#	**Virginia Pantelidi** Student in Architecture, Aristotle University of Thessaloniki	
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Presentation title:	**Integration of Photovoltaic Systems on Existing Building Shells**	

This research paper deals with sustainable development, focusing on the relationship between economic growth, social equity and protection of the environment. Strategies and practices that ensure sustainability are investigated, with a focus on sustainability in the building sector and renewable energy, considering the legislative framework and the impact of climate change. It also examines the possibility of energy upgrading of existing buildings through the integration of photovoltaic systems in the building envelope, focusing on both technical aspects and socio-economic and environmental challenges.

It then analyses the existing building stock in Greece and Europe and examines the legislative framework and financial tools that facilitate energy upgrading. Emphasis is placed on energy upgrading measures and photovoltaic systems, as well as on the process of their integration into existing building envelopes.

The second part of the paper focuses on applied examples, such as the integration of photovoltaic systems in buildings in Greece and around the world, including the cases of the Weibel Family House, the CIS Tower, and an apartment building in Tavros, Athens. These examples demonstrate the potential and benefits of technology, while highlighting the technical and financial challenges that arise.

The paper concludes that the integration of photovoltaic systems can make a decisive contribution to reducing energy consumption and carbon emissions, enhancing the sustainability of the building sector. Despite the challenges, energy upgrading of existing buildings is the only way to achieve sustainable development goals and promote energy autonomy.

Short CV GREEK:

Η Βιργινία Παντελίδη είναι φοιτήτρια Αρχιτεκτονικής στο Αριστοτέλειο Πανεπιστήμιο Θεσσαλονίκης. Διαθέτει γνώση Αγγλικών (επίπεδο C2) και Ισπανικών (επίπεδο B2) και εμπειρία σε σχεδιαστικά προγράμματα όπως Rhino, AutoCAD και Photoshop. Τα ενδιαφέροντά της επικεντρώνονται στην ενέργεια στα κτίρια, την αναβάθμιση υφιστάμενων κτιρίων και την ανάδειξη του υποβαθμισμένου και εγκαταλελειμμένου κτιριακού αποθέματος.

Short CV EN:

Virginia Pantelidi is an Architecture student at the Aristotle University of Thessaloniki. She has knowledge of English (C2 level) and Spanish (B2 level) and experience with design software such as Rhino, AutoCAD, and Photoshop. Her interests focus on building energy efficiency, the upgrade of existing structures, and the revitalization of degraded and abandoned buildings.

CV:	

Virginia Pantelidi was born on March 16, 2002, and resides in Thessaloniki, Greece. She is an Architecture student at the Aristotle University of Thessaloniki, where she develops her knowledge and skills in architectural design and sustainable construction.

Since her school years, she has demonstrated a strong interest in mathematics, earning four distinctions in the national mathematics competition "Euclides" between 2014 and 2017. Additionally, in 2017, she participated in the 34th National Mathematical Olympiad "Archimedes."

She has advanced computer skills and expertise in architectural and design software such as Rhino, AutoCAD, and Photoshop and in application and web design programs such as Figma and WordPress as well as in database creation with Microsoft Access. She speaks English at a C2 level and Spanish at a B2 level and is keen on continuously enhancing her skills in both technological tools and theoretical approaches to architectural design.

Her specific interests focus on building energy efficiency, the upgrade of existing structures, and the revitalization of degraded and abandoned buildings. Through her studies and future professional path, she aspires to contribute to the improvement of the built environment, emphasizing sustainable development and the restoration of architectural building stock.