ΠΑΝΕΠΙΣΤΗΜΙΟ ΚΡΗΤΗΣ
ΤΜΗΜΑ ΕΠΙΣΤΗΜΗΣ ΚΑΙ ΤΕΧΝΟΛΟΓΙΑΣ ΥΛΙΚΩΝ

ΠΑΡΟΥΣΙΑΣΗ ΜΕΤΑΠΤΥΧΙΑΚΟΥ ΔΙΠΛΩΜΑΤΟΣ ΕΙΔΙΚΕΥΣΗΣ

Τίτλος

«Novel optical breadboard beam steering techniques for space applications»

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Περίληψη

Beam steering is a critical issue in optical space applications. The technical requirements in respect to the angular positioning, optical path length, positional and beam alignment are at the limits of current mounting and optical component fabrication technology. Furthermore, stability is extremely important since long and short term fluctuations in temperature, and flight induced vibrations can dramatically affect the system performance.

The proposed project focused on experimentally demonstrating novel techniques, using passive optical components, which allow precise beam-steering on an optical breadboard, reducing the precision and the complexity required from the optical components. The optical stability under thermal cycling of such techniques was also tested on prototype optical breadboards.

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