UNIVERSITY OF MORATUWA

INFORMATION TECHNOLOGY FOR THE CONSTRUCTION INDUSTRY

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ABSTRACT

Information Technology (IT) has become a vital component in the context of policy for science and technology development in many countries. Construction industry as a whole is now geared to explore the full benefits of IT. It is evident that the construction industry differs from other industries due to its fragmented nature and involvement of expert knowledge, judgment and experience. Because of this complexity in the construction industry there is a greater potential for IT and many countries are now considering to extend beyond productivity gains to strategic applications. This research establishes the current use of IT in the construction industry giving special regard to the Sri Lankan context. The research also draws out recommendations for strategic use of IT and suggests an IT framework for Sri Lankan Construction Industry.

Key words   :   Information Technology, Construction industry, Computers, Telecommunications.

C O N T E N T S

LIST OF ABBREVIATIONS

3D	–	Three Dimensional
4GL	–	Fourth Generation Languages
BIOS	–	Basic inputs outputs system
CAD	–	Computer Aided Design
CAE	–	Computer Aided Estimating
CAM	–	Computer Aided Manufacturing
CASE	–	Computer Aided Software Engineering
CICA	–	Construction Industry Computing Association
CNC	–	Computer Numerically controlled
CPU	–	Central Processing Unit
DP	–	Data Processing
EDI	–	Electronic Data Interchange
EIS	–	Enterprise Information System
FCEC	–	Federation of Civil Engineering Contractors
HTPM	–	Harward Total Project Manager
ICTAD	–	Institute for Construction Training & Development
IIS	–	Industry Information System
ISDN	–	Integrated Services Digital Network
IT	–	Information Technology
KBS	–	Knowledge Based Systems
LAN	–	Local Area Networks
LDC	–	Less Developed Countries
Mbps	–	Mega bites per second
NI	–	Natural Interaction
NN	–	Neural Network
OCR	–	Optical Character Recognition
PC	–	Personnel Computer
PERT	–	Programme Evaluation Review Technique
PIS	–	Project Information System
PSDN	–	Public Switched Data Networks
PSTN	–	Public switched Telephone Networks
RAM	–	Random Access Memory
RIBA	–	Royal Institute of British Architects
RICS	–	Royal Institute of Chartered Surveyors
ROM	–	Read Only Memory
SL	–	Sri Lanka
UK	–	United Kingdom
VAN	–	Value Added Network
WAN	–	Wide Area Network