## IAF SPACE EXPLORATION SYMPOSIUM (A3) Interactive Presentations - IAF SPACE EXPLORATION SYMPOSIUM (IP)

## Author: Mr. Jamel Metmati THALES Services, France, djamel.metmati@thalesgroup.com

## MOON EXPLORATION BY OUTER THE POINT : THE FUTURE OF THE ROBOTIC SCIENCE

## Abstract

The robotic science improves the exploration, the acknowledge and the futur manoeuver in Deep Space. From the probe on orbit and these launched to the Space plus the assets landing to the ground, the robotic science allows to explore the planets and their satellite outer the landing point. Once more demonstrated by the Perseverance mission and the history of robots on Mars, the current technology provides the means to develop Space tools to explore efficiently with low cost the sides unreachable of the Moon. Moreover, the new generation of robots gets the capabilities to work differently from the classic move on the surface. Whethever they can test and use on Earth, Moon remains the best laboratory to test on mission the future of complex robots in the areospace and cyber conditions. Above all, the Space industry, by the way, would benefit to this developement in increasing the automation of the Space technology applied on the social and economic field. At least, the robotic science provides a path to explore in another way the Moon as the same method than Mars in the framework of Artemis Mission and further. With this exception, the Moon is a realistic step to built a permanent structure out the terrestrial context. The manner to design this first installation could be used for Mars or any permanent location in the solar system.