Introduction:

Shahjalal University of Science & Technology (SUST) implemented a sub-project entitled Total Computerization of SUST under HEQEP, UGC during 2011-2013.

Aims of the Sub-project were:

1. Total computerization of SUST with complete e-Governance
2. Expansion of computer network within SUST
3. Library automation through digital library management system

Implementation to achieve the Aims:

1. e-Governance Software: An integrated software was developed with the flowing **modules**

- Administration & Office Automation System
- Online Result Possessing System.
- Accounting Management System
- Student Hall Management System
- Electronic Document Management System
- Inventory Management System

After necessary testing, the software was installed. It has been running successfully.

Achievements:

Now, various administrative and academic activities are running with the help of e-Governance software. As a result, the university gets following benefits:

- ❖ Database of teacher, officer, staff & student has been developed. Human resource & leave management are being done with the database.

- ❖ Students' course registration, all kind of examination results, class attendance, etc. are managed by Online Result Processing module.

2. Expansion of Computer Network and establishment of Data Center.

Implementation: The following steps were taken for Expansion of Computer Network:

- Fiber optic backbone network was extended to all existing academic, administrative and residential buildings.
- Wireless connectivity was established through Wi-Fi in the whole campus.
- Basic surveillance was setup.
- A Tier 2 Data Center was established to manage the network & automation system of the university.
- All the Academic and Library buildings were setup with KIOSK.

Achievements: With the Implementation of the above, the following benefits have been achieved:

- The SUST has now a Centralized network control and monitoring system which gives the full insight of what happens inside the network. The system monitors the remote nodes as well as all the servers.
- It is scalable for future needs and ready for connectivity with Bangladesh Research and Education Network (BdREN).
- The international standard Data Center is operational 24 hours a day and 7 days a week.
- Using the network, SUST is providing services like

3. Library Automation and Digital Library Management.

Implementation: The Central Library of SUST was running in manual system. Under this sub-project, following steps were taken in order to develop Library Automation and Digital Library Management:

- Installation and customization of internationally reputed open source software KOHA.
- Development of database with the whole collection of the library.
- RFID tag & Barcode label have been inserted in each copy of books and integrated to the software.
- Installation of high frequency security gate at the entrance of each floor of the library.
- CCTV system was installed.
- A computer lab has been established.
- Computers have been set in each floor to search the Online Catalogue of books.
- E-Book readers have been procured for library users.
- Modern furniture have been procured.

Achievements: Now the library is running in whole computerize system and the following benefits have been achieved:

- ❖ Books of the library can be searched online from library and any where of the world.
- ❖ Chick out & chick in of books is done within few seconds.
- ❖ Book loan & renewal system, Fine management, etc. are now administered

❖ Budget, salary, various bills, tax VAT, provident fund, pension, benevolent fund, audit, investment, fixed asset etc are being managed by the Accounting Management System module. In the residential halls students' seat allocation, seat change, fee payments, clearance, etc. are being managed efficiently.	Automation system hosting & running with security .high speed intranet & internet services , video streaming & unified communication system,. • The IP surveillance system has created an additional security on Campus.	efficiently in computerized system. ❖ e-Journals and e-Books can be used with the help of e-Book readers and computers of the lab. ❖ The security of books has been ensured. Because, if any body try to take out books without issue, the security gate gives alarm and shows red light. ❖ The security of books has also been ensured by CCTV system. ❖ The environment of the library has been improved with the modern sitting arrangement of library users. **Conclusion:** The sub-project has given the university an opportunity to upgrade the ICT facilities, computerization of the management and modernization & automation of the library. The e-governance software has improved the efficiency of the system. The students have connectivity with the rest of the world and access to the information and knowledge through the network. The surveillance system has provided a safer campus. The sub-project contributed to overall improvement of education level because of better library facilities.