Key Features of GEMS

- ADVANCED EXAM MANAGEMEMT SYSTEM
- EASY MANAGEMENT OF ALL ASPECTS OF THE EXAMS GENERATION—QUESTIONS, STUDENT RECORDS AND EXAM PAPERS
- MULTIPLE CHOICE QUESTIONS OR ESSAY QUESTIONS
- GENERATES BOTH PAPER BASED AND ONLINE EXAMS
- GENERATES STATISTICAL ANALYSES OF RESULTS
- AUTOMATED CORRECTION OF EXAM PAPERS USING OMR
- RUNS EXAMS REMOTELY AND FROM DISTANT LOCATIONS
- EASA COMPLIANT

Clients

ASTech's client base includes aviation companies such as Part 147 training organisations, national aviation authorities, national training organisations, universities, colleges, electric utilites and manufacturing companies.

Our Company

Atlantic Simulation & Training Technologies (ASTech) is an internationally trading software company based in Galway, Ireland. The company specializes in products and services for the development and delivery of training and examination software for industry.

ASTech's products find usage in technological and engineering fields, especially the aviation industry as well as industries such as telecommunications, aeronautical, electrical utilities, manufacturing, colleges and training organizations.

Through interaction with these organisations and the application of inhouse expertise in areas such as Mechanical, Electrical and Electronic Engineering, and IT, ASTech has developed a number of products including systems to generate and correct paper based and online exams as well as interactive simulations and web based training courses.

ASTech's Key Activities

- Development of exam software for the generation of online and paper based exams especially for the aviation industry focusing on aircraft maintenance training including the generation of EASA Part 147, Part 145 and Part 66 approved multiple choice exams or any other industry such as training and education, electric utility and manufacturing
- Development of web based training courses and interactive aids
- Licensing of ASTech's web based training courses and exam software

Product Information GEMS

ASTech's **General Examination Management System (GEMS)** software is an advanced exam management system that automates the generation and correction of paper based and online multiple choice and essay question exams.

The system is well established within the aviation industry and can be used in any other industry e.g. electrical utilities, manufacturing, training and education i.e. training organisations, third level colleges and universities, etc

For aviation, the system is specifically designed to automate the production of examination papers for EASA (formerly JAR) Part 147, Part 145, Part 66 and FAA multiple choice examinations.

GEMS offers an integrated solution for any type of company and the process of exam preparation, generation and correction of paper based or online exams. The assessment tool offers extensive reporting facilities including statistics of exam results, exam details, trainee details and questions. Questions can be imported easily into a central examination databank. Questions are randomly selected and distributed according to the created exam template.

GEMS offers flexible deployment including stand alone computer configuration or web system deployment.
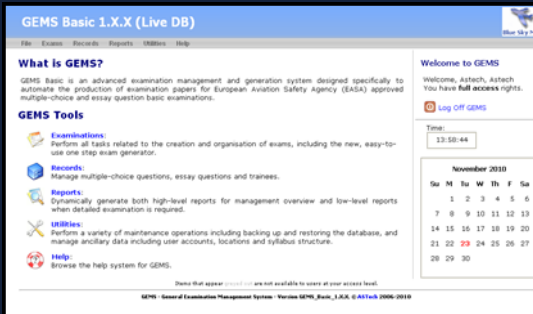
The system offers sophisticated control through an intuitive user interface which allows users to select a class, course, template, examiner, exam date and time. The access to the system can be controlled as well as different user privileges can be delegated.

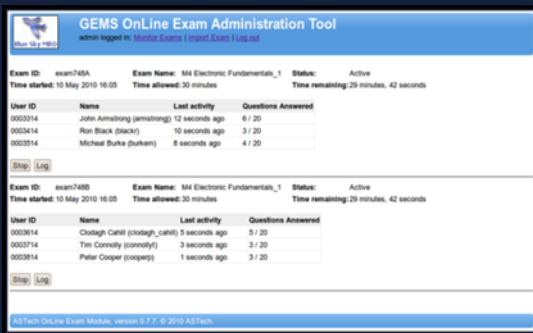GEMS is an EASA compliant and therefore allows the quality of standards.

BENEFITS FOR YOUR COMPANY

- FACILITATES YOUR DAY-TO-DAY TASK OF EXAM MANAGEMENT

- EASILY INTEGRATES INTO YOUR IT INFRASTRUCTURE

- SAVES YOU MONEY BY SAVING YOUR TIME THOUGH OPTIMAL RESOURCE UTILIZATION

- FACILITATES YOUR CORRECTION OF EXAMS THOUGH USING OPTICAL MARK RECOGNITION SOFTWARE

- OFFERS INTERFACE WITH LMS / HR DATA OF YOUR COMPANY

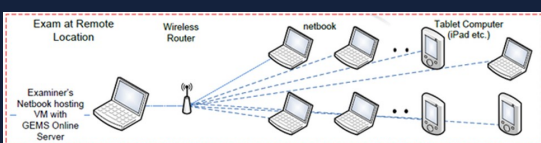GEMS Exam Macro

GEMS Online Exam Administration Tool

Exam At Remote Location

GEMS—An Integrated Solution

GEMS can be configured to provide the following applications:

- **GEMS Basic** - An advanced examination management and generation system designed specifically to automate the production of examination papers for European Aviation Safety Agency (EASA) Part 147 approved multiple choice and essay question basic examinations.

- **GEMS Type** - An advanced examination management and generation system designed specifically to automate the production of examination papers for European Aviation Safety Agency (EASA) Part 147 approved multiple choice type examinations specific to an aircraft or family of aircraft.

- **GEMS Fundamentals** - An advanced examination management and generation system designed specifically to automate the production of examination papers for non-approved multiple-choice basic examination.

- **GEMS Online** - An advanced suite of tools designed for you to manage exam questions and generate, publish, sitting and correction of online multiple choice exams.

- **OMR** - An interface for GEMS, allowing you to natively read and understand (suitably formatted) plain-paper answer sheets using off-the-shelf scanning hardware

- **FCL** - An exam management system which automates every part of the exam process including importing of the JAA CQD (Central Question Databank) from CD Rom, generating MCQ (Multiple Choice Questions) exams, storing results and producing reports

- **PPL** - An examination management system which automates every part of the examination process including importing of the generating MCQ (Multiple Choice Questions) exams, automatic exam correction, storing results and producing reports.

GEMS Architecture

GEMS uses a classical three tier architecture: