

SALVATORE MANCUSO
ESA/HQ (LAU-LEI)
ESA HQ-Daumesnil (LAU-LEI)
rue Jacques Hillairet
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PROFESSIONAL

EXPERIENCE:

European Space Agency (ESA), Launcher directorate, Paris, France, since November 2006. IXV and Pride System Manager (initially Re-entry Demonstrator System Engineer), in the Launcher Directorate. Main activities:

For the Pride Project

Responsible for all technical aspects at system level (including verification and safety aspects) in line with applicable relevant standards.

Responsible for the internal definition phase study performed through the ESA Concurrent Design Facilities

Supported Project Manager in the preparation of the Pride program by: interfacing with participating states delegations for the consolidation of the mission objective; contributing to the definition of the high level mission requirements and preparing the industrial phase A/B SOW.

For the IXV Project

Responsible for all technical aspects at system level (including verification and safety aspects) in line with applicable relevant standards.

Monitored/Followed-up the industrial contract with the Prime and its sub-cos during all project phases from its early definition (phase A) to the launch campaign (phase E) to the post-flight phase (phase F),

Coordinated a team of project engineers responsible for the various Subsystems supervision.

Interfaced/coordinated with Vega program, Arianespace and CNES for all technical matters related to the Launcher procurement, services and safety aspects,

Interfaced/coordinated with national Agencies (ASI, CNES and DLR) for technical assistance and program preparation for the IXV and Pride projects.

Participated to the IXV launch campaign in January 2015.

Supported Project Manager in the preparation of the IXV program and of its evolutions by preparing SOWs and RFQs for phases A to F, evaluating the industrial proposals, negotiating with industry, finalizing the contracts and preparing the technical grounds for the program proposal for the IXV evolution.

Supported Project Manager for the main programmatic aspects (schedule, risks, costs) of the IXV contract.

Supported the Project Manager for the recruitment of a Contractor as a Configuration and Data Manager by performing related interviews and final selection.

Performed the Configuration and Data management tasks until recruitment of a dedicated person in place in mid-2010

European Space Agency (ESA), Technical directorate, Noordwijk, The Netherlands, July 2000 – November 2006. Guidance Navigation and Control System Engineer in the Technical Directorate. Main activities:

Support to IXV project (2005-2006): GNC expert and Coordinator of the electrical system team (GNC, Trajectory, Software, Data Handling System, Power, and Communication) for all activities related to preparation of statement of work, and evaluation of industry output.

Support to Vega project (2004-2006): provided technical support for GNC related activities regarding the upper stages in cooperation with CNES; participated to official reviews.

Support to Joint Team for Atmospheric Re-entry Activities (2003-2004): provided support for GNC related activities for reentry vehicles.

Support to ATV project (2000-2004): provided technical support for the design of the Rendezvous profile and trajectory to ensure satisfaction of safety constraints; and for operational aspects related to the approach of the ATV to the International Space Station, interfacing with international partners such as NASA, JAXA, and Energia; participated to official reviews.

Principal Investigator for the OBAN experiment on the SMART-1 satellite.

Research and Development activities: prepared and managed several activities in the field of GNC [in particular for Soft Landing and Optical navigation], including hardware development such as smart camera sensors for landing, and test-bed facilities for landing (unmanned helicopter). Contributed to preparation of the Aurora Core Program workplan for soft landing technology activities.

Support to CDF studies: Socrates vehicle (reusable launch vehicle demonstrator); Heavy Lift Launch Vehicle. Performed the GNC preliminary design of the vehicles.

AverStar, Inc., Fairmont, WV, USA, June 1998 – June 1999. Guidance Navigation and Control Engineer. Worked as NASA contractor, on analysis of requirements, specifications, and design, and on flight software independent verification and validation for the NASA/Lockheed-Martin Skunk Works X-33 program in the areas of Guidance, Navigation and Control.

Rice University, Houston, TX, USA, Jan. 1995-May 1998. Teaching Assistant for mathematical programming and optimal control classes.

University of Palermo, Palermo, Italy, May-December 1994. Research assistant in the field of Flight Mechanics, specifically Handling Qualities and design of conventional and nonconventional light aircraft using pilot rating and classical control theory.

EDUCATION: **Rice University**, Houston, TX, USA, Jan. 1995-May 1998.

Ph.D. in Aerospace Engineering. Graduation date: May 1998.

GPA: 4.12/4.00.

Performed research on trajectory optimization for single-stage (X-33, Venture Star), and two-stage next-generation spacecraft.

University of Palermo, Palermo, Italy, Sept. 1988 - July 1993.

Aeronautical Engineering “Laurea V.O.”

GPA: 110/110 Summa Cum Laude.

ACADEMIC HONORS &

SCHOLARSHIPS: **Fulbright Scholarship**, Sept. 1995 - May 1998.

Ludovisi-Boncompagni Swedish-Italian Foundation Scholarship, Sept. 1995 - May 1996, awarded to Swedish and Italian citizens only, based on competence in area of study.

Italian Public Education Ministry Scholarship, Jan. 1995- Oct. 1995, national competition based on papers and comprehensive exam.

“**Mention of Thesis**”, July 1993.

“**Mention of the Academic Career**”, July 1993.