Short Practical Course of the Data Encode-Decode Methodology
(Three Ukrainian Universities Experience)

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Abstract

In this paper, short practical course of the data encode-decode methodology was described with three main topics: 1. Text corpus building. 2. Data encoding-decoding with the Huffman method usage. The concrete code length is calculated as its frequency's binary logarithm with inverse sign. Speciality application-dependent software was developed in a Delphi v. 7 environment. 3. Data decoding with unknown keys on the word occurrence's frequency analysis basis – symbols with the minimal frequency's absolute difference are identical. This short practical course's effectiveness was verified in three Ukrainian universities in different subjects during two years.

Key words: university, encode-decode methodology, computer linguistics, software.

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Opportunities for Indian Engineering and Technical Institutes to offer Programmes for Overseas Students and Establishing Overseas Institutes under Mode 2 and Mode 3 of GATS

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Abstract

Indian technical institutes need to consider the impact of globalization on technical education and undertake development to sustain the growth of the nation. Globalization initiatives would include programmes for international students in the colleges, branch campuses abroad and other cross border collaborative arrangements under World Trade Organization (WTO). The authors analyzed the shortcomings and proposed strategies for development and undertaking initiatives to meet the challenges of growth. Suitable models have been developed and presented for organizing overseas programmes and projects by colleges and universities under WTO.

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JIT and Indian Technical Institutions: A Case Study

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Abstract

Just in Time (JIT) is a philosophy which is based on the principle of doing job right at the first time and with minimum number of mechanical and human resources. Many researchers have found that this philosophy suits to every industry e.g. manufacturing industries like large scale, small medium enterprises (SMEs) and service sectors like banks, hospitals, hotels, restaurants etc. JIT results and benefits can be seen after a successful implementation of this approach and with the involvement of all the people in the organization. This approach believes in teamwork which is an indispensable belief of getting the target/ goal. In this paper, JIT elements which are important and difficult to implement in technical institutions are analyzed and implemented in one of the leading institution in private sector by way of a case study. This institution in a short span of time has created good infrastructure in terms of physical, human and information resources. This paper shows some useful information about the scope of JIT in achieving excellence in an entire organization.

Keywords: JIT, teamwork, technical, institution.

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Electronic Engineering Education Prospects in Haryana

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Abstract

Education is the driving force of economic and social development in any country. It is basically a tool of empowerment that develops the human resources as scientists, technocrats, philosophers, strategists and policy makers etc. At present, the whole global society is in the process of socio economic integration. Thus, the engineering education curricula as well as pedagogy may need to be redesigned and developed so as to produce world-class technocrats who can take decisions in the integrated global society. Looking at the state of Haryana, it is a major industrial hub that enjoys the highest per capita income of the nation. Since the last two decades, much attention has been paid to Electronics Engineering (EE) education in Haryana. In this paper efforts have been made to analyze the trends, opportunities, challenges and future prospects of EE education in Haryana. The analysis of EE prospects helps to visualize the future path in the field.

Keywords: Electronics Engineering, UG, PG, Haryana

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Excess Molar Volumes, Densities, Viscosities, Speeds of Sound, Viscosity Deviations and Excess Isentropic Compressibilities for p-Xylene + 3-Methyl-1-Butyl Acetate at T = (298.15, 303.15, 308.15, and 313.15) K

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Abstract

The experimental excess molar volumes (V^E), dynamic viscosities (η) and speeds of sound (u) of p-xylene with 3-methyl-1-butyl acetate have been measured over the complete composition range at temperatures (298.15, 303.15, 308.15 and 313.15) K and atmospheric pressure. The densities, ρ, excess isentropic compressibilities, K_S^E, and deviations in viscosities, $\Delta \eta$, have been calculated. The excess properties are discussed in terms of molecular interactions between like and unlike molecules and have been fitted to the Redlich-Kister equation to determine the binary coefficients and the standard deviation.

Key words: Excess molar volumes, deviations in viscosity, excess isentropic compressibilities, p-xylene and 3-methyl-1-butyl acetate.

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