

Essential technologies and development roadmaps for small launch vehicles

S P E A K E R	Dongyoon Shin (Perigee Aerospace)
D A T E	Thursday, MAR. 21, 2024 (1:00p.m.-)
C O N T A C T	Prof. Jintae Kim (279-2166)
P L A C E	Room No.405, 4th Floor at Science Bldg. V

The small launch vehicle differs from its larger counterpart in several ways.

Firstly, while the functional requirements remain mostly identical, every component needs to be miniaturized to match the downsized vehicle's size. Miniaturization of some components can be challenging and often necessitates fundamental redesigns.

Secondly, as the rocket decreases in size, it must overcome relatively more external losses and disturbances to and from the environment with limited energy capacity.

Addressing these challenges requires advancements in four key areas: propulsion, structure, avionics, and flight control.

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This seminar aims to share some of the unique technologies specifically developed for small launch vehicles to enhance their efficiency and commercial viability.

Lastly, we will assess the current technology readiness level of the suggested technologies and seek possible improvements in the near future.