

CONFERENCE PROGRAM

Thursday, August 25		
08.00-10.30	Registration, Accommodation	Central Hall
	Distribution of the conference materials	
10.30-10.45	Opening Session	
10.45-14.05	Plenary Session	
14.15	Photo Remember ATOM-N 2016	
14.30-15.30	Lunch	
16.00-18.40	Oral Session 1: Advanced materials and new technologies	Room A
	Oral Session 4: Plasma methods and diagnostic used for surface treatments	
17.20-18.40		
16.00-18.40	Oral Session 2 : Sensors, microsystems, and instruments	Room B
19.00	Welcome cocktail	
Friday, August 26		
08.20-08.40	<u>Agilrom Scientific Presentation</u>	
08.40-12.40	Oral Session 3.1: Modeling, design, and simulation	A
08.40-10.20	M Oral Session 5: Medical Optoelectronics	B
10.40-12.40	Oral Session 3.1: Modeling, design, and simulation	A
	Oral Session 3.2: Modeling, design, and simulation	B
12.50-13.40	Oral Session 6: Micro/nanophotonics and micro/nanotechnologies	A
	Oral Session 7 Diffractive, micro optics, and optical signal processing	B
14.00-15.00	Lunch	
15.00 -19.00	Posters Session 1	
19.00	Dinner	
Saturday, August 27		
09.00 - 13.00	Posters Session 2	
13.00-14.00	Lunch	
14.00-16.00	Posters Session 3	
16.30-19.30	Cultural Program	
19.30	Conference Dinner Paper Awards	
Sunday, August 28		
09.30 - 11.00	Round Table	
11.30	Closing Session	

THURSDAY,25 AUGUST 25 2016

08.00-14.30

08.00-10.30 - Registration, Distribution of the conference materials

10.30-10.45- Opening Session

10.45-14.15- Plenary Session

Chairs: **Cornel Panait, Marian Vladescu, Razvan Tamas**

10.45-Paper No.: OMN100-136

Quantitative phase imaging for basic and clinical biomedical applications (invited), *Gabriel Popescu,*

11.10-Paper No.: OMN100-42

Interferometric correlator for acoustic radiation and underlying structural vibration (invited), *Adela Apostol*

11.45-Paper No.: OMN100-67

Plasma and particles (invited), *Petr Spatenka*

12.10-Paper No.: OMN100-158,

Electromagnetic & Acoustic Bimodality for the Detection and Localization of Electrical Arc Faults (invited), *Cornel Ioana*

12.35- Paper No.: OMN100-85

The use of 2D Hilbert transform for phase retrieval of speckle fields, (invited), *Claudia Y Zenkova*

12.55- Paper No.: OMN100-161

On Wafer High Temperature Characterization System, (invited), *Laurentiu Teodorescu*

13.20- Paper No.: OMN100-31

Study regarding the spline interpolation accuracy of the experimentally acquired data (invited), *Emil M. Oanta*

13.45 -Paper No.: OMN100-155

Enhanced automated platform for 2D characterization of RFID communications (invited), *Dan Tudor Vuza*

14.15 Photo Remember ATOM-N 2016

14.30 Lunch

THURSDAY, 25 AUGUST 2016

Session	Oral Session 1 Advanced materials and new technologies	Session	Oral Session 2 Sensors, microsystems, and instruments
Chairs	Dorin Dadarlat, Aurica Farcas	Chairs	Octavian Fratu, Cristian Viespe
16.00-16.20	Paper No.: OMN100-9, Optothermal characterization of liquid thermoelectrics , <i>Dorin Dadarlat, National R&D Institute for Isotopic and Molecular Technologies, Cluj, Romania</i>	16.00-16.20	Paper No.: <i>OMN100-5</i> , Surface Acoustic Wave Sensors based on Laser Deposited Nanostructure Thin Films , <i>Cristian Viespe, National Institute of Laser, Plasma and Radiation, Romania</i>
16.20-16.40	Paper No.: OMN100-18, Terpolymer polyrotaxanes: a promising supramolecular system as electron-transporting materials for optoelectronics , <i>Aurica Farcas "Petru Poni" Institute of Macromolecular Chemistry, Iasi, Romania</i>	16.20-16.40	Paper No.: OMN100-41, Design of multi-band microstrip polygonal contour filter for microwaves , <i>Octavian Fratu, Politehnica University of Bucharest, Romania</i>
16.40-17.00	Paper No.: OMN100-21, Synthesis and photophysics of conjugated azomethine polyrotaxanes , <i>Ana-Maria Resmerita, "Petru Poni" Institute of Macromolecular Chemistry, Iasi,</i>	16.40-17.00	Paper No.: OMN100-82, Persistent scatterers detection on synthetic aperture radar images acquired by Sentinel-1 satellite , <i>Cosmin Danisor, Politehnica University of Bucharest, Romania</i>
17.00-17.20	Paper No.: OMN100-45, Synthesis of reduced graphene oxide/poly(aniline-N-propanesulfonic) acid composites and their applications for electrochemical supercapacitors , <i>Ana-Maria Solonaru, "Petru Poni" Iasi</i>	17.00-17.20	Paper No.: OMN100-91, Sensors system design for discrimination between humans and animals , <i>Octavian Fratu, Politehnica University of Bucharest, Romania</i>
Session	Oral Session 4 Plasma methods and diagnostic used for surface treatments	Session	Oral Session 2 Sensors, microsystems, and instruments
Chairs	Bogdan E Hnatiuc, Petr Spatenka	Chairs	Paul Schiopu, Adrian Tulbure
17.20-17.40	Paper No.: OMN100-47, Biofouling development on plasma treated samples versus layers coated samples <i>Mr. Bogdan E Hnatiuc, Constanta Maritime University</i>	17.20-17.40	Paper No.: OMN100-101, Cyber Physical Systems based on Cloud Computing and Internet of Things for energy efficiency , <i>Octavian Fratu, Politehnica University of Bucharest, Romania</i>
17.40-18.00	Paper No.: OMN100-99, Evolution of the construction and performances in accordance to the applications of non-thermal plasma reactors , <i>Bogdan E Hnatiuc Constanta</i>	17.40-18.00	<i>Paper No.: OMN100-126</i> , Metal nanoparticles (other than gold or silver) prepared using plant extracts for medical applications , <i>Racz Levente Zsolt, Babes-Bolyai University, Cluj, Romania</i>
18.00-18.20	Paper No.: OMN100-106, Effects of GlidArc plasma treatment on metallic surface , <i>Eugen Hnatiuc, "Gheorghe Asachi" Technical University of Iasi</i>	18.00-18.20	Paper No.: OMN100-135, Data Mining Methods for Parameters Forecasting of a Small Solar Plant , <i>Adrian Tulbure, "1 Decembrie 1918" University</i>
18.20-18.40	Paper No.: OMN10010-164 Long thermal interactions of PAW with normal tooth structure and different dental biomaterials , <i>Eugen Hnatiuc "Gheorghe Asachi" Iasi</i>	18.20-18.40	<i>Paper No.: OMN100-146</i> , Electrical and optical evaluations aspects of public lighting systems , <i>Adrian Tulbure, "1 Decembrie 1918" University of Alba Iulia</i>

19.00 Welcome cocktail

FRIDAY, 26 AUGUST 2016

08.20-08.40 Agilrom Scientific Presentation, Alin Mogos

Session	Oral Session 3.1 Modeling, design, and simulation	Session	Oral Session 5. Medical Optoelectronics
Chairs	Nicolae Enaki, Alin M Danisor	Chairs	Eugen Scarlat, Mihaela Moisescu
08.40-09.00	Paper No.: OMN100-57, The analysis of MAI in Large scale MIMO-CDMA system , Madalina Berceanu, Politehnica University of Bucharest,	08.40-09.00	Paper No.: OMN100-93, Optical properties of sclerosing foams in view of their use in sclerotherapy , Viorel Nastasa, National Institute of Laser, Plasma and Radiation, Romania
09.00-09.20	Paper No.: OMN100-58, Noise analysis in power distribution systems , Alin M. Danisor, Constanta Maritime University	09.00-09.20	Paper No.: OMN100-116, Holographic phase imaging as a tool for characterization of cells exposed to electric fields , Mihaela Moisescu, Carol Davila University of Medicine and Pharmacy, Bucharest
09.20-09.40	Paper No.: OMN100-60, Time-frequency analysis of transient signals in power distribution systems Alin M. Danisor, Constanta Maritime University	09.20-09.40	Paper No.: OMN100-61, Digital holographic microscopy for quantitative characterization of cervical cells. Eugen Scarlat, Politehnica University of Bucharest
09.40-10.00	Paper No.: OMN100-26, Cooperative Entangled Effects Between the Cavity Mode Components of Raman Process , Nicolae Enaki, Academy of Sciences of Moldova	09.40-10.00	Paper No.: OMN100-112, Laser exposed medicine impregnated target surfaces subjected to simulated hypergravity condition, in view of space medicine applications , Agota Simon, National Institute for Laser, Plasma and Radiation Physics, Romania
10.00-10.20	Paper No.: OMN100-128, Study of improving artificial lighting in industrial environments , Gheorghe Marc, "1 Decembrie 1918" University of Alba Iulia, Romania	10.00-10.20	Paper No.: OMN100-129, Method for the determination of cobalt from biological products with graphite furnace atomic absorption spectrometer , Ionica Mihai, Center for Military Medical Scientific Research
	cofee		cofee
	Oral Session 3.1 Modeling, design, and simulation (continued)		Oral Session 3.2 Modeling, design, and simulation
Chairs	Emil M Oanta, Gheorghe Marc	Chairs	Octaviana Daciu- Viorel Manea
10.40-11.00	Paper No.: OMN100-68, Quality engineering tools focused on high power LED driver design using boost power stages in switch mode , Gheorghe Marc, "1 Decembrie 1918" University of Alba Iulia	10.40-11.00	Paper No.: OMN100-64, Destructive effects induced by the electron beam in Scanning Electron Microscopy Marian C Popescu, National Institute for R&D in Microtechnologies
11.00-11.20	Paper No.: OMN100-130, Developing smart lighting LED-based device by using light parameterization and control method , Gheorghe Marc, University of Alba Iulia	11.00-11.20	Paper No.: OMN100-59, High performance genetic algorithm for VLSI circuit partitioning , Simona Dinu, Constanta Maritime University

11.40-12.00	Paper No.: OMN100-97 , Modeling of the thermal comfort in vehicles using COMSOL , <i>Camelia Gavrilă Technical University of Civil Engineering</i>	11.40-12.00	Paper No.: OMN100-120, Avoiding the parametric roll <i>Nicoleta Acomi, Constanta Maritime University</i>
12.00-12.20	Paper No.: OMN100-34, Original analytic solution of a half-bridge modelled as a statically indeterminate system , <i>Emil M Oanta, Constanta Maritime University</i>	12.00-12.20	Paper No.: OMN100-160, Streamlining the functioning of the FSO systems by choosing the optimal transmission/reception components , <i>Viorel Manea, National Communications Studies and Research Institute</i> ,
12.20-12.40	Paper No.: OMN100-37, Original analytical model of the hydrodynamic loads applied on the half-bridge of a circular settling tank , <i>Emil M Oanta, Constanta Maritime University</i>	12.20-12.40	Paper No.: OMN100-145 , Steganographic embedding of a secret message in a video flow , <i>Octaviana Datcu, Politehnica University of Bucharest</i>
Session	Oral Session 6 Micro/ nanophotonics and micro/nanotechnologies	Session	Oral Session 7 Diffractive, micro optics, and optical signal processing
Chairs	Rodica Mariana Ion, Roxana-Mariana Beiu	Chairs	Mihail Iovu, Mihai Ionica
12.50-13.10	Paper No.: OMN100-103 Nanomaterials and preservation mechanisms of architecture monuments , <i>Rodica Mariana Ion, Valahia University, Targoviste</i>	12.50-13.10	Paper No.: OMN100-48, Influence of the Coordination Number Z on the Micro-Raman Spectra of Ternary Chalcogenide Glasses , <i>Mihail Iovu, Academy of Sciences of Moldova</i>
13.10-13.30	Paper No.: OMN100-142, Analysis of Curved Shape Micro-mirrors For On-Chip Communication , <i>Roxana-Mariana Beiu, "Aurel Vlaicu" University, Arad</i>	13.10-13.30	Paper No.: OMN100-122, Ionization pattern obtained in electrospray ionization or atmospheric pressure chemical ionization interfaces, for authorized antidepressants in Romania , <i>Mihai Ionica Center for Military Medical Scientific Research</i>
13.30-13.50	Paper No.: OMN100-104, Doppler effect in opposite propagating modes of cavity , <i>Sergiu Bazgan Institute of Applied Physics, Academy of Sciences of Moldova</i>	13.30-13.50	Paper No.: OMN100-32, Original data pre-processor for Femap/Nastran , <i>Emil M Oanta, Constanta Maritime University</i>

14.00-15.00 Lunch

15.00 -19.00 Posters Session 1

19.00 Dinner

FRIDAY, 26 AUGUST 2016

15.00-19.00
POSTER SESSION 1

Chairs : Mihail Iovu, Victor Damian

PS1-1. Ion-beam Synthesis of Zinc-based Nanoparticles in SiO₂, Paper No.: OMN100-70

PS1-2. AC electric properties of nanocomposite (FeCoZr)_{0.818}(CaF₂)_{0.182} annealed in the tubular furnace, Paper No.: OMN100-71

PS1-3. Optical registration of transformer oil absorption processes in electrical pressboard nano-capillaries, Paper No.: OMN100-72

PS1-4. Impedance of (CoFeZr)_{0.559}(PbZrTiO₃)_{0.441} nanocomposite annealed in a tubular furnace, Paper No.: OMN100-73

PS1-5. The influence of strong electric fields on the DC conductivity of the composite cellulose, insulating oil and water nanoparticles, Paper No.: OMN100-74

PS1-6. Structural features of the multilayer nitride coatings formation, Paper No.: OMN100-81

PS1-7. Mechanical action of the transverse spin flows in evanescent fields,
Paper No.: OMN100-95

PS1-8. Features of the formation of structure and properties of transition metals boridoneitrides composite films, Paper No.: OMN100-77

PS1-9. Structural analysis of multilayer metal nitride films CrN/MoN using electron backscatter diffraction (EBSD)
Paper No.: OMN100-80

PS1-10. Methods and means of Fourier-Stokes polarimetry and the spatial frequency filtering of phase anisotropy manifestations,
Paper No.: OMN100-15

PS1-11. Methods and means of Stokes-polarimetry microscopy of optically anisotropic biological layers, Paper No.: OMN100-16

Chairs : Claudia Zenkova, Catalin Logofatu,

PS1-12. Methods and means of Fourier-Stokes polarimetry and the spatial-frequency filtering of phase anisotropy manifestations in endometriosis diagnostics
Paper No.: OMN100-50

PS1-13. Photoconductivity of amorphous GexAsxSe1-2x and (As4S3Se3)_{1-x}Snx thin films
Paper No.: OMN100-23

PS1-14. Technology and optical characterization of luminophore coordination compound Eu(o-MBA)3Phen and nanocomposite Eu(o-MBA)3Phen/PEPC, Paper No.: OMN100-40

PS1-15. Bistability properties magnetic micro-nanowires, Paper No.: OMN100-94

PS1-16. Simulation of nonlinear electron dynamics in tetramer metal-carbon nanoclusters

- Paper No.: OMN100-53
- PS1-17. Absorption and emission spectra of Ga_{1.7}Ge_{2.5}As_{8.3}S₆₅ glasses doped with rare-earth ions, Paper No.: OMN100-56
- PS1-18. Energy transfer of non-equidistant radiators via the nonlinear excitation mechanism inside of an optical cavity, Paper No.: OMN100-84
- PS2-19. Preparation of the cast glass-coated amorphous magnetic microwires, Paper No.: OMN100-117
- PS1-20. Smart Communication with LabView, Paper No.: OMN100-38
- PS1-21. Synthesis and characterization of novel main chain bisazobenzene polyphosphonates Paper No.: OMN100-108

Chairs : Ana-Maria Solonaru, Aurica Farcas

- PS1-22. New complexes of silver (I) with N-hydroxy-succinimide, Paper No.: OMN100-121
- PS1-23. Analysis and simulation of industrial distillation processes using a graphical system design model, Paper No.: OMN100-138
- PS1-24. 3D THz hyperspectrum applied in security check-in, Paper No.: OMN100-78
- PS1-25. Terahertz spectroscopic investigations of hazardous substances, Paper OMN100-83
- PS1-26. Assessment of illumination conditions in a single-pixel imaging configuration, Paper No.: OMN100-89
- PS1-27. Novel methodology for precise anisotropy magnetoresistance measurements in perpendicular geometry, Paper No.: OMN100-24
- PS1-28. Technological studies for plasmonic metasurfaces, Paper No.: OMN100-88
- PS1-29. 3D simulation for solitons used in optical fibers, Paper No.: OMN100-20
- PS1-30. Comparative studies on dimming capabilities of retrofit LED lamps, Paper No.: OMN100-149
- PS1-31. Low energy switching driver for printed electrochromic displays, Paper No.: OMN100-148

SATURDAY, 27 AUGUST 2016

09.00-13.00

POSTER SESSION 2

Chairs: Paul Schiopu, Dorin Dadarlat

PS2-1. Investigations upon the effects of an auxiliary brake system on the working parameters of diesel engines

Paper No.: OMN100-115

PS2-2. Experimental investigation of micro heat pipe with extra fluid,

Paper No.: OMN100-30,

PS2-3. Influence of spray nozzle shape upon atomization process,

Paper No.: OMN100-43

PS2-4. Studies concerning the effect of large droplets creation during fuel atomization

Paper No.: OMN100-36

PS2-5. A new mechatronic set-up and technique for investigation of firearms,

Paper No.: OMN100-143

PS2-6. Optical investigation of electromagnetic fuel atomizers

Paper No.: OMN100-113

PS2-7. Convection's enhancement in thermal micro pipes using extra fluid and shape memory material,

Paper No.: OMN100-28

PS2-8. Measurement strategy and analytic model to determine firing pin force

Paper No.: OMN100-154

PS2-9. Supercharging an internal combustion engine by aid of a dual-rotor bi-flux axial compressor,

Paper No.: OMN100-63

PS2-10. Influence of the cooling degree upon performances of internal combustion engines

Paper No.: OMN100-65

PS2-11. Heat transfer at the sintered layer - polysynthetic material interface inside heat micro pipes,

Paper No.: OMN100-49

PS2-12. Heat transfer within a flat micro heat pipe with extra liquid

Paper No.: OMN100-52

Chairs: Ion Ileana, Adrian Tulbure

PS2-13. Virtual automatic management system for monitoring the pressurized equipments

Paper No.: OMN100-140

PS2-14. Development and testing of an audio forensic software for enhancing speech signals masked by loud music

Paper No.: OMN100-119

PS1-15. Optical measurements for excitation of CdTe Quantum Dots

Paper No.: OMN100-14

PS2-16. Studying the thermal regime of power leds by using the embedded protection diode

Paper No.: OMN100-62

- PS2-17. Research and investigation of a communication chain on optical fiber with a Fabry-Perot power diode
for the automotive industry
Paper No.: OMN100-124
- PS2-18. The influence of vibrations on time reference signals generated using quartz crystals
Paper No.: OMN100-141
- PS2-19. Analysis of power supply circuits for electroluminescent panels
Paper No.: OMN100-147
- PS2-20. Embedded systems for controlling LED matrix displays
Paper No.: OMN100-152
- PS2-21. A new approach in the development of quality management systems for (micro)electronics
Paper No.: OMN100-144
- PS2-22. E-learning platform for automated testing of electronic circuits using signature analysis method
Paper No.: OMN100-153
- PS2-23. Investigation of electromagnetic couplings between planar open-loop triangular-shaped resonators in microstrip and in multilayer technologies,
Paper No.: OMN100-102

Chairs : Florin Garoi, Andrei Drumea

- PS2-24. Quantitative phase imaging of neuronal networks with programmable illumination,
Paper No.: OMN100-86
- PS2-25. Mathematical modeling and simulation of a thermal system
Paper No.: OMN100-100
- PS2-26. On the performance of Variable Forgetting Factor Recursive Least-Squares algorithms
Paper No.: OMN100-25
- PS2-27. Comparative shear tests of some low temperature lead-free solder pastes,
Paper No.: OMN100-150
- PS2-28. Temperature Measurements of High Power LEDs
Paper No.: OMN100-131
- PS2-29. Real-time digital holographic interferometry set-up for phase gradient study in dynamic phase objects
Paper No.: OMN100-137
- PS2-30. Study on determining the photometric parameters for a white LED ,
Paper No.: OMN100-127
- PS2-31. Maintenance-free, super-capacitor based WSN power supply
Paper No.: OMN100-156
- PS2-32. Optoelectronic method for determining platinum in biological products
Paper No.: 100-162
- PS2-33. Piezoelectric devices for generating low power
Paper No.: OMN100-.163

SATURDAY, 27 AUGUST 2016

14.00-16.00
POSTER SESSION 3

Chairs : Razvan Tamas, Liviu Stan

- PS3-1.Considerations about optimization the flow into a blending tank
Paper No.: OMN100-27
- PS3-2.Management system to a photovoltaic panel based on the measurement of short-circuit currents,
Paper No.:OMN100-110
- PS3-3.PLM in the context of the maritime virtual education
Paper No.: OMN100-111
- PS3-4.Storing wind energy into electrical accumulators
Paper No.: OMN100-114
- PS3-5.Environments for online maritime simulators with cloud computing capabilities
Paper No.: OMN100-118
- PS3-6.Natural ways to improve the power factor
Paper No.: OMN100-132
- PS3-7.Using frequency converter for commanding and controlling for the rotational speed of an AC motor which acting a motor –propeller group,
Paper No.: OMN100-133
- PS3-8.Development of Tools and Techniques for Monitoring Underwater Artifacts
Paper No.: OMN100-39
- PS3-9.New approach for processing data provided by an INS onboard a vehicle
Paper No.: OMN100-69
- PS3-10.Microelectronics and nanotechnology, and the fractal-like structure of information, knowledge and science
Paper No.: OMN100-6
- PS3-11.Processing in (linear) systems with stochastic input
Paper No.: OMN100-8

Chairs: Emil Oanta, Mihaela Hnatiuc

- PS3-12.Computer fluid dynamics (CFD) study of a micro annular gear pump
Paper No.: OMN100-10
- PS3-13.COMPUTER fluid dynamics (CFD) study of a plate heat exchanger working with nanofluids,
Paper No.: OMN100-11
- PS3-14.Harmonic distortions measured on board of a maritime vessel
Paper No.: OMN100-157
- PS3-15.Propagation models for non line-of-sight scenarios
Paper No.: OMN100-17
- PS3-16.Antenna Gain Measurements in the Intermediate-Field Zone,
Paper No.: OMN100-75
- PS3-17.Autonomous robotic platforms for locating radio sources buried under rubble,
Paper No.: OMN100-76

PS3-18.A synthesis approach for antennas with a quasi-linear gain variation over a wide frequency range

Paper No.: OMN100-90

PS3-19.A RF time domain approach for electric arcs detection and localization systems

Paper No.: OMN100-96

PS3-20. Experimental researches of marine wave parameters in the Black Sea Basin

Paper No.: OMN100-55

PS3-21.Long thermal interactions of PAW with normal tooth structure and different dental biomaterials

Paper No.: OMN10010-164

PS3-22. Parameter extraction of an organic solar cell using asymptotic estimation and Lambert W function

Paper No.: OMN10010-165

PS3-23.Universal system for the automation of test setups

Paper No.: OMN100-66 Buturuga

Treatment by gliding arc of epoxy resin: Preliminary analysis of surface changes

F.Faubert, M.Wartel, N.Pellerin, S.Pellerin, V.Cochett E.Regnier and B.Hnatiuc

Session 7. Plasma methods and diagnostic used for surface treatments (special section)

Silver and gold nanoparticles in glassy matrices for plasmonic applications

N. Pellerin, A. Bachar, J-P. Blondeau, C. Genevois, A.Gorczyca, K. Dzierzega and S. Pellerin

Session 4. Micro/ nanophotonics and micro/ nanotechnologies