DINO J. ROSSETTI

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SUMMARY

- Strong technical background in project management, systems engineering and integration and test management for aerospace flight hardware. Over 25 years' experience with all project phases from proposal through launch.

EXPERIENCE

Lead Systems Engineer – Roman Space Telescope (RST), Wide Field Instrument (WFI), Focal Plane System
Conceptual Analytics, LLC – Glenn Dale, Maryland – 2016 through Present

Provided full life-cycle systems engineering leadership for the Focal Plane System (FPS) for the RST WFI from system architecture studies through instrument delivery.

- Led preliminary system architecture studies.
- Authored all requirements documents for the system and corresponding verification plan.
- Developed the processes, methodology and analysis software to precisely align the 18 detector focal plane.
- Provided systems support for FPS and instrument level I&T including extensive analysis software development.

Systems Engineer, Senior Staff – GOES-R Program
Lockheed-Martin Space Systems Company – Greenbelt, Maryland – 2009 through 2012

Served as Instrument Accommodation Engineer for the Advanced Baseline Imager (ABI) for the Geostationary Operational Environmental Satellite R Series (GOES-R) Program.

- Responsible for all aspects of the spacecraft-to-instrument interface for the GOES-R main imager.
- Coordinated with the spacecraft systems engineering and design teams to optimize the spacecraft design around the far more mature ABI design.
- Developed a comprehensive Interface Control Document (ICD) with integrated verification plan.

International Space Station / GSFC Satellite Servicing Projects Division / NASA Program Office
Conceptual Analytics, LLC – Glenn Dale, Maryland – 2012 through 2018

Provided engineering support to NASA Goddard Space Flight Center in a variety of roles.

- Led the development, assembly, and test of the Robotic External Leak Locator (RELL) instrument for detecting ammonia leaks on ISS from project proposal to on-orbit operations support.
- Served as instrument systems engineer for several instrument/mission studies including a full-scale thermal vacuum demonstration of a large visible CMOS detector mosaic focal plane for detection of near-Earth objects. Led several proposal teams for Earth observing instruments on ISS and a modular spacecraft architecture study.
- Provided technology development support to the NASA Physics of the Cosmos (PCOS) and Cosmic Origins (COR) Program Office.

Systems Engineer – Hubble Space Telescope Program
Lockheed-Martin Mission Services – Greenbelt, Maryland – July 2005 through August 2009

Served as a systems engineer for the Wide Field Camera 3 for the Hubble Space Telescope Servicing Mission 4.

- Supported all aspects of the instrument development. Led several significant anomaly investigations.
- Optimized the thermal control system for the infrared detector significantly improving performance.
- Served as the customer representative for the integration and test of the new IR detector assembly for WFC3.
- Led integration and test activities for the replacement Science Instrument Command and Data Handler (SIC&DH) including anomaly resolution, test planning, test conducting, and requirements verification.
- Served as a member of the systems management team at Mission Control at JSC during the mission.

Ball Aerospace and Technologies Corporation – Boulder, Colorado - September 2001 through April 2005

Systems Integration and Test Manager – HiRISE Program

Served as Systems Integration and Test Manager for the High Resolution Imaging Science Experiment (HiRISE) camera on the Mars Reconnaissance Orbiter spacecraft launched in August 2005.

- Directed a multi-disciplinary team of electrical, optical, mechanical and test engineers, technicians, and production and quality personnel. Developed and maintained the I&T budget.
- Planned and served as a test director and conductor for subsystem functional and environmental testing.
- Working with the spacecraft provider, led planning and execution of instrument-spacecraft integration.
- Served as HiRISE instrument representative during operations at KSC.

Lord Corporation – Cary, North Carolina – May 1991 through November 2000

Served as systems engineer and project manager for the research and product development of active vibration control systems for rotary wing aircraft.

- Led development team to a production contract with a major helicopter OEM. Oversaw the in-house development of system avionics, software, and mechanical hardware including design, development and commercial and military qualification.

Conducted theoretical and experimental research into a variety of topics associated with active noise and vibration control, coupled structural-acoustics, structural vibrations, and actuator design.

- Developed several new implementations of feedforward adaptive control algorithms including methods to reduce computational requirements, simplify system implementation and increase performance.
- Awarded 8 patents; authored 5 journal articles and numerous conference papers.

NOTABLE NASA AWARDS

- NASA Agency Silver Team Award for RELL, 2018
- Individual Spaceflight Awareness Award for Satellite Servicing Projects Division Support, 2017
- Team Spacecraft Awareness Award for RELL operations, 2017
- Robert Goddard Individual Honor Award for RELL leadership, 2015
- Individual Spaceflight Awareness Award for Hubble Space Telescope Servicing Mission 4 support, 2009

RELEVANT SKILLS

- Extensive hands-on experience with highly sensitive flight hardware
- Experience with project management systems for cost and schedule management
- Experience with a wide variety of instrumentation for electromechanical systems testing
- Theoretical and practical experience with feedback and feedforward controls and signal processing
- Excellent analytical modeling skills

EDUCATION

University of North Carolina, Chapel Hill, North Carolina, 2000
Masters of Business Administration

North Carolina State University, Raleigh, North Carolina, 1995
Ph.D. Mechanical Engineering
Dissertation: Feedforward Adaptive Algorithms and the Control of Physical Systems
M.S. Mechanical Engineering
Awarded Dean's Fellowship and Alumni Fellowship

Rutgers University, New Brunswick, New Jersey, 1990
B.S. Mechanical Engineering