

# Dhaka University Telemedicine Programme

**Organised by: Dept of Biomedical Physics & Technology** 

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# What is Telemedicine?

In simple terms – *medicine at a distance*. Through modern computer and Internet technology, it provides consultation of a qualified doctor located in a city or anywhere in the world to patients in a remote rural village where there are no doctors. A trained operator at a rural telemedicine centre links a patient to a doctor through video conference. Our system has additional diagnostic



devices, developed by us, allowing real time transfer of data enhancing the quality of telemedicine, not available in many systems being tried by others. The solution is ready to be given to any country of the world.

## Hardware

- Tele Stethoscope (the remote doctor can listen to the body sound live or through 'store and forward')
- Tele ECG (the remote doctor can see the graphs live)
- Telemedicine kiosk (all devices are bundled into one compact unit)
- Mobile Smartphone based system. Allows doctor's consultation direct from patient's home.

### Under Development

- Tele Lungs Monitor (monitors localized breathing changes through electrical impedance, our innovation)
- Tele Palpation Monitor (helps remote doctor to assess stiffness of an organ, that usually a doctor feels by pressing with fingers, our innovation)
- Tele Ultrasound Monitor (Integration of a low cost imported device)

BiBEAT Ltd, a non profit company is making and distributing the locally developed devices.



### Software

- Patient Registration and ID generation
- Archiving of patient data in web server (cloud)
- Video Conference between patient and doctor
- Software aided prescription generation, saved in cloud
- Downloading prescription from cloud and printing out to patient at the rural telemedicine centre.
- Transfer of output from diagnostic devices.

**Field Programme:** We are inviting entrepreneurs from all unions of Bangladesh. The service model aims to become self sustained within a short time. At present 32 rural centres are active and more than 12,000 consultations have been provided so far. About 75% of the patients are elderly, women and children, who would possibly go without any treatment had our telemedicine services were not there. If one has the space and a computer system, an investment of only Tk.40,000 will be needed for software license, training and some basic diagnostic devices.

For the benefit of the deprived human population, we are not taking out patents on our innovations

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