

Article #	TABLE OF CONTENTS -PART VI-	Page
135	The Role Of Ict In Educational Development In A Developing Country <i>Bello O. A. Ajayi I. R.</i>	782
136	Improved Zero Text Watermarking Algorithm against Missing Preserving Attacks <i>Jalil Z., Farooq M., Zafer H., Sabir M., Ashraf E.</i>	787
137	Development of Thermal Model by Performance Verification of Heat Pipe Subsystem for Electronic Cooling under Space Environment <i>MK Lee, JS Haug, SM Shin, IU Oh</i>	792
138	Grey-TOPSIS Method for Supplier Selection Problem with Interval Numbers <i>Omid Jaddi, Faramesh Pirooz, Enzo Baglieri</i>	796
139	An Algorithm of Finite Capacity Material Requirement Planning System for Multi-stage Assembly Flow Shop <i>T. Wattanaporn, U. Wangruksakul, W. Sangsom</i>	801
140	How Using Gestures Facilitates Teaching a Foreign Language (English) <i>Dawood Amari Kejal</i>	812
141	Nutritive Value Assessment of Selected Legumes Using Their Chemical Analysis and in Vitro Gas Production Technique in Indonesia <i>Erinyani, Lili Wury</i>	820
142	Modeling of CO ₂ Removal from Gas Mixtures by 2-amino-2-methyl-1-propanol (AMP) Using the Modified Kent Eisenberg Model <i>H. Fakhremsadeh, A.R. Jahangiri, I. Nazhad</i>	837
143	Roughness Computation in Natural Channels <i>Khalid A. Fattah</i>	856
144	Concentration of Micro Minerals in Fiber Fraction of Forages* <i>Lili Wury, Erinyani, A. Furian</i>	865
145	Pre-menstrual Syndrome and Premenstrual Dysphoric Disorder <i>Marijan Khajeh, Elvira Behroozpoor, Negar Hajizadeh</i>	877
146	Strategic Knowledge Management and Its Effects on Cost Management in projects <i>Mokier Razavian, Bahram Hoshyar</i>	892
147	Process optimization of biohydrogen production in a CSTB using waste sugar as a substrate <i>Nina Nashirun, Morazu Almust, Renana Widiana</i>	896
148	Philosophical Assumptions of the Cooperative Movement <i>Piaccor Dadi</i>	910
149	In Vitro Ramen Degradation of Selected Tropical Legumes In South Sumatra, Indonesia <i>Arwini Furiani, Lili Wury</i>	920
150	Strategies on the Treatment Techniques and Management Hazardous Waste of Chemical Process Industries <i>B. C. Mohap</i>	929
151	Examining Learners' selecting, organizing, and integrating process in a knowledge management system <i>Yeh Hui-Chih, Yang Ju-Fen Yeh, Yang</i>	935
152	Unipolar Assembly of ZnO Rods: Polarity Driven Collective Laminar Flow <i>U. K. Gantao, M. Imura, X. Feng, Y. Bando, Golberg</i>	937
153	The first tensile strength test on individual single-walled carbon nanotubes: linking nanoscale strength with its defects <i>Mingsheng Wang, Dmitri Golberg, Yashin Bando</i>	938

The Role Of Ict In Educational Development In A Developing Country

Bello O.A Ajayi I.R.

Abstract—ICT is, and will continue to be, a catalyst in advancing and development. New information and communication technologies overcome the barriers of distance and time, and significantly improve the accessibility of information and knowledge. As a result, the sharing of information and knowledge quickly and effectively becomes feasible and acts as a key element in achieving development goals and mitigating the impact of unforeseen events such as natural disasters or outbreaks of disease. This paper aims to highlight some of the benefits developing countries can derive from the use and adoption of ICT, as well as some problems they encounter and what the government of these developing countries can do to assist in the implementation of ICT.

Keywords— ICT, e-learning, blended learning, Collaborative learning, WAN, LAN.

1. INTRODUCTION

Several definitions have been given to explain and interpret the acronym ICT and the one given below seems to be the closest: "ICT is a generic term referring to technologies that are used for collecting, storing, editing and passing on (communicating) information in various forms." The above definition separates distinct fields of ICT and at the same time links them together so as to operate as an entity. It is now a fact as evidenced by developments from other countries that ICT as a sector can contribute immensely to the national GDP of a nation and that ICT, acting as an enabler, can result in improved market competitiveness of a nation's products and services. ICT can impact positively on governance and other sectors of the economy. In turn ICT can effectively assist international economic integration, improve living standards, narrow the digital divide, and improve biodiversity utilization and management. The digital divide characterized by highly unequal access to and use of ICT that manifests itself both at the international and domestic level, needs to be addressed by national policy makers. The digital divide can be narrowed, and poverty reduction addressed through effective and focused utilisation of ICT in key sectors such as education, industry and agriculture. The adoption of

ICT requires a business environment encouraging open competition, trust and security, interoperability and standardization, and financial resources for ICT. This requires the implementation of sustainable measures to improve access to the Internet and telecommunications infrastructure and increase ICT literacy, as well as development of local Internet-based content. Most developing countries still depend on content developed and managed in the developed world and as a result substantial costs are incurred while trying to access the content. One of the causes that discourage access to digital information is culture and language differences. Efforts should be made to make ICT available in local languages if they are to be demystified, adopted and utilised by locals. In general, ICT goals in developing countries should be the establishment of an environment that encourages networking of services and applications; promoting e-commerce and trade promotion programmes for goods and services; promoting Internet access to exchange and access digital content; establishing e-government; promoting e-education and on-line services; strengthening network security; building and developing e-society and ICT human resources.

ICT And Education.

ICT is, and will continue to be, a catalyst in advancing economic growth and poverty reduction. New information and communication technologies overcome the barriers of distance and time, and significantly improve the accessibility of information and knowledge. As a result, the sharing of information and knowledge quickly and effectively becomes feasible.

In recent years there has been a groundswell of interest in how computers and the Internet can best be harnessed to improve the efficiency and effectiveness of education at all levels and in both formal and non-formal settings. But ICT is more than just these technologies; older technologies such as the telephone, radio and television, although now given less attention, have a longer and richer history as instructional tools.

For instance, radio and television have for over forty years been used for open and distance learning, although print remains the cheapest, most accessible and therefore most

Bello O.A is a lecturer at the Department of Computer Science, Adekunle Ajasin University, Akoka, Akoka-Modakeke, Ondo State, Nigeria (belloajayi@ajsun.edu.ng)

Ajayi I.R is a professor of Physics in the department of Physics, Adekunle Ajasin University, Akoka-Modakeke, Ondo State, Nigeria (irajayi@ajsun.edu.ng)