Programme Overview Time								Events							
9 Sept (Day 0)			10 Sept (Day 1	1)			11 Sept (Day 2	2)			12 Sept (Day 3	3)			13 Sept (Day 4)
"Lecture Theatre": Room 1	8:00		Welcom	ne address	8:00	9:00	Regis	stration	8:00	9:00	Regis	stration	9:00	9:40	Registration + light breakfast (ARTC)
"Lecture Room": Room 2			(Ro	om 1)											
Keynote: 30 min. presentation + 8 min. Q&A Plenary & Invited: 25 min. presentation + 3 min. Q&A Oral Presentation:	9:00	9:40	Thomas Haubo Surface Enhancement	Session 1: old (Rolls-Royce) Processes in Aeroengine facturing (Room 1)	9:00	9:40	Minghui H Laser Processing and Si	Session 2: long (NUS) gnal Diagnostics for In-situ oring (Room 1)	9:00	9:40	Takashi Surface finishing technique	Session 3: Sato (IHI) es for EBM-manufactured Ti- nents (Room 1)	9:40	10:25	Workshop 1: Brigitte Labelle (Shockform Aeronautique) Flapper peening with the FlapSpeed® PRO
15 min. presentation + 3 min. Q&A	9:50		Room 1 [ID: 081]		9:50		Invited talk 2: Domenico Furfari (Airbus) LP - laser shock peening (Room 1)			10:20	SF - AM post processing (Room 1)	Room 2 [ID: 019] (10:00-10:20)	10:25	11:10	Workshop 2: Klaas Rozema (Dycomet Europe B.V.) Cold Spray introduction, equipment & applications
		10:30	Room 1 [ID: 068]	Room 2 [ID: 089]		10:40		Room 2 [ID: 076]		10:40		Room 2 [ID: 035]			Workshop 3:
	10:30		Room 1 [ID: 024]	Room 2 [ID: 051]	10:40			Room 2 [ID: 077]	_	11:00		Room 2 [ID: 054]			Young Sik Pyun (Sun Moon Univ.)
	10:50	11:10	Tea break Room 1 [ID: 041]	Tea break Room 2 (ID: 075)	11:00	11:20 11:40		Tea break Room 2 (ID: 050)	11:00			Tea break Room 2 [ID: 036]	11:10	11:55	The change of micro structure, and mechanical properties and
		11:50	Room 1 [ID: 041]	Room 2 [ID: 075]		12:00		Room 2 [ID: 050]	11:40			Room 2 [ID: 036]			performance by ultrasonic nanocrystal surface modification
		12:10	Room 1 [ID: 096]	Room 2 [ID: 027]	11.40	12.00	TOOM 1 [ID. 033]	1000112 [10.000]		12:20		Room 2 [ID: 042]			(UNSM) and its application to industrial products
	12:10	13:10	Lunch	Plenary session 1: Hitoshi Soyama (Tohoku Univ.) amentals and applications of cavitation peening aparing with shot peening and laser peening (Room 1)		13:10	Lunch	break					11:55	13:15	5 Lunch break
	13:10	13:40	Hitoshi Soyama Fundamentals and applic comparing with shot pe			13:40	Plenary session 2: Yongxiang Hu (Shanghai Jiao Tong Univ.) Efficient modeling of laser peening for residual stress and shape control (Room 1)		12:20	13:30	D Lunch break		13:15	14:30	Workshop 4: David Butler (Univ. Strathclyde) Surface Topography – A fingerprint for greater process control
			Invited talk 1: Yuji Kobayashi (Sintokogio) FLE - shot peening (Room 1)			14:20	(14:00-14:20)	Invited talk 3: Janne Suoknuuti (Stresstech) PV&MC - strain analysis (Room 2)		14:00	Prize Pre (Rod	e Announcement esentation om 1)			
		14:40	Room 1 [ID: 033]	Room 2 [ID: 047]		14:40		Room 2 [ID: 023]		14:20		Briefing			
	14:40 15:00		Room 1 [ID: 021] Room 1 [ID: 067]	Room 2 [ID: 022] Room 2 [ID: 015]	14:40	15:00 15:20		Room 2 [ID: 034] Room 2 [ID: 045]	14:40	7	Bus departu	ire (to ARTC)			
		_			15:00	15:20	· · ·	Tea break	1						
	15:20		Tea break	Tea break	15:20	15:40	rea break	i ea break	4						
	15:40	16:20	Room 1 [ID: 018] Room 1 [ID: 088]	Room 2 [ID: 038] Room 2 [ID: 062]		16:10	(Room 1)	Room 2 [ID: 058] (15:50-16:10)	15:20	17:00		Visit RTC)			
	16:20	16:40	Room 1 [ID: 044]	Room 2 [ID: 093]		16:30		Room 2 [ID: 078]	I			(to Durana Mata)			
	40,50	17.00	Oviels Fire Deates D	recentation (Peam 1)	16:30	16:50	Room 1 [ID: 005]	Room 2 [ID: 073]	17:30		Bus departure	(to Buona Vista)			

Industry Dialogue: Current capabilities and needs for surface finishing, enhancement, and characterisation (Room 1)

Bus departure (to MBS)

Conference Dinner @ MBS

Poster Presentations

18:00 21:00

Welcome /Cocktails Session @ Beerfest (Buona Vista)

	ID	Author	Organisation	Title	Topic
Proc	087	Yukui Gao	Tongji University	Investigation on theoretical analysis of residual stress distribution induced by shot peening in 2397 Aluminum-Lithium alloy	Fatigue Life Enhancement
	016	Kumar Balan	Ervin Industries	Performance characteristics using SS grit in place of AlOx	Fatigue Life Enhancement
	017	Brian McGillivray	VibraFinish	Vibratory Peening and its impact on commonly used components	Fatigue Life Enhancement
	052	Jeffrey Hu	ARTC	Deep Cold Rolling and Residual Stress Distribution: A Case Study of Ti-alloy	Fatigue Life Enhancement
	055	Hongfei Liu	IMRE	Structural evolutions of single-crystal Ni-superalloys with and without EDM-deformed surface layers upon robotic hammer peening: A combination of XRD and EBSD investigations	Fatigue Life Enhancement
	064	Haiyang Lu	Shandong University	Tangential functional gradient coating design for complex profile workpieces with erosion enhancement	Fatigue Life Enhancement
Proc	013	Sabeur Msolli	IHPC	An Automated Deposition Procedure for Cold Spray Additive Manufacturing Process Modelling based on Finite Element Simulation	Fatigue Life Enhancement
	097	Young Sik Pyun	Sun Moon University	An Application of Portable UNSM (Ultrasonic Nanocrystal Surface Modification) System for Welded Joints and Maintenance	Fatigue Life Enhancement
roc	079	Basil Kuriachen	National Institute of Technology Mizoram	Sliding Behavior of Secondary Phase SiC Embedded Alloyed Layer Doped Ti6Al4V Surfaces Ensuing Electro Discharge Machining	PV&MC
	083	Dennise Tanoko Ardi	ARTC	Microstructures and Fatigue Performance of Direct Metal Laser Sintered Inconel 718 Following Post Processing Heat Treatment and Shot Peening	PV&MC
Proc	025	Sho Itoh	ARTC	In situ measurement of granular pressure and velocity on component surfaces in stream finishing	Surface Finishing
	061	Adri Abu Bakar	ARTC	Effect of Abrasive Grit Size and Internal Diameter in AFM of EBM printed surface	Surface Finishing
	020	Feng Xiaotai	Air Force Engineering University	Study on Mechanism of Life Extension of Titanium Alloy Hole Subjected to Laser Shock Peening	Laser Processes
	026	Zhou Liucheng	Air Force Engineering University	Effect of Laser shock peening treatments on Foreign Object Damage Tolerance of titanium alloy blades	Laser Processes
Proc	063	Zhiheng Hu	SIMTECH	Tailoring surface roughness of micro selective laser melted SS316L by in-situ laser remelting	Laser Processes
	065	Kin Keong Wong	ARTC	Effect of contour parameters on surface quality for Laser Powder-bed Fusion	Laser Processes
	084	Xiangfan Nie	Air Force Engineering University	Numerical simulation and residual stress distribution of laser-peened titanium alloy aerofoil subjected to foreign object damage	Laser Processes

17:00 18:00

18:15 19:00 21:45

Quick Fire Poster Presentation (Room 1)

Poster Session (Exhibition hall)

16:50 17:00

17:00 18:00

	Preser	entations							Events					
	8:45	10 Sept (Day 1) Registration					11 Sept (Day 2	2)	Events		12 Sept (Day 3)			
	8:45 9:00 Welcome address (Room 1)			8:00	9:00	Registration				8:00 9:00	0 Registration			
9:00	9:00 9:40 Keynote Session 1: Thomas Haubold (Rolls-Royce) Surface Enhancement Processes in Aeroengine Component Manufacturing (Room 1)			9:00	9:40 L	Keynote Session 2: Minghui Hong (NUS) Laser Processing and Signal Diagnostics for In-situ Process Monitoring (Room 1)					Keynote Session 3: Takashi Sato (IHI) Surface finishing techniques for EBM-manufactured Ti-6AI-4V components (Room 1)			
		Session 1A: Shot peening 1 & UNSM Se	ession 2A: Finishing & Cold spray			S	ession 1C: Laser shock peening 1	Sess	ion 2C: Surface integrity & Inspection		Session 1E: Surface finishing Session 2E: Peening & Cold Spray [ID: 019] Hongfei Liu (IMRE)			
9:50	10:10	D Room 1 Paper 1 FLE - shot peening An Investigation of Microwave Sensor Application on Conventional Shot Peening Media Dosage Unit		9:50 1	10:20	nvited talk 2 Room 1)	Domenico Furfari (Airbus) LP - LSP An Overview of the Requirements for Implementing Laser Shock Peening into Aerospace Industry			9:50 10:20	[ID: 094] Sebastian Schuberth (Rosler) [Nom 1] Invited talk 5 [Room 1] Invited talk 5 [Room 1] Invited talk 5 [Room 2] Paper 1 [The challenges of finishing additive manufactured parts ID: 094] Sebastian Schuberth (Rosler) Room 2 Paper 1 Challenges of finishing additive manufactured parts ID: 094] Sebastian Schuberth (Rosler) FLE - hammer peening FLE - hammer peening Flet of robustian stammer peening Comparison of the challenges of finishing additive manufactured ID: 094] Sebastian Schuberth (Rosler) Room 2 Paper 1 Comparison of the challenges of finishing additive manufactured ID: 094] Sebastian Schuberth (Rosler) FLE - hammer peening Flet of robustian stammer peening Flet of robustian stammer peening Comparison of the challenges of finishing additive manufactured ID: 094] Sebastian Schuberth (Rosler) Room 2 Paper 1 Comparison of the challenges of finishing additive manufactured ID: 094] Sebastian Schuberth (Rosler) FLE - hammer peening Flet of robustian stammer peening Comparison of the challenges of finishing additive manufactured ID: 094] Sebastian Schuberth (Rosler) Room 2 Paper 1 Comparison of the challenges of finishing additive manufactured ID: 094] Sebastian Schuberth (Rosler) FLE - hammer peening Flet of robustian stammer peening Comparison of the challenges of finishing additive manufactured ID: 094] Sebastian Schuberth (Rosler) ID: 094] Sebastian Schuber			
10:10	10:30		[ID: 089] Srinivasan Lakshminarayanan (NTU) SF - robot filleting Toolpath generation for robot filleting	10:20 1	10:40 F	Room 1 Paper 1	[ID: 074] Michael Fitzpatrick (Coventry Univ.) LP - LSP Laser peening for life extension in aerospace structural applications	Room 2 Paper 1	[ID: 076] Yusuf Kaynak (Marmara Univ.) SF - surface integrity Surface integrity characteristics of NiTiHf High Temperature Shape Memory Alloys	10:20 10:40	40 Room 1 Paper 1 I[ID: 066] Wolfgang Hansal (Hirtenberger) SF - AM post processing Adequate industrial post-processing for dynamically loaded 3D-printed metal parts I[ID: 066] Wolfgang Hansal (Hirtenberger) SF - AM post processing Adequate industrial post-processing for dynamically loaded 3D-printed metal parts I[ID: 035] Peter Sticht (TU Darmstadt) FLE - hammer peening Effects of machine hammer peened surface textures on the tribological behavior of stant tools			
10:30	10:50	[ID: 024] Cedric Pilard (Sonats) Room 1 Paper 3 FLE - ultrasonic shot peening Ultrasonic Shot Peening on Commercial Aviation	[ID: 051] Yoshitomi Yamada (ISUZU Motors) FLE - nitride layer Influence of crystal structure of nitride compound layer on torsional fatigue strength of alloy steel	10:40 1		Room 1 Paper 2	[ID: 040] Hirotoshi Sasaki (Tohoku Univ.) LP - LSP Effect of Bubble Radius on Ability of Submerged Laser Peening	Room 2 Paper 2	[ID: 077] Yusuf Kaynak (Marmara Univ.) SF - finish-milling, AM The effect of Finish-Milling Operation on Surface Characteristics of Incomel 625 Alloy produced by Selective Laser melting Additive Manufacturing	10:40 11:00	[ID: 072] Arun Prasanth Nagalingam (NTU) SF - cavitation finishing Fletcs of Combined Wear Mechanisms in Internal Surface Finishing using Controlled Hydrodynamic Cavitation Abrasive Finishing Process Proc Proc [ID: 054] Leonor Neto (Cranfield Univ.) FLE - hammer peening Room 2 Paper 3 Mechanical Properties Enhancement of Ad Manufactured Ti-6Al-4V by Machine Hammer Peening Proc			
10:50	11:10	Tea break	Tea break	11:00 1	11:20		Tea break		Tea break	11:00 11:20	Tea break Tea break			
11:10	11:30	Room 1 Paper 4 FIG. Proc. Room 1 Paper 4 FIG. Proc. Room 2 Paper 3 Room 2 Paper 3 Room 2 Paper 3	[ID: 075] Pietro Magarò (Univ. della Calabria) PV&MC - cold spray Influence of deposition parameters on mechanical properties and tribological behavior of Stellite-6 coatings obtained by cold gas dynamic spray	11:20 1		Room 1 Paper 3	Application of Laser Peening for Cold Work Steel	Room 2 Paper 3	[ID: 050] Lei Zhang (IMRE) PV&MC - acoustic shearography Wave-based Acoustic Shearography for Defect Characterisation	11:20 11:40	ID: 032] Hiroki Mizuno (Sintokogio) SF - barrel finishing SF - barrel finishing ID: 032] Hiroki Mizuno (Sintokogio) SF - barrel finishing ID: 032] Hiroki Mizuno (Sintokogio) SF - barrel finishing ID: 036] Yuya Okura (Tohoku Univ.) FLE - various peening methods Fletct of Mechanical Properties on Fatigue Life Erhancement of Additive Manufactured Titanium Treated by Various Peening Methods ID: 036] Yuya Okura (Tohoku Univ.) FLE - various peening methods Fletct of Mechanical Properties on Fatigue Life Erhancement of Additive Manufactured Titanium Treated by Various Peening Methods ID: 036] Yuya Okura (Tohoku Univ.) FLE - various peening methods ID: 036] Yuya Okura (Tohoku Univ.) FLE - various peening methods ID: 036] Yuya Okura (Tohoku Univ.) FLE - various peening methods ID: 036] Yuya Okura (Tohoku Univ.) FLE - various peening methods ID: 036] Yuya Okura (Tohoku Univ.) FLE - various peening methods ID: 036] Yuya Okura (Tohoku Univ.) FLE - various peening methods ID: 036] Yuya Okura (Tohoku Univ.) FLE - various peening methods ID: 036] Yuya Okura (Tohoku Univ.) FLE - various peening methods ID: 036] Yuya Okura (Tohoku Univ.) FLE - various peening methods ID: 036] Yuya Okura (Tohoku Univ.) FLE - various peening methods ID: 036] Yuya Okura (Tohoku Univ.) FLE - various peening methods ID: 036] Yuya Okura (Tohoku Univ.)			
11:30	11:50	ELE - shot poening	[ID: 012] Zhiqian Zhang (IHPC) FLE - cold spray A Data Driven Approach for Simulating and Optimizing Metal Cold Spray Additive Manufacturing Process	11:40 1		Room 1 Paper 4	[ID: 039] Ching Kiat Yong (Univ. Warwick) LP - LSP Influence of Laser Shock Peening (LSP) on the material properties of Additive Manufactured IN718	Room 2 Paper 4	[ID: 008] Shaowei Fu (ARTC) PV&MC - surface inspection Surface Texture Evaluation On Mirror Finish Surface Using Patterned Area Illumination Method	11:40 12:00	[ID: 009] Cary Kenny Turangan (IHPC) SF - stream finishing SF - stream finishing SF - stream finishing SF - stream finishing Room 2 Paper 5 [ID: 006] Wai Luen Chan (Rolls-Royce) FLE - vibro peening Parametric study of fixtured vibropeening Parametric study of fixt			
11:50	12:10	[ID: 096] Young Sik Pyun (Sun Moon Univ.) FLE - UNSM UNSM (Ultrasonic Nanocrystal Surface Modification) of Metal AM (Additive manufacturing) to Improve Fatigue Strength and Wear & Friction Property	[ID: 027] Elke Hombergsmeier (Airbus) FLE - cold spray How to realize Structural Repair by Cold Spraying inside the Aerospace Industry?	12:00 1	13:10		Lunch	n break		12:00 12:20	Room 1 Paper 5 [ID: 095] David Soldan (Rosler) SF - surface finishing Process with Mass Fi			
12:10	2:10 13:10 Lunch break					12:20 13:30				30 Lunch break				
13:10	Plenary session 1: [ID: 028] Hitoshi Soyama (Tohoku Univ.) Fundamentals and applications of cavitation peening comparing with shot peening and laser peening (Room 1) Proc			13:10 1	13:40 E	Plenary session 2: Yongxiang Hu (Shanghai Jiao Tong Univ.) 3:40 (Room 1) Session 1D: Laser shock peening 2 & Deep rolling Session 2D: Material characterisation								
13:50	14:20	Session 1B: Shot peening 2 Yuji Kobayashi (Sintokogio) FLE - shot peening Transition of shot peening technology in Japanese automobile industry	2B: Surface treatment & Laser processes	13:50 1	14:20 F		1D: Laser shock peening 2 & Deep rolling [ID: 029] Weifeng He (Univ. Manchester) LP - LSP Shock Wave Propagation and Residual Stress Distribution in 316 Stainless Steel Treated by Nanosecond Pulsed Laser with Different Spatial Energy Distributions	Invited talk 3 (Room 2)	Janne Suoknuuti (Stresstech) PV&MC - strain analysis Improvement of component manufacturing, durability and failure analysis by quality inspection methods	13:30 14:00	Next Conference Announcement Prize Presentation (Room 1)			
14:20	14:40		[ID: 047] Punit Kumar (NTU) FLE - heat treatment Effect of the heat-treatment and surface treatment on the fatigue behaviour of 3D printed Ti-Alloy	14:20 1		Room 1 Paper 6	[ID: 043] Sudhagara Rajan (Vellore Inst. of Tech.) LP - LSP A comparison of surface and sub-surface features induced by Shot Peening Vs Laser Peening on a Duplex aged Beta Ti alloy	Room 2 Paper 5	[ID: 023] Kai Siang Chin (ARTC) PV&MC - stress relaxation Mechanical Stress Relaxation of Surface Treated Nickel Based Superalloys	14:00 14:20	Safety Briefing (Room 1)			
14:40	15:00	Room 1 Paper 8 [ID: 021] Michael Seitz (IAM) FLE - composite peening Mechanical Investigations on Composite Peened Aluminium [ID: 021] Michael Seitz (IAM) FLE - composite peening Mechanical Investigations on Composite Peened Aluminium [ID: 022] Niroj Maharjan (ARTC) FP - hardening Effect of laser-induced microstructure in cavitation erosion performance of martensitic stainless steel				Room 1 Paper 7	[ID: 080] Han Cheng (Shanghai Jiao Tong Univ.) LP - LSP Crack retardation of damage through enhanced crack closure effect induced by laser peening	Room 2 Paper 6	[ID: 034] Kan Aoki (Sintokogio) PV&MC - shot peening, in situ RS Incorporation of evaluation technology into shot peening machine	14:40	Bus departure (to ARTC)			
15:00	15:20	ELE - cingle chot process	[ID: 015] Rui Huang (SIMTech) LP - machining A study on surface enhancement of laser assisted additive manufactured part followed by in-situ machining process	15:00 1	15:20 F	Room 1 Paper 8	[ID: 091] Jeff Dulaney (LSP Technologies) LP - LSP Preparing Laser Peening Technologies for Industry 4.0/Industrie 4.0	Room 2 Paper 7	[ID: 045] Jan Nickel (TU Dortmund) PV&MC - hole drilling Influence of the Feed Rate in the Single-Lip Deep Hole Drilling Process on the Surface Integrity of Steel Components					
15:20	15:40	D Tea break	Tea break	15:20 1	15:40		Tea break		Tea break					
15:40	16:00	Room 1 Paper 10 FLE - shot peening Optimization of shot peening for titanium alloys Ti	[ID: 038] Ahmed Alghamdi (Univ. Manchester) LP - structuring Surface Structuring of Multilayer Coated Cutting Tool Using Nd: YVO4 nanosecond Laser	15:40 1	16:10 (I	nvited talk 4 Room 1)	Karsten Rottger (Ecoroll) FLE - DCR Tailored Mechanical Surface Enhancement	Room 2 Paper 8 (15:50-16:10)	[ID: 058] Shun-lai Zang (Xi'an Jiaotong Univ.) PV&MC - strain analysis Constitutive modeling of strain rate-dependent plasticity of titanium alloy over wide range of strain rates	15:20 17:00	Site Visit (ARTC)			
16:00	16:20	Proc Ultrasonic shot peened steel Proc	[ID: 062] Balasubramanian Nagarajan (SIMTech) LP - 3D printing Effect of in-situ laser remelting on the microstructure of SS316L fabricated by micro selective laser melting	16:10 1		Room 1 Paper 9	[ID: 086] Chenyao Cao (Titech) FLE - burnishing Influence of Burnishing Process on Microstructure and Corrosion Properties of Mg Alloy AZ31	Room 2 Paper 9	[ID: 078] Alexander Korsunsky (Univ. Oxford) PV&MC - RS analysis Residual stresses analysis in rolled and machined nickel alloy plates by synchrotron X-ray diffraction and 3D eigenstrain analysis					
16:20	16:40		[ID: 093] Marco Pacchione (Airbus) LP - Laser peen forming Laser peen forming of metallic airframe structures	16:30 1	_ ا_	Room 1 Paper 10	[ID: 005] Mehmet Okan Gortan (Hacettepe Univ.) FLE - Deep rolling Measurement of Residual Stresses on Deep Rolled Round Aluminum Samples Using Hole Drilling Strain Gage Method	Room 2 Paper 10	[ID: 073] Jeferson Araujo de Oliveria (StressMap, Open Univ.) PV&MC - RS mapping Residual stress mapping in a Ti-6AI-4V WAAM additive manufactured block after single-pass mechanical rolling	17:30	Bus departure (to Buona Vista)			
16:50	16:50 17:00 Quick fire poster presentation (Room 1)			17:00 1	18:00 Industry Dialogue: Current capabilities and needs for surface finishing, enhancement, and characterisation (Room 1)						* Proc Proceedings (available online, Lecture Notes in Mechanical Engineering)			
17:00	7:00 18:00 Poster Session (Exhibition hall)					Bus departure (to MBS)					* Eatigue Life Enhancement (FLE) Product Verification and Material Characterisation (PV&MC) Surface Einishing (SF) Laser Process (LP)			
						Conference Dinner (MBS)					→ Each category includes Industrie 4.0 (I4.0)			

		13 Sept (Day 4)
9:00	9:40	Registration + light breakfast (ARTC)
9:40	10:25	Workshop 1: Brigitte Labelle (Shockform Aeronautique) Flapper peening with the FlapSpeed® PRO
10:25	11:10	Workshop 2: Klaas Rozema (Dycomet Europe B.V.) Cold Spray introduction, equipment & applications
11:10	11:55	Workshop 3: Young Sik Pyun (Sun Moon Univ.) The change of micro structure, and mechanical properties and performance by ultrasonic nanocrystal surface modification (UNSM) and its application to industrial products
11:55	13:15	Lunch break
13:15	14:30	Workshop 4: David Butter (Univ. Strathclyde) Surface Topography – A fingerprint for greater process control