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**17th Conference on Optical Fibers and Their Applications
Białystok – Supraśl 23.01-27.01.2017**

Conference programme

23.01.2017 – Monday	
Time	Author – Title
15:00 - 20:00	Registration / Coffee
19:00 - 20:00	<i>Welcome/Supper</i>
21:00	Committee meeting

24.01.2017 – Tuesday	
Time	Title - Author
8:00 – 9:00	<i>Breakfast/Registration</i>
9:15	Opening Ceremony – prof. Ryszard Romaniuk and prof. Jan Dorosz
	<u>Plenary Session – Optical Fibers and Their Applications</u>
9:30	Fiber-Optic Microcomponents - Technology and Measurements M. Kujawińska ¹⁾ , Leszek R. Jaroszewicz ²⁾ ¹⁾ <i>Warsaw University of Technology</i> ²⁾ <i>Military University of Technology, Poland</i>
10:00	Rotational Seismology - Measurement Possibilities based on Fiber-Optic Rotational Seismometer Leszek R. Jaroszewicz <i>Military University of Technology, Poland</i>
10:30	<i>Coffee break</i>
	Session II – Photonics Crystals Fibers
11:00	Structural health monitoring in composite with chirped fiber Bragg grating written in highly birefringent polarization-maintaining fiber (Invited talk) Tomasz Woliński <i>Warsaw University of Technology</i>
11:20	Periodic waveguiding structures in liquid crystalline materials (Invited talk) Katarzyna Rutkowska <i>Warsaw University of Technology</i>
11:40	All-in-fiber tunable waveplates, polarizers, depolarizers and polarization controllers Sławomir Ertman <i>Warsaw University of Technology, Poland</i>
11:55	Thermo- and electro-optical properties of photonic liquid crystal fibers doped with metallic nanoparticles Agata Siarkowska <i>Warsaw University of Technology, Poland</i>
12:30-14:00	<i>Lunch</i>
	Session III – Special Optical Fibers – part I Ryszard Buczynski
14:15	Single-ring hollow-core fibers: straight, bent and twisted (Invited talk) Michael Frosz <i>Max Planck Institute for the Science of Light, Germany</i>
14:50	Ghost Imaging in Time (Invited talk) Piotr Ryczkowski <i>Tampere University of Technology, Finland</i>
15:20	Ceramic-nanoparticles-doped active fibers for fiber lasers (Invited talk) Jan Mrazek <i>Institute of Photonics and Electronics, v.v.i., Czech Republic</i>
15:40	<i>coffee break</i>
	Session IV – Special Optical Fibers – part II
16:00	Silica microstructured fibers for supercontinuum generation (Invited talk) Karol Tarnowski <i>Wroclaw University of Science and Technology, Poland</i>
16:20	Optical fibers with an open side channel Rafał Kasztelaniec <i>Institute of Electronic Materials Technology, Poland</i>
16:35	Nanostructured graded-index core chalcogenide fiber with all-normal dispersion Bartłomiej Siwicki <i>Institute of Electronic Materials Technology, Poland</i>
17:50	Optical Fiber Business in Oplatek Jyrki Huttunen <i>Oplatek Group Oy, Finland</i>
18:15 - 19:15	Poster session 1
20:00 – 23:00	<i>Sleigh ride/fireplace/folk event</i>

25.01.2017 – Wednesday	
Time	Title – Author

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8:00 – 9:00	<i>Breakfast</i>
	Session V – Optical Fibers in Telecommunication – part I
9:15	Tunable Broadband Integrated Circuits for Adaptive Optical Interconnects (<i>Invited talk</i>) Ronny Henker <i>Technische Universität Dresden, Germany</i>
9:35	High speed 850 nm single mode and multi mode VCSEL transmission over multimode fiber (<i>Invited talk</i>) Jarosław Piotr Turkiewicz <i>Warsaw University of Technology, Poland</i>
9:50	Modelling and Characterization of Optical TSVs Zait Al-Husseini <i>Technische Universität Dresden, Germany</i>
10:05	Electro-optical integration for VCSEL-based board-level optical chip-to-chip communication Krzysztof Niewięglowski <i>Technische Universität Dresden, Germany</i>
10:20	Packaging of ultra-high speed optical fibre data interconnects Martin Zoldak <i>Argotech a.s., Czech Republic</i>
10:35	The impact of the modal composition of 850nm VCSELs on high speed data transmission over multimode fiber applying different modulation formats Joerg-Reinhardt Kropp <i>VI Systems GmbH, Germany</i>
10:50	Using of MIMO technique in optical communication systems Marcin Kowalczyk <i>Warsaw University of Technology, Poland</i>
11:05-11:30	<i>coffee break</i>
	Session VI – Optical Fibers in Telecommunication – part II
11:30	Optoelektroniczne technologie w systemach bezpieczeństwa (<i>Invited talk</i>) Marek Życzkowski <i>Military University of Technology, Poland</i>
11:50	Crosstalk analysis in space division multiplexed Tadeusz Tenderenda <i>InPhoTech, Poland</i>
12:05	Photonic integrated circuits for application in WDM-PON Stanisław Stopiński <i>Warsaw University of Technology, Poland</i>
12:20	A Fast Model for Examining the Effect of Intra-link Power Deviations on Optical Systems Link Performance Hou-Man Chin <i>Orange Polska S.A, Poland</i>
12:35	Estimation of first order PMD parameters in an optical fibre communication line Zbigniew Lach <i>Lublin University of Technology, Poland</i>
12:50	High speed data transmission over multimode fiber based on single mode 850 nm leaky VCSELs Nikolay Ledentsov Jr. <i>Warsaw University of Technology / VI Systems, Poland</i>
13:05	Relative intensity noise of single- and multi- mode 850 nm vertical-cavity surface-emitting lasers Łukasz Chorchoś <i>Warsaw University of Technology, Poland</i>
13:30 – 14:30	<i>Lunch</i>
	Session VII – RE –doped materials and optical fibers
15:00	Towards optically active polymer composite fibers (<i>Invited talk</i>) Ryszard Piramidowicz <i>Warsaw University of Technology, Poland</i>
15:20	Physico-chemical and photoluminescence properties of lanthanide complexes based on carboxylic acids useful in polymer optical fibers technology (<i>Invited talk</i>) Renata Łyszczek <i>Maria Curie-Skłodowska University (UMCS) in Lublin, Poland</i>
15:35	Development of stack and draw technology (<i>Invited talk</i>) Grzegorz Wójcik, Paweł Mergo <i>Maria Curie-Skłodowska University (UMCS) in Lublin, Poland</i>
15:50	The crystallization kinetics of Er/Yb co-doped oxyfluoride glasses Michał Żelechower <i>Silesian University of Technology, Poland</i>
16:05	PMMA-based nanocomposite materials activated with Pr³⁺ ions Anna Jusza

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	<i>Warsaw University of Technology, Poland</i>
16:20	Polymeric optical fibers doped with lanthanide ions Piotr Miluski <i>Białystok University of Technology, Poland</i>
16:35	Excitation energy transfer in antimony-germanate glass co-doped with Tb/Eu ions Jacek Żmojda <i>Białystok University of Technology, Poland</i>
<i>16:50 - 17:10</i>	<i>Coffee break</i>
	Session VIII RE –doped materials and optical fibers Joanna Pisarska
17:10	PbO–Ga₂O₃–XO₂ (X = Ge, Si) and lead-free germanate glasses doped with erbium and ytterbium – for upconversion luminescence temperature sensors (Invited talk) Radosław Lisiecki <i>Institute of Low Temperature and Structure Research PAS, Poland</i>
17:30	A study of population inversion in lanthanide doped chalcogenide glass fibers Sławomir Sujecki <i>Wrocław University of Science and Technology, Poland</i> <i>University of Nottingham, UK</i>
17:45	Luminescent properties of germanium – based glasses and optical fibers co-doped with rare – earth Marcin Kochanowicz <i>Białystok University of Technology, Poland</i>
18:00	Mid-infrared emission in bismuth-germanate oxide glasses and optical fibers co-doped with lanthanide ions Tomasz Ragiń <i>Białystok University of Technology, Poland</i>
18:15	Low-phonon glasses for application in MIR laser sources Krzysztof Anders <i>Warsaw University of Technology, Poland</i>
18:30	Investigation of optical fiber current sensor with external conversion in AC magnetic field Kamil Barczak <i>Silesian University of Technology, Poland</i>
18:45	Industrial applications of optical fibers Zbigniew Borkowicz - <i>Microsystems AT., Poland</i>
20:00	<i>Banquet</i>

26.01.2017 – Thursday	
Time	Title - Author
8:00-10:00	<i>Breakfast</i>
10:00 – 12:00	Excursion - Museum of Icons
12:00 - 13:00	Poster session 2
13:00 – 14:30	<i>Lunch</i>
	Session IX – Optical Fiber Sensors
15:00	Recent advances in tapered fiber Bragg grating technology and applications (Invited talk) Tomasz Osuch <i>Warsaw University of Technology, Poland</i>
15:20	Two – photon fluorescence, optical fiber sensor as a possible rapid medical diagnosis tool Maciej Popenda <i>Wrocław University of Technology, Poland</i>
15:35	The FBG-based humidity sensor setup Mateusz Mądry <i>Wrocław University of Technology, Poland</i>
15:50	Fiber-based photo-thermal gas spectrometer Aleksander Głuszek <i>Wrocław University of Technology, Poland</i>
16:05	Photonic Integrated Circuits for Sensing Applications: Ultra – Compact Optical Transducers and Interrogators Andrzej Kaźmierczak <i>Warsaw University of Technology, Poland</i>
<i>16:20 – 16:40</i>	<i>coffee break</i>
	Session X – Special Optical Fiber – part III
16:40	Twisted optical fibers – properties, modeling and results (Invited talk) Maciej Napiórkowski <i>Wrocław University of Science and Technology, Poland</i>

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17:00	Fan-In/Fan-Out for seven core hole assisted fiber Michał Murawski <i>Polish Centre For Photonics and Fibre Optics, Poland</i>
17:15	Encryption key generator based on passive optical elements Marek Życzkowski <i>Military University of Technology, Poland</i>
17:30	Safety of data exchange in pulse interferometr Mateusz Karol <i>Military University of Technology</i>
17:45	Passive fiber components fabricated using LDS System for fiber lasers and amplifiers Dorota Stachowiak <i>Wroclaw Research Centre EIT+, Poland</i> <i>Laser and Fiber Electronics Group, Faculty of Electronics, Wroclaw University of Technology, Poland</i>
18:00	Demonstracyjny tor testowy sieci światłowodowej wykorzystujący włókno wielordzeniowe i fan-out typu stack&draw Krzysztof Dyba <i>FIBRAIN Sp. z o.o., Poland</i>
18:15	Technologiczne możliwości firmy Fibrain w dziedzinie fotoniki i produkcji włókna światłowodowego Grzegorz Babiarz <i>FIBRAIN Sp. z o.o., Poland</i>
18:30	Closing Ceremony
19:00 – 20:30	<i>supper</i>

27.01.2017 - Friday	
Time	
7:30 – 8:15	<i>Breakfast</i>
8:30	Travel to Białystok

Attention

- Official language is **English**
- Authors are pleased to **hang posters on Tuesday, 24th (1st session) and on Thursday, 26th (2nd session).**

Poster session 1, 24.01.2017, 18:15 – 19:15

Lp.	Authors	Title
1	A. Jusza ¹ , R. Łyszczek ² , M. Gil ² , P. Mergo ² , R. Piramidowicz ¹ ¹ Warsaw University of Technology, Poland ² Maria Curie-Skłodowska University, Poland	Rare earth complexes as a dopants for luminescent polymer composite materials
2	M. Laskownicki, K. Anders, A. Jusza, R. Piramidowicz Warsaw University of Technology, Poland	UV-VIS spectroscopic properties of Ho ³⁺ doped fluorozirconate glass
3	A. Kaźmierczak, S. Stopiński, A. Jusza, K. Anders, K. Markowski, T. Osuch, R. Piramidowicz Warsaw University of Technology, Poland	Analysis of optical input signal polarization influence on InP integrated photonic interrogators
4	K. Poturaj, G. Wójcik, A. Walewski, J. Kopeć, P. Mergo <i>Maria Curie-Skłodowska University (UMCS) in Lublin, Poland</i>	Technology of highly doped classic silica glass optical fibers
5	¹ P. Bortnowski, ² K. Poturaj, ² R. Łyszczek, ¹ K. Anders, ¹ A. Jusza, ² M. Gil, ² L. Czyżewska, ² J. Pędzisz, ² P. Mergo, ¹ R. Piramidowicz. ¹ Warsaw University of Technology, Poland ² Maria Curie-Skłodowska University (UMCS) in Lublin, Poland	Development of thulium doped active fibers
	P. Grześ Military University of Technology, Poland	Pump laser system for fiber-based supercontinuum generator
6	M. Park ¹ , J. Lee ² , H. Y. Kim ^{1,2} , D. I. Son ^{3,4} ¹ Department of Organic Materials and Fiber Engineering, Chonbuk National University, Jeonju Republic of Korea ² Department of BIN Convergence Technology, Chonbuk National University, Republic of Korea ³ Institute of Advanced Composite Materials, Korea Institute of Science and Technology, Republic of Korea ⁴ Department of Nanomaterials and Nano Science, Korea	Environment friendly, transparent nanofiber textiles consolidated with high efficiency PLEDs for wearable electronics

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University of Science and Technology, Republic of Korea		
7	M. Mrotek, J. Pluciński Politechnika Gdańska	Time-frequency method for analysis of signals from a fiber-based Fabry-Pérot interferometer
8	J. Jusza ^{1,2} , K. Anders ¹ , R. Pyramidowicz ¹ ¹ Warsaw University of Technology, Poland ² Eurotek International Sp. z o.o., Poland	5 W CW erbium doped fiber laser - design and development
9	P. Stafiej ^{1,2} , A. Filipkowski ² , D. Pysz ² , R. Stępień ² , V.T. Hoang ¹ , J. Cimek ^{1,2} , A. Waddie ³ , M. Klimczak ² , M.R. Taghizadeh ³ , R. Buczyński ^{1,2,3} ¹ University of Warsaw, Poland ² Institute of Electronic Materials Technology, Poland ³ School of Engineering and Physical Sciences, UK	Nanostructured microlenses for coupling between single mode fiber and channel waveguides
10	P. Komorowski, U. Zdulska, K. Anders, K. Markowski, T. Osuch, R. Pyramidowicz Warsaw University of Technology, Poland	Erbium doped ZBLAN fiber laser operating in green spectral range – modelling, design and development
11	A. Filipkowski ¹ , M. Piestrzyńska ² , D. Pysz ¹ , M. Śmietana ² , R. Buczyński ¹ ¹ Institute of Electronic Materials Technology, Poland ² Warsaw University of Technology, Poland	Development of in-line fiber interferometer based on suspended-core and standard single-mode fibres
12	D. Pysz ¹ , M. Koba ² , M. Śmietana ² , B. Siwicki ¹ , R. Buczyński ^{1,3} ¹ Institute of Electronic Materials Technology, Poland ² Warsaw University of Technology, Poland ³ University of Warsaw, Poland	Shifted-core fiber for evanescent field biosensing
13	J.E. Moś, M. Florek, K.A. Stasiewicz, R.K. Wonko, L.R. Jaroszewicz Military University of Technology, Poland	Influence of temperature and electric field on propagation properties of a nematic liquid crystal optical fiber device
14	N. Przybysz ¹ , P. Marć ¹ , E. Tomaszewska ² , J. Grobelny ² , L.R. Jaroszewicz ¹ ¹ Military University of Technology, Poland ² University of Lodz, Poland	Pure and Au nanoparticles doped higher alkanes for an optical fiber temperature threshold sensor
15	R. Wonko, J.E. Moś, P. Marć, L.R. Jaroszewicz Military University of Technology, Poland	Fabrication of tapered Long Period Fiber Gratings for sensors application by filament heating
16	R. Jadach ¹ , M. Kochanowicz ² , J. Zmojda ² , P. Miluski ² , M. Sitarz ¹ , D. Dorosz ¹ ¹ University of Science and Technology in Krakow, Poland ² Białystok University of Technology, Poland	Investigation on aluminium oxide influence on luminescence properties in Germanate Glass system
17	L. Sojka ¹ , Z. Tang ² , H. Sakr ² , D. Furniss ² , E. Beres-Pawlik ¹ , A.B. Seddon ² , T.M. Benson ² , S. Sujecki ^{1,2} ¹ Wroclaw University of Science and Technology, Poland ² The University of Nottingham, UK	Resonantly pumped Pr ³⁺ doped chalcogenide fibre

Poster session 2, 26.01.2017, 12:00 – 13:00

Lp.	Authors	Title
1	M. Chruściel Military University of Technology, Poland	Technology of a photopolymer microtip as an optical fiber sensor's transducer
2	K. Brewczyński, M. Życzkowski, M. Szustakowski, Ł. Olszewski Military University of Technology, Poland	The concept of the use of optical vortices for secure communication
3	R. Lisiecki ¹ , E. Czarska ² ¹ Polish Academy of Sciences in Wroclaw, Poland ² Silesian University of Technology Poland	Optical properties of oxyfluoride glass-ceramics co-doped with erbium and ytterbium
4	J. Pniewski, ¹ A. Ramaniuk, ¹ R. Kasztelanica, ² M. Śmietana, ³ M. Trippenbach ¹ , R. Buczyński ^{1,2} ¹ University of Warsaw, Poland ² Institute of Electronic Materials Technology, Poland ³ Warsaw University of Technology, Poland	Detection of subwavelength bacteria layers based on a suspended core fiber



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5	Z. Zakrzewski UTP University of Science and Technology in Bydgoszcz, Poland	Fronthaul optical networks working with use of the hybrid analog and digital radio-over-fiber techniques
6	Z. Zakrzewski, J. Majewski UTP University of Science and Technology in Bydgoszcz, Poland	Aspects of connecting the single-core and multi-core optical fibers
7	A. Golba* ¹ , S. Stopiński ¹ , A. Jusza ¹ , K. Anders ¹ , A. Kaźmierczak ¹ , M. Tomkiewicz ² , R. Piramidowicz ¹ Warsaw University of Technology, Poland FCA Sp. z o.o., Poland	Monolithically integrated multichannel transmitters for application in WDM-PON systems
8	K. Markowski ¹ , A. Manuĳo ¹ , K.P. Jędrzejewski ¹ , T. Osuch ^{1,2} ¹ Warsaw University of Technology, Poland ² National Institute of Telecommunication, Poland	Linearization of the reflectivity spectra of chirped fiber Bragg gratings through adjustment of the grating chirp rate
9	K. Anders ^{1,7} , M. Gusowski ¹ , M. Koba ^{1,2} , M. Marzec ¹ , T. Zalewski ¹ , P. Bortnowski ¹ , P. Mergo ³ , R. Piramidowicz ¹ ¹ Warsaw University of Technology, Poland ² National Institute of Telecommunications, Poland ³ Maria Curie-Skłodowska University, Poland	Pulsed ytterbium fiber laser in MOPA configuration – design and development
10	D. Harasim Lublin University of Technology, Poland	The bending influence on TFBG polarization dependent twist sensor
11	J. Klimek Lublin University of Technology, Poland	The optical properties of chirped tilted Bragg grating based fiber refractometer
12	A. Smolarz Lublin University of Technology, Poland	
13	Żaklin Grądz Lublin University of Technology, Poland	The use of optical fiber sensors for analyzing the process of combustion
14	A. Zając, M. Gilewski, Ł. Gryko Białystok University of Technology, Poland	Infrared laser barrier
15	J. Kuszniar, M. Zajkowski, Ł. Budzyński, D. Tyniecki Białystok University of Technology, Poland	Ring optical mixer for LED with truncated surfaces
16	L. Czyżewska, J. Pędzisz, M. Gil, W. Podkościelny, P. Mergo Maria Curie-Skłodowska University (UMCS) in Lublin, Poland	Technology of low loss polymers
17	U. Zdulska, P. Komorowski, T. Osuch, K. Markowski, Krzysztof Anders, R. Piramidowicz Warsaw University of Technology, Poland	All-fiber 1.55 μm Er:ZBLAN laser with hybrid resonator
18	M. Słowikowski, R. Mroczynski, A. Golba, A. Kaźmierczak, S. Stopiński R. Piramidowicz, Warsaw University of Technology, Poland	Passive elements of photonic integrated circuits - design and technology
19	S. Stopiński ¹ , A. Jusza ¹ , M. Koba ¹ , K. Anders ¹ , L. Augustin ² , R. Piramidowicz ¹ ¹ Warsaw University of Technology, Poland ² SMART Photonics B.V., Netherlands	Development of an optical gyroscope system using application specific photonic integrated circuits