Dr. W. Bryan Bell

<u>Lockheed Martin Aeronautics, Lockheed, General Dynamics in Fort Worth</u>   (1988 - present)

Title: Research Scientist Principal

ADP :   Lead, developed and worked numerous classified IR&D and CRAD programs;
            Lead and worked on numerous classified projects & proposals.
            Harvest Hawk targeting algorithm design and development.
F-35 :   Lead and Developed the Tactical Image Model *(handles all onboard imagery)*.
            Designed, implemented and coded Earth, Map, Math software libraries.
            Lead initial F-35 Navigation design; worked the integration and flight test.
            Air-to-Ground Sensor Fusion development and design.
F-22 :   Synthetic Aperture Radar design, development and flight test.
            Communications, Navigation, & ID *(CNI)* tracker design.
F-16 :   Blk 60 Infrared Targeting System (IFTS) design and development.
            GPS/INS Kalman Filter integration development, design, integration & test.
            Lead GPS/Digital Terrain System/INS Kalman Filter integration, development, and
            design.
            Lead GD/FW Terrain Referenced Navigation design, development, and test.
            Predictive Database Ground Collision Avoidance System design & implementation.
A-12 :   Lead Terrain Referenced Navigation design & implementation

Lead and worked numerous IR&D projects in the araeas of Navigation, Image Processing, and Sensor Fusion.
Lead and worked on numerous CRADs [Adaptive Tactical Navigation *(ATN)*, Dynamically Sensed Weapon Sensor Alignment *(DYSMAL)*, Multi-Platform Resource Sharing *(MPRS)* CRADA, Integrated GPS Electronic Combat *(INGECT)*, Distributed Sensor & Fire Control *(DSFIRE)*, Tactical Registration of Airborne Imagery for Targeting *(TRAIT)*, Sensor Modeling Support Program *(SMS)*, Airborne Battle Management System *(ABMS)*]
Lead and worked on Cooperative R&D projects with DoD Agencies.

Publications:

- W. Bryan Bell, and Venkat Devarajan, "Error Analysis of Image Matching Using a Non-Planar Object Model", *SPIE AeroSense*, Orlando, FL, Apr., 2002, Vol. 4741, 305.
- W. Bryan Bell, Venkat Devarajan, and Steven J. Apollo, "Analysis of Area-Based Image Matching Under Perspective Distortion for a Planar Object Model", *Journal of Electronic Imaging*, Vol. 8, No. 1, pp 112-125, Jan. 1999.
- W. Bryan Bell, Robert G. Gore, and Larry D. Cockrell, "Cascading Filtered DTS data into an Existing Loosely-Coupled GPS/INS System", *IEEE Position, Location, and Navigation Symposium, PLANS '98*, Palm Springs, CA, pp 586-593, Apr. 20-24, 1998.
- W. Bryan Bell, *Ph.D. Dissertation*, "Analysis of Area-Based Image Matching Under Perspective Distortion", University of Texas at Arlington, August 1997.
- W. Bryan Bell, and Venkat Devarajan, "Image Correlation Under Full-Perspective Distortion", *SPIE AeroSense*, Orlando, FL, Apr. 1996, Vol. 2753, p. 38-49.
- W. Bryan Bell, *Masters Thesis*, "Disparity Coding as an Approach for Stereo Reconstruction", Texas A&M University, August 1988.

- W. Bryan Bell, and Norman C. Griswold, "Disparity Coding - Approach for Stereo Reconstruction", *Proceedings SPIE 938 : Digital And Optical Shape Representation And Pattern Recognition*, Orlando, FL, Apr. 4-6 1988, p. 109-119.

OS & Programming:
Matlab, C/C++, C#, Java, Fortran, Python, VisualBasic, Unix, Windows, Cray, Excel, Rexx, ERDAS, MET