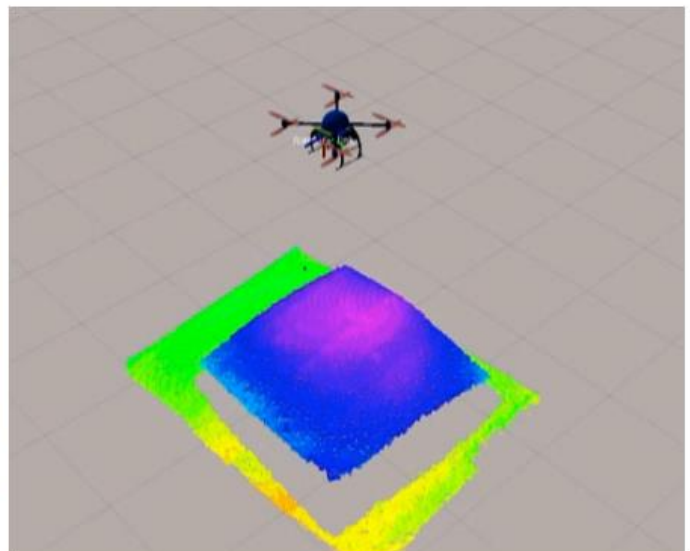


Bachelor-/Projekt-/Masterarbeit

Quadrocopter platform for testing planetary landing technologies

Commercially available quadrocopters can be used as test beds for novel planetary landing technologies. Off-the-shelf electronics and sensors (e.g. a Go-Pro camera, laser sensors, etc.) can be used to emulate the function of expensive and heavy sensors used for planetary landing. Using this platform various technologies such as visual navigation, hazard detection and avoidance, and guidance and control methods can be demonstrated. Our institute has acquired two such quadrocopters and is currently developing them as test platforms for planetary landing.

The interested student will adapt one or more of the functions necessary for planetary landing for the quadrocopter: a landing dynamics emulator, algorithms for navigation, landing autonomy, trajectory guidance, and others. The student can work on both simulating the necessary functions on Matlab/Simulink and implementing them on the quadrocopter itself.



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