:30 - 20:30		V	Velcome Party	myKiO
10.30 20.30				
		May 13, Fri	,	
9:00 - 10:10	Session C1	Session U5	Session M3	Session N5
	(room 214)	(room 404)	(room 406)	(room 412)
	Networking	Theory of control	The Computer	Hands-on "Rapid
	Control		Measurements	Wireless system
10:20 - 11:30	Session C2	Session U6	Session M4	prototyping with
	(room 214)	(room 404)	(room 406)	Software Defined Radio
	Networking	Theory of control	Methods of Measurement	and NI USRP"
	Control	•		
11:40 - 12:50	Session I3E	Session U7	Session R1	Session N6 (room 412)
	(room 214)	(room 404)	(room 406)	Seminar and Training
	Workshop on	Theory of control	NI Technique for	AWR Design
	IEEE Benefits	,	Measurements	Environment
12:50 - 14:00			Lunch	
14:10 - 15:20	Session B1	Session U8	Session T4	Session N7 (room 412)
10	(room 214)	(room 404)	(room 406)	Simulating Non-Linear
	Communications	Electromechanics	Internet of Things	Effects in Phased Array
	- John Marious		internet of finings	Antennas Performance
15:30 - 16:40	Session B2	Session U9	Session T5	
	(room 214)	(room 404)	(room 406)	Session N8 (room 412)
	Communications	Control Systems	Internet of Things	Phased Array and Radar
16:50 - 18:00	Session S6	Session S7	Session R2	System Analysis
	(room 214)	(room 404)	(room 406)	•
	Communications	Communications	NI Technique for	
			Measurements	
		May 14, Satu	ırday	
		Social Prog	ram	

	May,12	
11:00 - 12:00	Session S1. Communications	
021fu1c	Operator Approach To Nonlinear Compensator Synthesys For Communication Systems	Elena Solovyeva
350fu1c	Attitude Determination Of Spinning Objects	Alexander E. Goncharov, Igor N. Kartsan, Dmitry D. Dmitriev, Valery N. Tyapkin, Yuri L. Fateev
316fu1c	Triangulation method correction algorithms for precise AUV position determination	Burdinsky I.N., Otcheskii S. A.
032fu1c	On the Issue of IP Header Compression Application in High Voltage Digital Power Line Carrier Channels	Anton G. Merkulov, Viatcheslav P. Shuvalov
090fu1c	About One of the Methods for Solving Problems in QoS Routing	Olga A. Abramkina, Vyacheslav P. Shuvalov
389fu1c	Analysis of noisy signal restoration quality with exponential moving average filter	Belyaev Alexander, Tutov Ivan, Butuzov Denis
11:00 – 12:00	Session U1. Control Systems	
246fu4t	Models and Algorithms of Non-Stationary Signal Identification in Conditions of Uncertainty	V. L. Sergeev, V.T. Kalayda, V.I. Polishchuk
400fu4t	Identification of the state of technical objects based on analyzing a limited set of parameters	Sergei I. Klevtsov
561fu4t	Consistent Measures of Dependence in System Identification: Some Summary	K.R. Chernyshov
288fu4t	Statistical Diagnostics of Irreversible Avionics As a Controlled Random Process	A.P. Samoilenko, A.I. Panychev, S.A. Panychev
300fu4t	Full-state Linearization of Systems via Feedback Using Similarity Transformation	Aleksey A. Kabanov
11:00 – 12:00	Session M1. The Computer Measurements	
696ni8i	Integration of Vibration Electronic Equipment Models with Concentrated and Distributed Parameters	Kofanov Y.N., Sotnikova S.Y.
119ni8i	Information-Measuring and Operating Test for the Effects of Vibration	G.V. Tankov, N.K. Yurkov, S.A. Brostislov, A.V. Lysenko
101ni8i	Contactless Three-Component Measurement of Mirror Antenna Vibrations	A.V. Grigor'ev, N.V. Goryachev, A.K. Grishko, N.K. Yurkov
463ni8i	Application of computer technologies for investigation of thermal processes in converter of AC drive	N. N. Bespalov, M. V. Ilyin, S. S. Kapitonov, S. Y. Grigorovich
283ni8i	Optimizations frequency the electromechanical transformation of devices for measuring small physical values	N.N. Grachev, D.V. Lazarev
12:10 – 13:10	Session S2. Communications	
303fu1c	The method for forming time intervals with crystal oscillator frequency instability compensation	Burdinsky I. N., Linnik M. A., Mironov A. S., Karabanov I. V.
365fu1c	Analysis of Noise Properties of Hybrid Frequency Synthesizer with Autocompensating Phase Noise of DDS and PLL	G.S. Vasilyev, O. R. Kuzichkin, I.A. Kurilov, D.I. Surzhik
479fu1c	Spectrally Efficient Radio Signal Types Software- Controlled Generator Module	Kirillov S.N., Slesarev A.S., Pokrovskij P.S., Semin D.S., Dmitriev V.T.
629fu1c	Analysis of the Crystal Oscillators Phase Noises and Methods of Their Reduction	Galina V. Nikonova, Aleksey O. Minin
485fu1c	Development of Testing and Diagnostic Tools as a Way to Improve the Reliability of Multifunctional Radio Receiving Center	A. Sintsov, A. Luppov, A. Fufachev
12:10 – 13:10	Session U2. Control Systems	
384fu4t	Application of PID Controller Based on the Localization Method	Jaroslav Hlava, Nikita Zemtsov, Galina

	for Ancillary Service Provision	Frantsuzova
736fu1c	Exploiting an Intelligent Fuzzy-PID system in Nonlinear Aircraft Pitch Control	Ibrahim I. N., Al Akkad M. A.
689fu4t	Firewall application for Floodlight SDN controller	Sergey Morzhov, Igor Alekseev, Mikhail Nikitinskiy
649fu4t	Topography of z-plane Which is Discretized Due to Quantization of Coefficients of Digital Biquad Filters	V. Lesnikov, T. Naumovich, A. Chastikov
308fu4t	Set-Theoretic Model of Digital Systems Functioning	Alexander Ivannikov, Aleksandr Romanov Alexander Stempkovsky
12:10 -	Session M2. Methods of Measurement	
13:10		
187ni8i	Multifunction measuring system for monitoring of coverage area of mobile network operator	A.A. Sorokin, A.A. Gorunov
225ni8i	Ball Mill States Classification using Competitive Neural Networks	Poleshchenko D.A., Tsygankov Y.A.
355ni8i	Monitoring the Phase Progression of Linear Chirp by Applying Artificial Neural Networks	S.N. Danilin, S.A. Shchanikov
130ni8i	Modular wavelet filters for preprocessing signals in real time	En Un Chye, V. E. Ivanov, R. A. Antonov
069ni8i	Hardware-Software Complex for Studying the Characteristics of GNSS Receivers	D.D. Dmitriev, A.B. Gladishev, V.N. Tyapkin, Yu.L. Fateev
761ni8i	Standalone Device for Rapid Assessment of Critical Flicker Frequency (CFF)	K. Bogachyov, M. Pavlova
11:00 – 13:10	Session N1. National Instruments Academic program for technical U	niversities
	Technological collaboration with universities. Creating centers for re NI's hardware platforms for scientific experiments and prototyping. LabVIEW graphical system design software. Rapid application dev signal processing. Graphical user interface and hardware integration.	relopment. Ready-to-run algorithms for digit
	NI's hardware platforms for scientific experiments and prototyping. LabVIEW graphical system design software. Rapid application dev	relopment. Ready-to-run algorithms for digit and automated test systems. Small-sized da
13:10 – 14:30	NI's hardware platforms for scientific experiments and prototyping. LabVIEW graphical system design software. Rapid application designal processing. Graphical user interface and hardware integration. An overview of NI's platforms to build measurements, control acquisition systems.	relopment. Ready-to-run algorithms for digit and automated test systems. Small-sized da
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13:10 - 14:30 - 14:30 - 15:30	NI's hardware platforms for scientific experiments and prototyping.  LabVIEW graphical system design software. Rapid application devisignal processing. Graphical user interface and hardware integration.  An overview of NI's platforms to build measurements, control a acquisition systems.  Technologies of National Instruments for user's product and solution  Lunch  Session S3. Communications  Theoretical Estimate of Average Power of Narrowband	relopment. Ready-to-run algorithms for digit and automated test systems. Small-sized da development.
13:10 - 14:30 14:30 - 15:30 329fulc	NI's hardware platforms for scientific experiments and prototyping.  LabVIEW graphical system design software. Rapid application designal processing. Graphical user interface and hardware integration.  An overview of NI's platforms to build measurements, control a acquisition systems.  Technologies of National Instruments for user's product and solution  Lunch  Session S3. Communications  Theoretical Estimate of Average Power of Narrowband Intersystem Interferences in a Free Space  Through-the-Earth Communication in Underground Mines by	relopment. Ready-to-run algorithms for digit and automated test systems. Small-sized dat development.  Usharova Darya, Anikin Alexey  G. Y. Shaydurov, E. A. Kokhonkova, D. S.
13:10 - 14:30 14:30 - 15:30 329fulc 491fulc	NI's hardware platforms for scientific experiments and prototyping. LabVIEW graphical system design software. Rapid application devisignal processing. Graphical user interface and hardware integration. An overview of NI's platforms to build measurements, control acquisition systems. Technologies of National Instruments for user's product and solution  Lunch  Session S3. Communications  Theoretical Estimate of Average Power of Narrowband Intersystem Interferences in a Free Space Through-the-Earth Communication in Underground Mines by Electromagnetic Waves  Numerical Model of Water Medium with Methane Inclusions:	Usharova Darya, Anikin Alexey  G. Y. Shaydurov, E. A. Kokhonkova, D. S. Kudinov, A. A. Shchitnikov  Olga V. Shefer, Vitaliy V. Loskutov  A.K. Grishko, I.I. Kochegarov, N.V.
13:10 - 14:30 - 14:30 - 15:30 - 329fulc - 491fulc - 092fulc	NI's hardware platforms for scientific experiments and prototyping. LabVIEW graphical system design software. Rapid application dev signal processing. Graphical user interface and hardware integration. An overview of NI's platforms to build measurements, control a acquisition systems.  Technologies of National Instruments for user's product and solution.  Lunch  Session S3. Communications  Theoretical Estimate of Average Power of Narrowband Intersystem Interferences in a Free Space  Through-the-Earth Communication in Underground Mines by Electromagnetic Waves  Numerical Model of Water Medium with Methane Inclusions: Application for Determining Optical Radiation Extinction  Dynamic Analysis and Optimization of Parameter Control of Radio Systems in Conditions of Interference  Parameter Analysis of Monte Carlo Simulation Model for Improvement of Its Performance with High Accuracy of Reliability	Usharova Darya, Anikin Alexey  G. Y. Shaydurov, E. A. Kokhonkova, D. S. Kudinov, A. A. Shchitnikov  Olga V. Shefer, Vitaliy V. Loskutov
13:10 - 14:30 - 15:30 - 15:30 - 329fulc - 491fulc - 103fulc -	NI's hardware platforms for scientific experiments and prototyping. LabVIEW graphical system design software. Rapid application dev signal processing. Graphical user interface and hardware integration. An overview of NI's platforms to build measurements, control a acquisition systems.  Technologies of National Instruments for user's product and solution.  Lunch  Session S3. Communications  Theoretical Estimate of Average Power of Narrowband Intersystem Interferences in a Free Space Through-the-Earth Communication in Underground Mines by Electromagnetic Waves  Numerical Model of Water Medium with Methane Inclusions: Application for Determining Optical Radiation Extinction  Dynamic Analysis and Optimization of Parameter Control of Radio Systems in Conditions of Interference  Parameter Analysis of Monte Carlo Simulation Model for	usharova Darya, Anikin Alexey  G. Y. Shaydurov, E. A. Kokhonkova, D. S. Kudinov, A. A. Shchitnikov  Olga V. Shefer, Vitaliy V. Loskutov  A.K. Grishko, I.I. Kochegarov, N.V. Goryachev, N.K. Yurkov  Alexander Lyubchenko, Stanislav Bartosh
13:10 - 14:30 - 14:30 - 15:30 - 329fulc - 103fulc - 103fulc - 103fulc - 104:30 - 14:30	NI's hardware platforms for scientific experiments and prototyping. LabVIEW graphical system design software. Rapid application dev signal processing. Graphical user interface and hardware integration. An overview of NI's platforms to build measurements, control a acquisition systems.  Technologies of National Instruments for user's product and solution Lunch  Session S3. Communications  Theoretical Estimate of Average Power of Narrowband Intersystem Interferences in a Free Space  Through-the-Earth Communication in Underground Mines by Electromagnetic Waves  Numerical Model of Water Medium with Methane Inclusions: Application for Determining Optical Radiation Extinction  Dynamic Analysis and Optimization of Parameter Control of Radio Systems in Conditions of Interference  Parameter Analysis of Monte Carlo Simulation Model for Improvement of Its Performance with High Accuracy of Reliability Estimations of Radiocommunication Equipment  Assessment of Effect of Influences on Pulse-Based UWB Radio	Usharova Darya, Anikin Alexey  G. Y. Shaydurov, E. A. Kokhonkova, D. S. Kudinov, A. A. Shchitnikov  Olga V. Shefer, Vitaliy V. Loskutov  A.K. Grishko, I.I. Kochegarov, N.V. Goryachev, N.K. Yurkov  Alexander Lyubchenko, Stanislav Bartosh Pedro A. Castillo, Maribel G. Arenas
13:10 – 14:30 14:30 – 15:30 329fulc 491fulc 103fulc 527fulc	NI's hardware platforms for scientific experiments and prototyping. LabVIEW graphical system design software. Rapid application designal processing. Graphical user interface and hardware integration. An overview of NI's platforms to build measurements, control a acquisition systems.  Technologies of National Instruments for user's product and solution.  Lunch  Session S3. Communications  Theoretical Estimate of Average Power of Narrowband Intersystem Interferences in a Free Space.  Through-the-Earth Communication in Underground Mines by Electromagnetic Waves  Numerical Model of Water Medium with Methane Inclusions: Application for Determining Optical Radiation Extinction  Dynamic Analysis and Optimization of Parameter Control of Radio Systems in Conditions of Interference  Parameter Analysis of Monte Carlo Simulation Model for Improvement of Its Performance with High Accuracy of Reliability Estimations of Radiocommunication Equipment  Assessment of Effect of Influences on Pulse-Based UWB Radio Communication Systems	Usharova Darya, Anikin Alexey  G. Y. Shaydurov, E. A. Kokhonkova, D. S. Kudinov, A. A. Shchitnikov  Olga V. Shefer, Vitaliy V. Loskutov  A.K. Grishko, I.I. Kochegarov, N.V. Goryachev, N.K. Yurkov  Alexander Lyubchenko, Stanislav Bartosh Pedro A. Castillo, Maribel G. Arenas

370fu6m	Towards the Implementation of the Task of Calculating Technical and Economical Indexes for Nuclear Power Plants	E.Ph. Jharko
437fu6m	On Creating Safety Control Systems for High Operation Risk Plants	Elena Jharko, Ekaterina Sakrutina
767fu6m	Analysis of the failure rate assessment models of the radiofrequency cords	Mayakova O.Y., Aleynikov A.V., Vostrikov A.V., Polessky S.N.
780fu6m	Speech quality measurement automation for patients with cancer of the oral cavity and oropharynx	Roman Valerievich Meschryakov, Evgeny Yurievich Kostyuchenko, Daniya Igorevna Ignatieva, Alexander Vladislavovich Pyatkov, Evgeny Lhamacirenovich Choynzonov, Lidiya Nikolaevna Balatskaya
14:30 - 15:30	Session T1. Internet of Things	
023iv0w	Spectral Analysis of Forest Fire Noise for Early Detection using Wireless Sensor Networks	Alexander A. Khamukhin, Silvano Bertoldo
104iv0w	On Physical Web models	Manfred Sneps-Sneppe, Dmitry Namiot
181iv0w	Implementation of the interface for sending messages in agent- oriented cloud/grid systems based on formalized specifications	Dmitry Pashchenko, Aleksey Dubravin, Sergey Zinkin, Nadezhda Karamysheva
335iv0w	Power Gating Multi-Modal Design Approach for Autonomous Low Power Circuits with Sensors	Andrey Korshunov, Pavel Volobuev
684iv0w	The development of sensor thecnology for light shows "Smart gallery"	A.V. Lataeva, A.A. Titova
766iv0w	Dynamic reconfiguration of the graphical interfaces for Internet of Things	Rolich A.Y.
14:30 – 15:30	Session N2. LabVIEW Hands-ons	
	An introductory course for LabVIEW graphical system design envir will learn creating applications for data acquisition, instrument con way to quickly learn basics of the industry standard measurement and	trol, measurements and automation. The best
15:40 – 16:40	Session S4. Communications	
683fu1c	Increase Efficiency of Multilevel Multithreshold Decoder for Self- Orthogonal Codes	Cao V.T., Grinchenko N.N., Ovechkin G.V.
385fu1c	Fast Decoder of BCH Code with Cyclic Decoding Method	E. Mytsko, A. Malchukov, I. Novogilov, V. Kim
577fulc	High Data Rate Link Modulation and Coding Scheme Modeling	Alexander Bakhtin, Anastasia Semenova, Alexey Solodkov
741fulc	A Subtraction Based Method for the Construction of Quasi-Cyclic LDPC Codes of Girtheight	Ambar Bajpai, Abhishek Kalsi, Lunchakorn, Wuttisittikulkij, Piya Kovintaewat
623fu1c	Detection of an Unauthorized Wired Connection to a Local Area Network by Solving Telegraph Equations System	Artyom O. Bakhtin, Vladislav S. Sherstnev, Inna L. Pichugova, Vadim V. Dudorov
785fu1c	Exploring sampling rate for discrete wavelet transform implementation	Vladimir Alekseev, Ivan Kaliakin
756fu1c	The Development of Signal Detection Algorithm for Multi-Rate HF Telecommunication System	Alexander Zhidyaev, Yuri Zagidullin, Andrey Kopysov, Vladimir Khvorenkov, Igor Klimov
15:40 – 16:40	Session U3. Theory of control	
439fu4t	Wavelet-based Identification and Control of Variable Structure Systems	Natalia Bakhtadze, Ekaterina Sakrutina
375fu4t	Analysis of Possibility of Application the Analytical Method for Solving Differential Equations Describing the Nonlinear System with Complex Dynamics	I.V. Semernik, A.V. Demyanenko
359fu4t	Hardware-targeted Semi-implicit Extrapolation ODE Solvers	D.N. Butusov, A.I. Karimov, A.V. Tutueva

	Synthesis of control actions with aggregate model	Reshetnikova G.N., Kotcubinskiy V.P., Khabibulina N.Yu., Polonskaya M.S.
670fu4t	Using of ADAR Method for Synergetic Control of Rigid Body Three-Dimentional Motion	Alexey S. Mushenko
625fu4t	Experimental estimate of using the ant colony optimization algorithm to solve the routing problem in FANET	Vasily A. Maistrenko, Leonov V. Alexey
15:40 – 16:40	Session T2. Internet of Things	
133iv3b	Spherical video panorama stitching from multiple cameras with intersecting fields of view and inertial measurement unit	Kholopov Ivan S., Pavlov Oleg V.
165iv3b	Estimation of Measurement of Distance to the Object by Analyzing the Blur of Its Image Series	Daniil A. Loktev, Alexey A. Loktev
345iv3b	Improving the Noise Immunity of Receiving Video Distorted White Gaussian Noise	E.V. Medvedeva, I.S. Trubin
516iv3b	Lossless Compressing Method in Image Processing Systems with Limited Power Resources	E. Petrov, N. Kharina, P. Sukhikh
573iv5e	The Method of the Errors Calculation from the Input Common- Mode Signal in the Analog Interfaces Based on the Differential Difference Operational Amplifiers and the Ways of their Decrease	N. N. Prokopenko, I. V. Pakhomov, A. V. Bugakova, A. A. Ignashin
340iv5e	Development of spherical sensor electric field strength measuring method	Eugenia V. Rumyantseva, Sergey V. Biryukov, Alexander G. Lyutarevich, Stanislav Y Dolinger
15:40 - 16:40	Session N3. Hands-on "VitrualBench - Basics of Automation in Meas	urements"
	A practical session on NI VirtualBench – integrated all-in-one bench measurements as well as automation to build a low-cost automated design software graphical approach to building measurements and mo	test system using LabVIEW graphical syste
16:50 – 17:50	Session S5. Communications	
575fu1c	Contemporary Video Compression Standards H.265/HEVC, VP9, VP10, Daala	M.P. Sharabayko, N.G. Markov
483fu1c	Comprehensive Method for Spacecraft Ranging Measurement	Artyom A.Silantyev, Aydar I.Vildanov
476fu1c	SCMA Detection with Channel Estimation Error and Resource Block Diversity	Alexander B. Sergienko, Vyacheslav P. Klimentyev
r380fur	Исследование некоторых характеристик гидроакустических шумовых помех	Горовой Сергей Владимирович,
		Кирьянов Алексей Валерьевич, Желдак Евгений Михайлович
238fulc	Estimation duration of ultra-wideband quasiradiosignal with known amplitude and initial phase	
238fulc 097fulc	1 0	
	known amplitude and initial phase  Space-Time Processing of Signals in Angle Measurement	Евгений Михайлович Yury E. Korchagin, Konstantine D. Titov TyapkinValery N., Dmitriev Dmitry D.,
097fulc	known amplitude and initial phase  Space-Time Processing of Signals in Angle Measurement Navigation Receivers  Quaternion Digital Signal Processing: a Hypercomplex Approach	Евгений Михайлович Yury E. Korchagin, Konstantine D. Titov TyapkinValery N., Dmitriev Dmitry D., Ratushnyak Vasily N., Konnov Valery G.
097fu1c 743fu1c	known amplitude and initial phase Space-Time Processing of Signals in Angle Measurement Navigation Receivers Quaternion Digital Signal Processing: a Hypercomplex Approach to Information Processing Testing of hypothesis of random variables independence on the	Евгений Михайлович Yury E. Korchagin, Konstantine D. Titov TyapkinValery N., Dmitriev Dmitry D., Ratushnyak Vasily N., Konnov Valery G. Francesca Ortolani, Aurelio Uncini Alexandr V. Lapko, Vasily A. Lapko,
097fulc 743fulc 241fulc 764fulc 170fulc	known amplitude and initial phase  Space-Time Processing of Signals in Angle Measurement Navigation Receivers  Quaternion Digital Signal Processing: a Hypercomplex Approach to Information Processing  Testing of hypothesis of random variables independence on the basis of nonparametric algorithm of pattern recognition  Lossless Compression Algorithm For Use In Telecommunication	Евгений Михайлович Yury E. Korchagin, Konstantine D. Titov TyapkinValery N., Dmitriev Dmitry D., Ratushnyak Vasily N., Konnov Valery G. Francesca Ortolani, Aurelio Uncini Alexandr V. Lapko, Vasily A. Lapko, Ekaterina A. Yuronen Valery A. Kokovin, Saygid U. Uvaysov,
097fulc 743fulc 241fulc 764fulc	known amplitude and initial phase Space-Time Processing of Signals in Angle Measurement Navigation Receivers Quaternion Digital Signal Processing: a Hypercomplex Approach to Information Processing Testing of hypothesis of random variables independence on the basis of nonparametric algorithm of pattern recognition Lossless Compression Algorithm For Use In Telecommunication Systems Optimal Transmission of Gaussian Markov Signal through	Евгений Михайлович Yury E. Korchagin, Konstantine D. Titov TyapkinValery N., Dmitriev Dmitry D., Ratushnyak Vasily N., Konnov Valery G. Francesca Ortolani, Aurelio Uncini Alexandr V. Lapko, Vasily A. Lapko, Ekaterina A. Yuronen Valery A. Kokovin, Saygid U. Uvaysov, Svetlana S. Uvaysova S.V. Rozhkova, V.I. Rozhkova, V.V.

191fu4t	Automatic derivation of kinematic equations of deployable solar panel arrays	Alexander Yakovlev, Alexander Malyshenko
382fu4t	The robustness of the stabilizing regulator for quasilinear discrete systems with state dependent coefficients	Danik Yu. E., Dmitriev M.G.
789fu4t	Detection of Unrevealed Non-linearities in the Layout of the Balancing Robot	Andrey Ivoilov, Vitaly Trubin, Vadim Zhmud, Lubomir Dimitrov
585fu4t	Analysis of Radiation Influence on the Reliability Indexes of Control Systems Components	Artyukhova Maya Aleksandrovna, Zhadnov Valeriy Vladimirovich, Polesskiy Sergey Nikolaevich
429fu4t	Improvement of the Efficiency of Voice Control Based on the Complementary Ensemble Empirical Mode Decomposition	Alimuradov Alan Kazanferovich, Churakov Pyotr Pavlovich, Artemov Igor Iosifovich, Kuzmin Andrey Victorovich
604fu4t	The suboptimality of stabilizing regulator in a quasilinear system with state-depended coefficients	Dmitriev M.G., Makarov D.A.
r179fur	The Method Of Collective Guidance And Controlled Target Distribution Of Missiles Groups On Concentrated Air Target, Optimum On Criterion Of All Its Elements Destruction Maximum Probability	Lyutikov Igor Vitalievich, Zamaraev Valerii Vasilievich
655fu4t	Acoustic borehole depth-gauge with the dualfrequency sensing method	Shulgina Y.V., Soldatov A.A., Shulgin E.M., Kudryashova A.V.
247fu4t	Simulation Modeling of Adaptive Dumping Forced Oscillations Combined Control System	Eugenie L. Eremin, Evgeniy A. Shelenok
248fu4t	Adaptive-Periodic Control for Nonlinear Dynamic Object with Delays on State Set of Functioning	Eugenie L. Eremin, Evgeniy A. Shelenok
16:50 – 17:50	Session T3. Internet of Things	
107iv5e	The Regularities of Radiation Defect Formation at the Interface Metal – n-InP	Soboleva E.G., Litvinenko V.V., Krit T.B.
542iv5e	Organic Light Emitting Diode Simulation Using Silvaco TCAD Tools	I. A. Lysenko, L. A. Patrashanu, D. D. Zykov
060iv5e	In-service Change in Radiant Power of Infrared LEDs	Alexander V. Gradoboev, Anastasiya V. Simonova, Ksenia N. Orlova
737iv5e	Influence of the Design of the Solid Mounted Resonator on its Electrical Equivalent Parameters	A.G. Kozlov, T.N. Tanskaya, V.N. Zima
545iv5e	Maximization of Duration of Ultrashort Pulse That is Completely Decomposed in Multiconductor Modal Filters	A.O. Belousov, T.R. Gazizov, A.M. Zabolotsky
552iv5e	Evaluation of Efficiency of Modal Filtration in Different Types of Redundant Electrical Connections	Pavel Orlov, Talgat Gazizov, Evgeniy Buichkin
100iv5e	Modal Distortions of Pulse Signal in Multiconductor PCB Structure	Pavel Orlov, Talgat Gazizov, Sergey Kuksenko
342fu4t	Approximation of an initial matrix by a Toeplitz one for acceleration of iterative solution of dense linear algebraic systems in scattering problems	Kuksenko S.P., Gazizov T.R., Kostarev I.S.
392fu3o	Simulation of asymmetrical modal filter with different segmentation	A.T. Gazizov, A.M. Zabolotsky, T.R. Gazizov
239iv5e	Surface and Leaky Acoustic Wave Properties in GdCa4O(BO3)3 Single Crystal	R.M. Taziev
584fu5u	Design of a Metal Vapor Laser Power Supply	Trigub M.V., Ogorodnikov D.N., Vasnev N.A.
16:50 – 17:50	Session N4. Hands-on "Design Real Systems, Fast", NI myRIO	
,,,,,	The hands-on session offers a quick way to get started with NI myl session attendee gain knowledge and skills necessary to solve real their current problems.	

	May, 13	
9:00 – 10:10	Session C1. Networking Control	
274fu1c	Modeling of Ray Refraction of WLAN Signals on the Structural Elements of the Building	A.I. Panychev, A.A. Vaganova
285fu1c	Proactive backup scheme of routes in distributed computer networks	Perepelkin Dmitry Alexandrovich, Tsyganov Ilya Yurievich
286fu1c	Improved multipath adaptive routing model in computer networks with load balancing	Koryachko Vyacheslav Petrovich, Perepelkin Dmitry Alexandrovich, Byshov Vladimir Sergeevich
338fu1c	Peer Selection Algorithm In Flying Ad hoc Networks	Danil S. Vasiliev, Albert Abilov, Vladimir V. Khvorenkov
596fulc	Hydrodynamic Model of Adaptive Routing for Large-Scale Unstable Sensor Networks	Ekaterina V. Aleksandrova and Vladimir A. Bashkin
216fu1c	Detection Algorithm of Activity of Cognitive Networks Primary Users	Dmitry E. Prozorov, Anton V. Chistyakov
659fu1c	A Role-Based Approach to Secure Routing in Wireless Ad-Hoc Networks	E.V. Shcherba, V.I. Nikonov
9:00 – 10:10	Session U5. Theory of control	
734fu4t	Adaptive predictive voltage control of three-phase PWM-VSCs in UPS applications	Hosein Gholami-Khesht, and Mohammad Monfared
733fu4t	Robust CDM and Pole Placement PID Based Thrust Controllers for Multirotor Motor-Rotor Simplified Model	Wojciech Giernacki, Dariusz Horla, Talar Sadalla, João Paulo Coelho
481 fu4t	The Use of Bypass Channel for Feedback Control of Oscillatory Object Well-Known as Difficult One for Control	Vadim Zhmud, Lubomir Dimitrov, Galina Sablina, Vitaly Trubin
056fu4t	The Application of Numerical Probabilistic Analysis for the Reliable Estimate of the Characteristics Equipment Responsible Appointment	Popova O.A.
019fu4t	Executing Discrete Orthogonal Transformations Based on Computations on the Galois Field in the FPGA Architecture	V.M. Zakharov, S.V. Shalagin
192fu4t	Solution Set of Time-Optimal Control Problem for Four Series Connected Integrators	Vladimir I. Lovchakov, Sergey A. Shopin
366fu4t	Digital Noncoherent Demodulation of "Integrally" Coded Phase- Shift Keyed Signals	Alexey N. Glushkov, Vladimir P. Litvinenko, Boris V. Matveev, Oleg V. Chernoyarov
9:00 – 10:10	Session M3. The Computer Measurements	
322ni8i	Temperature Distributions Comparison by the Clustering of Their Proximity Measure	V.B. Nemirovskiy, A.K. Stoyanov, A.K.Gofman, V.A. Tartakovsky
183ni8i	Increasing the reliability of the stress state's measurement of alloys by Barkhausen Noise method	Bashkov O.V., Egorov V.A., Bashkov I.O., Egorov D.E.
265ni8i	Development of multistage algorithm for text objects recognition in images	Cherneta D.S., Druki A.A., Spitsyn V.G.
453ni8i	Multivariate Statistical Analysis of Handwritten Images via Higher Order Correlation Coefficients	B.B. Akhmetov, P.S. Lozhnikov, A.I. Ivanov
168ni8i	An Analog Front-End ASIC with Programmable Gain and Timing for Silicon Photomultiplier Arrays	Yury Bocharov and Vladimir Butuzov
9:00 – 11:30	Session N5. Hands-on "Rapid Wireless system prototyping with Soft	ware Defined Radio and NI USRP"
	A practical session to try Software Defined Radio hardware and inte radar and sigint systems with modern software-defined approach. I benefits of integrated design flow for applications ranging from bas complex radar systems.	Presentation and system demonstrations show
10:20 – 11:30	Session C2. Networking Control	

436fu4t	Petri nets behavioral equivalence checking in SMV	Dmitrii Drozdov, Victor Dubinin, Vladimir Kulagin
546fu4t	Network Vulnerability in Two-Phase Evolution	N.A. Kinash, A.I Trufanov, O.G. Berestneva, A.A. Tikhomirov, O.N. Fisochenko
386fu4t	Design of control systems for parallel computing structures based on net models	Vladimir Kulagin
543fu4t	Research of Neural Networks Application Efficiency in Automatic Scientific Articles Classification According to UDC	A.Yu. Romanov, K.E. Lomotin, E.S. Kozlova, A.L. Kolesnichenko
267fu1c	Calculation Methods of Transient Processes in Growing Networks with Non-Linear Preferential Attachment Rule	V. N. Zadorozhnyi, V. A. Badryzlov
045fu4t	E-Network Modelling of Process Industrial Control Systems in Building Computer Simulators	M.Ya.Braginsky, D.V.Tarakanov, S.G.Tsapko
10:20 - 11:30	Session U6. Theory of control	
445 fu5u	Reviewing the Mathemetical Models and Electrical Circuits of Deterministic Chaos Transistor Oscillators	Andriy Semenov
616fu5u	Quasi – 3D Electro-Thermal Simulation of Integrated Transistor Structures, IC Chips and Packages	Konstantin O. Petrosyants, Nikita I. Ryabov
620fu5u	Hardware and Software System of the Guided Wave Pipe Testing Using Electromagnetic-Acoustic Transformation	S.V. Lenkov, N.N. Zverev, O.V. Muravieva, Yu.V. Myshkin
635fu5u	An Instrumentation Amplifier with Low Offset-Error Drift for Radiometric Applications	S. I. Ivanov, A. P. Lavrov, Y. A. Matveev
237fu5u	Static Accuracy of the Lithium-Ion Battery Automated Test Bench	Aleksandr S. Fedchenko, Evgeny A. Kopylov, Dmitry K. Lobanov, Enis A. Mizrah
349fu5u	A behavioral model of integer-N PLL frequency synthesizer for reference spur level simulation	Denis I. Sotskov, Vadim V. Elesin
10:20 -	Session M4. Methods of Measurement	
11:30 494ni8i	A COLONIC A FILE IN COLO	100
49411101	Automatized Complex for Measuring the Electrical Properties of MIM Structures	A.O. Gryaznov, I.B. Dorosheva, A.S. Vokhmintsev, R.V. Kamalov, I.A. Weinstein
521ni8i	Test and Measurement Complex for Investigation of GaN Based High-Brightness Light-Emitting Diodes	Sergey Ekhanin, Alexander Tomashevich, Alexander Ermolaev, Anton Loschilov
637ni8i	Hardware-Software Subsystem for Multilevel Thermal Fault Detection and Analysis of Electronic Components	Konstantin O. Petrosyants, Igor A. Kharitonov, Nikita I. Ryabov, Petr A. Kozynko, Boris G. Lvov
643ni8i	Control of boundary layer on rotation axysimmertic diffuser wall	Kurkin E.I., Shakhov V.G.
795ni8i	A Novel System for Automatic Aluminium Billets Geometry Measurement and Inspection	Denis Zinchenko, Vyacheslav Prokopiev, Pavel Kochkin, Sergey Kolchanov, Arkadiy Zelyutkov, Vasilii Panko
407ni8i	Vibration Measurement by Means of Digital Speckle Correlation	Lin Li, F.A. Gubarev, M.S. Klenovskii, A.I. Bloshkina
11:40 -	Session N6	
12:50	Seminar and Training AWR Design Environment2016. Introduction to NI AWR Design Environment, AWR Innovations in	2016 and Beyond
	This presentation begins with a brief introduction to the NI AW software showing an overview of the powerful, innovative technolo will also highlight some advanced synthesis tools for amplifiers. advanced suite of tools developed especially for designers of MN communication systems, radar systems, antennas, and more. To simulation, 3D PCells, circuit envelope simulation, co-simulation hardware-in-the-loop simulation, antenna synthesis, RF frequency pl name just a few.	gies contained within the latest V12 release. I NI AWR Design Environment software is ar MICs, RF PCBs, RFICs, microwave modules he capabilities offered include full 3D EM with National Instruments' LabVIEW, FPGA
11:40 -	Session I3E.	
12:50	Special Session and Workshop on the IEEE Advantages for Industry	and Academia

	Welcome to Workshop on the IEEE Advantages for Industry and Ad introduction to the IEEE, showing an overview of it benefits and feat	
	we answer questions concern networking in professional societies, IE	
11:40 – 12:50	Session U7. Theory of control	
229fu5u	Formal modeling and verification of IEC 61499 function blocks on the basis of transition systems	Victor Dubinin, Valeriy Vyatkin, Anatoly Shalyto
r466fur	Моделирование маршрута движения судна на основе алгоритмов кластеризации	Клюева Светлана Федоровна, Акмайкин Денис Александрович, Салюк Павел Анатольевич
r331fur	Компьютерная диагностика нарушений способности производственного процесса	Александрова Т.В., Громаков Е.И.
r768fur	Оптимизация Параметров Математической Модели Объекта Регулирования На Основе Градиентного Подхода	Алексеенко Алексей Владимирович
11:40 – 12:50	Session R1. NI Technique for Measurements	
233ni7n	Automated Test Complex for Parametric and Functional Control of Voltage-to-Frequency Converter	A.Y. Borisov, L.N. Kessarinskiy
105ni7n	The Measuriment Of Ferromagnets Magnetic Characteristics Using Labview Software	Andrey A. Tatevosyan, Aleksandr S. Tatevosyan, Natalya N. Zaharova
207ni7n	Analysis of Energy and Spectral Characteristics of Acoustic Emission Signals from the Hsu-Nielsen Source	Yuriy Purisev, V. N. Ovcharuk, Maskim Kutsenko
512ni7n	Certain new approaches in development of acoustic emission systems	Yuriy Purisev
528ni7n	Hardware-software complex for parametric study of wireless energy transfer	A.A. Danilov, E.A. Mindubaev
617fu4t	A new method of power system diagnostics for mobile equipment	S.N. Olshevskiy, I.P. Dobrolyubov, D.N. Klimenko, A.K. Orehov, A.A. Borisov
	Lunch	
14:10 – 15:20	Session B1. Communications	
257fu1c	Quantum Random Number Generator for Secure Communications	Anna Epishkina, Konstantin Kogos
043fu3o	The simulation of current-voltage characteristics and the dynamic conductivity of the ballistic contacts based on superconductors with weak oscillation order parameter	Daulet Sergeyev, Kuanyshbek Shunkeyev
041 fu3o	Reliable Recognition of Masked Cartographic Scenes During Transmission over the Network	V. A. Raikhlin, I. S. Vershinin, R. F. Gibadullin, S. V. Pystogov
081fu3o	Pseudo-Random Number Generator Based on Fuzzy Logic	Igor V. Anikin, Khaled Alnajjar
110fu3o	A Complete Statistical Model of a Handwritten Signature as an Object of Biometric Identification	A.I. Ivanov, P.S. Lozhnikov, E.I. Kachajkir
14:10 – 15:20	Session U8. Electromechanics	
128fu5u	Synergetic Approach To The Quadrotor Helicopter Control In An Environment With External Disturbances	Gennady Veselov, Andrey Sklyarov, Sergey Sklyarov, Valeriy Semenov
219fu5u	The problem of target pursuit by a group of unmanned flight vehicles	Khachumov M.V.
061fu5u	Development of Torque Vector Control System of Permanent Magnet Motor	Alexander G. Lyutarevich, Vladimir N. Goryunov, Evgeniy A. Lokhman, Stanislav Y. Dolinger, Dmitry S. Osipov
457fu5u	Identification of hybrid wind power unit control parametrs for the purpose of loses optimization	Aleksey A. Belsky, Dannil I. Ivanchenko
763fu5u	The Algorithm for Battery Charge Control of Renewable Energy	Oleg A.Ivanov, Ilya A.Ivanov, Saygid

320fu5u		
	Start Synchronous Motor Vector Control Algorithm with Encoder without Hall-Sensors	Stanislav V. Borisov, Pavel V. Bykovskih, Nikolay V. Gusev, Konstantin V. Obraztsov
r291fur	Система автоматического управлением натяжения бумажного полотна на основе асинхронного двигателя с короткозамкнутым ротором	Артыков Э.С., Герценщтейн И.Ш., Кодиров С.А.
222fu5u	Calculation and Analysis of Electromagnetic Forces in a Self- Braking Electric Motors	Lev K. Burulko, Vyacheslav E. Korolev
462fu5u	High-precision Former of Velocity and Motor Shaft Position Angle Codes	Bolgov I.S., Dementiev Y.N.
14:10 -	Session T4. Internet of Things	
15:20 458iv5e	Decree the influence of an experience of the control of the contro	Rodion R. Fakhrutdinov, Konstantin V.
4381036	Decrease the influence of process variation on the temperature stability of integrated voltage references	Murasov, Ruslan A. Wolf, Sergey A.  Zavyalov, Aleksandr N. Lepetaev
234iv5e	Efficiency Improvement of the Random Search Algorithm for Parametric Identification of Electronic Components Models	Alexandr M. Pilipenko, Vadim N. Biryukov
309iv5e	Methods of Slew Rate Verification of Operational Amplifier Macro Model	Alexander Ivannikov, Anatolij Kozhevnikov, Sergej Tumkovskiy
574iv5e	The Radiation-Hardened Microcircuits of the Multichannel Op Amps with Current Feedback and the Analog Interfaces Based on the Structured Array MH2XA010	O.V. Dvornikov, N.N. Prokopenko, A.V. Bugakova, A.A. Ignashin
576iv5e	The Differential and Differential Difference operational amplifiers of sensor systems based on bipolar- field technological process	O.V. Dvornikov, N.V. Butyrlagin, I.V. Pakhomov
(12: 5	AGAMC	A F Tive A I G
613iv5e	The Main Modifications of Analog Interface of Sensor Systems Based on two Differential Difference Operational Amplifiers	A. E. Titov, A. I. Serebryakov, I. V. Pakhomov
553iv5e	New active filter synthesis tool for Qucs open-source circuit simulator	Leonid Kechiev, Nicolay Kruchkov, Vadim Kuznetsov
14:10 – 15:20	Session N7. Simulating Non-Linear Effects in Phased Array Antenna	
	Session N7. Simulating Non-Linear Effects in Phased Array Antenna The most recent addition to NI AWR software portfolio is Analyst <sup>TN</sup> integrated into Microwave Office much like our 3D planar analysis i 3D antennas with linear and non-linear components. This presentatio unique Pcells (Parametrised Cells) approach for components such name a few. The introduction would be followed by details of one of In-situ antenna measurements. This unique capability allows engine amplifiers as well as feed networks with antennas in a single simulati and unique capabilities for antenna synthesis with NI AWR Design E	4, a full 3D FEM-based EM solver. It has been tool AXIEM, allowing engineers to couple full n will start with an introduction to Analyst, the as connectors, waveguides, chip packages to the major new enhancements in V12 release ers to simulate driving circuits with non-linear on. We will also look at recently launched new
15:30 -	The most recent addition to NI AWR software portfolio is Analyst <sup>TM</sup> integrated into Microwave Office much like our 3D planar analysis in 3D antennas with linear and non-linear components. This presentatio unique Pcells (Parametrised Cells) approach for components such name a few. The introduction would be followed by details of one of In-situ antenna measurements. This unique capability allows engine amplifiers as well as feed networks with antennas in a single simulation.	4, a full 3D FEM-based EM solver. It has been tool AXIEM, allowing engineers to couple full n will start with an introduction to Analyst, the as connectors, waveguides, chip packages to the major new enhancements in V12 release – ers to simulate driving circuits with non-linear on. We will also look at recently launched new
15:20	The most recent addition to NI AWR software portfolio is Analyst <sup>TN</sup> integrated into Microwave Office much like our 3D planar analysis I 3D antennas with linear and non-linear components. This presentatio unique Pcells (Parametrised Cells) approach for components such name a few. The introduction would be followed by details of one of In-situ antenna measurements. This unique capability allows engine amplifiers as well as feed networks with antennas in a single simulati and unique capabilities for antenna synthesis with NI AWR Design E	4, a full 3D FEM-based EM solver. It has been tool AXIEM, allowing engineers to couple full n will start with an introduction to Analyst, the as connectors, waveguides, chip packages to the major new enhancements in V12 release ers to simulate driving circuits with non-linear on. We will also look at recently launched new
15:20 15:30 - 16:40	The most recent addition to NI AWR software portfolio is Analyst <sup>TI</sup> integrated into Microwave Office much like our 3D planar analysis 3D antennas with linear and non-linear components. This presentatio unique Pcells (Parametrised Cells) approach for components such name a few. The introduction would be followed by details of one of ln-situ antenna measurements. This unique capability allows engine amplifiers as well as feed networks with antennas in a single simulati and unique capabilities for antenna synthesis with NI AWR Design E.  Session B2. Communications	I, a full 3D FEM-based EM solver. It has been tool AXIEM, allowing engineers to couple full n will start with an introduction to Analyst, the as connectors, waveguides, chip packages to the major new enhancements in V12 release—ers to simulate driving circuits with non-linear on. We will also look at recently launched new nvironment.
15:30 - 16:40 263fu3o	The most recent addition to NI AWR software portfolio is Analyst <sup>TN</sup> integrated into Microwave Office much like our 3D planar analysis in 3D antennas with linear and non-linear components. This presentatio unique Peells (Parametrised Cells) approach for components such name a few. The introduction would be followed by details of one of In-situ antenna measurements. This unique capability allows engine amplifiers as well as feed networks with antennas in a single simulati and unique capabilities for antenna synthesis with NI AWR Design Ession B2. Communications  Peculiarities and Methods of Fractal Queues Simulation	t, a full 3D FEM-based EM solver. It has been tool AXIEM, allowing engineers to couple full mill start with an introduction to Analyst, the as connectors, waveguides, chip packages to the major new enhancements in V12 release ers to simulate driving circuits with non-linear on. We will also look at recently launched new nvironment.  V. N. Zadorozhnyi
15:30 - 16:40 263fu3o 647fu3o	The most recent addition to NI AWR software portfolio is Analyst <sup>TI</sup> integrated into Microwave Office much like our 3D planar analysis in 3D antennas with linear and non-linear components. This presentatio unique Peells (Parametrised Cells) approach for components such name a few. The introduction would be followed by details of one of In-situ antenna measurements. This unique capability allows engine amplifiers as well as feed networks with antennas in a single simulati and unique capabilities for antenna synthesis with NI AWR Design E Session B2. Communications  Peculiarities and Methods of Fractal Queues Simulation  Mobile Corporate Networks Security Control  Assessing the impact of the echo signals in single frequency	I, a full 3D FEM-based EM solver. It has been tool AXIEM, allowing engineers to couple full n will start with an introduction to Analyst, the as connectors, waveguides, chip packages to the major new enhancements in V12 release ers to simulate driving circuits with non-linear on. We will also look at recently launched new nvironment.  V. N. Zadorozhnyi  Alla G. Kravets, Mohammed Al-Ashval
15:30 - 16:40 263fu3o 647fu3o 787fu3o	The most recent addition to NI AWR software portfolio is Analyst <sup>TI</sup> integrated into Microwave Office much like our 3D planar analysis 3D antennas with linear and non-linear components. This presentatio unique Pcells (Parametrised Cells) approach for components such name a few. The introduction would be followed by details of one of In-situ antenna measurements. This unique capability allows engine amplifiers as well as feed networks with antennas in a single simulati and unique capabilities for antenna synthesis with NI AWR Design E  Session B2. Communications  Peculiarities and Methods of Fractal Queues Simulation  Mobile Corporate Networks Security Control  Assessing the impact of the echo signals in single frequency networks for digital terrestrial television broadcasting  О некоторых предварительных преобразованиях открытого текста типа «All-Or-Nothing» для усиления стойкости шифра к методу полного опробования  Автоматизированное выявление причинно-следственных отношений между событиями на основе анализа системных	d, a full 3D FEM-based EM solver. It has been tool AXIEM, allowing engineers to couple full mill start with an introduction to Analyst, the as connectors, waveguides, chip packages to the major new enhancements in V12 release – ers to simulate driving circuits with non-linear on. We will also look at recently launched new nvironment.  V. N. Zadorozhnyi  Alla G. Kravets, Mohammed Al-Ashval  Viacheslav Kapustin Alexander Popov
15:30 – 16:40 – 263fu3o – 647fu3o – 787fu3o –	The most recent addition to NI AWR software portfolio is Analyst <sup>TI</sup> integrated into Microwave Office much like our 3D planar analysis 3D antennas with linear and non-linear components. This presentatio unique Pcells (Parametrised Cells) approach for components such name a few. The introduction would be followed by details of one of In-situ antenna measurements. This unique capability allows engine amplifiers as well as feed networks with antennas in a single simulati and unique capabilities for antenna synthesis with NI AWR Design E Session B2. Communications  Peculiarities and Methods of Fractal Queues Simulation  Mobile Corporate Networks Security Control  Assessing the impact of the echo signals in single frequency networks for digital terrestrial television broadcasting  О некоторых предварительных преобразованиях открытого текста типа «All-Or-Nothing» для усиления стойкости шифра к методу полного опробования  Автоматизированное выявление причинно-следственных	s, a full 3D FEM-based EM solver. It has been tool AXIEM, allowing engineers to couple full n will start with an introduction to Analyst, the as connectors, waveguides, chip packages to the major new enhancements in V12 release—ers to simulate driving circuits with non-linear on. We will also look at recently launched new nvironment.  V. N. Zadorozhnyi  Alla G. Kravets, Mohammed Al-Ashval  Viacheslav Kapustin Alexander Popov  Варфоломеев А.А.
15:30 – 16:40 – 263fu3o – 647fu3o – 787fu3o – r565fur	The most recent addition to NI AWR software portfolio is Analyst integrated into Microwave Office much like our 3D planar analysis in 3D antennas with linear and non-linear components. This presentatio unique Pcells (Parametrised Cells) approach for components such name a few. The introduction would be followed by details of one of In-situ antenna measurements. This unique capability allows engine amplifiers as well as feed networks with antennas in a single simulati and unique capabilities for antenna synthesis with NI AWR Design E  Session B2. Communications  Peculiarities and Methods of Fractal Queues Simulation  Mobile Corporate Networks Security Control  Assessing the impact of the echo signals in single frequency networks for digital terrestrial television broadcasting  О некоторых предварительных преобразованиях открытого текста типа «All-Or-Nothing» для усиления стойкости шифра к методу полного опробования  Автоматизированное выявление причинно-следственных отношений между событиями на основе анализа системных журналов	s, a full 3D FEM-based EM solver. It has been lool AXIEM, allowing engineers to couple full n will start with an introduction to Analyst, the as connectors, waveguides, chip packages to the major new enhancements in V12 release—ers to simulate driving circuits with non-linear on. We will also look at recently launched new nvironment.  V. N. Zadorozhnyi  Alla G. Kravets, Mohammed Al-Ashval  Viacheslav Kapustin Alexander Popov  Варфоломеев А.А.

694fu5u	Forecasting Conflicts in Multi-Robot Systems Based on Intelligent Feedback	Sekou Diane, Sergey Manko, Valery Lokhin
653 fu5u	Model of "Chain of Coupled Resonators"-Type Slow-Wave Structure's Cell Based on Equivalent Systems Method	Presnyakov S.A., Kravchenko N.P., Mukhin S.V.
r549fur	Автоматизированная система контроля параметров и	А.С. Колосова, А.Р Шарипова, Г.Г.
	функционирования логических ИС	Давыдов
650fu5u	Parameters Adaptation for Target Oriented Control of the Buck	A. I. Andriyanov
	Converter	A. I. Alidityallov
783 fu5u	Algorithmic Methods to Improve the Semiconductor Converter Performance Effectiveness	Bogdan U. Vasilev, Viacheslav O. Zyrin
r469fur	Дискретная имитационная модель системы синхронизации	Муликов Дмитрий Сергеевич,
	активного выпрямителя с напряжением питающей сети	Михальченко Геннадий Яковлевич
15:30 -	Session T5. Internet of Things	
16:40	Session 13. Internet of Things	
256iv5e	Voltage to Erroguenou Conventore Board On Current Instabilities In	Alayandan I Chanaday, Androy V
2301036	Voltage-to-Frequency Converters Based On Current Instabilities In Semiconductors	Alexander I. Cheredov, Andrey V. Shchelkanov
705iv5e	Quasi-distributed resistive sensor for steady-state field	E. Denisov, N. Adiutantov, Yu.K.
	measurements	Evdokimov, A. Salakhova, G. Timergalina,
		T. Nikishin, S. Martemianov, A. Thomas,
		N. Adiutantov
714iv5e	Compact HSPICE Model of Magnetic Tunnel Junction Based on	G.D. Demin, E.E. Gusev, A.F. Popkov,
,,,,,,,,	Voltage-Driven Spin-Transfer Torque	P.A. Stepanov, N.A. Djuzhev
765iv5e	Complex for Automated Measurement and Processing of BJTs and	
7031436		Konstantin O. Petrosyants, Igor A.
	MOSFETs Characteristics for Extremal Applications	Kharitonov, Lev M. Sambursky, Mamed R.
		Ismail-zade
063iv5e	The multiport CMOS memory cell based on the DICE trigger with	Yu. V. Katunin, V. Ya. Stenina
	two spaced transistor groups for hardened 65-nm CMOS SRAM	
074iv5e	Single Event Transients in 28-nm CMOS Decoders	V. Ya. Stenin, K. E. Levin
15:30 -	Session N8	
15:30 - 18:00	Session N8 Phased Array and Radar System Analysis	
		nulator™(VSS). VSS is a unique system level
	Phased Array and Radar System Analysis  This presentation consists of a basic overview of Visual System Sin	
	Phased Array and Radar System Analysis  This presentation consists of a basic overview of Visual System Sin simulation software for radar and communication systems, new V12	2 features and various real world examples of
	Phased Array and Radar System Analysis  This presentation consists of a basic overview of Visual System Sin	2 features and various real world examples of le showing VSS' new bi-directional simulation
	Phased Array and Radar System Analysis  This presentation consists of a basic overview of Visual System Sin simulation software for radar and communication systems, new VIZ system level simulations with VSS. An illustrative transceiver examp capability will be presented. This bi-directional simulation highligh	2 features and various real world examples of le showing VSS' new bi-directional simulation ts several new enhancements in VSS V12 for
	Phased Array and Radar System Analysis  This presentation consists of a basic overview of Visual System Sin simulation software for radar and communication systems, new VII system level simulations with VSS. An illustrative transceiver examp capability will be presented. This bi-directional simulation highligh complex system simulations of radars and T/R modules. We will al	2 features and various real world examples of le showing VSS' new bi-directional simulation ts several new enhancements in VSS V12 for so learn about how a non-linear model can be
	Phased Array and Radar System Analysis  This presentation consists of a basic overview of Visual System Sin simulation software for radar and communication systems, new V12 system level simulations with VSS. An illustrative transceiver example capability will be presented. This bi-directional simulation highligh complex system simulations of radars and T/R modules. We will all created from manufacturer's datasheet for system level simulation in	2 features and various real world examples of le showing VSS' new bi-directional simulation ts several new enhancements in VSS V12 for so learn about how a non-linear model can be in VSS. This presentation will also discuss in
	Phased Array and Radar System Analysis  This presentation consists of a basic overview of Visual System Sin simulation software for radar and communication systems, new V12 system level simulations with VSS. An illustrative transceiver examp capability will be presented. This bi-directional simulation highligh complex system simulations of radars and T/R modules. We will all created from manufacturer's datasheet for system level simulation idetail, new and improved phased array system level simulation capacity.	2 features and various real world examples of le showing VSS' new bi-directional simulation ts several new enhancements in VSS V12 for so learn about how a non-linear model can be in VSS. This presentation will also discuss in apability. The new capability allows fast and
	Phased Array and Radar System Analysis  This presentation consists of a basic overview of Visual System Sin simulation software for radar and communication systems, new VIZ system level simulations with VSS. An illustrative transceiver examp capability will be presented. This bi-directional simulation highligh complex system simulations of radars and T/R modules. We will all created from manufacturer's datasheet for system level simulation detail, new and improved phased array system level simulation can accurate characterization of RF links for individual array elements.	2 features and various real world examples of le showing VSS' new bi-directional simulation ts several new enhancements in VSS V12 for so learn about how a non-linear model can be in VSS. This presentation will also discuss in upability. The new capability allows fast and nts (Gain, P1dB, temperature etc.), includes
	Phased Array and Radar System Analysis  This presentation consists of a basic overview of Visual System Sin simulation software for radar and communication systems, new VII system level simulations with VSS. An illustrative transceiver examp capability will be presented. This bi-directional simulation highligh complex system simulations of radars and T/R modules. We will al created from manufacturer's datasheet for system level simulation idetail, new and improved phased array system level simulation can accurate characterization of RF links for individual array element enhanced modelling capability for element patterns (including mutual).	2 features and various real world examples of le showing VSS' new bi-directional simulation ts several new enhancements in VSS V12 for so learn about how a non-linear model can be in VSS. This presentation will also discuss in upability. The new capability allows fast and nts (Gain, P1dB, temperature etc.), includes
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18:00 16:50 – 18:00	Phased Array and Radar System Analysis  This presentation consists of a basic overview of Visual System Sin simulation software for radar and communication systems, new VII system level simulations with VSS. An illustrative transceiver examp capability will be presented. This bi-directional simulation highligh complex system simulations of radars and T/R modules. We will all created from manufacturer's datasheet for system level simulation idetail, new and improved phased array system level simulation can accurate characterization of RF links for individual array element enhanced modelling capability for element patterns (including mutual and many other advanced features.  Session S6. Communications	2 features and various real world examples of le showing VSS' new bi-directional simulation ts several new enhancements in VSS V12 for so learn about how a non-linear model can be in VSS. This presentation will also discuss in pability. The new capability allows fast and nts (Gain, P1dB, temperature etc.), includes al coupling of elements), support for 3D arrays
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16:50 — 18:00 489fu2h	Phased Array and Radar System Analysis  This presentation consists of a basic overview of Visual System Sin simulation software for radar and communication systems, new VII system level simulations with VSS. An illustrative transceiver examp capability will be presented. This bi-directional simulation highligh complex system simulations of radars and T/R modules. We will all created from manufacturer's datasheet for system level simulation idetail, new and improved phased array system level simulation can accurate characterization of RF links for individual array element enhanced modelling capability for element patterns (including mutual and many other advanced features.  Session S6. Communications	2 features and various real world examples of le showing VSS' new bi-directional simulation ts several new enhancements in VSS V12 for so learn about how a non-linear model can be in VSS. This presentation will also discuss in pability. The new capability allows fast and nts (Gain, P1dB, temperature etc.), includes al coupling of elements), support for 3D arrays
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16:50 – 18:00 489fu2h 522fu2h	Phased Array and Radar System Analysis  This presentation consists of a basic overview of Visual System Sin simulation software for radar and communication systems, new VIZ system level simulations with VSS. An illustrative transceiver examp capability will be presented. This bi-directional simulation highligh complex system simulations of radars and T/R modules. We will all created from manufacturer's datasheet for system level simulation accurate characterization of RF links for individual array elementhanced modelling capability for element patterns (including mutual and many other advanced features.  Session S6. Communications  The Regression Model of Power Spectral Density of Phase Noise of Direct Digital Synthesizers  Full Duplex Wireless Communication System, Analog Cancellation: Review of Methods and Experimental Research  Estimation of Durability Indices of Integrated Microcircuit Communication Network	2 features and various real world examples of le showing VSS' new bi-directional simulation ts several new enhancements in VSS V12 for so learn about how a non-linear model can be in VSS. This presentation will also discuss in pability. The new capability allows fast and nts (Gain, P1dB, temperature etc.), includes all coupling of elements), support for 3D arrays  Romashov V.V., Romashova L.V., Khramov K.K.  Eugeniy V. Rogozhnikov, Alexandr S. Koldomov, Valentin A. Vorobvov  Ivanov Ilya Aleksandrovich, Polesskiy Sergey Nikolaevich, Korolev Pavel Sergeeyich, Zhadnov Valeriy Vladimirovich
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16:50 – 18:00 489fu2h 522fu2h	Phased Array and Radar System Analysis  This presentation consists of a basic overview of Visual System Sin simulation software for radar and communication systems, new VII system level simulations with VSS. An illustrative transceiver examp capability will be presented. This bi-directional simulation highligh complex system simulations of radars and T/R modules. We will all created from manufacturer's datasheet for system level simulation accurate characterization of RF links for individual array element enhanced modelling capability for element patterns (including mutual and many other advanced features.  Session S6. Communications  The Regression Model of Power Spectral Density of Phase Noise of Direct Digital Synthesizers  Full Duplex Wireless Communication System, Analog  Cancellation: Review of Methods and Experimental Research  Estimation of Durability Indices of Integrated Microcircuit  Communication Network  Interference Fiber Optic Device for RoF Antenna Radiators	2 features and various real world examples of le showing VSS' new bi-directional simulation ts several new enhancements in VSS V12 for so learn about how a non-linear model can be in VSS. This presentation will also discuss in apability. The new capability allows fast and nts (Gain, P1dB, temperature etc.), includes all coupling of elements), support for 3D arrays all coupling of elements), support for 3D arrays.  Romashov V.V., Romashova L.V., Khramov K.K.  Eugeniy V. Rogozhnikov, Alexandr S. Koldomov, Valentin A. Vorobvov Ivanov Ilya Aleksandrovich, Polesskiy Sergey Nikolaevich, Korolev Pavel Sergeevich, Zhadnov Valeriy Vladimirovich  A.Kh. Sultanov, I.L. Vinogradova, I.K. Meshkov, A.V. Andrianova, G.I. Abdrakhmanova, A.A. Ishmiyarov, L.Z.
16:50 – 18:00 – 18:00 – 489fu2h – 522fu2h – 086fu2h	Phased Array and Radar System Analysis  This presentation consists of a basic overview of Visual System Sin simulation software for radar and communication systems, new VIZ system level simulations with VSS. An illustrative transceiver examp capability will be presented. This bi-directional simulation highligh complex system simulations of radars and T/R modules. We will all created from manufacturer's datasheet for system level simulation accurate characterization of RF links for individual array element enhanced modelling capability for element patterns (including mutual and many other advanced features.  Session S6. Communications  The Regression Model of Power Spectral Density of Phase Noise of Direct Digital Synthesizers  Full Duplex Wireless Communication System, Analog Cancellation: Review of Methods and Experimental Research  Estimation of Durability Indices of Integrated Microcircuit Communication Network  Interference Fiber Optic Device for RoF Antenna Radiators Control	2 features and various real world examples of le showing VSS' new bi-directional simulation ts several new enhancements in VSS V12 for so learn about how a non-linear model can be in VSS. This presentation will also discuss in pability. The new capability allows fast and nts (Gain, P1dB, temperature etc.), includes all coupling of elements), support for 3D arrays  Romashov V.V., Romashova L.V., Khramov K.K.  Eugeniy V. Rogozhnikov, Alexandr S. Koldomov, Valentin A. Vorobvov  Ivanov Ilya Aleksandrovich, Polesskiy Sergey Nikolaevich, Korolev Pavel Sergeevich, Zhadnov Valeriy Vladimirovich  A.Kh. Sultanov, I.L. Vinogradova, I.K. Meshkov, A.V. Andrianova, G.I. Abdrakhmanova, A.A. Ishmiyarov, L.Z. Yantilina
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16:50 — 18:00  16:50 — 18:00  489fu2h  522fu2h  086fu2h  790fu2h	Phased Array and Radar System Analysis  This presentation consists of a basic overview of Visual System Sin simulation software for radar and communication systems, new VIZ system level simulations with VSS. An illustrative transceiver examp capability will be presented. This bi-directional simulation highligh complex system simulations of radars and T/R modules. We will all created from manufacturer's datasheet for system level simulation in detail, new and improved phased array system level simulation of accurate characterization of RF links for individual array element enhanced modelling capability for element patterns (including mutual and many other advanced features.  Session S6. Communications  The Regression Model of Power Spectral Density of Phase Noise of Direct Digital Synthesizers  Full Duplex Wireless Communication System, Analog Cancellation: Review of Methods and Experimental Research  Estimation of Durability Indices of Integrated Microcircuit Communication Network  Interference Fiber Optic Device for RoF Antenna Radiators Control  System of Equations for Antenna Array Beam Pattern Nulling	2 features and various real world examples of le showing VSS' new bi-directional simulation ts several new enhancements in VSS V12 for so learn about how a non-linear model can be in VSS. This presentation will also discuss in upability. The new capability allows fast and nts (Gain, P1dB, temperature etc.), includes all coupling of elements), support for 3D arrays  Romashov V.V., Romashova L.V., Khramov K.K.  Eugeniy V. Rogozhnikov, Alexandr S. Koldomov, Valentin A. Vorobvov  Ivanov Ilya Aleksandrovich, Polesskiy Sergey Nikolaevich, Korolev Pavel Sergeevich, Zhadnov Valeriy Vladimirovich  A.Kh. Sultanov, I.L. Vinogradova, I.K. Meshkov, A.V. Andrianova, G.I. Abdrakhmanova, A.A. Ishmiyarov, L.Z. Yantilina  A. A. Erokhin, Yu. P. Salomatov, V. S. Panko, M.I. Sugak
16:50 – 18:00 – 18:00 – 489fu2h – 522fu2h – 086fu2h	Phased Array and Radar System Analysis  This presentation consists of a basic overview of Visual System Sin simulation software for radar and communication systems, new VIZ system level simulations with VSS. An illustrative transceiver examp capability will be presented. This bi-directional simulation highligh complex system simulations of radars and T/R modules. We will all created from manufacturer's datasheet for system level simulation accurate characterization of RF links for individual array element enhanced modelling capability for element patterns (including mutual and many other advanced features.  Session S6. Communications  The Regression Model of Power Spectral Density of Phase Noise of Direct Digital Synthesizers  Full Duplex Wireless Communication System, Analog Cancellation: Review of Methods and Experimental Research  Estimation of Durability Indices of Integrated Microcircuit Communication Network  Interference Fiber Optic Device for RoF Antenna Radiators Control	2 features and various real world examples of le showing VSS' new bi-directional simulation ts several new enhancements in VSS V12 for so learn about how a non-linear model can be in VSS. This presentation will also discuss in upability. The new capability allows fast and nts (Gain, P1dB, temperature etc.), includes all coupling of elements), support for 3D arrays  Romashov V.V., Romashova L.V., Khramov K.K.  Eugeniy V. Rogozhnikov, Alexandr S. Koldomov, Valentin A. Vorobvov  Ivanov Ilya Aleksandrovich, Polesskiy Sergey Nikolaevich, Korolev Pavel Sergeevich, Zhadnov Valeriy Vladimirovich  A.Kh. Sultanov, I.L. Vinogradova, I.K. Meshkov, A.V. Andrianova, G.I. Abdrakhmanova, A.A. Ishmiyarov, L.Z. Yantilina  A. A. Erokhin, Yu. P. Salomatov, V. S.

793 fu2h	Meander-Line Polarizer for Omnidirectional Antenna	A. V. Stankovsky, S. V. Polenga, A. D. Nemshon, Y. A. Litinskaya, E. R. Gafarov, Yu. P. Salomatov
796fu2h	Numerical optimization of the discrete Mikaelian lens	A. M. Alexandrin, R. O. Ryazantsev, Y. P. Salomatov
797fu2h	A GNSS Quadrupole Antenna With a Spatial Polarizer for the	E. R. Gafarov, A. V. Stankovsky, Y. P.
	Suppression of Low-Angle Multipath	Salomatov
798fu2h	SIW Unequal Y-type Power Divider	O. A. Nazarov, V. S. Panko, Y. P.
		Salomatov
799fu2h	Experimental Research of the Antenna Array with Electronic and	Ye.A. Litinskaya, A.D. Nemshon, A.V.
	Combine Electronic and Mechanical Beam Steering	Stankovsky, S.V. Polenga, Y.P. Salomatov
800 fu2h	Flat-layered spherical lens antenna system in conditions of slant polarized feeder radiation	Ryazantsev R. O., Salomatov Y. P., Panko V.S., M.I. Sugak
801 fu2h	ESA uplink modeling of satellite earth systems	T. A. Zubov, V. V. Sukhotin
16:50 -	Session S7 Communications	
18:00	Session S7. Communications	
779fu2h	Temperature Controller for External Surface of Waveguide	Artem Osintsev, Alexander Sobko, Maxim
	reinpermane controller for External Surface of Waveguide	Komnatnov
749fu2h	PDCFET models for high-temperature detectors	Andrey Krasnyuk, Elen Mar`ina, Emil
	·	Imametdinov
529fu2h	Review the Space Radiation CVD Diamond Multi-layer Detector	Nedosekin P., Zakharchenko K.,
		Gladchenkov E., Kolyubin V.
213 fu2h	Qucs-0.0.19S: a new open-source circuit simulator and its application for hardware design	Mike Brinson, Vadim Kuznetsov
026fu2h	Hydroacoustic Modem for Autonomous Underwater Vehicle	Vershinin Alexander
203 fu2h	Researching of features of the Brillouin Backscattering Spectrum in Dispersion-Shifted Optical Fibers	Igor V. Bogachkov
	iii Dispersion-sinited Optical Floers	
16:50 -	Session R2. NI Technique for Measurements	
18:00	-	
774ni7n	Electronic thermometer with the data transfer by radiochannel	Shtern Yu.I.1, Kozhevnikov Ya.S.2,
		Karavaev I.S.3, Shtern M.Yu.4, Rogachev
		M.S.5
748ni8i	Measurement of Multi-phase Clarke-Transformed Waveforms	Branislav Dobrucký, Roman Koňarik, Libor
	using LabVIEW Virtual Instrumentation	Branislav Dobrucký, Roman Koňarik, Libor Hargaš, Dušan Koniar
748ni8i 271ni7n	using LabVIEW Virtual Instrumentation The Automated System For Parametric Characterization Of The	Branislav Dobrucký, Roman Koňarik, Libor Hargaš, Dušan Koniar G.G. Davydov, A.S. Kolosova, A.V.
	using LabVIEW Virtual Instrumentation	Branislav Dobrucký, Roman Koňarik, Libor Hargaš, Dušan Koniar G.G. Davydov, A.S. Kolosova, A.V. Sogoyan, A.S. Artamonov, D.V.
271ni7n	using LabVIEW Virtual Instrumentation  The Automated System For Parametric Characterization Of The Input And Output Blocks In Digital Ics	Branislav Dobrucký, Roman Koňarik, Libor Hargaš, Dušan Koniar G.G. Davydov, A.S. Kolosova, A.V. Sogoyan, A.S. Artamonov, D.V. Boychenko
	using LabVIEW Virtual Instrumentation The Automated System For Parametric Characterization Of The	Branislav Dobrucký, Roman Koňarik, Libor Hargaš, Dušan Koniar G.G. Davydov, A.S. Kolosova, A.V. Sogoyan, A.S. Artamonov, D.V.
271ni7n	using LabVIEW Virtual Instrumentation  The Automated System For Parametric Characterization Of The Input And Output Blocks In Digital Ics  Virtual Instrument for Non-Conventional Total Harmonic	Branislav Dobrucký, Roman Koňarik, Libor Hargaš, Dušan Koniar G.G. Davydov, A.S. Kolosova, A.V. Sogoyan, A.S. Artamonov, D.V. Boychenko
271ni7n 166ni7n	using LabVIEW Virtual Instrumentation  The Automated System For Parametric Characterization Of The Input And Output Blocks In Digital Ics  Virtual Instrument for Non-Conventional Total Harmonic Distortion Factors Evaluation	Branislav Dobrucký, Roman Koňarik, Libor Hargaš, Dušan Koniar G.G. Davydov, A.S. Kolosova, A.V. Sogoyan, A.S. Artamonov, D.V. Boychenko N.N. Lopatkin, Yu.A. Chernov
271ni7n 166ni7n	using LabVIEW Virtual Instrumentation The Automated System For Parametric Characterization Of The Input And Output Blocks In Digital Ies  Virtual Instrument for Non-Conventional Total Harmonic Distortion Factors Evaluation Control and Test Bench of Goniometric Satellite Navigation	Branislav Dobrucký, Roman Koňarik, Libor Hargaš, Dušan Koniar G.G. Davydov, A.S. Kolosova, A.V. Sogoyan, A.S. Artamonov, D.V. Boychenko N.N. Lopatkin, Yu.A. Chernov
271ni7n 166ni7n 293ni7n	using LabVIEW Virtual Instrumentation  The Automated System For Parametric Characterization Of The Input And Output Blocks In Digital Ics  Virtual Instrument for Non-Conventional Total Harmonic Distortion Factors Evaluation  Control and Test Bench of Goniometric Satellite Navigation Receiver	Branislav Dobrucký, Roman Koňarik, Libor Hargaš, Dušan Koniar G.G. Davydov, A.S. Kolosova, A.V. Sogoyan, A.S. Artamonov, D.V. Boychenko N.N. Lopatkin, Yu.A. Chernov Sushkin I. N., Thudonogov D. Yu
271ni7n 166ni7n 293ni7n	using LabVIEW Virtual Instrumentation The Automated System For Parametric Characterization Of The Input And Output Blocks In Digital Ics Virtual Instrument for Non-Conventional Total Harmonic Distortion Factors Evaluation Control and Test Bench of Goniometric Satellite Navigation Receiver Hardware and Software Equipment for the Complex Investigation	Branislav Dobrucký, Roman Koňarik, Libor Hargaš, Dušan Koniar G.G. Davydov, A.S. Kolosova, A.V. Sogoyan, A.S. Artamonov, D.V. Boychenko N.N. Lopatkin, Yu.A. Chernov Sushkin I. N., Thudonogov D. Yu Shtern M.Yu., Gureev A.V., Karavaev I.S.,
271ni7n 166ni7n 293ni7n 332ni7n	using LabVIEW Virtual Instrumentation  The Automated System For Parametric Characterization Of The Input And Output Blocks In Digital Ics  Virtual Instrument for Non-Conventional Total Harmonic Distortion Factors Evaluation  Control and Test Bench of Goniometric Satellite Navigation Receiver  Hardware and Software Equipment for the Complex Investigation of the Wireless Smart Transducers	Branislav Dobrucký, Roman Koňarik, Libor Hargaš, Dušan Koniar G.G. Davydov, A.S. Kolosova, A.V. Sogoyan, A.S. Artamonov, D.V. Boychenko N.N. Lopatkin, Yu.A. Chernov Sushkin I. N., Thudonogov D. Yu Shtern M.Yu., Gureev A.V., Karavaev I.S., Shtern Yu.I., Rykov V.M., Rogachev M.S.
271ni7n 166ni7n 293ni7n 332ni7n	using LabVIEW Virtual Instrumentation The Automated System For Parametric Characterization Of The Input And Output Blocks In Digital Ics Virtual Instrument for Non-Conventional Total Harmonic Distortion Factors Evaluation Control and Test Bench of Goniometric Satellite Navigation Receiver Hardware and Software Equipment for the Complex Investigation of the Wireless Smart Transducers Hardware/software solution for optocouplers with output MOSFET transistors based on National Instruments PXI-platform	Branislav Dobrucký, Roman Koňarik, Libor Hargaš, Dušan Koniar G.G. Davydov, A.S. Kolosova, A.V. Sogoyan, A.S. Artamonov, D.V. Boychenko N.N. Lopatkin, Yu.A. Chernov  Sushkin I. N., Thudonogov D. Yu  Shtern M.Yu., Gureev A.V., Karavaev I.S., Shtern Yu.I., Rykov V.M., Rogachev M.S. Ekaterina V. Petrova, Natalia A. Komarova, Maksim E. Cherniak, Anastasia V. Ulanova, Alexander Y. Nikiforov
271ni7n 166ni7n 293ni7n 332ni7n 474ni7n	using LabVIEW Virtual Instrumentation The Automated System For Parametric Characterization Of The Input And Output Blocks In Digital Ics  Virtual Instrument for Non-Conventional Total Harmonic Distortion Factors Evaluation Control and Test Bench of Goniometric Satellite Navigation Receiver Hardware and Software Equipment for the Complex Investigation of the Wireless Smart Transducers Hardware/software solution for optocouplers with output MOSFET	Branislav Dobrucký, Roman Koňarik, Libor Hargaš, Dušan Koniar G.G. Davydov, A.S. Kolosova, A.V. Sogoyan, A.S. Artamonov, D.V. Boychenko N.N. Lopatkin, Yu.A. Chernov Sushkin I. N., Thudonogov D. Yu Shtern M.Yu., Gureev A.V., Karavaev I.S., Shtern Yu.I., Rykov V.M., Rogachev M.S. Ekaterina V. Petrova, Natalia A. Komarova, Maksim E. Cherniak, Anastasia V. Ulanova, Alexander Y. Nikiforov Ivanov V.A., Ivanov D.V., Ryabova N.V., Ryabova M.I., Chernov A.A., Ovchinnikov
271ni7n 166ni7n 293ni7n 332ni7n 474ni7n	using LabVIEW Virtual Instrumentation  The Automated System For Parametric Characterization Of The Input And Output Blocks In Digital Ics  Virtual Instrument for Non-Conventional Total Harmonic Distortion Factors Evaluation  Control and Test Bench of Goniometric Satellite Navigation Receiver  Hardware and Software Equipment for the Complex Investigation of the Wireless Smart Transducers  Hardware/software solution for optocouplers with output MOSFET transistors based on National Instruments PXI-platform  Developing methods and software for research the effects of phase dispersion depending of the state of ionospher based on LabVIEW	Branislav Dobrucký, Roman Koňarik, Libor Hargaš, Dušan Koniar G.G. Davydov, A.S. Kolosova, A.V. Sogoyan, A.S. Artamonov, D.V. Boychenko N.N. Lopatkin, Yu.A. Chernov  Sushkin I. N., Thudonogov D. Yu  Shtern M.Yu., Gureev A.V., Karavaev I.S., Shtern Yu.I., Rykov V.M., Rogachev M.S. Ekaterina V. Petrova, Natalia A. Komarova, Maksim E. Cherniak, Anastasia V. Ulanova, Alexander Y. Nikiforov Ivanov V.A., Ivanov D.V., Ryabova N.V., Ryabova M.I., Chernov A.A., Ovchinnikov V.V.
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271ni7n  166ni7n  293ni7n  332ni7n  474ni7n  533ni7n	using LabVIEW Virtual Instrumentation The Automated System For Parametric Characterization Of The Input And Output Blocks In Digital Ics Virtual Instrument for Non-Conventional Total Harmonic Distortion Factors Evaluation Control and Test Bench of Goniometric Satellite Navigation Receiver Hardware and Software Equipment for the Complex Investigation of the Wireless Smart Transducers Hardware/software solution for optocouplers with output MOSFET transistors based on National Instruments PXI-platform Developing methods and software for research the effects of phase dispersion depending of the state of ionospher based on LabVIEW Automated Test Setup for Functional and Parametrical Control of	Branislav Dobrucký, Roman Koňarik, Libor Hargaš, Dušan Koniar G.G. Davydov, A.S. Kolosova, A.V. Sogoyan, A.S. Artamonov, D.V. Boychenko N.N. Lopatkin, Yu.A. Chernov  Sushkin I. N., Thudonogov D. Yu  Shtern M.Yu., Gureev A.V., Karavaev I.S., Shtern Yu.I., Rykov V.M., Rogachev M.S. Ekaterina V. Petrova, Natalia A. Komarova, Maksim E. Cherniak, Anastasia V. Ulanova, Alexander Y. Nikiforov Ivanov V.A., Ivanov D.V., Ryabova N.V., Ryabova M.I., Chernov A.A., Ovchinnikov V.V.

#### Conference venue

All conference sessions Sibcon-2016 will be held in the building of HSE Moscow Institute of Electronics and Mathematics (MIEM HSE) at:

Moscow, 34 Tallinskaya Str



#### How to get there?

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