

LAPORAN PROJEK TAHUN AKHIR
KURSUS DIPLOMA LANJUTAN KEJURUTERAAN AWAM
KAJIAN KEJURUTERAAN, ITM, SHAH ALAM

SOLVING OF COMPLEX CIVIL
ENGINEERING PROBLEMS USING COMPUTER

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NOVEMBER 1983

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ACKNOWLEDGEMENT

I wish to take this opportunity to express my deepest appreciation to PUAN HANIZAH ABD. HAMID and EN. SAHOL HAMID ABU BAKAR for their advice, guidance and particular interest on the topic especially with the computer problems and manuscript writing.

My gratitude also goes to members of the Computer Committee and lecturers of School of Engineering for their co-operation and encouragement. Finally I must must acknowledge my debt to my wife Zaleha for typing, correcting, proof reading, and patience above and beyond the call of her duty.

Shah Alam.

Muhammad Yatin.

PREFACE

In today's environment the engineer can no longer be self sufficient. With the rapid growth of engineering knowledge, the imposed standards of performance, and the capability of modern computing equipment, it becomes a necessity that engineers must rely on computer programs to solve the complex problem of design analysis.

Most planning and design firms nowadays use computer. Advantages of using computer are, save of time, assure greater accuracy and increase the capability of the firm. With the availability of general purpose computers, below are some of their applications on engineering aspect:-

1. CIVIL - Geometry, cut and fill, drainage, hydrological applications, water and sewage networks.
2. STRUCTURAL - Beam design, column design, pier design, earthquake analysis, slab design.
3. GEOTECHNICAL- Slope stability, pile driving analysis, retaining wall design.
4. GENERAL - Project control.

The aim of this project is to develop computer programs that can be used by Civil Engineering student of I.T.M. The program are developed so that they are flexible to inputs.

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