

Titans Space Ind. Appoints Aerospace Veteran Dr. Vijay FRCS as Vice CTO of Spacecraft, Aerospace Tech, & Space Habitats

Dr. Vijay will be instrumental as TSI accelerates its initiatives in lunar colonization, deep-space missions, and the commercialization of cis-lunar space.

ORLANDO, FL, UNITED STATES, June 4, 2025 /EINPresswire.com/ -- Titans Space Industries Inc. (TSI), a leading innovator in advanced space exploration and development, has announced the appointment of Dr. Venkataramana Vijay MD, FRCS as its new Vice Chief Technology Officer

(CTO) for Spacecraft, Aerospace Technology, and Space Habitats. [Dr. Vijay](#), a distinguished expert with a profound background spanning medicine, aviation, and aerospace engineering, will lead the strategic development and technological advancements in these critical areas. He will report directly to the CEO and CTO.

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Dr. Vijay's practical experience as a pilot and his profound medical knowledge will directly inform our approach to human factors in spacecraft design and habitat development...”

*Bill McArthur, Chief Astronaut,
Titans Space Industries*

and Tachyon Aerospace.

In his new role, Dr. Vijay will be instrumental in overseeing the design, engineering, and



Dr. Vijay MD, FRCS

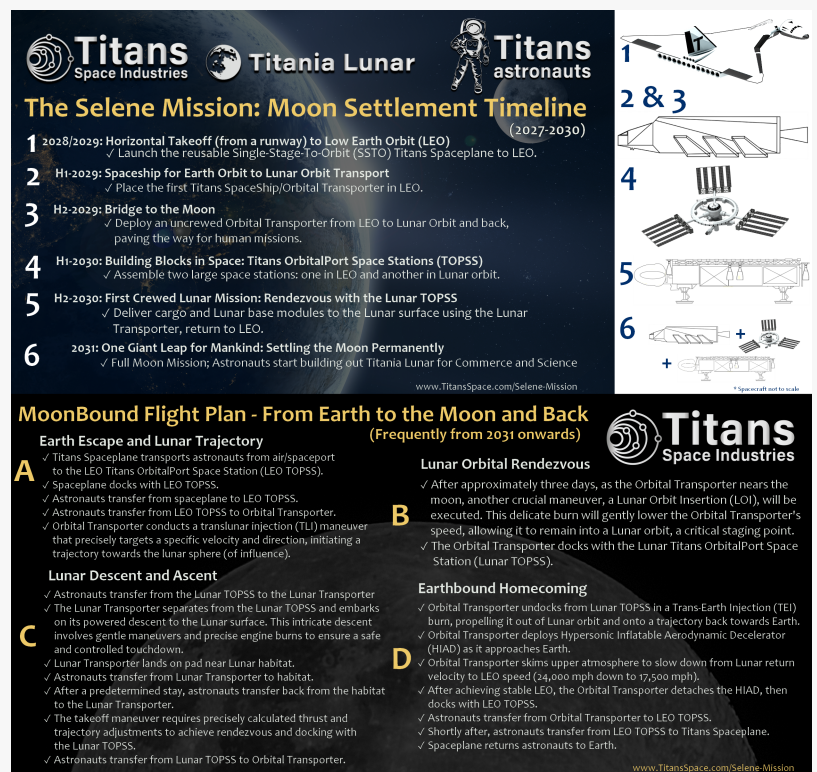
deployment of next-generation spacecraft, driving innovation in aerospace technology, and pioneering the creation of sustainable space habitats. His expertise will be crucial as Titans Space Industries accelerates its initiatives in lunar (and eventually Martian) colonization, deep-space missions, and the commercialization of cis-lunar space, starting with the [Titans Spaceplanes](#) and the Low Earth Orbit Titans OrbitalPort Space Station ([TOPSS](#)).

"We are thrilled to welcome Dr. Venkataramana Vijay to the Titans family," said Neal Lachman, CEO and Chief of Spacecraft Design at Titans Space Industries. "Dr. Vijay's unparalleled knowledge and visionary leadership, uniquely combining insights from medicine, aviation, and aerospace, make him the ideal candidate to help drive our ambitious technological roadmap. His contributions will be invaluable as we work towards making spaceflight accessible for the masses, including children; we are already benefiting from some innovative solutions he brought to our team. Dr. Vijay will also take on a role as a career astronaut at Titans Space."

Franklin Ratliff, CTO, added, "Dr. Vijay's diverse background, particularly his deep understanding of life support systems and autonomous medical solutions, is exactly what we need. His work on biological ECLSS for both short- and long-duration missions will be critical to the safety and success of our future missions. We look forward to his contributions in refining our spacecraft technology



Titans Spaceplane and Titans OrbitalPort Space Station in Low-Earth Orbit



MoonBound End-to-End Cis-Lunar Transportation System

and systems, and enhancing our testing and training protocols."

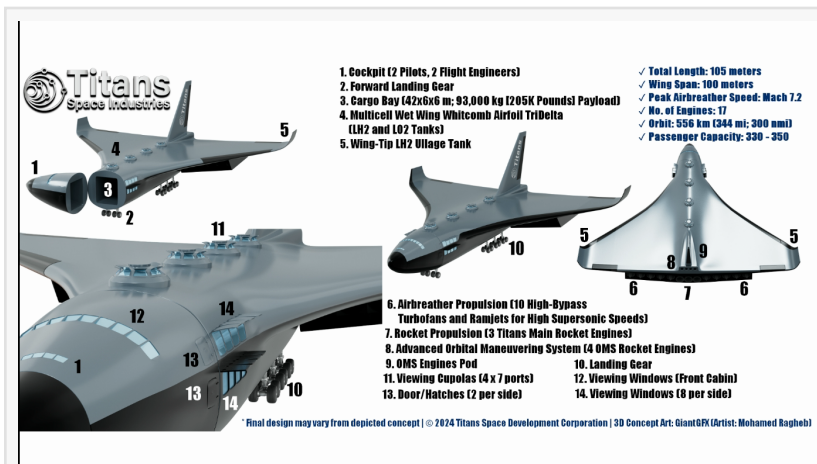
Bill McArthur, Chief Astronaut, commented, "Having someone with Dr. Vijay's unique blend of medical, aviation, and engineering expertise join our team is a significant advantage. His practical experience as a pilot and his profound medical knowledge will directly inform our approach to human factors in spacecraft design and habitat development, ensuring the well-being of our future space travelers, and we are excited to integrate his insights into our astronaut training programs."

Under the direct supervision of TSI's CTO, Dr. Vijay will also assume critical responsibilities for FAA certification processes, ensuring all aerospace technologies and spacecraft meet stringent regulatory standards. Furthermore, he will oversee advanced simulation training programs for crew and astronauts and contribute significantly to the development and testing of jet engine propulsion systems, leveraging his extensive background in aviation mechanics and quality assurance.

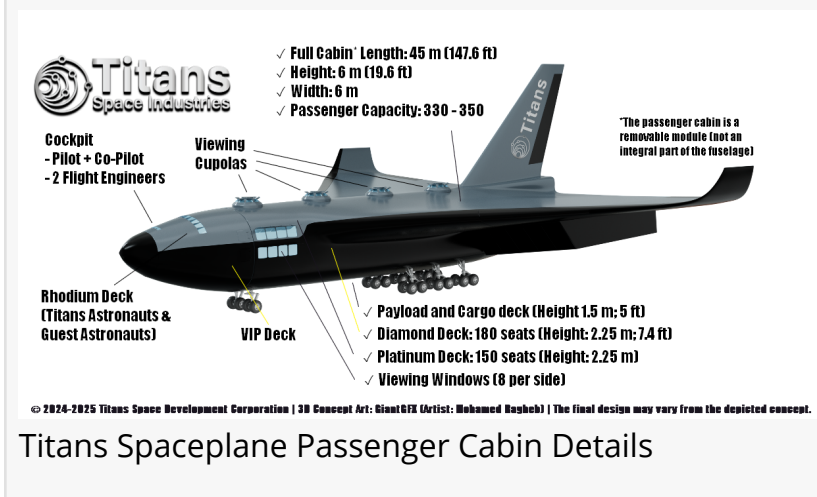
Dr. Vijay, a resident of New York City, brings a truly unique and comprehensive background to Titans Space Industries. His lifelong dedication has been to gather a wholesome collection of subject matter expertise, skills, certifications, and experience to further Human Space Flight Endeavors and Deep Space Exploration.

Aerospace and Aviation Expertise

A seasoned Boeing 747 and 777 Airline Pilot, Dr. Vijay's aerospace credentials extend far beyond the cockpit. He is also a Jet Engine Quality Control Inspector, Non-Destructive Testing Engineer (ASNT Level 2 in PT, MT, UT, RT), an Additive Manufacturing Engineer specializing in aerospace parts, and an A&P Maintenance Engineer with expertise in Crew and Passenger Life Support Systems. His certifications include Airframe and Powerplant FAA Certification #3012859, Airline Transport Pilot FAA Certification #3012859, and Jet Engine Maintenance Certifications for General Electric GE 90-94 B and 115 B, GE CF6 80 C2, CFM56, and CF34 engines.



Titans Spaceplane Design Overview



Titans Spaceplane Passenger Cabin Details

Medical and Research Expertise

With three decades of expertise in cardiovascular disease, including a decade as Director of Cardiovascular Research, Dr. Vijay has over 100 journal publications, primarily focusing on life support systems during open-heart surgery and Telemedicine Monitoring of patients. His current forte lies in Environmental Control and Life Support Systems (ECLSS) and Bio Algorithms for AI and Machine Learning, aimed at creating Autonomous Medical Systems for Deep Space. He holds ACLS, BLS, and ATLS Certifications.

Education

Dr. Vijay's impressive academic journey includes:

- Ph.D. in Astronautical Engineering (Ongoing) at Capitol Technology University, Washington D.C.
- M.D. Doctor of Medicine in Cardiothoracic Surgery from Albert Einstein College of Medicine, New York
- M.S. Master of Science in Biomedical Engineering from the University of Illinois, Chicago
- M.D. General and Transplantation Surgery from Mt Sinai School of Medicine, New York
- MBBS, Bachelor of Medicine and Bachelor of Surgery at Sri Venkateswara Medical College (SVMC), Tirupati, India

Other Certifications and Training

Dr. Vijay's diverse training includes Thoratec and Abiomed Artificial Heart Life Support Systems Certification, Quality Control and Continuous Improvement in Biomedical Engineering at Ohio State University, Big Data Analysis of Telemetry Monitoring in Medicine and Aviation (Safran Technologies, Cassioppee Certification), OSHA training in Safety and Occupational Hazards in Healthcare Institutions (State University of NY, Albany), and Six Sigma Green Belt Certification in Manufacturing and Healthcare Applications. He also holds a 3D Bioprinting Certification in Tissue Engineering.

Scientific Research and Innovation

An accomplished innovator, Dr. Vijay holds eight USPTO Patents on Life Support Systems, all donated to non-profit organizations and the public domain. He has authored four textbooks in Cardiovascular Medicine and is certified in Large Animal Experimental Surgery by the Veterinary College, New York University. He possesses fifteen years of experience as an Associate Professor in clinical research and ten years as Director of Cardiovascular Engineering Labs in two New York medical schools. His work includes multiple iterations of fixed and portable life support systems, with leadership expertise in their launch into the healthcare market. He has experience in designing and digital twin prototyping LEO medical bays in expandable space habitats and payload management, and research in heavy jet transoceanic relief missions.

Emergency Response and Medical Training

Dr. Vijay has extensive Disaster Medicine Training and Management from FEMA and OSHA. Notably, he led First Response Team Coordination and Management at a Designated Trauma Receiving Center in New York during 9/11 (September 11, 2001, Ground Zero) under FEMA. He also led a First Response Team in the Haiti Earthquake Relief Mission under FEMA and spearheaded Transoceanic Medical Relief Supplies and Evacuation Missions with heavy jets during Covid-19, also under FEMA.

Key Space Projects.

Dr. Vijay is actively involved in two groundbreaking space projects.

Autonomous Medical Systems for Deep Space Exploration and Habitation: This project focuses on utilizing Bio Algorithms, AI, and Machine Learning to create a stand-alone medical decision-making and treatment-instituting system. Developing a screening Bio Algorithm with a Predictive Output is a critical step in risk assessment and mitigation for commercial space travel involving large passenger numbers. Lessons learned from this system in the short-term LEO and ISS environment will significantly contribute towards developing a completely independent system for Deep Space Travel.

Biological ECLSS: Recognizing that mechanical, electrical, and chemical ECLSS alone may not suffice for Deep Space Exploration and Human Habitation, Dr. Vijay's work explores biological ECLSS solutions as not only adequate redundancies but also potential primary ECLSS of choice for remote human habitation. His experiments relate to integrated, fully closed-loop Portable Bio ECLSS models designed for testing in LEO and ISS environments in Zero Gravity to optimize for Deep Space.

Dr. Vijay is confident that his projects can translate into profound contributions not only for Deep Space Explorations and Human Habitation but, more importantly, for Titans' commercial mass space transportation.

Dr. Vijay's appointment is part of a broader strategic restructuring at Titans Space Industries, aimed at optimizing leadership and accelerating key initiatives. This includes recent changes in the company's operational leadership, where former COO Doug Kohl (formerly Blue Origin), who was initially hired in June 2024, departed in November, was rehired, and then ultimately let go again in April 2025, has been replaced by two decades-long TSI co-founders of Titans Space. Eric Kolte, who briefly served as Chief Development Officer, was also replaced by a TSI co-founder. Additionally, veteran NASA astronaut Bill McArthur has assumed the role of Chief Astronaut, succeeding commercial space tourist Chris Sembroski (who was with the company for just a few months), further strengthening the company's commitment to experienced leadership in its space endeavors.

Spaceplane and Space Station Operations

The Titans Spaceplane is specifically designed to provide safe, reliable, efficient, and low-cost transportation for astronauts and cargo to and from the Low Earth Orbit Titans OrbitalPort Space Station (TOPSS). Much like NASA's Space Shuttle ferried astronauts and supplies to and from LEO, the Titans spaceplanes will perform a similar function, with a key difference: the Titans Spaceplane is a Single-Stage-To-Orbit (SSTO), Horizontal Takeoff and Horizontal Landing (HTHL) vehicle, while the Space Shuttle utilized a vertical takeoff configuration. This unique design dramatically increases safety (because there are no explosive take-offs and stage separations) for the crew, streamlines operations and rapid reusability, and significantly reduces the cost per flight compared to traditional rocket systems.

The Inaugural spaceplane flight is followed by frequent dedicated EarthLoop missions, providing an unprecedented platform for short-duration microgravity research. These EarthLoop flights are unique in that virtually all passengers aboard will be research crew, participating in a diverse array of scientific experiments. Each EarthLoop mission offers approximately three hours of sustained microgravity, a duration ideally suited for a wide range of scientific investigations.

This capability complements the long-duration research conducted on the TOPSS, enabling a comprehensive understanding of microgravity's effects across varying timeframes. The scale of EarthLoop operations, with frequent flights carrying large numbers of research crew, represents a seismic shift in the accessibility of microgravity, revolutionizing fields such as materials science, biotechnology, and pharmaceuticals. By dramatically increasing the volume of microgravity research, EarthLoop and TOPSS missions will help accelerate the development of new technologies, medicines, and manufacturing processes.

Recognizing the growing demand for access to LEO, Titans Space Industries is offering comprehensive 1-month all-inclusive mission packages to companies, space agencies, and research institutions for a fixed price of \$25 million. Each package includes transportation for two astronauts to and from TOPSS aboard a Titans Spaceplane, as well as accommodation and support within the station for the duration of the mission. This offering provides a cost-effective and streamlined pathway for organizations to conduct research, perform manufacturing processes, or gain firsthand experience in the unique environment of low Earth orbit.

About Dr. Vijay

- <https://www.linkedin.com/in/v-vijay-md-frcsc-a4b50b19/>

About Titans Space Industries

Titans Space Industries (TSI) is dedicated to developing safe, innovative, and cost-effective cis-lunar space exploration technologies. The company is committed to making space accessible to all and is working to develop a variety of spaceflight programs, including human spaceflight, cargo transportation, and space exploration. TSI's vision is to lead the way in making space travel a reality for millions of people around the world.

With a combined 600 years of experience in business and aerospace, TSI's founding team boasts an unparalleled depth of knowledge and expertise. This seasoned leadership brings together the sharpest minds in both fields, ensuring strategic brilliance and operational excellence. Further amplifying this expertise, the company's development of factories and facilities throughout the U.S. will be under the leadership of a senior management team with a combined 1,000 years in aerospace, including director roles of the NASA Space Shuttle program and ISS missions. This wealth of hands-on experience guarantees the highest standards in manufacturing, safety, and innovation for all Titans Space projects.

About Chief Astronaut Bill McArthur

A veteran of four spaceflights and a retired U.S. Army Colonel, William S. "Bill" McArthur Jr. has had a distinguished career marked by extensive experience in aviation, engineering, and space exploration. His trajectory took him from the rigorous training environments of the U.S. Army and test pilot school to serving as commander of the International Space Station.

- <https://titansspace.com/commander-bill-mcarthur/>

About the Titans Astronauts Corps

Titans Space Industries has established the "Titans Astronauts" program, an exclusive, subscription-based membership granting unlimited access to future space missions and related experiences, including frequent lunar visits. With a target membership of up to 2,000 ultra-wealthy individuals joining the program through 2030, each paying \$25 million over a six-quarter period, this program will generate a substantial (lump sum, non-recurring) revenue stream and create a community of dedicated space enthusiasts contributing to the long-term sustainability of TSI's space tourism initiatives.

Further Information: www.TitansSpace.com/Titans-Astronauts

---- Further Information ----

- Titans Space Industries Business & Investment Thesis: www.TitansSpace.com/TSI-Investment/
- Titans Space Industries Manifesto: Introducing a New Paradigm for Space Access and Leading the Next-Gen Space Economy <https://www.linkedin.com/pulse/titans-space-industries-manifesto-introducing-new-paradigm-lachman-srrle/>

Technology

- Titans Spaceplanes: <https://titansspace.com/titans-spaceplanes/>
- Titans Spaceplanes (video): <https://youtu.be/1vOzgahx8us>
- Titans Engines Systems: <https://titansspace.com/titans-engines-systems/>
- Titans OrbitalPort Space Station: <https://titansspace.com/leo-orbitalport-space-station/>

- Titans SpaceShips/Orbital Transporters: <https://titansspace.com/spaceship/>

Library

- White Papers & Analyses: <https://titansspace.com/library-analyses-white-papers/>

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