FINAL YEAR PROJECT REPORT

DIPLOMA IN ELECTRICAL (INSTRUMENTATION) ENGINEERING

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SHAH ALAM, SELANGOR DARUL EHSAN

PILOT PLANT RATIO CONTROL SYSTEM BY USING YEWPACK MARK II SYSTEM.

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ABSTRACT

The advance of low-cost and yet powerful process computer system has made it more convenient now to implement advanced process control to improve control of plant performance and hence plant profitability. Advanced process control techniques are much more sophisticated then the simple PID controllers and thus, it is essential that a correct process simulation based on the knowledge of process dynamic can be developed for control operations and also training purposes. This project shows one of the application of the YEWPACK MARK II process computer through a RATIO CONTROL of the ITM Pilot Plant; thus the operation could be carried out from a simple and understandable operator terminals.

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&
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TABLE OF CONTENTS

1. INTRODUCTION

Instrumentation system existed for a long time ago and nowadays is becoming very important in industries such as power plant, manufacturing and etc. The instrumentation system has brought tremendous progress especially in time and labour savings.

Process instrumentation and control techniques are particularly used in small to medium scale processing operations, oriented to systemization which is complicated and diversified. In systemizing, shifting simple loop control to composite loop is progressing tightly coupled with sequences control techniques. Nowadays, since computer are so popular, communication functions with supervisory computers is becoming an indespensable condition. The shift to composite loop control is carried out aiming at higher quality product. Sequence control techniques include automation of batch processing and start up procedures; and incorporation of various interlocks.

Responding to the above need, several processing and controlling computer system have been developed, for example Centum, Centum XL, YEWPACK MARK II and μXL. For our project we are using YEWPACK MARK II Computer Control which is one of the most powerful instrumentaion and control system from small to medium scale processing operation, which is superior in cost effectiveness and incorporates advantages of each