

# **Computing for Human Services**

**Chief Editor**

**Shihab Ahmed Hameed**

*Electrical and Computer Engineering-IIUM University*

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**IIUM Press**

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## Chapter 8

# Virtual-Learning Content Management System Using Problem-Based Learning (PBL)

Norul Ashikin Bt Abu Kasim, Teddy Surya Gunawan

### 8.1. Introduction

LCMS is a software for educational materials that manages content or learning objects. It can create, store, reuse, manage, assemble and deliver content over the Web from a central object repository. An LCMS emphasizes content management and authoring and includes many features in learning management system such as administration of the training/learning program, access to learning modules and specific content and manage course management [1]. The benefits of LCMS is to provide instant access to data and information regarding the usage and effectiveness of training, allowing administrators to generate reports [2]. Problem-Based Learning, also known as PBL is an approach in student-centered pedagogy in which the students meet in small groups to discuss a particular problem situation, note lectures, exercises or assignments under the supervision of an instructors [3].

There are three courses in MPCIM namely Diploma in Computer Networking (DCN), Diploma in English Communication (DEC) and Diploma in Accounting (DIA). In the proposed system, there are three types of user: administrator, instructor and student. The administrator has to manage the three courses by maintaining and managing subject resources, assessments, quizzes, forums and surveys. Here the administrator can edit, add, and delete the resources. As the instructors, they can input subject notes, assignments, test and quizzes and conduct discussions with the students. After the students have registered into the system, the administrator will then approve their registrations. The students can view and download all the materials without editing it. By using chatting facilities, the students can also have interactive sessions to initiate PBL with their friends and the instructors.