

SPACE EXPLORATION SYMPOSIUM (A3)  
Mars Exploration – Part 3 (3C)

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## MARTIAN TRANSIT : AN ODYSSEY OF ONGOING ROBOTIC MISSIONS

**Abstract**

Mars being an object of extravagant enthrallment, its Human Exploration has been cataloged as one of the most imperative goals for human space flight in the post-Apollo era. Since the 1800s science-fiction authors have envisioned humanistic transit to the planet that to an extent has been realized by precedent robotic mars missions like MARINER, MARS OBSERVER, MARS POLAR LANDER and PHOENIX. These missions tremendously subsidized rocket pioneers in transfiguring this dream into a reality by determining various aspects such as Martian Climate, Vegetation, Composition of the planet, Habitability and Existence on Life on Mars thus strategizing expeditions to the Red Planet and accelerating towards the Current Mars Missions. This paper rehashes all the ongoing mars missions along with their design, technicalities and latest experimental results obtained, also taking into consideration the attainments of the precedent missions. Lately in 2012 two scientific rovers have been directed on the surface of Mars for beaming signals back to Earth which include the Opportunity Rover of the Mars Exploration Rover mission and Curiosity Rover of the Mars Science Laboratory mission. The Three orbiters Mars Odyssey, Mars Express and Mars Reconnaissance Orbiter , fabricated for the fruition of the pursuits are currently surveying the planet. Two orbiters launched in November 2013, Mars Orbiter Mission and MAVEN, are currently on their way to Mars and all these are an inclusion on the current missions which will be highlighted with great detail. The present pursuits help to contemplate the forthcoming missions, appetizing to peek at their aims and objectives bound for the futuristic expeditions which would also be asserted with a considerable inquisitiveness. Information about the archaic Microbe species and their present biotic signatures is also capped. The past and present pursuits of the red planet are revealed and drafted with an anticipation of the unparalleled boom of the imminent pursuits along with the quest for vital legitimacy as an affirmation of existence of life.