

KATHFORD INTERNATIONAL COLLEGE OF ENGINEERING AND MANAGEMENT

Affiliated To Tribhuvan University

Institute of Science and Technology

IMPLEMENTATION OF MOS

A PROJECT REPORT

Submitted To

Department of Computer Science and Information Technology

Kathford International College of Engineering and Management

*In partial fulfillment for the third semester course Operating System (CSC-203) of Bachelor of Science in Computer Science and Information Technology (Bsc.CSIT)*

*Under the supervision of Ashim Ghishing*

Submitted By

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June 2016

Kathford International College of Engineering and Management

Balkumari, Lalitpur

LETTER OF APPROVAL

This is to certify that this project prepared by Vijay Shrestha, Sangace Awale and Sanjiv Chitrakar entitled “**IMPLEMENTATION OF MOS**” in partial fulfillment of the requirements for the third semester course **Operating System (CSC-203)** of B.Sc. in Computer Science and Information Technology has been well studied. In our opinion it is satisfactory in the scope and quality as a project for the required subject.

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Signature of the Supervisor Signature of the HOD

Lect. Ashim Ghishing Lect. Sushant Paudel

Department of Bsc.CSIT Department of Bsc.CSIT

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Signature of the External Examiner Signature of the Internal Examiner

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Kathford International College of Engineering and Management

Balkumari, Lalitpur

SUPERVISOR’S RECOMMENDATION

I hereby recommend that this project prepared under my supervision by Vijay Shrestha, Sangace Awale and Sanjiv Chitrakar entitled “**IMPLEMENTATION OF MOS**” in partial fulfillment of the requirements for the third semester course **Operating System (CSC-203)** of B.Sc. in Computer Science and Information Technology be processed for evaluation.

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(Signature of the Supervisor)

Lect. Ashim Ghishing

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Abstract

An operating system (OS) is system software that manages computer hardware and software resources and provides common services for computer programs. The operating system is a component of the system software in a computer system. Operating system can be categorized in to two groups: those based on a simulator (e.g. Berkeley’s Toy operating system and Nachos, MPX) and those that are based on the source code of actual operating systems that run directly on a bare machine (e.g. MINIX [TANE97], XINU [COME84], Linux). Our program clearly falls into the first category. OS that directly runs on bare hardware deals with all sorts of low-level details of the machine architecture on the other hand, the simulator based OS deals with only the essentials of particular machine architecture. In other words, simulator based OS is just the abstraction and can be used to implement operating systems concepts discussed in class or in the course text.

The purpose of the entire project was to enrich the concepts of how a basic operating system functions including the knowledge of memory management, basic I/O management and process management. We have designed a simple OS with few essential and primitive registers and control unit that fetches the user program loaded in the memory. Though the project is entitled as MOS but this version executes only one program at a time. Though our program might not behave as a MOS in totality but it is the preliminary stage of MOS which include the separation of master mode and slave mode. The entire objective of our project was to enhance the knowledge of CPU hardware and its behavior with operating system.

Acknowledgement

We would like to express our heartfelt gratitude to our supervisors for guiding us throughout the project. Likewise we love to express our respect and gratitude towards our Head of Department, Lect. Sushant Paudel for giving us this wonderful opportunity. We cannot conclude thanking all of our teachers, colleagues and other well-wishers who have been directly or indirectly been involved in our project.

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