Event: **ENERGY in BUILDINGS 2018**
Date: Saturday November 3, 2018
Place: Athens, Hellas

#	**Maria K. Koukou** Chemical Engineer, PhD Assistant Professor TEI STEREAS ELLADAS	
Title:	Assistant Professor, Mechanical Engineering Department, Technological Education Institute of Sterea Ellada, Psachna, Evia	
email:	mkoukou@teiste.gr	
Presentation title:	**Development of Heat Exchangers and PCM Tanks for Heating, Cooling and Domestic Hot Water (DHW) at Tesse2b Conference**	

TESSe2b is a technology that aims to storage thermal energy based on solar collectors and efficient heat pumps for heating, cooling and domestic hot water (DHW) production. It is an integrated package with thermal storage technology. The tanks developed within TESSe2b project are integrated with different Phase Change Materials (PCMs) such as (i) paraffins and (ii) salt-hydrates. In both cases, a highly efficient heat exchanger is included. The TESSe2b pre-prototypes were designed in a compact and modular manner taking into account usual container placement of stock building spaces for easy integration, insulation for minimum thermal losses and safety according to existing standards. In this work, the Tesse2b pre-prototypes are presented.

CV:

Maria K. Koukou is Assistant Professor at the Mechanical Engineering Department of Technological Education Institute of Sterea Ellada in the field of industrial installations. She obtained Chemical Engineering degree in 1991 from the University of Patras and a PhD degree in Chemical Engineering in 1997 from the National Technical University of Athens (NTUA) in the field of installations analysis and design. Since 1992 she has participated in more than twenty European and Greek research projects in most of them having a leading research role. From 1992 to 2016 she practiced freelancing profession of Chemical Engineer by participating in a number of engineering implementation projects in the fields of energy, environment and industrial installations. Her research interests concern the analysis and design of installations and processes focusing on energy saving. In recent years, she is also involved in Renewable Energy Sources (RES) projects combined with thermal energy storage technologies to cover heating, cooling and domestic hot water needs in buildings and other facilities. Dr Koukou has published more than 70 scientific publications in international journals and conferences with a large number of citations (based on Scopus and Google scholar sources) and she is also author of a book on Renewable Energy Sources and 2 chapters in books. Up to date she has been a member of scientific and organization committees in 3 international conferences, and many workshops. She is also a member of the Technical Chamber of Greece and other professional and scientific bodies.