

CENTER FOR TECHNOLOGY RESEARCH AND DEVELOPMENT ABSTRACTS

THE DEVELOPMENT AND VALIDATION OF THE INTERACTIVETUTORIAL MODULE IN BASIC TRADITIONAL 2D ANIMATION

Manfred Von P. Magat

Abstract

This study aims to develop a printed module and an interactive module for basic traditional 2D animation based on the training regulations on Competency Based Curriculum – Animation NC II of the Technical Education and Skills Development Authority (TESDA). The printed module was evaluated and the result was interpreted as very acceptable. The printed module was converted into an Interactive Tutorial Module for Basic Traditional 2D Animation. After the interactive module was developed, it was also evaluated by the experts and the students for classroom instruction based on the assessment criteria set in the training regulations of the Competency Based Curriculum – Animation NC II. These evaluations are composed of the Alpha and Beta Test. The first Alpha test required the interactive tutorial module to undergo revisions to improve and to make it fit for tutorial and/or classroom instruction. In the second Alpha Test, it was found out that all revisions were carried out and the module was ready for Beta Test. After the Beta Test, the interactive tutorial module was found out to be very user friendly and very acceptable for classroom instruction based on the assessment criteria set in the training regulations of the Competency Based Curriculum – Animation NC II. The interactive module is embedded with audio, video and animations, as well as interactivity features that will assist the student or learner in using the module and to make the contents of the module more comprehensible. A simulation for inbetweening and clean – up is also provided in the interactive module as a form of evaluation in order for the student to practice what he had learned from the module.

Keywords: Interactive Tutorial Module, 2D Animation, Online module

SEX DISAGGREGATED DATABASE SYSTEM FOR GENDER AND DEVELOPMENT

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Abstract

The Sex Disaggregated Database System aims to answer the problems of Gender and Development Program (GAD) in terms of faculty and employee database profiling. The system was developed to easily retrieve GAD related information needed by the University as well as other agencies who required the same information. The system allows the user to manage the profile of faculty and staff, wherein they can add details, update and search individual records. It can also view the profile of faculty and personnel in terms of sex, educational attainment, age bracket, academic rank, and civil status. It can generate statistical graphs to determine the percentage of the faculty and employee who have different health issues based on their academic rank and age bracket. The functionality, reliability, efficiency, usability, maintainability, and portability of the system were tested by the Gender and Development Coordinator and members of Iloilo Science and Technology University (ISAT U). The respondents of the study strongly agree that using the above parameters, the developed system conforms to the stated needs or requirements of the system and the system has been developed to be easily used by the target users.

Keywords: sex disaggregated, database profiling, gender and development

ONLINE GENERATION OF ANNUAL PROCUREMENT PLAN (APP)/PROJECT PROCUREMENT MANAGEMENT PLAN (PPMP)

Ronald Soriano, et al.

Abstract

The study aimed to develop an Online Generation of Annual Procurement Plan (APP)/Project Procurement Management Plan (PPMP). It aimed to generate APP/PPMP forms, submit APP/PPMP online and view the status of the document online as requested by the department head.

The system forwarded the request documents online for approval through different departments until the Dean, Bids and Awards Committee (BAC) office, and the Vice President approved the documents; after which, the documents were received by the supply office for procurement. The approving department could also notify the requesting department head if the request document has been approved or denied or if there are other supporting documents needed for approval.

The system's functionality, reliability, efficiency, usability, maintainability and portability were tested by Faculty and Supply Officers of Iloilo Science and Technology University (ISAT U). The respondents strongly agreed that the above parameters conform to their needs and it is easy to use.

Based on the evaluation conducted by the respondents, the system obtained a total mean of 4.875. Thus, the system was very satisfactory and has met its objectives.

Smart Parking System

Ronald T. Soriano, Juniffer B. Badoles

Abstract – This research was developed to ease the trouble of looking for parking spaces whenever a motorist enters city perimeters. The current traffic infrastructure in our city seems undeveloped and unable to cope with the influx of vehicles thereby causing congestion and difficulty in looking for parking spaces. To lessen the problems, a good parking system is needed to alleviate the worsening traffic conditions. So a smart parking system has been developed. With the implementation of the smart parking system, drivers can easily locate and reserve available parking spaces where the system has been implemented. This can simply reduce time being wasted just looking for an available space to park in. Vehicle detection sensors play an essential role in the ingress and egress of vehicles in a certain car park area.

**Online Aptitude Test with Result Interpretation for Incoming Students of ISAT U
Computer Department**

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Abstract – The study is developmental research which aimed to develop the system Online Aptitude Test with Result Interpretation for Incoming Students of ISAT Computer Department. The system can generate random exam questions involving logical reasoning, numerical problem solving, pattern recognition, ability to follow complex procedures, managerial skills, troubleshooting, and networking skills, and attention to detail; generates a report that includes the individual's aptitude rating result, and evaluates the result according to Mathematics/Logic, Management/Business Math, and Troubleshooting/networking criteria. The study was conducted using the Spiral Software Development Life Cycle Model which minimized the risk and improved the documentation. The system was developed using the PHP programming language and was evaluated based on the ISO 25010 international standards. The system was found to be fit to use as a tool to conduct the aptitude tests of students who wanted to enroll in the computer department of ISAT U. However, the result of the evaluation also showed that the system has to improve in terms of its running time, thus, the system is fit to use under strict limitations.

Keywords— *Software development, aptitude test, ISAT U*