

OPTRO 2012 SYMPOSIUM 8-10 February 2012

OPTRONICS IN DEFENCE AND SECURITY



Day 1 - Wednesday, 8 February 2012

08:00	REGISTRATION
	PLENARY SESSION
	WELCOME ADDRESSES
09:00	Michel Scheller , 3AF President Jacques Lonnoy , OPTRO2012 Chairman, 3AF
	INTRODUCTION TO OPTRONICS IN DEFENCE AND SECURITY <i>Honorary President: Serge Adrian - Director, Thales Optronique SA (FR)</i>
09:10	Alain Aspect , CNRS, Institut d'Optique & Ecole Polytechnique (FR) From basic research to applications (in Defence and Security) : the case of quantum cryptography
	LESSONS LEARNED
09:40	Captain Olivier Dufit , Naval MOD (FR)
10:00	Norbert Fargère , French Armament Directorate DGA (FR)
10:20	Brigadier General Mark Gaunt , Defence Equipment and Support UK MOD (UK)
10:40	COFFEE BREAK
	KEYNOTE ADDRESSES <i>Chairman: J. Lonnoy, 3AF(FR)</i>
11:00	Christian Bréant - Director for Research & Technology, European Defence Agency (EUR)
11:20	Jean-Pierre Devaux - Director for Strategy, French Armament Directorate DGA (FR)
11:40	Richard Hollins - Senior Fellow, Defence Science Technology Laboratory (UK)
12:00	Maurus Tacke - Director, Fraunhofer IOSB (GE)
12:20	Fenner Milton - Director, Night Vision and Electronic Sensors Directorate, US Army (USA)
12:40	LUNCH BREAK

Day 1 - Wednesday, 8 February 2012

	ROOM 1	ROOM 2	ROOM 3
	IMAGING & SYSTEMS – I	SPACE – I	LASER SENSORS & SYSTEMS – I
	<i>CHAIRMAN: C. Barreateau, DGA, FR</i>	<i>CHAIRMAN: E. Armandillo, ESA/ESTEC, NL</i>	<i>CHAIRMAN: P. Lugherini, CILAS, FR</i>
14:00	<i>TARGET CHARACTERIZATION KEYNOTE</i>	<i>SPACE INSTRUMENT KEYNOTE</i>	<i>SOURCE LASER</i>
	OPTRO-2012-001 Impact of latest active and passive imaging sensor developments on target classification Ebert, R. Fraunhofer IOSB, DE	OPTRO-2012-026 HYPXIM an innovative Spectroimager for Science and Defense requirements Lefevre-Fonollosa, M.J.; Michel, S.; Hebert, P.J. CNES, FR	OPTRO-2012-037 10 years of 2 μm fiber laser research for direct and pumping applications in defence and security at ISL Eichhorn, M. ¹ ; Kieleck, C. ¹ ; Sontag, A. ¹ ; Gruppi, D. ¹ ; Jackson, S.D. ² ; Hübner, P. ¹ ; Eckerle, M. ¹ ¹ ISL - French-German Research Institute of Saint-Louis, FR ² Institute of Photonics and Optical Science, AUS
14:20	<i>TARGET CHARACTERIZATION</i>	<i>SPACE INSTRUMENT KEYNOTE</i>	<i>SOURCE LASER</i>
	OPTRO-2012-002 Recent progress in Target Acquisition modeling and testing Bijl, P. ¹ ; Reynolds, J. P. ² ; Hogervorst, M.A. ¹ ¹ TNO, NL; ² NVESD, US	OPTRO-2012-027 Breadboarding of a compact spectrometer for Visible and Short Wave Infrared spectral range: experimental results and perspectives ¹ Labandibar, J-Y.; ¹ Pascal, V.; ² Hébert, P-J.; ¹ Benard, H. ¹ Sauvage, D.; ¹ Houairi, K. ¹ Thales Alenia Space, FR ² CNES, FR	OPTRO-2012-038 2 μm pumped OP-GaAs OPOs Kieleck, C. ¹ ; Eichhorn, M. ¹ ; Hildenbrand, A. ¹ ; Stöppler, G. ¹ ; Lallier, E. ² ; Faye, D. ² ; Grisard, A. ² ; Gerard, B. ³ ; Jackson, S.D. ⁴ ¹ ISL - French-German Research Institute of Saint-Louis, FR ² Thales Research and Technology FR (TRT), FR ³ Alcatel-Thales 3-5 Lab, FR ⁴ Institute of Photonics and Optical Science, AUS
14:40	<i>TARGET CHARACTERIZATION</i>	<i>SPACE INSTRUMENT KEYNOTE</i>	<i>SOURCE LASER KEYNOTE</i>
	OPTRO-2012-003 Measurement of Johnson criteria related to small pirates' crafts identification using synthetic infrared images. Foing, J.-P. ¹ ; Swiathy, G. ² ; Fize, J.-F. ² ; Roger, C. ² ; Fleuriet, J. ³ ¹ Direction générale de l'armement, FR ² DGA Maîtrise de l'information, FR ³ DGA Techniques Terrestres, FR	OPTRO-2012-028 AEOLUS / ALADIN Instrument: Technical Challenges Morançais, D.; Fabre, F. Astrium Satellites, FR	OPTRO-2012-039 MILDA: Mid-infrared laser source for DIRCM application Crepy, B. ¹ ; Closse, G. ¹ ; Cussat-Blanc, S. ¹ ; Grèzes-Besset, C. ¹ ; Krol, H. ¹ ; Le Nevé, M. ¹ ; Montagne, J. ¹ ; Morin, P. ¹ ; Squaglia, O. ¹ ; Valette, N. ¹ ; Mellier, B. ² ¹ CILAS, FR ² DGA/DCA/CELAR, FR
15:00	<i>TARGET CHARACTERIZATION</i>	<i>SPACE INSTRUMENT</i>	<i>SOURCE LASER KEYNOTE</i>
	OPTRO-2012-004 IR-sCMOS Fusion for Night Vision Vanden Driessche, C.; Bezot, G. SAFRAN-Sagem, FR	OPTRO-2012-029 A radial velocity spectrometer for the GAIA astronomy mission: from strach to the final tests Meisse, C. ¹ ; Alquier, M. ¹ ; Erdmann, M. ² ¹ Astrium, FR; ² ESA/ESTEC, NL	OPTRO-2012-040 Compact fiber laser-pumped mid-Infrared source based on Orientation-Patterned Gallium Arsenide Lallier, E. ¹ ; Grisard, A. ¹ ; Guttly, F. ¹ ; Gerard, B. ² ¹ Thales Research & Technology, FR ² Alcatel-Thales 3-5 Lab, FR
15:20	<i>TARGET CHARACTERIZATION</i>	<i>SPACE COMPONENT</i>	<i>SOURCE LASER</i>
	OPTRO-2012-005 Dual Band Imaging FTS for IR Target Characterization and Gas Detection Prel, F.; Moreau, L.; Lantagne, S.; Roy, C.; Vallieres, C.; Levesque, L. ABB Inc., CA	OPTRO-2012-030 Development and Validation of an Hardened Monolithic Video Processor for High Precision Space Remote Sensing. Ayzac, P. ¹ ; Neveu, C. ¹ ; Garigue, J.M. ¹ ; Gasti, W. ² ¹ Thales Alenia Space, FR ² ESA/ESTEC, NL	OPTRO-2012-041 Ultra High Brightness Laser Diode Arrays for Pumping of Solid State Lasers and Direct Applications Kohl, A.; Fillardet, T.; Laugustin, A.; Rabot, O. Quantel Laser, FR
15:40	COFFEE BREAK		

ROOM 1				ROOM 2				ROOM 3							
IMAGING & SYSTEMS – I				SPACE – I				LASER SENSORS & SYSTEMS – I							
CHAIRMAN: J. Bretes, FLIR Systems ATS, FR				CHAIRWOMAN: J. Costeraste, CNES, FR				CHAIRMAN: P. Adam, DGA, FR							
16:00				OPTRONICS SYSTEMS KEYNOTE				SPACE COMPONENT				SOURCE LASER			
OPTRO-2012-006 Airborne Manned Reconnaissance and Unmanned Surveillance Fontanella, J.C.; Stricker, D. Thales Optronique SA, FR				OPTRO-2012-031 A 3000 pixel linear SWIR imaging array for earth observation applications Vermeiren, J.; Bentell, J.; Vander Zanden, K.; Merken, P. Xenics nv, BE				OPTRO-2012-042 Passive phase locking of high energy diode pumped Q-switched solid state lasers Sabourdy, D.; Montagne, J.E. CILAS, FR							
16:20				OPTRONICS SYSTEMS KEYNOTE				SPACE COMPONENT KEYNOTE				HIGH POWER / ENERGY KEYNOTE			
OPTRO-2012-007 Future trends in Optronics and Image Processing for helicopters and UAVs Kling, E. SAFRAN-Sagem, FR				OPTRO-2012-032 Infrared Focal Plane Detector Modules for Space Applications at AIM Hanna, S.; Gassmann, K.-U.; Haiml, M.; Haas, L.-D.; Nothhaft, H.-P.; Ziegler, J. AIM INFRAROT-MODULE GmbH, DE				OPTRO-2012-044 High power laser based defence systems as a ground based augmentation to airborne countermeasures Hagen, T. LFK-Lenkflugkörpersysteme GmbH / MBDA DE, DE							
16:40				OPTRONICS SYSTEMS				SPACE COMPONENT				HIGH POWER / ENERGY			
OPTRO-2012-008 Antares a new Land Situational Awareness System Midavaine, T. Thales Optronique SA, FR				OPTRO-2012-033 Space developments at SOFRADIR for Sounding applications Delannoy, A.; Pidancier, P.; Chorier, P. Sofradir, FR				OPTRO-2012-045 The European way ahead to (V-)SHORAD high power laser weapons: an industry perspective Hagen, T. LFK-Lenkflugkörpersysteme GmbH / MBDA DE, DE							
17:00				OPTRONICS SYSTEMS				SPACE COMPONENT				HIGH POWER / ENERGY			
OPTRO-2012-009 MWIR High Definition Panoramic Imager Leboucher, V HGH Systèmes Infrarouges, FR				OPTRO-2012-034 Space developments at SOFRADIR Chorier, P.; Delannoy, A.; Pidancier, P. Sofradir, FR				OPTRO-2012-046 High energy 1 Hz Titanium Sapphire amplifier for PetaWatt class lasers Simon-Boisson C.; Lureau, F.; Laux, S.; Casagrande, O.; Radier, C.; Chalus, O.; Caradec, F. Thales Optronique SA, FR							
17:20				OPTRONICS SYSTEMS				SPACE COMPONENT				ACTIVE IMAGERY			
OPTRO-2012-124 Airborn Infrared Hyperspectral Imager for Intelligence, Surveillance and Reconnaissance Applications Gagnon, J.P. ¹ ; Puckrim, E. ² ; Turcotte C.S. ² ; Farley V. ¹ Lagueux, P. ¹ ; Bastedo, J. ³ ; Chamberland, M. ¹ ¹ TELOPS Inc, CA ² DRDC Valcartier, CA ³ PV Labs, CA				OPTRO-2012-035 Multispectral filters for export remote sensing system at Astrium sas Amoux, J-J. ASTRIUM, FR				OPTRO-2012-050 High energy eye-safe fiber laser for active imagery Lallier, E.; Papillon-Ruggeri, D. Thales Research & Technology, FR							
17:40				DISPLAY				SPACE COMPONENT							
OPTRO-2012-121 OLED micro-display Haas, G. MICROOLED, FR				OPTRO-2012-036 Sagem-REOSC recent achievement in high performance optics for demanding applications Geyl, R. SAFRAN-Sagem, FR											
18:00								SPACE KEYNOTE							
								OPTRO-2012-122 Optoelectronics at the European Space Agency: An Overview on Technologies and Mission Opportunities Armandillo, E. ESA/ESTEC, NL							
18:20								END OF FIRST DAY PROGRAMME							

Day 2 - Thursday, 9 February 2012

ROOM 1		ROOM 2		ROOM 3	
IMAGING & SYSTEMS – II		SENSORS & COMPONENTS – I		LASER SENSORS & SYSTEMS - II	
CHAIRMAN: S. Mc Geoch, Thales Optronics Ltd, UK		CHAIRMAN: D. Billon-Lanfrey, SOFRADIR, FR		CHAIRMAN: S. Berthier, MBDA, FR	
08:40	<i>NIGHT VISION KEYNOTE</i>	<i>UNCOOLED KEYNOTE</i>	<i>UNCOOLED KEYNOTE</i>	<i>ACTIVE IMAGERY KEYNOTE</i>	<i>ACTIVE IMAGERY KEYNOTE</i>
	OPTRO-2012-011 Overview of low light level technologies and perspectives Deltel, G Photonis, FR	OPTRO-2012-059 17 µm uncooled amorphous silicon development for compact, low power systems Tissot, J-L. ULIS, FR	OPTRO-2012-047 Active imaging and mapping – an outlook Steinvall, O. FOI, Swedish Defence Research Agency, SE		
09:00	<i>NIGHT VISION</i>	<i>UNCOOLED</i>	<i>UNCOOLED</i>	<i>ACTIVE IMAGERY</i>	<i>ACTIVE IMAGERY</i>
	OPTRO-2012-012 WDR CMOS intensified Camera for night vision Ni, Y. ¹ ; Arion, B. ¹ ; Zu, Y. ¹ ; Laurent, D. ² ; Letexier, D. ² ¹ New Imaging Technologies, FR ² Photonis, FR	OPTRO-2012-060 Advanced VOx uncooled detector arrays with 17 µm pitch Schapiro, F. ¹ ; Frankel, A. ¹ ; Bikov, L. ¹ ; Giladi, A. ¹ ; Shiloah, N. ¹ ; Elkind, S. ¹ ; Kogan, I. ¹ ; Maayani, S. ¹ ; Amsterdam, A. ¹ ; Vaserman, I. ¹ ; Hirsh, Y. ¹ ; Tutio, A. ² ; Ben Ezra, M. ² ; Mizrahi, U. ¹ ¹ SCD, IL; ² ILi MoD, IL	OPTRO-2012-048 Active Imaging within MBDA UK Ltd Miller, L; Jennings, M; Smeeton, M MBDA UK Ltd, UK		
09:20	<i>NIGHT VISION</i>	<i>UNCOOLED</i>	<i>UNCOOLED</i>	<i>ACTIVE IMAGERY</i>	<i>ACTIVE IMAGERY</i>
	OPTRO-2012-013 Present status of metrology of night vision technology Chrzanowski, K. INFRAMET, PL	OPTRO-2012-061 Multicolour Microbolometer and VPD PbSe hybrid focal plane sensors for analytical applications Sierra, C. ¹ ; Mengali, S. ² ; Torquemada, M. C. ¹ ; Vergara, G. ¹ ; Rodrigo, M.T. ¹ ; Gutierrez, C. ¹ ; Pérez, G. ¹ ; Sánchez, M. ¹ ; Génova, I. ¹ ; Catalán, I. ¹ ; Gómez, L.J. ¹ ; Villamayor, V. ¹ ; Heras, A. ¹ ; Gutiérrez, R. ¹ ; Álvarez, M. ¹ ; Fernández, D. ¹ ; Magaz, M.T. ¹ ; Liberatore, N. ² ; Viola, R. ² ; Mercuri, A. ² ; Luciani, L. ² ; Dundee, A. ² ; Pifferi, A. ² ; Almazán, R.M. ¹ ; Corsi, C. ² ¹ Instituto Tecnológico La Marañosa ITM-CIDA, SP; ² Consorzio CREO (Centro Ricerche Elettro Ottiche), IT	OPTRO-2012-049 Versatile illumination module dedicated to active imaging Grasser, R. ; Cussat-Blanc, S. CILAS, FR		
09:40	<i>APD / PbSe</i>	<i>COOLED</i>	<i>COOLED</i>	<i>LASER APPLICATIONS</i>	<i>LASER APPLICATIONS</i>
	OPTRO-2012-014 Single-photon 3-D imaging LADAR cameras based on Geiger-mode avalanche photodiode Itzler, M.A.; Entwistle, M.; Owens, M.; Jiang, X.; Patel, K. Slomkowski, K. Princeton Lightwave Inc., US	OPTRO-2012-062 Advantages of High Operating Temperature for MWIR Detectors Knowles, P.; Hipwood, L.; Pillans, L.; Crouch, J. Selex Galileo, UK	OPTRO-2012-051 Mid-infrared laser-dazzling experimental breadboard for HgCdTe and microbolometer focal plane array vulnerability assessment Bourdon, P.; Durécu, A.; Vasseur, O.; Fleury, D.; Goular, D.; Planchat, C. ONERA, FR		
10:00	<i>APD / PbSe</i>	<i>COOLED KEYNOTE</i>	<i>COOLED KEYNOTE</i>	<i>LASER APPLICATIONS</i>	<i>LASER APPLICATIONS</i>
	OPTRO-2012-015 Fast and uncooled MWIR imagers applied to man portable weapons muzzle flash detection and explosion characterization Linares, R.; Vergara, G.; Gutierrez, R.; Fernandez, C.; Montojo, M.T.; Baldasano, A. New Infrared Technologies, Ltd, SP	OPTRO-2012-063 High Operating Temperature MWIR Photodetectors at SCD Shtrichman, I.; Aronov, D.; Berkowicz, E.; Brumer, M.; Frenkel, R.; Glozman, A.; Grossman, S.; Klin, O.; Klipstein, P.; Lukomsky, I.; Magen, O.; Snapi, N.; Yassen, M.; Weiss, E. SCD, IL	OPTRO-2012-052 DIRCM(1) MANTA system –methodology of demonstration from lab test to field test Lecuyer, L. ¹ ; Osmá, O. ² ; Forte, F. ¹ ; Lascaud, L. ¹ ; Mellier, M. ¹ ; Sanchez Oliveros, S. ³ ¹ DGA, FR ² INDRA, SP ³ ITM, SP		
10:20	COFFEE BREAK AND EXHIBITION				

ROOM 1

ROOM 2

ROOM 3

	IMAGING & SYSTEMS – II	SENSORS & COMPONENTS – I	LASER SENSORS & SYSTEMS - II
	CHAIRMAN: K. Chrzanowski, INFRAMET, PL	CHAIRMAN: G. Destefanis, CEA-LETI, FR	CHAIRMAN: D. Dolfi, Thales Research Technology, FR
10:40	<i>OPTICS KEYNOTE</i>	<i>COOLED KEYNOTE</i>	<i>LASER APPLICATIONS</i>
	OPTRO-2012-016 Computational imaging systems for the infrared: revolution or evolution? Wood, A ¹ ; Bustin, N ¹ ; Muyo, G ² ¹ Qioptiq Ltd, UK; ² Heriot-Watt University, UK	OPTRO-2012-064 Recent progress for HgCdTe quantum detection in FR Gravrand, O.; Destefanis, G. CEA-LETI, F	OPTRO-2012-053 Acquisition of 2D vibrational signatures on military vehicles for remote identification by laser radar vibrometry Valla, M. ¹ ; Totems, J. ¹ ; Jolivet, V. ¹ ; Jaffre, A. ¹ ; Goular, D. ¹ ; Fleury, D. ¹ ; Augere, B. ¹ ; Delen, X. ¹ ; Chevalier, P. ² ¹ ONERA, FR; ² DGA, FR
11:00	<i>OPTICS</i>	<i>COOLED KEYNOTE</i>	<i>LASER APPLICATIONS KEYNOTE</i>
	OPTRO-2012-017 Polarization Imaging with Panoramic Lens Thibault, S.; Desaulniers, P.; Dallaire, X. COPL/Université Laval, CA	OPTRO-2012-065 Infrared cooled MCT detectors : High performance & cutting-edge functionalities. Reibel, Y. ¹ ; Vuillermet, M. ¹ ; Billon-Lanfrey, D. ¹ ; Destefanis, G. ² ¹ Sofradir, FR; ² CEA-LETI, FR	OPTRO-2012-054 Coherent combining of pulsed fiber amplifiers using continuous-wave frequency-tagging servo-loop design Bourdon, P.; Lombard, L.; Azarian, A.; Canat, G.; Goular, D.; Vasseur, O. ONERA, FR
11:20	<i>OPTICS</i>	<i>COOLED</i>	<i>LASER APPLICATIONS KEYNOTE</i>
	OPTRO-2012-018 Imaging Detector-Dewar-Cooler Assemblies: recent results. Druart, G. ¹ ; de la Barriere, F. ¹ ; Guerineau, N. ¹ ; Deschamps, J. ¹ ; Manuel, F. ² ; Lafargues, G. ² ; Lhermet, N. ² ; Rulliere, J. ² ; Magli, S. ³ ; Reibel, Y. ³ ; Moullec, J.-B. ⁴ ¹ ONERA, FR ² CEA, FR ³ Sofradir, FR ⁴ DGA, FR	OPTRO-2012-066 MOVPE growth of MCT for infrared focal plane arrays Wilson, R.; Maxey, C.; Hipwood, L.; Shorrocks, N. Selex Galileo, UK	OPTRO-2012-055 Characterization of Laser signature of optical systems Fournier, G.; Duval, Y.; Celerault, E.; Piau, G-P. EADS Innovation Works, FR
11:40	<i>IMAGING APPLICATION</i>	<i>COOLED</i>	<i>LASER APPLICATIONS</i>
	OPTRO-2012-019 Laser photography in selective space imaging Marek Piszczek, M.; Marcin Kowalski, M.; Mieczysaw Szustakowski, M. Military University of Technology, PL OPTRO-2012-019	OPTRO-2012-067 SWaP improved IR-modules and 3rd Gen technologies at AIM Lutz, H.; Breiter, R.; Eich, D.; Mai, M.; Rühlich, I.; Rutzinger, S.; Wendler, J.; Wollrab, R.; Ziegler, J. AIM INFRAROT-MODULE GmbH, DE	OPTRO-2012-056 Sensor fusion for long distance laser range finding Augey, T. SAFRAN-Sagem, FR
12:00	<i>OPTICS</i>	<i>COOLED</i>	<i>LASER APPLICATIONS</i>
	OPTRO-2012-020 Design of a Dual Field of View Optical System for MWIR FPA Rajeev , R. ¹ ; , Murli Mohan ² ; M., Venkata Ravi ² ; K., Satyabati ² ; S., Sai Shankar ¹ M. ¹ National Institute of Technology, IN ² DRDO, IN	OPTRO-2012-068 Multi-function IR detector with on-chip signal processing Langof, L. ¹ ; Nussinson, D. ¹ ; Ilan, E. ¹ ; Elkind, S. ¹ ; Dobromislin, R. ¹ ; Nevo, I. ¹ ; Khinich, F. ¹ ; Labilov, M. ¹ ; Calahorra, Z. ¹ ; Vaserman, S. ¹ ; Markovitz , T. ¹ ; Twitto, A. ² ; Oster, D. ² ¹ SCD, IL ² IMOD, IL	OPTRO-2012-057 Athermal diode-pumped laser designator modules for targeting application Crepuy, B. Closse, G. Da Cruz, J. Ladarath, T. Montagne, J. Morin, P.; Nguyen, L. Sabourdy, D CILAS, FR
12:20	LUNCH BREAK AND EXHIBITION		

ROOM 1

ROOM 2

ROOM 3

IMAGING & SYSTEMS – II

SENSORS & COMPONENTS – I

LASER SENSORS & SYSTEMS – II

OPTRONICS FOR SECURITY

CHAIRMAN: T. Dupoux, SAFRAN-Sagem, FR

CHAIRMAN: P. Potet, NIT, FR

CHAIRMAN: R. Jalin, Onera, FR

	IMAGING APPLICATION KEYNOTE	EMERGING DETECTOR	LASER APPLICATIONS
14:00	OPTRO-2012-021 Detection in Urban scenario using Combined Airborne imaging Sensors Renhorn, I.; Shimoni, M.; Skauli, T.; Schwering, P.; Briottet, X.; Diani, M.; Dimmeler, A. DUCAS, SE	OPTRO-2012-069 Extrinsic Black Silicon Photodiodes - Present Research Status and Simulation Steglich, M.; Schrempel, F.; Fuchsel, K.; Kley, E.-B. Institute of Applied Physics / Friedrich Schiller University, DE	OPTRO-2012-058 Return of experience of the French portable laser designator DHY307 Crepy, B.; Vannier, M. CILAS, FR
14:20	OPTRO-2012-022 Development of an Airborne Infrared hyperspectral Imager at Selex Galileo Butera, F.; Bencini, C.; Taiti, A.; Cosi, S.; Melani, A.; Chiarantini, L. Selex Galileo, IT	OPTRO-2012-070 HgCdTe Avalanche Photodiode Arrays (eAPDs): focal plane array technology and applications Baker, I.; Weller, H.; Maxey, C. Selex-Galileo Infrared Ltd, UK	OPTRO-2012-096 Smart system based on dedicated Optical Fiber Sensing cable and distributed measurement for perimetric detection Giuseffi, m. ¹ ; Rougeault, S. ² ; Ferdinand, P. ² ; Pinabiau, M. ³ ; Canepa, C. ⁴ ; Darocha, J.-C. ⁴ ; Poulain, A. ⁴ ; Blin, R. ⁵ ; Piot, S. ⁵ ; Brunet, D. ⁶ ¹ CEA LIST, FR ² CEA LIST, FR ³ CEA SPACI, FR ⁴ ACOME, FR ⁵ SITES SAS, FR ⁶ RTE, FR
14:40	OPTRO-2012-023 Adaptive snapshot multispectral imaging for target detection applications Minet, J. ¹ ; Taboury, J. ¹ ; Goudail, F. ¹ ; Pealat, M. ² ; Roux, N. ² ; Ferrec, Y. ³ ; Bertin, H. ⁴ ; Bosseboeuf, A. ⁴ ¹ Institut d'Optique, FR ² SAFRAN-Sagem, FR ³ ONERA, FR ⁴ Institut d'Electronique Fondamentale, FR	OPTRO-2012-071 HgCdTe e-APDs : new perspectives in light detection from single element detectors to large area imaging Focal Plane Arrays Vojetta, G. ¹ ; De Borniol, Eric ¹ ; Mollard, L. ¹ ; Guellec, F. ¹ ; Kerlain, A. ² ; Bonnouvrier, G. ² ¹ CEA/Leti, FR ² Sofradir, FR	OPTRO-2012-097 Sensing for obstacle detection and navigation of Unmanned Ground Vehicles (UGV) Morillon, J.G.; Vasseur, L.; Gosset, P.; Benoist, J.S.; Guerin, P. Thales Optronique SA, FR
15:00	OPTRO-2012-024 High-speed imaging polarimeter Bigué, L.; Gendre, L.; Marconnet, P.; Foulonneau, A. Université de Haute Alsace, FR	OPTRO-2012-072 Low noise and low dark current 640x512 InGaAs module for low light level imaging Rouvie, A.; Reverchon, J.L.; Huet, O.; Robo, J.A.; Truffer, J.P.; Decobert, J.; Costard, E.; Bois, P. III-V Lab, FR	OPTRO-2012-098 Experimental results of ground disturbance detection using uncooled infrared imagers in wideband and multispectral modes Laou, P. Defence R&D Canada, CA
15:20	OPTRO-2012-025 A multi-station test system for testing modern surveillance optronic systems Chrzanowski, K. Military University of Technology, PL	OPTRO-2012-073 An Overview of the InAs/GaSb Superlattice infrared Detector Technology Christol, P.; Taalat, R.; Cervera, C.; Rodriguez, J.B. Institut d'Electronique du Sud, FR	OPTRO-2012-099 Active Imaging System for Civil Application Bousquet, M. ; Van den Driessche, C.; Bezot, G. SAFRAN-Sagem, FR
15:40	COFFEE BREAK AND EXHIBITION		

ROOM 1

ROOM 2

ROOM 3

EMERGING TECHNOLOGIES – I

SENSORS & COMPONENTS – I

SIMULATION – I

CHAIRMAN: T. Pearsall, EPIC, FR**CHAIRMAN: J. Ziegler, AIM, DE****CHAIRMAN: R. Schwering, TNO, NL**

16:00

*EMERGING TECHNOLOGIES KEYNOTE**CMOS / ROIC KEYNOTE**ACTIVE IMAGING*

OPTRO-2012-088

Preliminary design status of the M4AU based on piezo-stack technology

Crepy, B¹; Grasser, R¹; Cousty, R¹; Locre, F¹; Morin, P¹; Petitgas, D¹; Sinquin, JC¹; Chaillot, S²; Delrez, C³; Gabriel, E³; Dimmler, M⁴; Hubin, N⁴; Jochum, L⁴; Madec, PY⁴; Vernet, E⁴; Dournaux, JL⁵; Gasmi, R⁵; Jagourel, P⁵; De Zotti, S⁶; Conan, JM⁷; Petit, G⁷; Mueller, M⁸

¹CILAS, FR; ²Boostec, FR; ³AMOS, BE; ⁴ESO, DE; ⁵Observatory Paris-Meudon, FR; ⁶Astrium, FR; ⁷ONERA, FR; ⁸ESO, FR

OPTRO-2012-074

System-On-Chip for Night Vision

Fereyre, F.; Guillon, M.; Mayer, F.
e2v, FR

OPTRO-2012-100

Active Imaging Simulation at DGA

Meyer, O.; Le Hyaric, M.P.; Deshors, G.; Floch, E.; Le Goff, A.
DGA MI, FR

16:20

*EMERGING TECHNOLOGIES**CMOS / ROIC**ACTIVE IMAGING KEYNOTE*

OPTRO-2012-089

Sub-wavelength optics for scanning systems

Lee, M-S. L.¹; Lehoucq, G.¹; Delboulbé, A.¹; Loiseaux, B.¹; Bansropun, S.¹; Richard, C.²; Chanrion, J-C.²; Brus, A.²

¹Thales Research & Technology, FR;
²Thales Air Systems, FR

OPTRO-2012-075

Outstanding properties of the Espros CMOS/CCD technology and consequences for image sensors

De Coi, B.; Popp, M.; Marchesi, E.
ESPROS Photonics AG, CH

OPTRO-2012-101

GPU-based simulation of optical propagation through turbulence for active imaging applications

Monnier, G.; Duval, F.R.; Amram, S.
Alyotech, FR

16:40

*EMERGING TECHNOLOGIES**CMOS / ROIC**ACTIVE IMAGING*

OPTRO-2012-090

Investigation of Nanoparticles for Optical Power Limiting

Mueller, O.¹; Dengler, S.²; Ritt, G.²; Eberle, B.²

¹ISL French German Research Institute of Saint-Louis, FR;
²Fraunhofer IOSB, DE

OPTRO-2012-076

A new generation of IR image sensor based on a pixel-level 15-bit ADC

Dupret, A.; Peizerat, A.; Guellec, F.; Tchagaspanian, M.; de Borniol, E.; Bisotto, S.
CEA LETI, FR

OPTRO-2012-102

Modelling of full-waveform, 3D laser imaging for vegetation characterisation and foliage penetration

Ristorcelli, T.¹; Hamoir, D.¹; Briottet, X.¹; Cazanave, G.²; Petit, D.²; Gastellu-Etchegorry, J.-P.³

¹ONERA, FR
²Magellium, FR
³Université de Toulouse - CESBIO, FR

17:00

*EMERGING TECHNOLOGIES KEYNOTE**CMOS / ROIC**SIGNATURE / ANALYSIS*

OPTRO-2012-091

Terahertz spectra of explosives measured by in transmission and reflection configuration

Szustakowski, M.; Palka, N.; Trzcinski, T.; Zyczkowski, M.
Military University of Technology, PL

OPTRO-2012-077

High dynamic range ROIC with logarithmic response for infrared imaging

Potet, P.; Ni, Y.
New Imaging Technologies, FR

OPTRO-2012-103

CASSIA: Tool for aircraft infrared signature expertising

Bonafons, P.¹; Aubineau, F.¹; Le Hyaric, MP.²

¹Alyotech, FR;
²DGA MI, FR

17:20

*EMERGING TECHNOLOGIES**CMOS / ROIC**SIGNATURE / ANALYSIS*

OPTRO-2012-092

Recognizing 48 behaviors from video

Burghouts, G.J.; van den Broek, B.
TNO, NL

OPTRO-2012-120

Near Single-Photon Detection CMOS Integrating Image Sensors

Baechler, T.; Beer, S.; Blanc, N.
CSEM, Photonics Division, CH

OPTRO-2012-104

Development of an IR-Signature Model for Stealth Aircraft

Lindermeir, E.
DLR - Remote Sensing Technology Institute, DE

17:40

EXHIBITION

18:00

SOCIAL EVENT

Day 3 - Friday, 10 February 2012

	ROOM 1	ROOM 2	ROOM 3
	EMERGING TECHNOLOGIES – II --- SIGNAL & IMAGE PROCESSING – I	SENSORS & COMPONENTS - II	SIMULATION – II
	<i>CHAIRMAN: O. D'Almeida, SAFRAN-Sagem, FR</i>	<i>CHAIRMAN: I. Shtrichman, SCD, IL</i>	<i>CHAIRMAN: G. Berginc, Thales Optronique SA, FR</i>
08:40	<i>EMERGING TECHNOLOGIES KEYNOTE</i>	<i>SENSORS AND APPLICATIONS KEYNOTE</i>	<i>SIGNATURE / ANALYSIS</i>
	OPTRO-2012-093 Flexible Photonic Generation of Low-Phase-Noise Phase-Coded Radar Pulses Laghezza, F.; Scotti, F.; Ghelfi, P.; Bogoni, A. ¹ National Interuniversity Consortium for Telecommunications - CNIT, IT;	OPTRO-2012-078 Automatic suppression of laser dazzling effects for electro-optical sensors by a sophisticated filtering concept Ritt, G.; Eberle, B. Fraunhofer IOSB, DE	OPTRO-2012-105 Targeting task performance analysis of cooled and uncooled infrared imaging systems Laou, P.; St-Germain, D.; Mérel, P.; Paradis, S.; Roy, N.; Maheux, J. Defence R&D Canada, CA
09:00	<i>EMERGING TECHNOLOGIES</i>	<i>SENSORS AND APPLICATIONS</i>	<i>MODELLING COUPLING KEYNOTE</i>
	OPTRO-2012-094 Design of a micromachined tunable Fabry-Perot filter array for multispectral snapshot imaging Bertin, H. ¹ ; Bosseboeuf, A. ¹ ; Coste, P. ¹ ; Minet, J. ² ; Taboury, J. ² ; Pealat, M. ³ ; Roux, N. ³ ¹ Institut d'Electronique Fondamentale, FR ² Laboratoire Charles Fabry, Institut d'Optique, FR ³ SAFRAN-Sagem, FR	OPTRO-2012-079 A hyperspectral image sensor Marchal, P.; Murali, S.; Lambrechts, A.; Tack, K.; Pessolano, F. Imec, BE	OPTRO-2012-106 High realistic infrared terrestrial scene modeling for intelligence function assessment Le Goff, A. DGA, FR
09:20	<i>EMERGING TECHNOLOGIES</i>	<i>SENSORS AND APPLICATIONS</i>	<i>MODELLING COUPLING</i>
	OPTRO-2012-095 Acousto-optic interaction in photonic and phononic crystals for improved efficiency Rolland, Q.; Dupont, S.; Yudistira, D.; Gazalet, J.; Kastelik, J.C. IEMN, FR	OPTRO-2012-080 High resolution sensor for laser warning: new manufacturing technologies Boireau, D. Excelitas Technologies, FR	OPTRO-2012-123 MATISSE-v2.0, a radiative transfer code for advanced infrared Earth modelling Fauqueux, S.; Labarre, L.; Caillault, K.; Malherbe, C.; Roblin, A.; Rosier, B.; Simoneau, P. ONERA, FR
09:40	<i>SIGNAL AND IMAGE PROCESSING KEYNOTE</i>	<i>SENSORS AND APPLICATIONS</i>	<i>MODELLING COUPLING</i>
	OPTRO-2012-114 High performance un-cooled infrared imager prototype Budin, J.B.; Maygnan, M.M.; Jacquelin, F.J. SAFRAN-Sagem, FR	OPTRO-2012-081 Update on MTTF figures for linear and rotary coolers of Thales Cryogenics Belluci, A. ¹ ; van Leeuwen, R. ¹ ; van de Groep, W. ¹ ; van der Weijden, H. ¹ ; Benschop, T. ¹ ; Cauquil, J.M. ² ; Griot, R. ² ¹ Thales Cryogenics BV, NL ² Thales Cryogenie, FR	OPTRO-2012-107 Thermal modeling coupling between RadThermIR targets and SE-Workbench environment Le Goff, A. DGA, FR
10:00	<i>SIGNAL AND IMAGE PROCESSING</i>	<i>SENSORS AND APPLICATIONS</i>	<i>SIMULATION KEYNOTE</i>
	OPTRO-2012-115 A perspective on Automatic Target Detection on-board Land Vehicles Macdonald, D Thales Optronics, UK	OPTRO-2012-082 Cooler Diagnostic Software and performance prediction of linear coolers in operation van der Weijden, H.; Benschop, T.; van de Groep, W.; Willems, D. Thales Cryogenics BV, NL	OPTRO-2012-108 Image Generator performance and modern HardWare In The Loop stimulation Cathala, T.; Latger, J.; OKTAL Synthetic Environment, FR
10:20	COFFEE BREAK AND EXHIBITION		

ROOM 1			ROOM 2			ROOM 3		
SIGNAL & IMAGE PROCESSING – II			SENSORS & COMPONENTS – II			SIMULATION – II		
CHAIRMAN: F. Lefevre, Onera, FR			CHAIRMAN: G. Fournier, EADS IW, FR			CHAIRMAN: E. Lindermeir, DLR, DE		
10:40	<i>SIGNAL AND IMAGE PROCESSING</i>		<i>SENSORS AND APPLICATIONS</i>			<i>SIMULATION</i>		
	OPTRO-2012-116 Numerical Weather Prediction/Defence Meteorology: Applications to Target and Background Modelling and Simulation and Sensor Performance Lewis, W UK Met Office, UK		OPTRO-2012-084 Infrared absorption spectroscopy using a quartz tuning fork as a detector Jalocha, A. ¹ ; Spajer, M. ² ; Vairac, P. ² ; Vacheret, X. ² ; Vernier, D. ² ¹ CILAS, FR ² FEMTO-ST, CNRS, Université de Franche-Comté, FR		OPTRO-2012-109 Automatic Generation of Networks for Infrared Simulation of Moving Targets Dumont, R; Dupuis, J; Guedas, C OPEN, FR			
11:00	<i>SIGNAL AND IMAGE PROCESSING KEYNOTE</i>		<i>SENSORS AND APPLICATIONS</i>			<i>SIMULATION KEYNOTE</i>		
	OPTRO-2012-117 Comparative evaluation of hyperspectral anomaly detection methods in scenes with diverse complexity. Borghys, D. ¹ ; Achard, V. ² ; Kasen, I. ³ ; Perneel, C. ¹ ¹ Royal Military Academy, BE; ² ONERA, FR ³ Norwegian Defence Research Establishment (FFI), NO		OPTRO-2012-085 Fibre Optic Sensors for Solid Rocket Motors Health Monitoring Bancallari, L. ¹ ; Sepe, M. ¹ ; Eineder, L. ² ; Tussiwand, G. ² ; Kakarantzas, G. ³ ; Riziotis, C. ³ ; Beverini, N. ⁴ ; Maccioni, E. ⁴ ¹ MBDA IT, IT; ² MBDA DE, DE; ³ National Hellenic Research Foundation, GR ⁴ University of Pisa, IT		OPTRO-2012-110 Introduction of IR Countermeasures in closed loop simulations Degache, M.A.C.; Schleijsen, R. TNO, NL			
11:20	<i>SIGNAL AND IMAGE PROCESSING</i>		<i>SENSORS AND APPLICATIONS</i>			<i>SIMULATION</i>		
	OPTRO-2012-118 Turbulence compensation using time-varying phase diversity van Eekeren, A.W.M.; Schutte, K.; Dijk, J.; Schwering, P.B.W. TNO, NL		OPTRO-2012-086 Novel resistive electrodes structure for liquid cristal modal lens shifting Fraval, N. ¹ ; Castany, O. ² ; Berier, F. ¹ ¹ Evosens, FR ² Telecom Bretagne, FR		OPTRO-2012-111 Real-time multi-spectral simulation of ocean scenes for marine surveillance applications Monnier, G; Houssay, J; Vince, S; Zille, P. Alyotech Technologies, FR			
11:40	<i>SIGNAL AND IMAGE PROCESSING</i>		<i>SENSORS AND APPLICATIONS</i>			<i>SIMULATION</i>		
	OPTRO-2012-119 Assessment of 3D Signal and Image Processing using FMCW THz Signals Cristofani, E. ¹ ; Brook, A. ¹ ; Vandewal, M. ¹ ; Jonuscheit, J. ² ; Matheis, C. ² ¹ Royal Military Academy, BE; ² Fraunhofer Institute for Physical Measurement Techniques IPM, DE		OPTRO-2012-087 Estimation of Microchannel Plate Noise Figure by Gain Variation of Output Pulse Height Distribution Bestfater, D.; Kulov, S.; Makedonova, L.; Ryzhkov, A. Baspik, RU		OPTRO-2012-112 Marine simulation in SE-Workbench Cathala, T. OKTAL Synthetic Environment, FR			
12:00						<i>SIMULATION</i>		
						OPTRO-2012-113 Shadows for infrared scene generation Klein, A. ¹ ; Nischwitz, A. ¹ ; Schätz, P. ² ; Obermeier, P. ² ¹ Munich University of Applied Sciences, DE ² MBDA DE, DE		
12:20	CLOSURE OF SYMPOSIUM							