

ELECTRONICS AND COMPUTER





DEPARTMENT OF ELECTRONICS AND COMPUTER

This department is involved in electronics and computer based R and D projects relevant to sugar and allied industries. Scientists of this department are also engaged in teaching and training activities in various courses. The department has well equipped electronic, microprocessor and computer laboratories. It also has software development laboratory with necessary hardware and software facilities. The institute has well equipped computer network with a LAN of 240 nodes with all essential facilities including internet.

RESEARCH AND DEVELOPMENT

VSI sugarERP

VSI sugarERP is an enterprise resource planning software designed, developed and fully tested by the department with the aim of providing an integrated computerized low cost software solution for sugar and allied industry with full and assured maintenance backup. VSI sugarERP facilitates the output reports in English as well as in local languages such as Marathi, Hindi, Gujarati and Kannada.

The salient features of VSI sugarERP

- An integrated enterprise resource management software for sugar and allied industry.
- A windows based product featuring an easy-to-use, mouse-driven interface.
- Integrates business activities and eliminates repetitive data entry and conflicting information.
- In built effective working procedures boost individuals working efficiency.
- It facilitates outputs in English as well as in multilingual local languages such as Marathi, Hindi, Gujarati and Kannada.
- Appropriate use of English and local language fonts.
- Adequate security with authority rights wherever and whenever required.
- Need based flexibility for modifications, additions and deletions.
- Optimum utilization of manpower.
- Reports, graphs and charts with drop down capabilities give higher performance and visibility.
- Capability of need based additional development.
- Appropriate Internet connectivity to the desired level for remote maintenance.

- Reliable, prompt and assured after-sales service to the entire satisfaction of the user
- Facility to integrate all modules either installed at a stretch or step-by-step.

This is designed and developed in Oracle Database as a back end, Visual Basic Language as a front end and output reports in Crystal Reports.

VB.NET based new version of VSI sugarERP package has been initiated and work was in progress. This is web-based technology. This technology is in pace with the current scenario.

Following software modules are available and are being used in sugar and allied industries. (Table 40)

EXTENSION AND ADVISORY SERVICES

This division provided the following extension services to sugar mills.

Table 40 : VSI sugarERP modules

Module No.	Module Name
Sugar Modules	
1	Sugar Cane Management
2	Sugar Cane Development
3	Weigh Bridge
4	Sugar Manufacturing and Chemical Laboratory Analysis
5	Sugar Cane Farmer Billing
6	Harvesting and Transport Billing
7	Sugar Sale
8	Godown Management
9	Store Inventory
10	Purchase and Store Costing
11	Financial Accounting
12	Time Office
13	Shares
14	Sugar Cane Deposit
By-product Modules	
15	Distillery
16	Country Liquor
17	Bio-fertilizer
Other Modules	
18	Fixed Deposits
19	Petrol Pump
20	Soil Laboratory Analysis

Project Reports on Computerization

Computerization project reports were prepared for the following factories

- Vasantodada Patil SSK
- Someshwar SSK
- Samarth SSK
- Adinath SSK
- Makai SSK
- Mula SSK
- New Phaltan Sugar Works
- Anuraj Sugars Pvt.
- Dwarkadhish Pvt.

Installation of Software Packages and Training

During the period under report the software entitled “VSI sugarERP” was installed and customized in the following factories Table 41.

Software Maintenance and Support

List of sugar factories to which software maintenance support was given is shown in following Table (Table 42).

Table 41 : VSI sugarERP installed and customized.

Name of Factory	No. of Modules
Dudhganaga Vedganga SSK	4
Anuraj sugars Pvt.	3
Someshwar SSK	6
Vasantodada Patil SSK	7
Dudhganga Krishna, Chikodi	1
Ganesh SSK	1
Y.M. Krishna SSK	1
Kisanveer Satara SSK	1
K.S. Patil SSK	1
Sonhira SSK	1

Visits

Scientists of this department paid visits to number of sugar factories. These visits were aimed at providing guidance and advice to factories for procurement and scrutiny of computers and software, appointment of computer programmers, computerization of factories, implementation and customization of application software.

Demonstration

Demonstrations of VSI sugarERP package were held at the following factories

- New Phaltan Sugar Works Ltd.
- Someshwar SSK,
- Baramati Agro Sugars
- Niphad SSK

- Prabhulingeshwar Sugars and Chemicals Ltd., Karnataka.

Computer Maintenance and Services in VSI

As mentioned above, there are around 240 nodes and 175 computers in the Institute. This department provides complete software in-house maintenance and partial hardware maintenance work of computers. The maintenance work involves installation of software, formatting of computers, virus care, server maintenance, repair of few electronics equipments in VSI, repair of partial hardware used in computer, new software purchase, updating of software and hardware.

Table 42 : Names of factories to which maintenance support was given

Name of Factory
Malegaon SSK
SMS Mohite-Patil SSK
Ashok SSK
Chhatrapati Rajaram SSK
Sanjivani (Takli) SSK
Chhatrapati SSK
Sanjivani, Goa
Pandurang SSK
Nira-Bhima SSK
Athani Farmers Sugar, Karnataka
Dudhganga Vedganga SSK
Vasantodada Patil SSK
Kopargaon SSK
Vighnagar SSK
Halsidhhanath, Karnataka
Bhima SSK, Patas
Vishwasrao Naik SSK
Dudhganga Krishna SSK, Chikodi
Someshwar SSK
Prabhulingeshwar, Karnataka
New Phaltan Sugar Works Pvt.
Anuraj Sugars Pvt.
Shriram SSK, Phaltan
Siddheshwar SSK, Kumathe
Y.M. Krishna SSK
Pad.V.V. Patil SSK, Kaij
Kumbhi Kasari SSK
Dnyaneshwar SSK
Kakira, Uganda (Africa)
Valsad Khand Udyog, Gujarat
Ganesh SSK
Rajarambapu Patil SSK, Wategaon
T.K. Warna SSK
Sonhira SSK
Kisanveer Satara SSK
K.S. Patil SSK
Gangakhed Sugars and Energy