5th CWO Poster Session

Commission for Scientific Research (CWO)

Royal Military Academy

Technical program

04 May 2019 – 1330 Hr - 1530 Hr – Room: Patio Bloc K

	Poster title	Authors
ABAL		
1	Modeling complex behavior of a multi-projectile Counter-UAV 12 gauge ammunition	C. Ameloot, C. Robbe, A. Papy and P. Hendrick
2	Design of a dedicated Hopkinson-bar for measuring impact force of non-lethal projectiles	C. Robbe, A. Papy and P. Herrebout
3	Influence of actual impact conditions versus testing conditions on the efficiency of torso body armour systems.	A. Azevedo and F. Coghe
4	Quantitative Optical Measurement Techniques in the Ballistics Field	A. Moumen, B. Stirbu, J.Grossen and J.Gallant
5	IED secondary debris simulating projectile	A. Miranda-Vicario
6	Creation of Anthropometric 3D Finite Element Head Model for Blunt Impact Assessment	N. Nsiampa and A. Papy
7	Development and Validation of a Biofidelic Numerical Head Model for the Evaluation of the Risk on Behind-Helmet Blunt Trauma	N. Nsiampa and F. Coghe
8	Gun barrel erosion analysis using a coordinate measuring machine	M. Dhouibi, B. Stirbu, A. Chabotier and M. Pirlot
CISS		
9	Impact of laser weapon strikes on thermal IR imaging systems	G. D. Lewis and M. Vandewal
10	A Measurement Campaign for EO/IR Signatures of UAVs	A.Borghgraef and M.Vandewal
11	Thermal modeling of out-of-band laser heating of an anti-reflection coated germanium window	K. Desnijder and M. Vandewal
12	ShipIntel - Automatic vessel signatures detection and ship ID recognition	C. Nita and M. Vandewal
13	A Shooting Simulator for the Estimation of Laser Dazzle Effects	T. Földes and M. Vandewal
14	Deploying and testing the Multi-Agent Ranking Framework	G. Nikolov, T. Debatty and W. Mees
15	Automated Cyber Red Teaming	P. de la Vallée, G.Nikolov, T. Debatty and W. Mees
16	Estimation of the magnetic moment of a sea mine	Y. Yvinec
17	Intelligent Recognition Imaging System	S. Bellis, K. Boeckx, P. Martens and X. Neyt
18	Artificial Intelligence for Battlefield Awareness	K. Boeckx and X. Neyt
19	Image-based GNSS-denied Navigation for BLOS System	M. Idrissa and X. Neyt
20	Automatic monitoring of sites of interest by means of Sentinel-1/2 time series	M. Stasolla and X. Neyt

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21	Sea-floor characterization based on high resolution sonar data via deep learning	Y. Arhant, X. Neyt, O. Lopera Tellez and A. Pizurica
22	iPoint: Positioning,Tracking and Navigation Solution for Indoor Spaces	H. M. Chaudhary and B. Scheers
23	Indoor Positioning, Navigation, and Timing (iPoint) System	G.Gheysen, H.Chaudhary, M.Becquaert and B.Scheers
CHCH		
24	Enhanced respiratory protection	L.F. Velasco
25	A laboratory scale technique to simulate a combined effect of blast wave and projectile impact loading on structures	O. Atoui, A. Maazoun, A. Moumen, B. Belkassem, L. Pyl and D. Lecompte
26	Homemade Explosive: Phlegmatization, Detection and Post-Blast Analysis of TATP	L. Jeunieau, B. Simoens and M.H. Lefebvre
27	Detection of explosives by an ultra-portable NIR technology approach	A.-F. Prior, L. Jeunieau, B. Simoens, M.H. Lefebvre, F. Coppey, P. Esseiva and O. Delémont
28	Prevent, Protect and Recovery from Incident or Accident by Radiological Detection	D. Malfroid
29	Detonation Simulant of Home-Made Explosive as Donor Charge for Tertiary Explosives	D. Belmehdi, M.H. Lefebvre, M.K. Boulkadid and R. Van Riet
30	Novel energetic materials based on nanoporous carbonaceous materials	P. Melo Bravo, P. Lodewyckx, C.O. Ania, M.H. Lefebvre and R. Van Riet
31	Next Generation Powder project	G.Vidick, N. Wilmet, R. Van Riet and M.H. Lefebvre
32	Powder with Attenuated Erosion (PEA project)	G.Vidick, N. Wilmet, M.H. Lefebvre and R. Van Riet
33	Study of low cost lightweight ceramic sacrificial claddings for the protection of vehicles against IEDs	B. Belkassem, A. Aminou, B. Reymen and D. Lecompte
34	Consistent Explosion Simulation Test : A highly controllable combined Blast & Fragment loading setup	G. Kechagiadakis, D. Lecompte and F. Coghe
COST		
35	Quelle est la valeur ajoutée d'un INTCEN renforcé pour le partage de l'information et du renseignement d'origine européen pour la lutte contre le terrorisme (islamiste) ?	N. Marcus
36	Impacts of social & economical factors on the Intelligence Community	M. Alexandre
DEML		
37	Adaptive Command in Extreme Contexts	S. Delvaux, H. De Smet and B. Schreurs
38	From Misery to Victory: Increase Your Change Success in Public Sector Organizations!	S. Vanhengel, B. Georges, G. Letens, K. Verweire, and H. Keathley
LIFE		
39	Basic needs satisfaction in a military learning environment	A. Lepinoy, S. Lo Bue and R. Vanderlinde
40	Cooperation and hyperscanning in the military-Reducing cognitive workload through synchronous action	N. Bourguignon, E. Caspar, N. Coucke and S. Lo Bue
41	Reintegration of crisis services employees: A systematic literature review	V. Glorieux, M. Euwema and S. Lo Bue
42	Human – Automated System Interaction: Effect of Level of Automation on Moral Decision-Making in Military Agent.	A. Prével and S. Lo Bue

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43	Smart is the new strong	E. Lacroix, J. Van Cutsem, M. Van Puyvelde, O. Mairesse, E. Dessy, C. Verheyden, W. Huybens, S. Lo Bue, V. Tibax, R. Vliegen, J. Ceccaldi, L. Baessens, W. De Bremme and N. Pattyn
44	DEVEDUC: Fight as you train or train as you fight? Developing and integrating 'deviation education' as an aviation safety tool.	F. Detaille, M. Van Puyvelde and N. Pattyn
45	GEMINIDS: optimizing decompression sickness mitigation strategies in military diving and high-altitude flying operations using a novel adaptive gas exchange model	S. De Ridder, N. Pattyn, X. Neyt and P. Germonpré
46	Optimizing and Individualizing Sleepiness Countermeasures; a Genotyping-approach	J. Van Cutsem, P. Helmhout, G. Rietjens, M. Van Puvelde, E. Lacroix, S. De Ridder, X. Neyt and N. Pattyn
47	"Use it or loose it": Technical and non-technical skill retention in medical military emergency care.	M. Van Puyvelde, F. Detaille, F. Waroquier, E. Lacroix and N. Pattyn
MECA		
48	Propagation of high-intensity sound from gunfire and firearms	G.Billot, B. G. Marinus, K. Harri and F. Moiny
49	Mechanical Design of High-Altitude Propeller Blades Using 3D Printing	A. Malim, B. G. Marinus and T. De Troyer
50	Multi-disciplinary design optimization of a high-altitude pseudo satellite	N. Mourousias, B. G. Marinus and M. Runacres
51	Numerics – Numerics and Experiments on Low Speed High Altitude wings	C. Brunelli, B. Janssens and B. G. Marinus
52	CBRN atmospheric dispersion and response modeling with real time weather data	T. Carion, B. Janssens, A. Delcloo, P. Termonia and B. Lauwens
53	Elaboration of CFD models for contaminant dispersion in a subway station	L. Faugier, B. G. Marinus, W. Bosschaerts, D. Laboureur and K. Limam
54	Near – Field Pollutant Dispersion Due to Explosions	P. Atikpo, B. Janssens, D. Lecompte, D. Laboureur and C. Fouchier
55	Thermal comfort and air quality in vehicle cabin environments (CabEnv)	A. Jamin, W. Bosschaerts, I. Nastase, F. Bode, B. Janssens and P.A. Danca
56	Automated take-off and landing of UAV from Belgian Navy vessels	T. Nguyen
57	iMUGS – integrated Modular Unmanned Ground Systems	E. Le Flecher, A. La Grappe and G. De Cubber
58	Visual SLAM for Autonomous Drone Landing on a Maritime Platform	T. Dutrannois, T-T. Nguyen, C. Hamesse, G. De Cubber and B. Janssens
59	Visual Drone Detection and Tracking for Autonomous Operation from Maritime Vessel	T. Halleux; T-T. Nguyen; C. Hamesse, G. De Cubber and B. Janssens
60	Effect of ageing on the performances of UHMWPE based ballistic protections	L. Gilson, F. Coghe, A. Imad, A. Bernardi and L. Rabet
61	Numerics & Experiments on Low-Speed High Altitude Wings	M. Avirovic
MWMW		
62	Maximum entropy networks for large scale social network node analysis	B. De Clerck, F. Van Utterbeeck and L. E.C. Rocha
63	JIFSO: Julia-based Interoperable Framework for Simulation and Optimisation	J. Van Kerckhoven, T. E. Harbi, T. Vancaeyzeele, P. Van Der Paelt, B. Lauwens and F. Van Utterbeeck
64	Study of cryptographic techniques with focus on symmetric key algorithms and hash functions	H. Bruyninckx, F. Lafitte, J. Liénardy, A. Neyt and J. Petit
65	UNCOVER	V. Leask, D. Borghys, H. Bruyninckx, F. Lafitte, E. Né, A. Neyt and J. Petit
66	Simedis CBRN : Construction of a Dynamic Victim Model	M. Benhassine, R. De Rouck, M. Debacker, I. Hubloue, E. D'hondt and F. Van Utterbeeck

67	Track spacing optimization for mine countermeasure operations using autonomous unmanned vehicles	D. Desmidts, F. Van Utterbeeck and B. Lauwens
68	MarSur: unmanned maritime systems for maritime surveillance	B. Pairet, G. Decubber and R. Haelterman
69	Military intelligent extended reality system	T. Fréville, Ch. Hamesse and R. Haelterman
70	Shared Situational Awareness for Vessels	R. Lahouli, G. De Cubber and R. Haelterman
71	Military Intelligent Extended Reality Systems – Part I: Augmented Reality	C. Hamesse, T. Fréville and R. Haelterman
PHYS		
72	Development and Installation of an ICRF Antenna for the Optimized Stellarator W7X	F. Louche and J. Ongena
73	TWA Analysis: ANTITER IV and HFSS Analysis of power Spectrum and near fields	V. Maquet and R. Ragona
SCGW		
74	The morality of the use of lethal autonomous weapon systems: the problem of attributing moral responsibility	A. Oimann
75	Belgian Defense and Ethnic Diversity	G. Belpaire
DLD		
76	EuroBioTox and RICIn Detection, Identification and Verification of the biological activity	Z. Paquet, M. Bentahir, M. De Mey, J.-L. Gala and B. Sulka
77	Ops activities and help to the nation	C. Dumont, L. Irenge, G. Fastré, J.-L. Gala and B. Sulka
78	Nucleid acid isothermal amplification methods for fast and reliable detection of biothreat agents: Potential for on-site use in operational conditions	M. Bentahir, P. Vandenberghe, L. Irenge and J.-L. Gala
MHQA		
79	Study proposal on the use of LC-OCT as a complementary tool for the grading and healing time prediction of burn wounds	C. Orte Cano, J.P. Draye, T. Rose, A. Pierlot, G. Verbeken, D. De Vos, N. Delmotte, B. Pascual, E. Adeleye, L. Convents, M. Suppa, V. del Marmol and J.P. Pirnay
DG H&WB		
80	Two studies in one: Backpack Study and Body Composition Study	L. Van Veelen, P.Mullie and J.-B. Cappelier
81	Losing the war on obesity? Time for another strategy!	L. Van Veelen, P.Mullie and J.-B. Cappelier
RSWO		
82	Research support from RSWO	S. Di Giglio, H. Bruyninckx and M. Dirickx

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