Bioknots Visitor Management, Access Control & Time Attendance System

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A thesis Submitted to the department of computer science in partial fulfillment of the requirement for the degree of MCS

Department of Computer Science

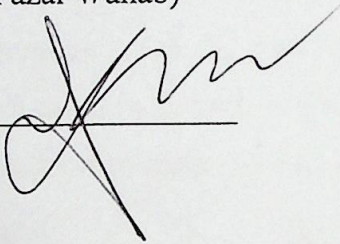Bahria Institute of Management and Computer Sciences

(BIM&CS)

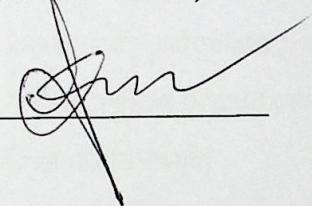**Bahria University Islamabad**

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FINAL PROPOSAL

This is certify that we have read the project report submitted by Ahmad Usman Khalil and it is our judgment that the report is of well standard and it is accepted by Bahria University Islamabad, for the degree of Master of Computer Sciences, MCS.
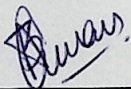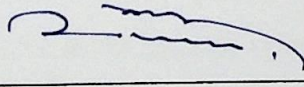
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Abstract

Bioknots is a complete finger print based visitor, time and attendance management solution with an optional access control feature. Bioknot's attendance management system has the capability to provide organizations with highest level of supervision and control on employee's attendance. Its access control module if implemented will offer highest level of security for facilities where access is restricted.

Biometric based systems such as this are being used in more developed countries where the need for the management of the facility requires automated and fool proof tools such as this which would enhance the functioning of the organization to a great extent as well as help the human resource management immensely.

Bioknots is a combination of hardware and software which works together to bring the superb capability of the product to not only generate customized reports but also manage employee's,department,groups and best of all provide a finger print based input device which makes the attendance and access control system very quick and efficient as well as foolproof. No more need to carry those keys to open door as electric locks can be used and access privileges can be defined for each user. No more need to carry cards and remembering pins for entering a secure location... It's not only software but a bundled product with almost all the features that would enable it to be suitable for any forward looking organization which requires keeping track of its human recourses and makes management easy. This system most important of all eliminates the possibility of proxy attendance and can automatically log late comers.

Acknowledgements

First and foremost we would like to thank Allah Almighty for making it possible for us to make this project and his help in all the mysterious ways that made it possible for us to make our project a success story.

We would also like to thank our supervisor Prof. Fazal Wahab, Mr. Faisal Jaleel, all our instructors, colleagues, friends and our parents for all their help, support and prayers. It would not have been possible for us to finish our project without their guidance and support.

Work Distribution

The work was very diverse in nature which involved participation in almost all the aspects of the software This project was made in different modules. The work was divided among people such that different modules were being developed simultaneously. The Work Distribution has been elaborated below.

Ahmad Usman Khalil

I worked on almost all the modules that the software encompasses. I was responsible for the design and fabrication of Bioknots Software interaction with the Verifinger SDK and the digital persona scanner and all the embedded systems to the application. I also worked on the port programming using Franklin and database management in SQL. Further more I was a part of network communication team for client server communication. I also wrote the Algorithms for Network Security and data encryption.

Muhammad Bilal Malik

I was involved in almost all the tasks ranging from GUI Development to the minutest details of underlying coding like database management, report generation using crystal reports, client and server socket programming, search and comparison algorithms, email notification module etcetera. The Software design and database management and testing at every step was also part of my work.

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