



## Remote Control and Monitoring of Microscopic Slides

*Faizan SHERAZ<sup>1</sup>, Fatima HEMANI<sup>2</sup>, \*Hasnain Abbas DHARAMSHI<sup>3</sup>*

1. *Army Medical College, Islamabad, Pakistan*

2. *Sindh Medical College, Dow University of Health Sciences, Karachi, Pakistan*

3. *Masoomen Hospital Trust, Karachi, Pakistan*

**\*Corresponding Author:** Email: dr.hasnain.dh@hotmail.com

(Received 23 Oct 2015; accepted 14 Nov 2015)

### Dear Editor-in-Chief

Importance of pathology has increased significantly since the invention of microscopes, helped us in revealing the mystery behind many illnesses. Nowadays inclusion of a pathologist in diagnostic department of a hospital is considered a necessity. However it is not possible to have an expert pathologist present 24 h, for this purpose a Remote Monitoring and controlling of microscopic slides is needed.

A system is needed which will make it possible for health professionals to visualize slides from any part of world. 21st century is considered era of technology, where massive growth in information technology and high speed internet connections has given origin to a new concept of remote monitoring and controlling. This advancement has helped many fields like that of mechanical engineering, agriculture, automotive industries, medical and communication industries. Any person familiar with internet will be able to use it and control the microscopic slides and communicate with other users around the world. A system is needed which will give user authority to control the directions of the slide in right-left, up-down, in-out, and also to change magnification, staining and obtain fluorescent and topographic images of slides and process according to needs. This will help experts to work and collaborate from different places and work on same projects and discuss and get opinions easily (1).

Another reason for the need of remote monitoring and controlling system is to ensure the management of the laboratories that has problem of time management, high price, inadequate equipment or technical staff and low accuracy. As it is complicated to verify the quality of the setting at a laboratory, it has become a need to have a Laboratory Intelligent Monitoring System for remote control, timely warning, and real-time monitoring (2).

This is a cost effective and user friendly system, this will save time for diagnose of many diseases (3). In many under developed countries a lot of time is consumed in transporting slides to other hospitals and cities for expert opinion, this system can save all this time and make diagnosis much faster. Moreover this might reduce the cost of transporting the slides in proper environment for preservation (3). Moreover, pathologist will be able to work from one place, instead of traveling to various laboratories or cities. Hence, such system is a need for every hospital and research laboratory and should be soon implemented for more effective management of diseases.

### Acknowledgement

The authors declare that there is no conflict of interests.

## References

1. Noronha V, Yarman CE, Kresh JY, Onaral B (2001). Remote monitoring of cellular network assembly and function. *IEEE*, 23 (4): 2385-2388.
2. Kumar M, Raju GS (2013). Design and Implementation of the Lab Remote Monitoring and Controlling System Based on Embedded Web Technology. *IJSRP*, 3 (3): 482-486.
3. Kumar AS, Manoj M, Srinivasa GR (2013). Design and Implementation of the Lab Remote Monitoring and Controlling System Based on Embedded Web Technology. *IJSRP*, 13 (3):51-58.