

International Conference of Welding, Joining and Additive Manufacturing WJAM 2020

28 JAN 2020 Kfar Maccabiah Hotel, Ramat Gan

08:00-09:00	Registration and gathering			
09:00-09:30	Welcoming Eng. Ehud Noff – Chairman of the Association of Engineers and Architects in Israel(AEAI) Dr. Emanuel Liban - Chairman of The Israeli Society of Mechanical Engineers and Aerospace at AEAI Eng. Adi A. ATSITS, Adv. – Chairman of The Israeli National Welding Committee at AEAI/ AEWICS CEO Dr. Amnon Shirizly - Conference Chair- Additive Manufacturing , Rafael Eng. Amichai Pessach – Conference Chair-Welding, Morex 71 Eng. Hezi Schwartzman - Head of the IL-OSHA &Chief Labor Inspector, Ministry of Labor, Social Affairs & Social Services			
09:30-10:10	Opening Lecture: “Codes, Standards, and Talent. The American Welding Society at 100” Robert W. Roth, President & CEO, American Welding Society (AWS)			
10:10-10:50	Opening Lecture: “A mature industrial ecosystem for DED additive manufacturing” Dr. Filomeno Martina, WAAM3D Limited, Cranfield University, Cranfield, UK			
10:50-11:20	Coffee break and exhibition			
	AM (English)-A Morning chairs: Prof. Eli Aghion – BGU university Dr. Oded Amir - Technion	AM (English)-B Morning chairs: Prof. Gennady Ziskind – BGU university Dr. Eitan Tiferet – NRCN, Rotem Ind.	Welding (English)-C Morning chairs: Haim Daon	Welding (Hebrew)-D Morning chairs: Yossi Elmalam
11:20-11:50 KEYNOTE	Am26: Dimensional Accuracy and Fatigue Strength of H13 Components Produced J. Tomas , M. Merkel Aalen University of Applied Science, GERMANY.	AM24: Large-Part Metal Additive Manufacturing: Industrial Adoption Trends and a Technical Overview John O’Hara, Sciaky, Inc. USA.	W12:Welding, a technology joining people Luca Costa, Incoming Chief Executive Officer, IIW	W1:Welds Repairs of Pressure Vessels based on API 510 Jacky Bendayan, Dayanson Shaked Ltd

11:50-12:10	<p>AM37:Multi-laser machines ready for Aerospace applications Andreas Solbach, SLM Solutions Group AG, Germany</p>	<p>AM4: The current state of electron beam technology and application in additive manufacturing” Eberhard Wagner, pro-beam systems GmbH, GERMANY.</p>	<p>W13:Magnetic pulse welding and forming in industry Victor Shribman, BMAX</p>	<p>W2:Coated Electrodes for Welding of Stainless Steel with reduced emission of hexavalent chromium Kiril Kiriyevesky, ZIKA</p>
12:10-12:30	<p>AM17:Dream, Think, Make! – How to succeed in Additive Manufacturing Erwin Schulman, IAI, ISRAEL.</p>	<p>AM16: General situation of Additive Manufacturing in different industries Matthias Müller,TRUMPF GMBH, GERMANY.</p>	<p>W14:Characterization magnetic pulse welding of dissimilar additive manufacturing to wrought alloy Dr. Moshe Nahmany, NRCN</p>	<p>W3: Methodology of weld inspection sampling according to different standards. Dr. Yossi Shoef, Gabi Shoef Ltd</p>
12:30-12:50	<p>AM39:Effect of HIP temperature on microstructure and mechanical properties of EBM produced Ti-6Al-4V Denis Zolotaryov ,IIM, Technion, ISRAEL</p>	<p>AM32: Characteristics and advantages of combining 3d-laser printing and mechanical milling in one machine Roland Mayerhofer,O. R. Lasertechnologie GmbH, GERMANY.</p>	<p>W17: From duplex to hyper duplex Peter Stones, ESAB, UK</p>	<p>W15:Cracking mechanisms in Weldments David Kushnir, consultant</p>
12:50-13:10	<p>AM8: Integrating additive manufacturing lattice structure and die casting module to create light weight hybrid Al component A. Leon, S. Fisch, Y. Sharon, Y. Bernachik, S. N.Reuveni, A. Shirizly and E. Aghion, Ben-Gurion University, ISRAEL</p>	<p>AM9: Modelling and characterization of Pre-heating stage in electron beam additive manufacturing E. Landau, Rotem Ind, Ben-Gurion University, ISRAEL.</p>	<p>W16: Adjustable Ring Mode Laser in the Key e-Mobility Welding Applications Jarno Kangastupa Coherent Inc., Finland</p>	<p>W5:Importance of surface preparation before welding or brazing of aluminum Dr. Ariel Grinberg, consultant</p>
13:10-14:10	Lunch / exhibition			

	AM (English)-A Noon chairs: Mr. Gil Dagan - NRCN Dr. Shmuel Osovski - Technion	AM (English)-B Noon chairs: Dr. Ehud Galun – MOD Dr. Alex Diskin - IAI	AM (English)-C Noon chairs: Dr. Malki Pinkas , NRCN Mr. Ohad Dolev - Rafael	Welding (Hebrew)-D Noon chairs: Gal Amir
14:10-14:40 KEYNOTE	AM14: GE Additive The future of Additive Manufacturing In the aerospace and aviation - a GE vision Pär Arumskog, GE Additive, SWEDEN	AM5: Mobile additive AND subtractive machining solution for fast repair and spare part creation Marcus Witt, METROM, GERMANY	AM34: Deciphering the microstructure and residual stress effects on the mechanical behavior of additively manufactured metals Dr. Y. Morris Wang, Lawrence Livermore National Laboratory, USA	W6:Flame cutting safety Amnon Bar Josef, Engineering Services, Safety and Welding LTD
14:40-15:00	AM1: Application Discovery - Evaluating Real Use Cases for In-office Metal 3D Printing Ilya Mirman, Desktop Metal, USA	AM2: Review of Advanced Ti Alloy ALM Process Development Ohad Dolev Rafael Ltd. , ISRAEL	AM10: Towards optimal dynamic response using AM based granular damping Yuval Harduf, Eyal Setter, Michael Feldman, Izhak Buchern RAFAEL, Technion, ISRAEL	W7:Stud welding in civil engineering works Uri Newman,consultant
15:00-15:20	AM7: Engineering Microstructure with Designed Energy Deposition Regimes of Electron Beam Melting Y. Ganor, NRCN, Rotem Ind. ISRAEL.	AM38: Simplify the Additive Manufacturing process with a software solution Maoz Barkai, 3DSYSTEMS Ltd, ISRAEL	AM11: Validation and installation of Additively manufactured parts in the IAF, Shai Oren, IAF, ISRAEL	W8: Metallurgical aspects of laser welding of biomedical devices and implants Lena Hoffman, Ei-Shar Metallurgical Lab.
15:20-15:30	Coffee break and exhibition			
	AM (English)-A Afternoon chairs: Dr. Alex Landau – NRCN Mr. Erwin Schulman - IAI	AM (English)-B Afternoon chairs: Dr. Guy Ben-hemu - SCE Mr. Lior Zilberman - Elbit	AM (English)-C Afternoon chairs: Dr. Yacov Iflah -NRCN Dr. Aleksey Kovalevsky -IIM	Welding (Hebrew)-D Afternoon chairs: Serg Jorkin

15:30-15:50	AM36: How to ensure reproducible Laser Beam Parameters in SLM, 3D printing & AM systems Roei Yiftah, MKS Instruments, Inc.	AM20: Environmental Degradation of AM fabricated Structural alloys Polina Metaliniov, Dan Eliezer , Guy Ben Hemu, ISRAEL	AM19: Design for Additive Manufacturing : the "holistic approach Yuval Gale, IAI, ISRAEL	W9:Resistance Welding- spot welding Itzhak Newman, consultant
15:50-16:10	AM3: Powder-Free Ceramic & Metal AM Dror Danai, XJet, ISRAEL	AM27: Raising Large Size Copper Parts enabling Advanced AM Applications Bernhard Kögl AMCM GmbH, GERMANY	AM33: Composite Wire For Welding And Additive Manufacturing: Purpose And Properties Ganna Stovpchenko, Ganna Polishko, Aleksey Kovaslevsky “ELMET-ROLL”, Ukraine E.O. Paton Electric, Ukraine Technion, Israel	W10:Rare welding methods and welding in extreme conditions Peter Geltser, Metallabs Applied Metallurgy Ltd
16:10-16:30	AM12: Applications of Infra-Red Camera on EBM Processes using Numerical Methods and Algorithms M. Ezra, NRCN, ISRAEL	AM13: Tungsten Additive Manufacturing –Application Success Story Dov Chaiat, TPT, ISRAEL	AM28: Manufacturing of Copper with high electrical conductivity by Binder Jetting Printing and Electron Beam Melting Vladimir Popov, Strokin Evgeny, Alexander Katz-Demyanetz, Aleksey Kovalevsky, Gary Muller, Menachem Bamberger IIM, Technion, ISRAEL	W11: Welded assembly Geometric Variation Specifications Gili Omri, TES-RnD
16:30-16:45	Lottery			
	Poster contest			
	Granting certificates to new welding inspectors			

Poster List:

#	Title	Authors	affiliation
AM100	Static and dynamic mechanical response of am discrete patterns	Daniel Levy, Amnon Shirizly, Daniel Rittel	Technion, ISRAEL
AM101	Corrosion characteristics of carbon steel produced by incorporating additive manufacturing and wire arc facility	Tomer Ron ¹ , Avi Leon ¹ , Amnon Shirizly ² , and Eli Aghion ¹	¹ Department of Materials Engineering, Ben-Gurion University, Beer-Sheva, ² Rafael
AM102	Dynamic strength and failure of additively manufactured Ti-6Al-4V	1V. Paris, P. Fridman, E. Tiferet, S. Samuha, Z. Harpenes, A. Yossef-Hai	¹ Physics dept., NRCN, Israel
AM103	Acoustic anisotropy of Ti6Al4V additively manufactured using electron beam melting	Tomer Sol	a Department of Material Engineering, Ben-Gurion University of the Negev, Beer-Sheva, Israel b Department of Materials, Nuclear Research Center Negev, Beer-Sheva, Israel
AM104	The mechanical behavior of AM Ti6Al4V specimens containing controlled artificial voids under shear-dominant stress state	Rafi Fadida, Amnon Shirizly, Daniel Rittel	Technion, ISRAEL
AM106	Incremental solidification (toward 3D printing) of metal powders by a compact microwave applicator	Amir Shelef, Eli Jerby's	Tel Aviv University, ISRAEL
AM107	Dimension Extraction from 3D Scanned Hand Model for Prosthesis Design using Deep-Learning Methods	Tzabar Dolev, Anath Fischer	Technion, ISRAEL
AM108	Electron Beam and Laser Beam Welding of Additive Manufactured Ti6Al4V Products	B. TAVLOVICH, A. SHIRIZLY, AND R. KATZ	Technion, ISRAEL
AM109	Manufacturing of lead-free brass water taps by Binder Jetting Printing Technology	Aleksey Kovalevsky ¹ Gary Muler ¹ , Inbal Doron ² Shlomo Pirutin ² Alex Fleisher ¹	¹ IIM, Technion, Israel ² Hamat Group Ltd. Israel
AM110	Advanced composite wire for welding and wire-fed additive manufacturing	Ganna Stovpchenko	E.O. Paton Electric Welding Institute of National Academy of Science of Ukraine, Kyiv, Ukraine
AM111	Additive manufacturing of massive parts by the ESR and ESR HYBRID processes	L. Medovar ^{1,2} , G. Stovpchenko ^{1,2} , Ganna Polishko ¹ , A. Sybir ³ , D. Kolomiets ²	¹ E.O. Paton Electric Welding Institute of NASU, Kyiv, Ukraine ² Engineering company "ELMET-ROLL" Kyiv, Ukraine ³ Ukrainian National Metallurgical Academy, Ukraine
AM112	Monte Carlo Simulations of electron beam's energy deposition during EBM AM processes	Elroei Damri	Nuclear Research Center (NRCN). Department of Nuclear Engineering, Ben-Gurion University
AM18	Additive Manufacturing Space & Missiles	Yuval Gale	MBT Technologies, Israeli Aerospace Industries (IAI).
AM35	Investigation of the Structure and Properties of Products Obtained at Electron xBeam 3D Metal Printer Using Titanium Alloy Wire	A. Tunik, D. Kovalchuk, L.Adeeva, S.Stepanyuk, S. Grigorenko	E.O. Paton Electric Welding Institute of National Academy of Science of Ukraine, Kyiv, Ukraine