

MECHATRONICS

BOOK SERIES

SYSTEM DESIGN AND SIGNAL PROCESSING

VOLUME 2

Editors

Md. Raisuddin Khan

Md. Mozasser Rahman

Muhammad Mahbubur Rashid

Shahrul Na'im Sidek



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CHAPTER 8

COMPUTER COMMUNICATION FOR A SMART CARD BASED ORDERING SYSTEM VIA VISUAL BASIC

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8.1 Introduction

This chapter presents a combination of data and computer networking system integration, Graphical User Interface (GUI) and also smart card application. The significance of the project is that the system designed can be used to improve the current system used in fast food outlets. The system designed should improve productivity of the outlet in terms of manpower and ease of work for the workers. Improvements should also be made in terms of customer satisfaction where the services provided should cater to the customer's individual needs. Furthermore, as smart card application is rapidly evolving into technology platform that could trigger changes in everything, therefore it is hoped that this system will help customer to make an order via remote purchasing and also helps the management operator to entertain order in a quick and efficient procedure.

8.2 Basic Concept of Computer Networking

This system is concerned with the data communication systems networking applications. When computers, terminals, or other data processing devices exchange data, there must be a path between two computers either directly or via a communication network. Typical tasks to be performed such [1]:

1. The source system must either activate the direct data communication path or inform the communication network of the identity of the desired destination system.
2. The source system must ascertain that the destination system is prepared to receive data.
3. The file transfer application on the source system must ascertain that the file management program on the destination system is prepared to accept and store the file for this particular user.
4. If the file formats used on the two systems are incompatible, one or the other system must perform a format translation function.