National and Global Security Challenges

Approaches and Strategies

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China's Strategic Implications on Future Waterway (Polar Silk Route)

Dr. Thirumaran* & Karan Suriya Varma**

Introduction

The poles are melting; Scientists say the arctic has been warming up for the years making the temperature difference between the North Pole and the equator smaller and smaller. This results in warmer oceans fueling extreme weather events. The arctic region lies on the coasts of Russia, Canada, USA, and Greenland. But its melting will affect the whole world. The temperature in Arctic regions is rising faster than the temperature change in the rest of the world. The world's focus and concern is about Climate change and Artic ice melt, but China appears to be aggressively eying the new sea route created by the rapid ice melt in the Arctic.

China's Intention

China is investing trillions of dollars in infrastructure projects around the world, the Djibouti railway project, a hydroelectric power plant in Ecuador and a technological park in Belarus. However, China is also directing its attention to a less accessible place but of more strategic importance, the arctic region. This might potentially bring about radical changes in the global flow of goods and raw materials.

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DEMOCRACY AND INDIAN POLITICS

Edited by: Ashima Sahni



Women's Rights and Governance in India

Prof. D. Thirumaran* & K. Saravanan**

INTRODUCTION

The rape and subsequent death of a New Delhi university student in December 2012 sparked nationwide furor over Indian authorities' lax treatment of sexual violence. After other such incidents surfaced, including the gang-rape and hanging of two teenage cousins in Uttar Pradesh, critics began scrutinizing aspects of Indian society that many claim have perpetuated violence and discrimination against women. The high-profile cases called attention to the broader issue of women's rights in India, a nation which ranks eighty-fourth out of 113 countries on the *Economist*'s rankings of women's economic opportunity.

Women in India face myriad cultural challenges that impede social advancement, analysts say. Discriminatory family codes, lack of education, and cultural stigmas are only a few examples. Heightened media attention given to such inequities has raised pressure on the

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India's Internal Security

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India's National Security Issues and Challenges

Dr. K. Saravanan* & Prof. D Thirumaran**

Abstract

Today there is a need for a comprehensive study of various issues and Challenges facing India's National Security. This paper throws light on the historical background and present scenario of India's National Security. This research paper also aims to analyze various security dimensions, and in particular, threat from terrorism and Insurgency covering all aspects while exploring the possible ways to control these threats.

Keywords: National Security, Security, Challenges, Dimensions, Foreign Policy

INTRODUCTION

India faces several military and non-military threats to its National Security. While there are military threats from its neighbours, Pakistan and China, it is mainly the threat from Islamic terrorism and ethnic insurgency which is ever growing due to external support.

These threats are largely from Pakistan and China. Threat from Pakistan is ever-existing, however from Chinese side; it is medium and long term. China is determined to see that the next Dalai Lama would be a man of its choice and that his selection would be under its

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INDIA'S INTERNAL SECURITY

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PERFORMANCE ANALYSIS OF MANTISSA MULTIPLIER AND DADDA TREE MULTIPLIER AND IMPLEMENTING WITH DSP ARCHITECTURE

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Abstract— Approximate computing provides a new approach to design high level of performance by using their technique of low-level power arithmetic circuits. Approximate computing is a technique which provides a slightly inaccurate results rather than accurate results for a scenario where an inexact result is sufficient for a purpose. Deterministic algorithm is used to view the appropriate computing techniques to overcome and attainment of efficiency. It is required to monitor different parameters from different number of systems and calculate their stability. Approximate floating-point arithmetic is used in variety of error tolerant applications such as image processing, digital processing such as filtering and Fast Fourier transform (FFT) and machine learning. The main objective of this paper is to minimize the power consumption and to rise the speed of execution by implementing an algorithm for multiplying two floating point numbers. In this paper, the existing and proposed algorithm are designed and compared in terms of area, power and delay. In order to design this, VHDL is the hardware description language used. It is simulated using Modelsim 6.3f and synthesized using Xilinx 8.1i and are further applied in Fast Fourier Transform (FFT).

Index terms- appropriate, inexact, floating point arithmetic, fast Fourier transform, VHDL, Modelsim 6.3f, Deterministic algorithm, Xilinx 8.1i

I. INTRODUCTION

Today, low power applications play a vital role in the design of VLSI based digital circuits. A variety of techniques are used to reduce power consumptions in digital circuits. For applications in Digital Signal processing system, multiplier plays an important role, it is required to concentrate on low level power consumed devices for that techniques such as partial products implementation is used. This paper has elaborately concentrated on low power devices for multiplier and their parametric constant.

Array multiplier is known for its regular structure. The multiplication is based on add and shift algorithm. Multiplication is divided into three stages i) generation of ²Dr CHANDRA KUMAR DIXIT Professor, Department of Physics, Dr.Shakuntala Misra National Rehabilitation University, Lucknow, U.P. 226017

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partial product ii) addition of partial product iii) final addition. Simple routing is the technique for partial products implemented in N*M level for two-bit type AND gates are to be considered.

The shifting of partial products is performed by simple routing. Addition we need to consider of n partial products requires N-1, for implementing M bit adders.

Dadda multipliers are the well-known fastest multiplier. It consists of three stages i) partial products matrix are generated ii)The partial products are having greater height of 2 iii) carry level propagation adder. The generation that for partial products matrix is formed by N^2 AND gates. Dot represents the partial products. Dadda multipliers shows an improved need to dependent their performing level for power and performance need to comparison for array multiplier.

We proposed a work for design level in algorithm array type and dadda type for multiplier implementation to need of efficient level of algorithm that proposes a new level of implementation as Discrete type fourier transformation. It converts time domain signal into frequency domain spectrum. There are various types of FFT algorithm which involves a wide range of mathematics. Fast Fourier Transformation adjustment level for DFT to minimize the computation level for consideration of points that needed for implementation.

II. REVIEW

In indication of IEEE 754.1 as the standard condition for representation of FLP number to indicates single sided precision to implementation. This needed a mantissa as bit level implementation Exponent level section consists of 2^{E-1} -1, E denotes the number of bits with Exponential as function. Actual length of the mantissa type to implement bit level is 24 as a bits and the extra bit is the bit the decimal point which is called "hidden bit". The normalized level of implementation with their floating value as a point

 $FP = (-1)^{sign} X 2^{exponent bias} X (1.mantissa)$

Fuzzy expert system for the impact of emotional eating in people with T2DM

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Fuzzy Expert System for the Impact of Emotional Eating in People with T2DM

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Abstract.Nowadays, Type2 Diabetic Mellitus (T2DM) is the most hazardous diseases in both developed and developing countries and it increases the risks of creating kidney disease, eye disease, nerve damage, blood vessel damage and heart disease. It can be controlled with proper diet and regular exercise but the people with diabetes are often failed to implement it. Emotional eating is the tendency of its victims to react to stressful, difficult feelings by eating, even when not feeling physical hunger. But the role of emotions in eating behaviour is often not addressed when discussing the diet and weight with people with diabetes. Therefore, the aim of the paper is design a fuzzy expert system for the effect of emotional eating in people with diabetes to assist the individuals.

INTRODUCTION

The notion of fuzzy sets was first proposed by Zadeh in 1965 [17] to handle with vagueness and uncertainty of our thoughts and language to take meaningful decision. Fuzzy set was introduced to handle imprecise information arises in the real world problems. Decision making is one of the human cognitive processes aiming towards identifying, analyzing and selecting the better feasible alternatives. Decision making is an intrinsic attribute of humans, which seeks for the better solution. Since most of the real world problems are complex, the conventional decision making systems are inadequate for obtaining better alternatives from the set of the possible alternatives. To tackle such vagueness in the real world problems, fuzzy logic was introduced in decision making processes to facilitate the decision making (MADM) models such as DEMATEL, VIKOR, ANP, TOPSIS etc., Nowadays, many researchers have concentrated on linguistic terms to solve decision making problems [4, 7, 8, 14]. In the decision making method, experts use natural languages, namely, linguistic terms to communicate his/her opinion, when he/she does not have sufficient information about the problem. The linguistic terms are frequently used as an input in decision making problems. Fuzzy number is a multi valued quantity, which is used to represent the linguistic terms to solve fuzzy decision making problems.

Kosko introduced fuzzy cognitive maps in 1985 to handle such vague concepts arise in the problem using linguistic terms and whose weights are represented by fuzzy numbers instead of crisp values [10]. Cognitive Maps were represented by directed graphs in which nodes represent variable concepts and edges represent the causal links. Basically, Cognitive Map is a study of causal relationship among factors, whose weights are taken from {-1, 0, 1}. They can also be represented by adjacency matrices. Fuzzy Cognitive Map (FCM) is essentially developed by integrating the human knowledge and existing experience about the problem[15,16]. FCM can be modelled by group

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Measuring drivers incapability through euclidean distance intuitionistic fuzzy value with Topsis ranking method

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Measuring drivers Incapability through Euclidean Distance Intuitionistic Fuzzy Value with Topsis Ranking Method

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Abstract. In this paper we proposed a new multi expert fuzzy model called Euclidean Distance Intuitionistic Fuzzy Valued With Topsis Ranking Method (EDIFVTRM) to analyze the correlation between the causes and effects of human health problems and human errors on roads that makes destruction on road safety. The paper was constituted into five section with introduction to the problem, preliminaries to intuitionistics fuzzy sets, introduction to Euclidean Distance Intuitionistic Fuzzy Valued with Topsis Ranking Method EDIFVTRM, adaptation of problem to EDIFVTRM , and conclusion and suggestion based on the study.

Keywords : Intuitionistic fuzzy values, Road safety, Human health problems ,Human errors, Topsis Ranking and EDIFVTRM

INTRODUCTION

Recent years, many researchers concentrate more on towards decision making problems. As we consider the components to the problem to be taken as objects are not always crisp in nature with single value either TRUE or FALSE but not both. Rather it is in the form of multi valued logic. The concept of extension of Boolean logic to multi value logic was proposed by Prof L.A. Zadeh in 1965^[1]. Fuzzy set theory is helpful to deal with many application in various areas of studies as it handles vagueness, ambiguity and uncertainty. In fuzzy set theory, the membership of an element is single value ranges between zero and one. However in reality, it extends to the principle of non-membership and hesitation value. Krassimir Atanassov (1983)^[2] introduced an extension of Lotfi Zadeh's notion of fuzzy set as intuitionistic fuzzy sets whose elements posses the nature of membership and non-membership. Researchers confined its usage of intuitionistic fuzzy sets(IFS) in MCDM problems. Most of the application to IFS is through distance measure used in problem like pattern recognozation, social problems and medical diagnosis. This paper proposes the combination of Euclidean distance^[7] of intuitionistic fuzzy preference relation aiming to obtain weights of criteria and intuitionistic fuzzy TOPSIS (Technique for Order Preference by Similarity to Ideal Solution) method aiming to rank alternatives for dealing with imprecise information on selecting the best ranking alternatives.

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