

NETWORK AUTHENTICATION AND ACCESS CONTROL USING APPS

By

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**Project Submitted in Partial Fulfillment of the Requirements for the
Degree of Bachelor of Information and Communication Technology
(Hons.) in the Faculty of Information Sciences and Engineering**

May 2023

PENGISYTIHARAN

(Declaration)

Saya/Kami,

I/We,

MUHAMMAD Satria Agustomiko

calon bagi ijazah

candidate for the degree of

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ASSOC PROF. Ts DR ASIF IQBAL
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Certification of Project Paper
Faculty of Information Sciences and Engineering
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PERAKUAN KERJA KERTAS PROJEK
(Certification of Project Paper)

Saya, yang bertandatangan, memperakukan bahawa
(*I, the undersigned, certify that*)

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calon untuk Ijazah
(*candidate for the degree of*)

BACHELOR OF INFORMATION AND COMMUNICATION
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telah mengemukakan kertas projek yang bertajuk
(*has presented his/her project paper of the following title*)

**NETWORK AUTHENTICATION AND ACCESS CONTROL USING
APPS**

F-seperti yang tercatat di muka surat tajuk dan kulit kertas projek
(*as it appears on the title page and front cover of project paper*)

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(*that the project paper acceptable in form and content, and that a satisfactory
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Nama Penyelia

(*Name of Supervisor*): ASSOC PROF Ts DR ASIF IQBAL

Tandatangan

(*Signature*): _____

Tarikh

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ABSTRACT (English Version)

Abstract of project presented to the Senate of Management & Science University in partial fulfillment of the requirements for the degree of Bachelor of Information and Communication Technology (Hons.)

NETWORK AUTHENTICATION AND ACCESS CONTROL USING APPS

By

MUHAMMAD SATRIA AGUSTOMIKO

MAY 2023

Faculty: Information Sciences and Engineering

Most websites or other forms of applications only rely on usernames and passwords to protect their data. If the username and password can be stolen by other parties, then they can easily steal our data. Security is the most important part of protecting our data. In maintaining security, we need layered levels so that our data can be stored properly. One Time Password (OTP) is a way to secure data or accounts from attack by unknown people. Using this short lifetime, OTP provides a dynamic, up-to-date code that can be used to confirm that the person using the user's credentials is actually the legitimate one. Not someone who obtained stolen credentials. The next level of security is access control. Admin grants access permissions only to users he approves. In this application the admin will choose who can access the data on the website so that data leakage does not occur and ensures data security. Users also cannot access their data carelessly because some of the data on the website is confidential. This provides strict safeguards so that the website can be maintained safely.

ABSTRAK (Versi Bahasa Malaysia)

Abstrak projek dibentangkan kepada Senat Universiti Pengurusan & Sains sebagai memenuhi sebahagian daripada keperluan untuk ijazah Sarjana Muda Teknologi Maklumat dan Komunikasi (Kepujian).

NETWORK AUTHENTICATION AND ACCESS CONTROL USING APPS

Oleh

MUHAMMAD Satria Agustomiko

MEI 2023

Fakulti: Sains Maklumat dan Kejuruteraan

Kebanyakan tapak web atau bentuk aplikasi lain hanya bergantung pada nama pengguna dan kata laluan untuk melindungi data mereka. Jika nama pengguna dan kata laluan boleh dicuri oleh pihak lain, maka mereka boleh mencuri data kami dengan mudah. Keselamatan adalah bahagian paling penting dalam melindungi data kami. Dalam mengekalkan keselamatan, kami memerlukan tahap berlapis supaya data kami dapat disimpan dengan betul. Kata Laluan Satu Kali (OTP) ialah satu cara untuk melindungi data atau akaun daripada serangan orang yang tidak dikenali. Menggunakan seumur hidup yang singkat ini, OTP menyediakan kod dinamik dan terkini yang boleh digunakan untuk mengesahkan bahawa orang yang menggunakan bukti kelayakan pengguna sebenarnya adalah yang sah. Bukan seseorang yang memperoleh kelayakan yang dicuri. Tahap keselamatan seterusnya ialah kawalan akses. Pentadbir memberikan kebenaran akses hanya kepada pengguna yang diluluskannya. Dalam aplikasi ini admin akan memilih siapa yang boleh mengakses data di laman web supaya kebocoran data tidak

berlaku dan menjamin keselamatan data. Pengguna juga tidak boleh mengakses data mereka secara sembarangan kerana beberapa data di laman web adalah sulit. Ini menyediakan perlindungan yang ketat supaya tapak web dapat diselenggara dengan selamat.

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