Dave F. Farson

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Education

Ph.D. 1987 The Ohio State University, Electrical Engineering,
Control Systems, Mathematics, Digital Systems, Welding Engineering
M.S. 1982 The Ohio State University, Welding Engineering
B.S. 1980 The Ohio State University, Welding Engineering

Professional Experience

The Ohio State University, Columbus, Ohio

Sept. 1995 - Present Associate Professor (2001- present)
Assistant Professor (1995-2001),
Materials Science and Engineering

Pennsylvania State University, State College, Pennsylvania

Sept. 1998 - May 1995 Member, Graduate Faculty
Industrial, Manufacturing and Systems Engineering
Feb. 1988 - May 1995 Research Associate, Deputy Head
High Energy Processing Department Applied Research Lab.

Westinghouse Electric Corporation, R&D Center, Pittsburgh, Pennsylvania

March 1987 - Jan. 1988 Senior Research Engineer, Laser Processing Department

Offices and Professional Society Service

Laser Institute of America: Board Member, President, Secretary, Chair: Material Processing Committee, Material Processing Conference: co-chair, 1992, chair, 2003, International Congress general chair: ICALEO'93, ICALEO '94

AWS: C.7.C High Energy Joining Processes Technical Committee, Technical Papers Committee, Research Committee, Awards Committee, Conference Committee

ASNT: Material Evaluation, Editorial Board

Research

Over $664,800 in funding (1995-2001), over $2,500,000 (2002-present)
Sponsors include: NSF (2 grants to 2005), ONR, LANL

Awards and Honors

Applied Research Laboratory Letter of Commendation: 1993
Applied Research Laboratory Technical Contribution Award: 1993
American Welding Society Jennings Memorial Award, 1985
Fellow, Laser Institute of America, 1997
AWS Adams Memorial Membership Award, 1998
OSU Lumley Award (College of Engineering, Research), 2000

Teaching

WE4901-2 Senior Capstone Design
WE 4/7003 Weld Process Monitor Cntrl
WE 4/7301 Princ Nondestructive Eval
WE 8004 Advanced Laser Mtls Proc
WE4/7001 Phys Princ Weld Processes 1
WE 4/7024 High Energy Weld Proc
WE 4/7303 Ultrasonic Nondestructive Eval

Publications with >100 Google Scholar Cites (Total: 100 Journal, Approx. 70 Conference, 5368 google scholar cites as of 2/1/2024, i10-index=73, h-index=39)

	Cites	Yr.
Electrospinning for tissue engineering scaffolds J Lannutti, D Reneker, T Ma, D Tomasko, D Farson Materials Science and Engineering: C 27 (3), 504-509	897	2007
Mechanism of keyhole formation and stability in stationary laser welding JY Lee, SH Ko, DF Farson, CD Yoo Journal of Physics D: Applied Physics 35 (13), 1570	348	2002
Rationalization of microstructure heterogeneity in INCONEL 718 builds made by the direct laser additive manufacturing process Y Tian, D McAllister, H Colijn, M Mills, D Farson, M Nordin, S Babu Metallurgical and Materials Transactions A 45, 4470-4483	246	2014
Coaxial arc weld pool viewing for process monitoring and control RW Richardson, DA Gutow, RA Anderson, DF Farson Welding Journal 63 (3), 43-50	177	1984
Effect of fluid convection on dendrite arm spacing in laser deposition Y Lee, M Nordin, SS Babu, DF Farson Metallurgical and Materials Transactions B 45, 1520-1529	162	2014
Micropatterning and characterization of electrospun poly (ε-caprolactone)/gelatin nanofiber tissue scaffolds by femtosecond laser ablation for tissue engineering applications YC Lim, J Johnson, Z Fei, Y Wu, DF Farson, JJ Lannutti, HW Choi, LJ Lee Biotechnology and bioengineering 108 (1), 116-126	144	2011
Measurement and calculation of arc power and heat transfer efficiency in pulsed gas metal arc welding A Joseph, D Harwig, DF Farson, R Richardson Science and Technology of Welding and Joining 8 (6), 400-406	142	2003
Weld pool flows during initial stages of keyhole formation in laser welding JH Cho, DF Farson, JO Milewski, KJ Hollis Journal of Physics D: Applied Physics 42 (17), 175502	130	2009
Influence of fluid convection on weld pool formation in laser cladding YS Lee, M Nordin, SS Babu, DF Farson Weld. J 93 (8), 292-300	126	2014
Simulation of weld pool dynamics in the stationary pulsed gas metal arc welding process and final weld shape MH Cho, YC Lim, DF Farson WELDING JOURNAL-NEW YORK- 85 (12), 271	199	2006
Direct-write patterning of indium-tin-oxide film by high pulse repetition frequency femtosecond laser ablation HW Choi, DF Farson, J Bovatsek, A Arai, D Ashkenasi Applied optics 46 (23), 5792-5799	116	2007
Structuring electrospun polycaprolactone nanofiber tissue scaffolds by femtosecond laser ablation H Choi, JK Johnson, J Nam, DF Farson, J Lannutti Journal of Laser Applications 19 (4), 225-231	112	2007
Understanding bead hump formation in gas metal arc welding using a numerical simulation MH Cho, DF Farson Metallurgical and materials transactions B 38, 305-319	101	2007