

# **ICT Graduate Programmes in Greece: Analysis and Association with the Labour Market**

**Vassilis Kostoglou**

**Department of Informatics, Technological Educational Institution of Thessaloniki  
P.O. Box 14561, 54101, Thessaloniki, Greece**

**Theodoros Koutroukis**

**Department of Financial and Management Engineering, Aegean University  
31, Fostini str., 82100, Chios, Greece**

**and**

**Konstantinos Paparrizos**

**Department of Applied Informatics, University of Macedonia,  
156, Egnatia str., 54006, Thessaloniki, Greece**

## **ABSTRACT**

The era of information and the compact revolution have influenced significantly the educational planning as well as the labour market. Recent developments have shown that a close relationship with the labour market needs can afford a high reliability to the graduate programmes, especially those programmes, which are related with the new technology issues.

As reported in previous studies, one of the most important aims of the graduate programmes is to raise their students' employability. More specifically, certain scholars have argued that appropriate postgraduate courses can act as an efficient tool to improve the matching procedures between the graduates' skills and the enterprise needs for a well-trained and effective workforce. Moreover, similar papers have found that there is a strong relationship between the labour demand and the skills that Information and Communications Technologies (ICT) graduates obtained by the higher education.

This work is concentrated on the ICT graduate programmes that are provided by the Greek Universities and aims to assess their association with labour market demand in the ICT sector in Greece. The paper includes several results of a conducted research on the graduates' employment policies adopted by the enterprises.

The ICT graduate programmes analysis includes issues such as their categorization, the evolution during the last decade and the geographical allocation. The main educational characteristics are presented including the priorities given to the various subjects and courses. The corresponding conclusions are presented and discussed.

The investigation of the association between the graduate programmes in ICT and the labour market is based on the results of a recent national survey conducted during 2003. It was decided to focus on pure ICT enterprises because they compose a clearly defined population representing more accurately, due to its size and specialization, the field's total labour market.

The method selected for the accomplishment of the research was the random sampling of all ICT enterprises residing in Greece. The research tool selected is a structured questionnaire, designed and composed according to all internationally accepted techniques. The questionnaire accompanied by a cover letter was sent to all potential respondents. In order to raise the response rate effective methods were applied such as the collaboration with the two main national federations of ICT enterprises, the pre-notification of the potential informants and an extensive three-stage follow-up

of non-respondents. At the disposal of the informants were four alternative ways of returning the completed questionnaires.

Totally 343 filled and valid questionnaires were collected, achieving a response rate of more than 30%, which is considered as absolutely adequate for deducing reliable and representative conclusions.

Regarding the issues investigated by the survey, initially the ICT enterprises' profiles are analyzed through five relevant parameters, which are considered as survey's independent variables. The association between the graduate programmes outflows and human resource (HR) management policies adopted by the enterprises is studied through the analysis of the relationships between important parameters such as: a) ICT graduates employment, b) HR management preferences for ICT graduates hiring, c) enterprise location, d) enterprise size (number of employees), e) enterprise age (year of establishment), f) enterprise geographical range of activities and f) enterprise number of occupation areas.

For the analysis of all above parameters which constitute research's dependent variables are used descriptive as well as multivariate statistical techniques using the statistical package for the social sciences SPSS. The results obtained are presented and discussed. Main conclusions drawn are related with the main human resource management policies adopted by the field's enterprises as well as with the expected increase of the need for further specialization of the individuals.

The research findings indicate that there are significant relationships between ICT graduates employment and certain enterprise features such as location, size, geographical range of activities and number of occupation areas.