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## Survey on Graduate of Manufacturing Engineering Program

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### Abstract

An exit survey is a powerful tools that allow the University to obtain information about students' satisfaction with a range of academic and supervision experiences during their study at UKM and to inquire about their plans for the future. This study used a set of questionnaires which comprise of five main sections; Section A-general background, Section B-PO achievement, Section C- educational achievement throughout 4 years at UKM, Section D-career preparation and Section E-Relationship between lecturer-student. This study was conducted on two consecutive sessions (semester 2010/2011 and 2011/2012). Based on the findings, PO achievement for both sessions' shows a satisfactory result where all students achieved more than 3.5 out of 5 scales except for PO3 and PO6 in session 2011/2012. Next, curriculum and teaching and learning process during four years study in UKM showed that all students achieved more than 3.5 scales. The same trend also occurs for career aspect where in 2011 the lowest is 3.68 and in a year later is 3.54. Finally, relationship between student and staff has revealed the lowest score of 3.08 for mentor-mentee system in 2012

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*Keywords:* Exit survey; Manufacturing programme; curriculum; PO; Educational achievement.

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## 1. Introduction

Nowadays, there is a great diversification in higher education system. The institute of higher learning (IHL) is the responsible party to equip the younger generations with a new skills and knowledge [1]. Institutional background becomes the main judging criteria for the industry to select potential employee when it comes to fresh graduate. Prestigious institute normally provide good educational program in preparing a qualified graduate. In addition, the IHL's administration lecturers also playing their role to improve the quality and consequently produce better product. In general, there are support teaching systems for instance effective counselling and resourceful library provided along with information access skill courses [2]. It is due to the fact the student is a customer and also a stakeholder of the IHL.

Realizing the fact that a graduate is a good reflection of his or her alma mater, research on the ex-student may potentially give promising outcomes. It is call as the Exit Survey. Shahrudin Ahmad and Koh Aik Khoo [3] in their article explained how the educational system equipped them to survive and success later on. The quality of each graduate itself is the proof of successes level of university's program, as well as becoming benchmark for continuous improvement in the future. Therefore, in order to fulfill the Engineering of Accreditation Council (EAC) requirement, every alumni is required to give some information about their current jobs. In fact, this survey was actually conducted annually even there are some difficulties in locating their work place as well as receiving feedbacks from the respondents [4]. In fact, one of the universities in Australia was conducted the exit survey to find out the reasons why students have chosen not to further studying at their University and to use the information to improve their academic and administrative support services for students [5]. Another study conducted by Howard University [6] also used the exit survey method to gain information about students' satisfaction on academic and co-academic programmes and to inquire about their plans for the future. In addition, the exit survey was used as a tool to improve the programme at the University.

All in all, the objective of this study is to verify readiness to work as an engineer and to measure the achievement level of programme outcome after four years study in Faculty of Engineering and Built Environment under Manufacturing Engineering programme. Previous researcher adopted similar method to measure the achievement of Programme Outcome but focusing on Chemical Engineering student [7]. One of the most significant issues raised here is whether the content of the programme and value added skills been taught for four years of study contribute sufficiently to the success of being a good engineer. A questionnaire embraced all the aspect of study was designed and the content is discussed in detail in the next part.

## 2. Methodology

The exit survey method was used to gain general information regarding graduate's achievement and perception based on programme outcome (PO), their career preparation and relationship between student-lecturer. This study was conducted among all fourth year students of Manufacturing Engineering (ME) programme for two consecutive sessions which are 2010/2011 and 2011/2012. This quantitative survey was carried out on a sample size of 31 respondents on 2011 and 26 respondents on 2012.

In conducting a survey, a set of questionnaires were developed based on past experiences and practices in the department and faculty [7]. A set of survey questionnaire was carefully designed to ensure the objectives of this study will be achieved. This questionnaire consists of five main parts; Section A- general background, Section B- PO achievement, Section C- educational achievement throughout 4 years at UKM, Section D-career preparation and Section E-Relationship between lecturer-student. Basically, Section A required the respondent to answer five main simple questions; expected graduation, field of study, planning after graduate; preferred industry to work;

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