



The first commercially available portable computer was the Osborne 1 in 1981, which used the CP/M operating system. Although it was large and heavy compared to today's laptops, with a tiny 5" CRT monitor, it had a near-revolutionary impact on business, as professionals were able to take their computer and data with them for the first time. The Osborne was about the size of a portable sewing machine, and more importantly, could be carried on commercial aircraft. However, it was not possible to run the Osborne on batteries: it had to be plugged into mains.



TECHVIEWS

Renewable energy flourishing in Bangladesh

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WITH our last reserves of oil and gas hastily running out on us, the likelihood of the world stepping into an energy crisis situation is not far away. As Thomas Edison once said, "I hope we don't have to wait 'til oil and coal run out before we tackle that." According to scientist R Buckminster Fuller, "There is no energy crisis, only a crisis of ignorance."

As such, the time has come for the world to buck up and tap into other sources of energy that are not just renewable, but also sustainable. A few such renewable energy resources that have been tapped so far include wind energy, solar energy, biomass, hydropower and geothermal energy.

In the past, renewable energy has generally been more expensive to use than fossil fuels. Plus, renewable resources are often located in remote areas and it is expensive to build power lines to the cities where they are needed. The use of renewable sources is also limited by the fact that they are not always available (for example, cloudy days reduce solar energy, calm days mean no winds blow to drive wind turbines, droughts reduce water availability to produce hydroelectricity). However, the production and use of renewable fuels has grown more quickly in recent years due to higher prices for oil and natural gas.

Bangladesh is blessed with an abundance of sunlight, water and biomass, which makes it an ideal location for generation of power from renewable



vidual households. The stoves produce clean methane gas from cow dung for cooking. "The stoves cook much faster than our conventional earthen stoves and don't produce unhealthy soot and smoke, thereby reducing health problems in my family", claim satisfied customers. Moreover, the byproducts from the plants provide effective fertilizers and productive fish feed. Many make an extra income by providing gas from their stoves to neighbors on a monthly rental basis.

Grameen Shakti has also been successful in promoting and constructing both domestic and larger sized biogas plants for rural villagers. Impact on biogas plant owners has been positive and demand is increasing day by day. All its clients are enjoying hassle free and pollution free energy for cooking and business activities. Bangladesh



charged to run simple lights, appliances like a small TV, radio or cassette player, or to charge cellular phones. Besides homes, they can also be used to light shops, fishing boats etc. As opposed to conventional electricity, the client can enjoy the fact that there will be no monthly bills, no fuel cost, very little repair and maintenance cost (Grameen Shakti provides free monthly checkups during warranty period), easy installation and portability. Many customers are using PV systems for heating soldering irons for repairing household appliances, rural carpenters and other craftsmen are extending their working hours after sunset, and some buyers have installed PV systems to sell battery-based power in rural market places, especially to shop owners to help light their shops. Till date, Grameen Shakti has installed about 2,60,000 Solar Home Systems, with a minimum of 300 systems being installed a day. "Our sales have been growing exponentially every year", says Dipal C Barua, managing director of Grameen Shakti.

Another successful Grameen Shakti venture is Polli Phone which allows people in off grid areas the facilities of telecommunication through SHS powered mobile phones. The only problem however is that solar panels are still quite expensive (even though prices do continue to fall and the payments for the panels can be made in small installments) but the capacity of the power supply is quite less, about 37 watts. However, with a warranty of about 20 years, the panels could probably go a long way. If other energy sources, like wind, hydro or tidal power could also be incorporated with the PV systems, which would be cheaper but larger scaled.

On the other hand, their Improved Cooking Stoves program provides environment friendly, cheap and healthy cooking stoves for use in indi-

has the potential for developing four millions biogas plants. Grameen Shakti intends to further scale up its successful pilot project and develop a five-year action plan for expanding biogas program in Bangladesh.

Another innovative contribution of Grameen Shakti has been the establishment of technology centres in different villages that are dedicated to empowering rural women by providing free training in the assembling parts of the Solar Home Systems and providing Customer Service "Green Jobs", as they proudly call it. Through this venture, women are now earning as much as Tk. 7,000-8,000 in a month sitting at home.

Other sources of renewable energy like wind power is also being tapped. Demonstration wind power projects are being established, especially in the coastal areas of Bangladesh, along with data collection to better ascertain the wind resource. Two small wind turbines at Sitakunda and Chokoria of Chittagong district have been installed to provide power for fish farms established by Grameen Bank. Four hybrid power stations (combination of wind, diesel and PV) have also been installed in four cyclone shelters (set up by Grameen Bank) to provide power for Grameen Bank members to start micro enterprises in and around the shelters.

The hydropower program is still in the preparatory phase, but since it is mostly being examined in hilly districts, where a very small population resides, its application on a large scale is still doubtful.

Their vision is to produce 7.5 million solar home systems, construct 2 million biogas plants, 20 million improved cooking stoves and 1,00,000 Green Jobs. "I have a dream of empowering 75 million people of Bangladesh through renewable energy technologies", says Dipal C Barua.

sources, especially considering the fact that a large number of villages are still not part of the electricity grid and have no access to electricity of any form.

New fossil fuel resources have been discovered in Bangladesh lately, especially natural gas in the eastern part of the country. But some form of electricity and a more advanced form of cooking fuel than firewood or dung are basic to rural development. With lighting and access to communication technologies the potential for education becomes significantly improved. Electricity can enable cottage industries to become far more efficient and can enable many rural industries to develop beyond subsistence. Health can be greatly improved as the simple provision of a fridge in a community health centre enables vaccines and antibiotics to be kept at hand. Health is also improved if gas or a similar clean fuel replaces smoky wood and dung in cooking.

In June 1996, Grameen Bank decided to make a special foray into renewable energy in Bangladesh and founded

Grameen Shakti. Literally meaning 'Rural energy', Grameen Shakti's main objective has been to produce electricity to fulfill the minimum requirement of electrical power after dusk in the remote rural areas of Bangladesh where conventional electricity could not reach in foreseeable future. They also strive to provide rural households of Bangladesh access to environment friendly and pollution free energy at affordable costs. They function by supplying, marketing, selling and developing renewable energy systems to thousands of poor rural villages, thereby attempting to minimize poverty by creating employment and income generation opportunities. Grameen Shakti has established a number of specific programs. These consist of Solar Home Systems (SHS) Program, Wind Power Program, Hydro Program, Biogas Program and Improved Cooking Stoves Program.

Through the Solar Home Systems Program, individual homes are given photovoltaic (PV) collectors for their roof, from which batteries can be

TECHNEWS

First round of FICC begins

ADIL MAHMOOD

FINANCIAL IT Case Competition (FICC) is a platform that provides an opportunity to young and talented minds from different public and private universities to compete in the development of unique software projects for the financial sector in the country.

The competition, the first of its kind in Bangladesh has been co-organised by D.Net (Development Research Network), Citi Foundation and University of Liberal Arts Bangladesh (ULAB). The first round kicked off at the ULAB campus on July 11.

State Minister for Science and ICT, Architect Yeafesh Osman inaugurated the IT based business solution competition at the conference room of ULAB.

While speaking at the occasion the ICT Minister said the government will take adequate measures to boost creativity of the country's young generation and properly

"It is indeed a great opportunity for us to host the FICC. We need efficient people for the industry and in this regard this kind of competition will certainly help to produce quality human resource," said Professor Rafiqul Islam, vice chancellor, ULAB.

He urged the participants to develop solutions that would help the local businesses and rural development.

Ananya Raihan, executive director of D.net, said the competition would help both the students and the industry people, as the students can achieve professional experi-



One of the participants presents her financial software solution in front of the juries while others look on (top).

educate them in information and communication technology (ICT).

"A creative and ICT educated young generation can change the country's financial landscape, as they will help develop new software and information systems to support the business sector," he said.

The state minister also added that the time has come to utilise our local talents to develop world-class business solutions to upgrade the country's status and fulfil the dream of a Digital Bangladesh.

He added that there no doubt that this type of competition will create a new trend in the society and at the same time help minimize the gap between industry and academia.

ence and the industry people can head-hunt local talents for their organisations.

A total of 54 teams from 20 universities, mainly under graduate students of Business Administration and IT related subjects, are participating in the talent hunt contest. The competing teams require both business and IT expertise to solve any given problem.

The contest started with a preliminary screening round followed by semi final and a final round. The jury panel will assess the case solutions based on the project evaluation guidelines during all three rounds.

The champion team will be awarded USD 5,000 whereas the first and second runner up will receive USD 2,000 and USD 1,000 respectively.

TECHNEWS

B2B website launched

STARTECH DESK

TO ignite B2B (business-to-business) e-commerce revolution in Bangladesh, a US based online retail company, BuyerXpo has recently started their operation here, offering local buyers and sellers the opportunity to vend and purchase products and services online.

Anyone can register and become a member of the BuyerXpo and search or post trade offers free of charge on the website.

buyerxpo.com. This free membership can be upgraded to premium or other scheme anytime upon payment.

Apart from conventional online trading, the paid members can also avail the options of promotion, trade show, newsletter, trade alerts as well as access various business articles and trade news.

However, the local traders can hardly avail these facilities at present, as electronic commerce is barely available in the country due to legal constraints and likewise, BuyerXpo's online payment service provider PayPal does not offer its payment schemes to the local clients.

That's the reason why BuyerXpo has gone for an alternative arrangement with PayPal



under which, payment from a buyer will be received by the BuyerXpo authority's PayPal account in case a seller has no Paypal account and afterwards BuyerXpo authority will deposit the money to the seller's specified deposit account.

The arrangement would be greatly beneficial to the export oriented business in Bangladesh as the country lacks the know-how to source US buyers", Khaleda Sultana Tuheen, executive secretary of American E-commerce Centre said at a press meet in the city on July 11.

"We are also pursuing Bangladesh government and the exchequer bank to expedite the process of introducing e-commerce in the country -- a move which could be a great boom for the trade and commerce in the country," she said.

Apart from the conventional features, the website also offers special options for celebrity models and designers as models can post their photographs and designers can place their designs at BuyerXpo.com as a way to display their talent to the international clients.

TECHNEWS

Facebook claims 250 million users

AFP, San Francisco

FACEBOOK founder Mark Zuckerberg announced the number of people using the online social networking service has climbed to 250 million.

"The rapid pace of our growth is humbling and exciting for us," Zuckerberg said in a message posted at Facebook's official blog.

"For us, growing to 250 million users isn't just an impressive number; it is a mark of how many personal connections all of you have made."

Palo Alto, California-based Facebook was founded in 2004 and has become the most popular online social networking service, eclipsing News Corporation-owned MySpace.

On Monday, it was revealed that a Russian Internet company is offering to buy 100 million dollars worth of stock from Facebook employees in a deal that would value the fast-growing social network at 6.5 billion

dollars.

The Russian company, Digital Sky Technologies (DST), which invested 200

million dollars in Facebook in May, is offering 14.77 dollars per share of Facebook common stock.

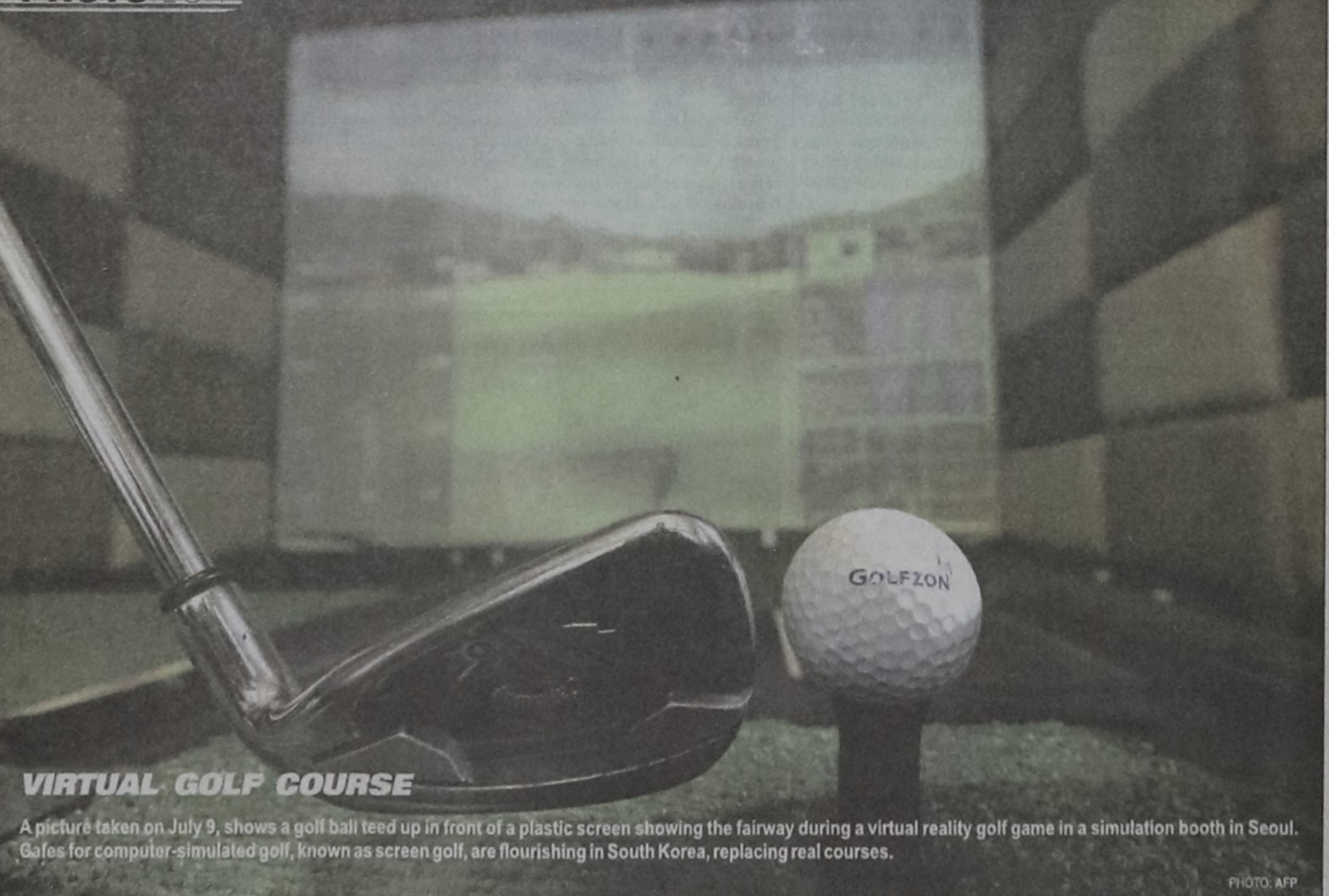
The tender offer will close "some time in August," said Jennifer Gill, a DST spokeswoman.

Facebook chief executive Zuckerberg said at the time that the decision whether to sell stock was up to employees and that the offer "is recognition of Facebook's growth and progress towards making the world more open and connected."

US computer software giant Microsoft bought a 1.6 percent stake in Facebook for 240 million dollars in 2007, a deal that valued the company at 15 billion dollars.



PHOTO



VIRTUAL GOLF COURSE

A picture taken on July 9, shows a golf ball teed up in front of a plastic screen showing the fairway during a virtual reality golf game in a simulation booth in Seoul. Games for computer-simulated golf, known as screen golf, are flourishing in South Korea, replacing real courses.

PHOTO: AFP