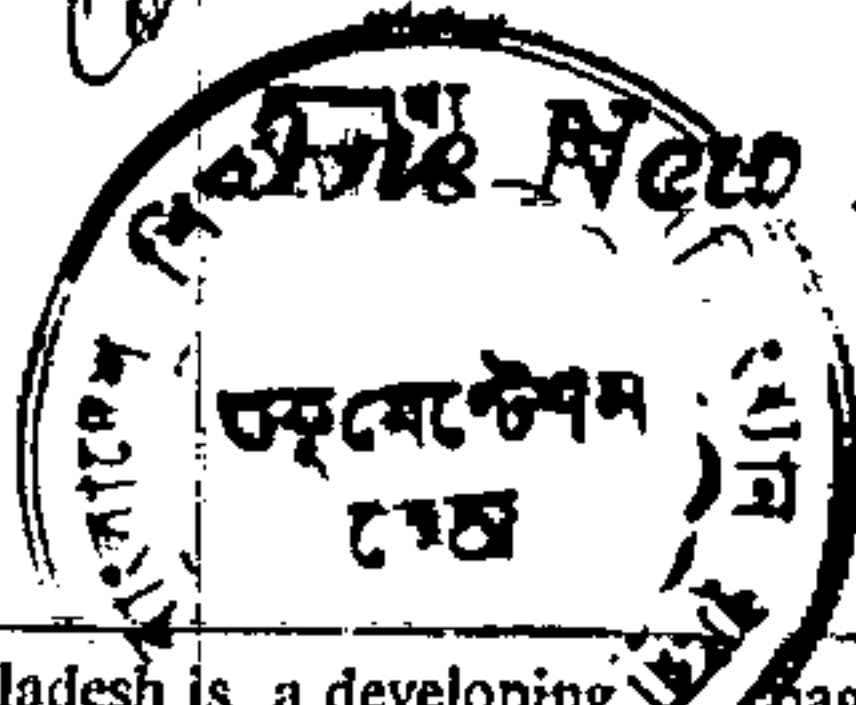


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Prospects of computer in Bangladesh

Bangladesh is a developing nation of the third world countries. Its economy is ninety percent based on agriculture. As other third world countries, industrial development of Bangladesh is very slow and completely dependent on the developed nations. Modern research and development is almost absent due to its economical condition, political instability and non-availability of proper manpower.

As the economy of Bangladesh is agro-based its development without development of agriculture is not possible. To achieve this object modern scientific & technical know-how in respect of agriculture is to be applied in cultivation. Still the country is agricultural there is an increasing probability of computer applications in different sectors. Actually scientists began to think about machines like computers just after invention of Pascals' calculator (the first adding machine). Before discussing about prospects of this device in the country, we should try to understand what is computer.

In 1833, Babbage visualized the first computer; a machine that used punched cards to carry out arithmetic calculations automatically. By a prearranged code, certain groups of holes in these cards were to represent either numbers of instructions. The key idea in Bab-

bage's computer was to enter all numbers and instructions before the calculation began; then, on command, the computer was to carry out all the steps in the calculation without human intervention. (This is the crucial difference between a calculator and a computer. A calculator depends on human intervention because some-one has to enter numbers and instructions while the calculation is in progress).

Almost all digital computers and systems are based on binary (two-state) operation. In summary, switches, magnetic cores, punched cards, magnetic tape, transistors, and almost all other digital components are based on binary, or two-state, operation. The advantage of digital signals are greater speed, accuracy and noise immunity. Successive generations of electronic computers have used vacuum tubes, transistors, and integrated circuits. The fourth generation of computers uses integrated circuits almost exclusively.

The five main sections of a computer are input, memory, arithmetic and logic, control and output.

Input: This consists of all the ckt. needed to get programs and data into the computer. In some computers the input section includes a typewriter keyboard that converts letters and numbers into strings of binary data.

Memory: Store the program & data before the computer run, begins. It also can store partial solns. during a computer run, similar to the way we use a scratchpad while working out a problem.

Control: This is the computers' center of gravity, analogous to the conscious part of the mind. The control section directs the operation of all other sections. Like the conductor of an orchestra, it tells the other sections what to do and when to do it.

Arithmetic & Logic: This is the number-crunching section of the machine. It can also make logical decisions. With control telling it what to do and with memory feeding it data, the arithmetic logic unit (ALU) grinds out answers to number and logic problems.

Output: This passes answers and other processed data to the outside world. The output section usually includes a video display to allow the user to see the processed data.

Microprocessor (UP): The control section of the ALU are often combined physically into a single unit called the central processing unit (CPU). Furthermore it is convenient to combine the input and output sections into a single unit called the input output (I/O) units; Nowadays the CPU, can be fabricated on a single semiconductor chip called a microprocessor. In other words, a UP is nothing more than a CPU on a chip.

Microcomputer: A micro-computer is a small computer. More specifically, a microcomputer (mc) is a computer that uses a microprocessor for its CPU. The typical microcomputer has three kinds of chips: microprocessor (usually one chip); memory (several chips), and I/O (one or more chips).

If a small memory is acceptable, a manufacturer can fabricate all computer ckt. on a single chip. For instance, the 8048 from Intel Corporation is a one chip microcomputer with an 8 bit CPU, 1088 bytes of

memory, and 27 I/O lines. Intel 8085 is a 8 bit microprocessor. The word computer is misleading because it suggests a machine that can solve only numerical problems. But a computer is more than an automatic adding machine. It can play games, translate languages, draw pictures, and so on. To suggest this broad range of application, a computer is often referred to as a "data processor".

Nowadays both USA and Japan have rapidly updated their technology of Computer industry. Both countries are able to build Super Computer, Except these two countries other western developed countries also producing Computers e.g. England, Canada, USSR, France, etc. But mainly the world computer markets are occupied by Japan and USA. Recently both India and Pakistan signed separate contracts with U.S.A. for getting Super Computers.

Computer can be widely used in different sectors. In Bangladesh there is a bright

prospects of Computer. Although the country is not familiar with the technical know-how of computer, she can be benefited from this modern electronic device, by introducing it in different sectors. Because now except developed countries more or less all developing countries are trying to introduce computer in their societies for getting greater opportunities.

Actually Computer is a device whose applications are not limited to a particular field. In the developed countries people get benefit from Computers in every sector of their Organisation. There is a wide scope of Computer applications in different sectors such as in the i) Agricultural Sector (ii) Medical Sector (iii) Industrial Sector (iv) Power Generating Stations (v) Complex Design Works (vi) Communication (vii) Military Sector (viii) Countries Security Initiatives (ix) All kinds of Protection and Control Works (x) Translation Purposes. etc. It is notable that Compu-

ter accomplish all kinds of remote control and protection works more efficiently.

Because Bangladesh has a "Agro-based economy" we first point out how agriculture can be enriched by the touch of Computer. It can easily predict about the conditions of countries cultivated land. It also decide about the types of seeds i.e. according to different types of soils different types of seeds are suitable, this types are easily point out by the Computer. Except this according to the changeable climate of the country it is often difficult to detect the categories of seeds and right times of sowing (seeds), after all it is a time consuming task. By the combined operation with the Satellite, Computer also help to find out countries uncultivated fertile lands Dr Uthpal Banarjee, "Director of All India Management Association" recently speak about the application of Computer in agricultural sectors. According to Dr. Banarjee very soon Indians agricultural sector will get greater benefit from Computer. He also encouraged Indian Govt. for Introduction of Computer in this field, for obtaining remarkable agricultural output. The agricultural production of country may be increased by its application. It helps to get necessary measures for agricultural uplift.

From the speech of Dr. Banarjee it is clear that like India, Bangladesh also can introduce Computer in its agricultural field for obtaining remarkable output. Because countries economic policy mainly depends upon agriculture's without any delay Govt. should take necessary measures to introduce it in agricultural sector.

Countries other fields are also able to get benefit by using it. In medical sector it can help doctors to detect diseases and also able to prescribe medicine according to the characteristic of diseases. It is able to simultaneous study of several organs to Compare and trace out dynamic function of inter-related organs. And thus help the medical scientists to get useful informations regarding organs like kidney, lungs, and heart etc., and to analyse multicompartments types of biological variables. Find out diseases by using Computer is more easier than the other processes and it is less time consuming task. Diagnose of various complex diseases are often very difficult, but it can perform this work more efficiently. It can survey different records, display latest condition of patients and given final. It also help to culture cough blood stool saliva etc. for treatment.