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ACTUAL AND FUTURE TRENDS OF NANOSATELLITE PLATFORMS, ENSURING THE BASIC
CONCEPT LEVEL MISSION DESIGN FOR SUSTAINABLE SPACE

Abstract

This abstract delves into the comprehensive landscape of nanosatellite development, covering historical perspectives, mission design concepts, calculation methods, and the various phases of design and development.

The history of nanosatellites unfolds through a captivating exploration of initial ideas and their progression into fully-fledged missions. From their beginnings, the abstract traces the evolution of nanosatellite concepts, highlighting key breakthroughs and transformative missions that have paved the way for contemporary platforms. This historical narrative sets the stage for understanding the current landscape and provides valuable insights into the foundational principles that underpin nanosatellite missions.

A significant focus of the content lies in elucidating the calculation methods employed in the trajectory from basic mission conception to detailed design. This involves examination of the mathematical and computational models used to optimize mission parameters, ensuring the efficiency and success of nanosatellite endeavors. By shedding light on these calculation methods, the abstract aims to contribute to the methodological knowledge base in nanosatellite development, facilitating the exchange of best practices and fostering advancements in mission planning, especially focusing to guide young researchers and students with simplified path.

Furthermore, the discussion extends to the design and development phases of nanosatellite missions. Detailing the intricacies of these phases, the abstract provides an insightful overview of the challenges encountered, lessons learned, and innovative solutions devised during the course of bringing a nanosatellite mission from concept to reality. Emphasizing the iterative and collaborative nature of the design process, the presentation aims to inspire and inform future endeavors in the burgeoning field of small satellite technology.

The abstract concludes with a critical analysis of results, showcasing the practical applications of nanosatellite missions and their impact on space exploration and scientific research. By exploring real-world examples and case studies, illustrates the diverse range of applications.