



NAAC ACCREDITED INSTITUTION  
**LOURDES MATHA**  
COLLEGE OF SCIENCE AND TECHNOLOGY

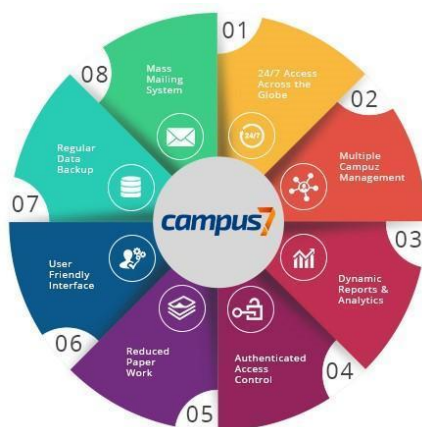
Affiliated to APJ Abdul Kalam Technological University  
Approved by AICTE & Managed by the Archdiocese of Changanacherry  
Lourdes Hills, Kuttichal P.O, Thiruvananthapuram, Kerala - 695 574

### BEST PRACTICE-1

**LOURDES MATHA COLLEGE OF SCIENCE AND TECHNOLOGY** uses Campus7 software (CMS) to automate all of its procedures, allowing for process simplification and ease of use. A collection of applications is offered by CMS to help with the College's administrative, instructional and operational needs.

#### 1. Title of the practice

The Learning Management Software (Campus 7) in LMCST



#### 2. Objectives of the practice

Campus 7 offers immense benefits to all users, by enhancing every aspect of learning, academics, administration, and student feedback & progress.

- Benefits for Teachers

Reduce paperwork, streamline and monitor the academic activities efficiently.



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- Benefits for Students

Get access to course materials and other data online. Build effective student-teacher interaction.

- Benefits for Parents

Get instant notifications and access to student activities and progress on the go.

- Academic audit internal and external

Enables academic audit efficient, effortless and fool proof.

- Benefits for Management

Advanced analytics helps to monitor the entire campus efficiently.

### 3.The Context

Login credentials are given to all faculties, students and parents. Subjects and classes are mapped to each faculty and they can upload the learning materials including video lectures. Upkeeping course diaries, attendance marking, conducting of assignments and online exams are the basic features. Students can access their academic details and parents can check their ward performance.

### 4. The Practice


- Cloud-Based Software Solution

Access the data from anywhere in the world 24/7 through our secure cloud

- Highly Customizable

Certain features have been customized and thus easily available in online mode.



  
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- User-friendly Interface

Cognitive design with an accessible user screen which provides the better user experience.

- Complete Student Life Cycle

Manages all the operations of an entire course cycle

- Increased Efficiency

Increase academic performance and administrative efficiency.

- Efficient Support Team


Experienced and efficient support team assists all aspects.

Campus 7 provides a list of applications to support educational and administrative needs of the Institution and it is built to configure and customize for the needs of the college.

Core modules are:

- Enquiry & Admissions Management
- HR Management
- Academics Management
- Billing & Fee Management
- Student Login & Profile Management
- Managerial (MIS) Reports
- Messaging - (Internal Message, Email, SMS) \*
- User Management
- Learning Management Systems
- Fleet Management



  
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## MASTER INFORMATION

- Total Active Students
- Total Employees
- Total Courses
- Total Batches

## STUDENT DATA

- Student Admission Process
- Student Profile
- Student Grievance


## HR

- Employee Profile
- Employee Biometric Attendance Report
- Leave Request /Approval

## ACADEMICS

- Subject Details
- Subject Allocation
- Subject Proposed Plan
- Subject Actual Coverage
- Assignments
- Learning Materials
- Online Exam
- Final Internal Calculation



  
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## TIMETABLE

- Timetable creation
- Timetable History

## SUBJECTS

- Subject Details
- Employee Association
- Assign Elective
- Assign Specialization

## STUDENT ATTENDANCE

- Duty Leave
- Medical Leave
- Consolidated Attendance
- Attendance Reports
- Batchwise Monitoring
- Absent List


## EXAM

- Exam Creation
- Internal Marks Rules
- Exam Reports

## STAFF RATINGS

- Rating Periods
- Question Creation
- Rating Result



  
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## MESSAGES

- Notification/Email/SMS
- Student Absentees Automatic SMS
- General Announcements

## TRANSPORT

- Vehicle List
- Areas and Pickup Points
- Routes
- Vehicle Tracking
- Live Location

## HOSTEL

- Hostel List
- Students List
- Students Attendance


## LMS

- Assignments
- Learning Materials
- Online Exam

## INVENTORY

- Store Items
- Store Categories
- Purchase Bills



  
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- Suppliers List
- Supplier Account Ledger
- Store Item Transactions
- Supplier Balance Report
- Purchase Register

#### EVENTS

- Create Events
- Event List
- Event Calendar

#### USERS

- User List
- User Groups
- Access Permission
- Widget Permission

#### LOGS

- User Login Log
- User Action Log

#### SETTINGS

- Course Categories
- Batch Groups
- Admission Years



  
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## 5. Evidence of Success

- Campus 7 saves time, money, and man-hours enabling access to all our information just a mouse clicks away.
- Paperless monitoring of all academic activities such as teaching, learning, course planning, evaluation, attendance, continuous student progress and feedback.
- Paperless course diary, audit reports, and seamless archival of all data
- Online access to study materials and video lectures for revision, missed classes and revision for backlog students.
  
- Processing and management of employee attendance, leave.
- Inventory control
- Students and faculty transportation management
- Hostel management
- Finance module for managing all accounts
- Cloud-based, software as a service solution (SAS) and hence does not require investment and maintenance of costly servers and associated hardware.
  
- Accessibility through the internet for management, faculties, students, and parents.
- An efficient support team is assisting us throughout our journey adapting new requirements arising due to changes in university norms and regulations.
- It has a user-friendly interface. Cognitive design with accessible user screen which provides a better user experience



  
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- Enables effortless and fool proof Internal Quality Assurance and audit process.

## 6. Problems Encountered and Resources Required

Initially, it was a challenge to train all faculties, staff, and students to familiarize and effective usage of all facilities available in the “Campus 7” software.

Additional resources are not required and no problems are faced after the training of staff and final implementation of the program.



  
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## **BEST PRACTICE-2**

### **1. Title of the practice**

USE OF GREEN ENERGY


### **2. Objectives of the practice**

The objective is to maximize the use of green energy for the campus energy requirements. Presently, 80% of the total energy requirement of the college is met through Solar energy. For this purpose, a 100kw Grid-tied solar power plant was installed and operational in Lourdes Matha College of Science and Technology (LMCST). This solar power plant not only reduces pollution but also saves about Rupees 13.5 lakhs per year in energy charges. Converting solar energy into electrical energy is one of the best ways to reduce fossil fuel consumption and reduce environmental pollution. Owing to the availability of high efficiency, long-life solar cells and the development of reliable, smart grid-tied inverter technology, it has become possible to use such a system for large power plant needs.

### **3. The Context**

The reduction of environmental pollution and cost-saving on energy/electric power usage is of paramount importance. The challenges are trouble-free, long-lasting and cost-effective alternatives. The grid-tied solar power plant technology has matured and overcome all the above difficulties for practical use. The initial investment can be recovered in about four to five years and further has fifteen to twenty years of life. Once the initial investment is recovered, it becomes free energy for the rest of the life period.



  
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#### **4. The Practice**

Solar PV modules produce DC electricity. They may be used in single-module and multiple-module systems to meet the wide range of current/voltage requirements. A smart grid-tied inverter converts DC voltage generated by Solar PV modules to AC voltage and maintains the voltage-current operating point of the solar panel at the optimal value so that maximum power is extracted from the solar panel(MPPT). The inverter senses the grid frequency and voltage level and adjusts its output frequency the same as the grid power and adjusts its voltage marginally higher than grid voltage so that the inverter can export energy to the grid when excess is produced. The inverter has smart wireless internet connectivity through which all operating parameters are monitored for safety and maintenance.

#### **100 KW ON-GRID Solar Power Generating System -Salient Parts**

Solar PV Module 395Wp Mono PERC (Waaree make)

72 Cells module - 254 nos.


On-Grid Solar Inverter 55KW - 2Nos (Solar Edge make)

Power Optimizer - 126 nos. (Solar Edge make)

#### **5. Evidence of Success**

- Clean and eco-friendly energy
- 80% Energy Cost Saving
- Efficient use of rooftop
- Reduces heating of the roof and air-conditioning requirement
- Increasing overall grid capacity in the daytime.
- Optimum power plant sizing



  
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## 6. Disadvantages / Problems Encountered

The operation of the plant requires the grid power to be available in the daytime necessarily. When grid power is not available, the system cannot work. To overcome this, we need to store energy using batteries. The use of batteries increases the cost which is difficult to meet. Hence during power cuts, we need to have UPS for sensitive equipment and systems.



  
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