James Sluss

Education
PhD, Electrical Engineering
University of Virginia, 1989
MS, Electrical Engineering
University of Virginia, 1986
BS, Physics
Marshall University, 1984

Experience
Morris R. Pitman Professor & Director, School of Electrical & Computer Engineering
University of Oklahoma
Interim Assistant Dean for Research, Tulsa Graduate College
University of Oklahoma
Professor
University of Oklahoma
Associate Professor
University of Oklahoma
Assistant Professor
University of Oklahoma
Vice President, Operations
OPCOM, Inc.
Director of Telecommunications & Data Products
OPCOM, Inc.

RESEARCH INTERESTS

Optical communications, photonics, 3D displays, and intelligent transportation systems.

BIOGRAPHY

Dr. James Sluss is the Morris R. Pitman Professor and Director of the School of Electrical and Computer Engineering. He received the BS in Physics in 1984 from Marshall University, and the MS and PhD in Electrical Engineering in 1986 and 1989, respectively, from the University of Virginia. He has been awarded eight US patents, has authored/co-authored numerous journal and conference publications, and has been principal/co-principal investigator on over $11 million in sponsored research grants and contracts. He presently serves as Treasurer of the IEEE Education Society.

AWARDS, HONORS AND PROFESSIONAL ACTIVITIES

2008 Edwin C. Jones, Jr. Meritorious Service Award – IEEE Education Society.
Treasurer, IEEE Education Society, 2005-present.
Best Paper of Session, 24th Digital Avionics Systems Conference, 2005.
Oklahoma Highway Safety Office Award of Excellence, FY 2005, presented to the OU ITS Lab for enhancing traffic records management through project SAFE-T.
Oklahoma Highway Safety Office Project Director's Award, FY 2003, co-recipient with Dr. Joseph P. Havlicek, for enhancing highway safety through ITS projects.
NASA Group Achievement Award for "outstanding work to further NASA Glenn Research Center's effort in the area of Advanced Communications/Air Traffic Management's Fiber Optic Signal Distribution for Aeronautical Communications," June 2003.
Honor Societies: Eta Kappa Nu, Tau Beta Pi, Gamma Beta Phi.
Professional Memberships: Institute of Electrical and Electronics Engineers (IEEE), IEEE Communications Society, IEEE Education Society, Optical Society of America (OSA), American Society of Engineering Educators (ASEE), International Society for Optical Engineering (SPIE).

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SELECTED PROJECTS

U.S. Dept. of Defense, Air Force Research Laboratory, "Upgrade of an existing laboratory to an advanced end-to-end networking laboratory," $549k, July 2010-June 2011.

U.S. Dept. of Defense, Air Force,"Fundamental research and demonstration for real-time, radar based IED imaging," $300,000, December 2009-December 2010.

Okahoma Department of Transportation (flow-through from the U.S. DoT – FHWA), "Inter-modal Containerized Freight Security: Phase 3," $2.3M, July 2009-July 2010.

Oklahoma State University (flow-through from Oklahoma Transportation Center), "Commercial Vehicle Route Tracking using Video Detection," $85K, July 2009-June 2010.

3DIcon Corporation, Oklahoma Center for the Advancement of Sciene and Technology OARS FY2009 Program, "800 Million Voxels Volumetric Display," $200K, Jan 2009-Dec 2010.

SELECTED PUBLICATIONS

"Optical tracking and auto-alignment transceiver system," *IEEE Aerospace and Electronic Systems Magazine* 25(9), pp. 26-34, 2010 (with Gabriel A. Cap and Hakki H. Refai).

"Routing in degree-constrained FSO mesh networks," *International Journal of Hybrid Information Technology,* 2(2), pp. 71-81, 2009 (with Ziping Hu and Pramode Verma).

"Improved reliability of free-space optical mesh networks through topology design," *Journal of Optical Networking,* 7(5), pp. 436-448, 2008 (with Ziping Hu and Pramode Verma).

"Enhancing Mobile Ad Hoc Networks with Free-Space Optics," *Optical Engineering,* 46(8), 085008-1-7, 2007 (with Peng Yan, Hazem H. Refai and Peter G. LoPresti).

"Digital micromirror device (DMD) for optical scanning applications," *Optical Engineering,* 46(8), 085401-1-5, 2007 (with Hakki H. Refai and Monte P. Tull).

"Adaptive divergence and power for improving connectivity in free space optical mobile networks," *Applied Optics,* 45(25), p. 6591, 2006 (with Peter G. LoPresti and Hazem H. Refai).

RECENT PATENTS

"Light surface display for rendering a three-dimensional image," *United States Patent No. 7,858,913,* December 28, 2010 (with Hakki H. Refai, Erik Petrich, Monte P. Tull, Pramode Verma, Gerard K. Newman, and Martina Dreyer).

"Remote cervical dilation monitoring system and method," *United States Patent No. 7,819,825,* October 26, 2010 (with Pramode Verma, Anjan Ghosh, Samuel Cheng, Mark Martens, Robert Huck, Shanshan Chen, and Anil Kaul).

"Volumetric liquid crystal display for rendering a three-dimensional image," *United States Patent No. 7,537,345,* May 26, 2009 (with Hakki H. Refai, Erik Petrich, Monte P. Tull, and Pramode Verma).