

NASA grant to tap lunar resources

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Computer models may lead to propellant production from lunar mantle

Florida Tech associate professor of chemical engineering, Dr. Jonathan Whitlow, received a grant of nearly \$50,000 from [NASA](#) to develop **computer models that can lead to producing propellants from the lunar regolith, or rock mantle**. He will collaborate with NASA Kennedy Space Center, NASA Johnson Space Center, and the Colorado School of Mines.

"Developing these lunar elements into propellants in-situ can improve the economics of exploring the moon and other planetary bodies," said Whitlow.

Oxygen is abundant on the moon in the form of metal oxides in the lunar soil. In addition, small amounts of other resources exist, such as hydrogen, nitrogen and carbon, which have been deposited by the solar wind.

"The in-situ processing of the lunar soil to produce propellants is a challenge of chemical engineering," said Whitlow. He will be developing predictive models for various processing steps involved in the resource recovery on the moon. Florida Tech offers bachelor's, master's and doctoral degrees in chemical engineering.

Source: [Florida Institute of Technology](#)

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