

Space Scientists Gitika Gorthi and Dr. Ashok Narayanamoorthi Selected as Astronaut Candidates for Inaugural Missions

Titans Space's "Purpose-per-Seat" Ethos Drives Selection of Space R&D Crew for Inaugural Titans Spaceplane and Space Station Missions commanded by Bill McArthur

ORLANDO, FL, UNITED STATES, May 12, 2025 /EINPresswire.com/ -- Titans Space Industries Inc. (TSI or Titans Space), a leading innovator in safe, low-cost, ultraefficient, and reusable cis-lunar infrastructure, is proud to announce the selection of esteemed scientist, educator, and founder of IgnitedThinkers, Gitika Gorthi, alongside accomplished aerospace medicine expert and seasoned analog astronaut, Dr. Ashok Narayanamoorthi, as Titans Space Astronaut Candidates (Class of 2025) to serve as research crew members on the inaugural Titans Gemini Spaceplane (March 2029) and Titans OrbitalPort



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

Space Station (TOPSS) (Q4-2029) missions under NASA veteran astronaut and Titans Space Missions Commander, William S. "Bill" McArthur.

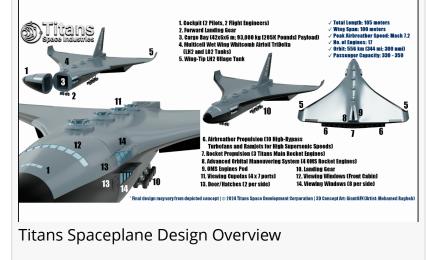
Their participation as <u>Inaugural Astronauts</u> underscores Titans Space's deep commitment to advancing profound scientific knowledge and enabling innovation through dedicated research in the space environment.

Gitika Gorthi, a junior at Columbia University studying biomedical engineering and a C. Prescott Davis Scholar, brings a distinguished background in medical research from her studies at Columbia Medical School, Harvard Medical School, and the Icahn School of Medicine at Mount Sinai. Her significant work, including investigations into gastrointestinal carcinogenesis, chronic kidney disease modeling using organoids, and bioinformatics analysis with the NASA GeneLab Animal Analysis Working Group, directly contributes to critical areas of space health and research. As the visionary Founder and CEO of the non-profit IgnitedThinkers, established during her 8th grade, she is dedicated to expanding space education and championing diversity and equity within the aerospace sector. Gitika's recognition as a Top 100 Woman in Aerospace and Aviation Professional to Follow on LinkedIn further highlights her impact and potential in the Space sector.

Dr. Ashok Narayanamoorthi is a highly experienced aerospace medicine professional and analog astronaut. He is a graduate of the pioneering Project PoSSUM Scientist-Astronaut program, and he has served as Crew Flight Surgeon and Health & Safety Officer at



Gitika Gorthi for IgnitedThinkers



the Mars Desert Research Station (MDRS) on multiple rotations.

Notably, Dr. Narayanamoorthi is the first and, as of yet, only Indian Citizen selected as a candidate for Project SIRIUS, an international research program simulating future deep-space habitats in collaboration with leading space agencies, including NASA and ROSCOSMOS. His extensive experience in simulated extreme environments provides invaluable insights into human adaptation, health, and safety for extended space missions.

Gorthi and Narayanamoorthi's inclusion in these historic inaugural missions exemplifies Titans Space's core principle of "purpose-per-seat," ensuring that every individual aboard, including members of the Titans Astronauts Corps, is a contributing member of the Research Crew, dedicated to advancing scientific understanding and technological capabilities in space at an unprecedented scale. These inaugural missions, and indeed all future missions, will host numerous other sponsored, government, and company scientists and researchers, each paired with specific science and innovation projects, maximizing the research output from every flight. "We are greatly appreciative to have Gitika and Ashok as integral members of our crew for these groundbreaking inaugural missions," stated Bill McArthur, Titans Missions Commander and former commander of International Space Station Mission 12. "Their specialized knowledge in biomedical research and aerospace medicine is essential for conducting groundbreaking scientific investigations during both the dynamic phases of transit on the <u>Titans</u>



Titans Spaceplane Flight Path to Dock with Titans OrbitalPort Space Station

<u>Spaceplane</u> and the sustained operations aboard the OrbitalPort. The 'purpose-per-seat' model is fundamental to our approach, ensuring that every mission yields valuable data and drives progress."

"

Gitika Gorthi and Dr. Ashok Narayanamoorthis' specialized knowledge in biomedical research and aerospace medicine is essential for conducting groundbreaking scientific investigations..." Bill McArthur, Commander, Titans Space Missions Neal Lachman, CEO of Titans Space, remarked, "The selection of individuals with the remarkable qualifications of Gitika Gorthi and Dr. Ashok Narayanamoorthi for our initial missions underscores the scientific rigor and ambitious research agenda of Titans Space. Their contributions are vital to our overarching goal of not merely transporting to and having a permanent presence in space, but leveraging that capability to generate new knowledge and develop technologies that address challenges and create opportunities on Earth. The Titans Spaceplanes and TOPSS are designed to be versatile platforms for innovation, and our research crew is the

driving force behind that vision. Furthermore. Gitika represents the Mars Generation, and Ashok represents the pioneers who will be preparing, supporting, and joining them."

Vaseema Hussain MCIAT, Director of Space Sustainability and Astronaut Liaison at Titans Space, commented, "It is incredibly inspiring to witness individuals like Gitika and Ashok, who embody both scientific excellence and a deep commitment to the future of space, join our burgeoning astronaut corps. Their diverse expertise is representative of the wide array of skills and knowledge required to build a truly robust and capable presence in space. We are assembling a crew united by purpose and the drive to expand humanity's reach and understanding."

Gitika Gorthi shared her perspective on this opportunity: "As an aspiring aerospace physician dedicated to advancing medicine through space-based research, joining the inaugural Titans

missions is a profound privilege. I am particularly focused on utilizing the unique microgravity environment, accessible through both the efficient transits on the Gemini Spaceplane and the extended duration on the OrbitalPort Space Station, as a novel laboratory to study biological processes and develop medical countermeasures.

The potential to translate these findings into novel treatments and diagnostic tools for diseases on Earth, and to refine telemedicine capabilities for future deepspace exploration, is a powerful motivator. I am eager to contribute to the critical R&D efforts that will underpin these advancements and help build a more inclusive and impactful future in space."



Dr. Ashok Narayanamoorthi - Suit

Dr. Ashok Narayanamoorthi stated: "My

extensive background in aerospace medicine, including my experiences with Project PoSSUM and the Mars Desert Research Station, has provided me with a comprehensive understanding of the physiological and psychological demands of spaceflight. Participating in these inaugural Titans missions allows for crucial applied research into human performance and health across the spectrum of mission durations, from the dynamic transit phases aboard the Gemini Spaceplane to the operational tempo of the OrbitalPort Space Station. Ensuring crew well-being through rigorous medical monitoring, countermeasures, and the development of advanced life support systems is fundamental to the success and sustainability of all future Titans endeavors."

"The selection of scientists with the profound expertise of Gitika Gorthi and Dr. Ashok Narayanamoorthi is a cornerstone of our R&D strategy for the inaugural and all future missions utilizing the Titans Spaceplane fleet and the OrbitalPort," stated Marcus Beaufort, Director of R&D Strategy at Titans Space. "As we build out the capabilities for both short-duration transits and long-duration orbital stays, their leadership in space medicine and biomedical research is essential. These platforms are specifically designed to host a diverse multitude of sponsored, government, and company scientists and researchers on every flight, and their collective efforts are critical for leveraging the unique orbital environment to drive breakthroughs with significant implications for both advancing space exploration and delivering tangible benefits on Earth, truly embodying our 'purpose-per-seat' vision."

Titans Space and the Titans Astronauts Corps are dedicated to sponsoring and including other

deserving scientists, engineers, educators, artists, and individuals from a wide array of disciplines on future missions. This commitment reinforces the "purpose-per-seat" philosophy and expands the potential for groundbreaking research, innovation, and cultural enrichment in the space environment, ultimately working towards a more accessible and beneficial future in space for all of humanity.

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 Titans OrbitalPort Space Station. Much like NASA's Space Shuttle ferried astronauts and supplies to and from Low Earth Orbit, 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.

This directly addresses the current economic challenges of space access, where transportation costs are a major factor, with individual mission berths currently valued in the tens of millions. Through innovative approaches and programs like the Titans Astronauts Corps Sponsorship, whose members invest \$25 million for lifetime access to missions and are foundational to the Titans sponsorship program, Titans Space aims to make space more accessible and sustainable for a wider range of scientific and commercial missions, paving the way for people to work and live in cis-lunar space.

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.

The Titans OrbitalPort Space Station (TOPSS) represents a revolution in orbital infrastructure, envisioned as a versatile hub that integrates multiple functionalities. Beyond serving as a platform for long-duration astronaut habitation and cutting-edge microgravity research, TOPSS will also incorporate advanced space manufacturing capabilities, allowing for the in-orbit production of high-value materials and products.

Furthermore, a dedicated section will function as a commercial space hotel, offering unique short-term accommodations for researchers, private citizens, and space explorers seeking the unparalleled experience of living and working in orbit. This multi-faceted design aims to maximize the utility and economic viability of the space station.

The architecture of the Titans OrbitalPort Space Station (TOPSS) offers significant advantages over traditional space station designs. Connected by secure airlock tunnels, the initial configuration will comfortably accommodate 24 astronauts, with the inherent flexibility to expand to 48 and eventually 72 or more simultaneous occupants by adding further structures. This design not only enhances safety by allowing for the isolation of individual sections in case of emergency, but also provides adaptable space for the station's diverse roles as a research and development center, a manufacturing facility, and a space hotel.

While the first generation of TOPSS will operate in a microgravity environment, consistent with the ISS, TSI is committed to the future development of a space station with artificial gravity to support longer-duration missions and a wider range of human activities in space.

Recognizing the growing demand for access to LEO, Titans Space is offering comprehensive 1month 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 Titans Space Missions Commander William S. "Bill" McArthur Jr.

William S. "Bill" McArthur Jr. is a distinguished veteran of four spaceflights and retired U.S. Army Colonel with a background in engineering from West Point and Georgia Tech. Excelling as an Army aviator and test pilot with over 9,000 flight hours, he brought extensive experience to NASA upon joining in 1987. Selected as an astronaut in 1990, McArthur flew on three Space Shuttle missions: STS-58, STS-74 (Mir docking), and STS-92 (ISS assembly), and held leadership roles in the Astronaut Office. His most significant mission was commanding Expedition 12 on the International Space Station from 2005-2006, where he oversaw station operations, research, and conducted four spacewalks across his career. Following his return, he continued in key management roles at NASA focusing on safety until his retirement in 2017, marking a career dedicated to space exploration.

Further Information: www.TitansSpace.com/Commander-Bill-Mcarthur/

About Dr. Ashok Narayanamoorthi

Dr. Ashok Narayanamoorthi is an accomplished analog astronaut and space medicine specialist. He is a graduate of the PoSSUM Scientist-Astronaut program, the world's only crewed suborbital research initiative supported by NASA. He has served as Crew Flight Surgeon and Health & Safety Officer at the Mars Desert Research Station in Utah and with Mars Academy USA in California. Notably, Dr. Ashok is the first and only Indian citizen selected as a candidate for Project SIRIUS—a high-profile international space simulation led by Russia's IBMP in collaboration with

NASA and other major space agencies to model the future Lunar Orbital Gateway.

Further Information: www.SpaceDocAshok.com/about.php

About Gitika Gorthi

Gitika Gorthi is the Founder and CEO of IgnitedThinkers, a nonprofit she launched in 8th grade to make space education accessible to all students. Now a junior at Columbia University studying biomedical engineering with a minor in economics, she is an aspiring aerospace physician and astronaut focused on using space as a laboratory to advance human health. Gitika conducts cancer research at Columbia Medical School, contributes to NASA's GeneLab Animal Analysis Working Group, and has completed research internships at Harvard Medical School and Mount Sinai, where she worked on kidney disease modeling with cutting-edge organoid and organ-on-achip systems. A published author in space medicine and former NASA intern, she is passionate about space-driven telemedicine and was named one of the Top 100 Women in Aerospace and Aviation Professionals to Follow on LinkedIn in 2023.

Further Information: www.lgnitedThinkers.org/about Speaking at the 2022 Humans to Mars Summit: https://www.youtube.com/watch?v=i82zlhimOT8

About Titans Space Industries

Titans Space Industries (TSI) is dedicated to developing safe, innovative, and cost-effective cislunar 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.

Further Information: <u>www.TitansSpace.com</u> or for the Business & Investment Thesis: <u>www.TitansSpace.com/TSI-Investment/</u>

About the Titans Astronauts Corps

Through their membership and sponsorships, Titans Astronauts contribute profoundly to advancing science, technology, frequent and safe space transportation, and expanding human presence in space.

Further Information: <u>www.TitansSpace.com/Titans-Astronauts</u>

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