ABSTRACT

The present thesis dealt with the development of a data collection and processing platform relating to the Key Performance Indicators of the Department of Mechanical Engineering and Materials Science and Engineering of the Cyprus University of Technology, as provided for in the provisions of the Assurance and Accreditation of the Quality of Higher Education and the Foundation of a Body for Related Matters Law of 2015 of the Cypriot Parliament, in line with the standards, directives and guidelines of ENQA and in particular paragraph 1.7 (2015 version).

Initially, a brief literature review was carried for a full understanding of the Quality Assurance implementation in Higher Education, as a service sector with significant particularities. Moreover, the application of Key Performance Indicators was understood in conjunction with the Process Control Charts, such as those used in industry, to control and improve the process of Universities. The current European and Cypriot legislation which provides for the implementation of Quality Assurance in Higher Education was also investigated.

Subsequently, using the SPC IV Excel software and MS Excel, a platform for data collection and statistical processing was developed. Then, the appropriate Indicators were selected by studying the list of existing Key Performance Indicators created by the University's Committee on Internal Quality. Data was then collected for the selected indicators, which was followed by the creation of the appropriate Process Control Charts for each indicator.

In conclusion, a commentary was made on the results obtained from the Process Control Charts created for each indicator, and where necessary, additional graphs were created for the corresponding indicator. Where possible, indicators were identified in the literature for comparison of results. It was also attempted to recommend a small number of additional indicators which are not identified in the existing list of the Internal Quality Commission. For some of them, data was available and the corresponding Control Charts were created.

Finally, the summary findings of the thesis were presented, while reference was made to the benefits for both the student and the Department of Mechanical Engineering and Materials Science and Engineering, while there were a number of recommendations for future action on the part of the Department for improving data collection and processing.