# Η ΠΑΡΟΥΣΙΑΣΗ ΔΙΠΛΩΜΑΤΙΚΗΣ ΕΡΓΑΣΙΑΣ

Του φοιτητή **Μάριου Αδαμίδη,** θα γίνει τη

**<u>Πέμπτη 10/02/2022</u>** και ώρα **12:00**

στην αίθουσα Α210 του κτηρίου Μαθηματικών και Εφαρμοσμένων Μαθηματικών

## Θέμα Διπλωματικής:

## «*Synthesis and photochromic properties of composite AgCl-$AgPO_3$ glass*»

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

**Abstract:**

*We herein present a simple, low-temperature, post-glass melting encapsulation fabrication protocol in which AgCl thin layers are incorporated within silver metaphosphate glass ($AgPO_3$). The selection of $AgPO_3$ glass is mainly based on its relative 'soft' nature ($Tg=192^oC$) that allows the feasible embedment of the AgCl layer, while being transparent in most of the visible range, and thus suitable for smart photochromic windows applications. The described synthesis procedure allows the controlled positioning of the AgCl layer within the host glass matrix, while the properties of the layer itself could be modified accordingly. Results show a direct dependence of the composite AgCl-$AgPO_3$ glass photochromic response with the morphological features of the encapsulated AgCl layer, i.e. thickness and position. The photochromic response time upon varying UV irradiation dose is also considered. Ongoing work involves efforts on further enhancing the photochromic performance upon exploiting the presence of silver nanoparticles within the glass, as well as, by introducing periodic patterns on the glass surface by means of laser processing.*