

## Bringing education closer to the labor-market: The biomedical engineering example

Dimitris Glotsos<sup>1\*</sup>, Emmanouil Athanasiadis<sup>1</sup>, Efstratios David<sup>1</sup>, Panagiotis Liaparinis<sup>1</sup>,  
Spiros Kostopoulos<sup>1</sup>

<sup>1</sup> Department of Biomedical Engineering, University of West Attica, Egaleo, Athens, Greece

### Abstract

Biomedical Engineering (BME) is considered one of the most evolving educational and industrial domains worldwide. Biomedical Engineers support the design, the construction, the installation and the quality operation of the hundreds of thousands of biomedical devices used in medicine and biology. Educational programs in BME are rapidly increasing worldwide to meet the growing requirements of the research and industry for BME graduates of high quality. The goal of this study is to present a novel educational approach of a new MSc program in Biomedical Engineering and Technology organized by the Department of Biomedical Engineering of the University of West Attica in Greece, that attempts to bring closer education to the real-world conditions of the labor market through a series of specialized 1-year educational activities, co-organized with the labor-market. These activities cover 7 important aspects of the BME profession, namely a/ development of start-up companies in the BME sector, b/ fault detection, service, maintenance, calibration and quality control of BME equipment, c/ sales, marketing, promotion of BME products, d/ clinical field engineering with application specialists, e/ installation of large BME equipment, such as radiotherapy, f/ BME in the hospital environment, g/ basic research and product development in the BME sector. The above-mentioned specialized seminars had a positive impact to both students and the labor market, which identified the co-organization of educational activities with the participation of the labor-market as key factor for the success of an MSc program.

**Keywords:** Higher education, Postgraduate studies, MSc program in Biomedical Engineering and Technology, Co-organization of education with the labor-market, Biomedical Engineering Profession

**Acknowledgments:** Funding:



Operational Programme  
Human Resources Development,  
Education and Lifelong Learning  
Co-financed by Greece and the European Union

