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Presentation title:	**Energy signature model for data center infrastructure**	

Energy consumption in data centers is increasing year by year following the growth in the data center market. Generally, ICT (information and communication technology) equipment and facility equipment account for a large percentage of energy consumption in data centers. To evaluate whether a data center is energy efficient, it is necessary to continuously trace metrics which represent its energy efficiency. A new type of energy baseline is introduced in the present work, which is called energy signature of a data center and expresses the energy consumed as a function of the outdoor air temperature and the IT equipment consumption, while at the same time it models how a data center performs. This energy baseline model is validated against actual data taken by one of the data centers of the Greek Research and Technology Network which is located in Attica province.

CV:

Spiros Livieratos received his Diploma in electrical engineering and his PhD on wireless-satellite communications from the National Technical University of Athens (NTUA). He is Associate Professor at the School of Pedagogical and Technological Education, Department of Electrical and Electronic Engineering Educators, which he joined in 2009. Before 2009 and for many years, he worked in the telecommunications market at various positions and organizations, such as SIEMENS, OTEGLOBE and Hellenic Telecommunications and Post Commission (EETT).

His research interests cover a wide scope of telecommunications issues, with emphasis on wireless communications, electromagnetic wave propagation and statistical modelling of fades as well as smart grid. His engineering interests are in the field of data analytics / machine learning with emphasis on energy baseline analysis and energy big data modelling aiming at identifying energy saving opportunities, forecasting and supporting ESCO business.

He has published more than 60 papers in international journals and conferences, a technical book (in Greek) and various chapters in technical books (in English) in the above fields. He has also participated in more than 10 European and Greek research projects as project manager or main researcher.