## ΠΑΝΕΠΙΣΤΗΜΙΟ ΚΡΗΤΗΣ





#### **UNIVERSITY OF CRETE**

# DEPARTMENT OF MATERIALS SCIENCE & TECHNOLOGY

Ηράκλειο, 14/10/2021

# ΑΝΑΚΟΙΝΩΣΗ

### Η ΠΑΡΟΥΣΙΑΣΗ ΔΙΠΛΩΜΑΤΙΚΗΣ ΕΡΓΑΣΙΑΣ

Του φοιτητή Απόστολου Παντούσα, θα γίνει την

<u>Πέμπτη 21/10/2021</u> και ώρα **13:30** 

στην αίθουσα Α210 του Κτιρίου Μαθηματικού

# Θέμα Διπλωματικής:

«Synthesis and characterization of 2D layered hexylammonium methylammonium lead bromide perovskite homologous series»

Για την παρακολούθηση της παρουσίασης δια ζώσης, το κοινό θα πρέπει να έχει τα απαραίτητα δικαιολογητικά (πιστοποιητικό εμβολιασμού, νόσησης ή ράπιντ τεστ).

#### Abstract:

Metal-halide perovskites have been the epicenter of much research due to their unique optoelectronic properties. The compound (CH<sub>3</sub>NH<sub>3</sub>)PbBr<sub>3</sub> has been shown to exhibit favorable properties for applications such as photovoltaic cells and LEDs such as a high and direct energy gap. In this work, the dimensionality of the structure of this parent compound was investigated using organic "spacer" molecules and a two-dimensional family of new materials based on this was synthesized and characterized. X-ray diffraction measurements, optical diffuse reflectance and photoluminescence measurements were carried out to describe the new compounds and reveal interesting properties of these materials, such as a tunable energy gap.