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1	MUZEER	MBA	Compensation, Benefits And Its Impact On Quality Of Work Life	2395-1052	https://ijsart.com/Home/IssueDetail/22497	UGC
2	MUZEER	MBA	Quality Of Work Life As Human Resource Management Strategy	2320-2882	https://ijsart.com/Home/IssueDetail/22497	UGC
3	Dr.G. NAGAMALLESWARA RAO	MECH	AN INVESTIGATIVE STUDY ON ENHANCEMENT OF HARDNESS OF LOW CARBON STEEL	2454-6410	https://ijcrt.org/viewfull.php?&p_id=IJCRT1812034	UGC
4	Dr.G. NAGAMALLESWARA RAO	MECH	OPTIMIZATION OF PROCESS PARAMETERS IN FRICTION STIR WELDING ON ALIMINUM 6061 ALLOYS	2581-7019	https://doi.org/10.1063/1.5141186	UGC
5	FARMANULLA SHAIK	ECE	IDENTIFICATION OF EXON SEGMENTS INDNA SEQUENCES USING MODIFIED NORMALIZED ADAPTIVE ALGORITHMS	2278-3075	editor@tprc.org	UGC
6	FARMANULLA SHAIK	ECE	ADAPTIVE EXON PREDICTION USING MAXIMUM MODIFIED NORMALIZED ALGORITHMS	2277-3878	https://www.ijitee.org/wp-content/uploads/papers/v8i8/E3142038519.pdf	UGC

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Compensation, Benefits And Its Impact On Quality Of Work Life

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Abstract- *As a result of dynamic changes in work environment, the employees in Information technology companies are seriously affected in quality of work life, it was seen as the latest insurgency in Information Technology sectors that was taking place in the relationship between employees and work. The aim of this paper is to determine the factors affecting quality of work life of the employees in the Information Technology companies and to study the relationship between the Job satisfaction and performance level with the quality of work life. In the present study the researcher has chosen the Information Technology companies in and around of Telangana State, based on the interview with the employees in the organization, a pilot study conducted. The factor contribute to quality of work life includes Work relate pressure, Leadership behavior description, Work life balance, Management Policies, Opportunity to develop and growth, Job security, Adequate and fair compensation, Inter-personal relation and Work culture. The information collected from the survey will be used to develop the quality of work life of the employees in the Information technology companies.*

Keywords- Quality of Work Life- Information Technology (IT)- Job Satisfaction- Factors affecting- Adequate and fair Compensation

I. INTRODUCTION

There are various factors affecting quality of work life includes Work relate pressure, Leadership behavior description, Work life balance, Management Policies, Opportunity to develop and growth, Job security, Adequate and fair compensation, Inter- personal relation and Work culture. The information collected from the survey will be used to develop the quality of work life of the employees in the Information technology companies. Retaining, holding and updating skills of employees are the principles of human resource department, various strategies are implemented my department to improve salary, work environment and other benefits include salary. Thus level of satisfaction has crucial importance on production and productivity of employees. The focus of this paper concerns a study of the Quality of life for the employees at work in the Information Technology companies.

II. LITERATURE REVIEW

According to Hatam, Farid, & Kavosi, 2013, the most important part of each organization is its human resource. The way managers behave and treat staff would affect their attitudes and working behaviors. When people have a positive attitude toward their job, their manager, department or organization they work in, they become much more motivated to work efficiently. Manzari Tavakoli & Rajabi, 2013, today the affectivity and high function of organizations will not occur without the assistance and cooperation of the employees. Thus emphasize was always on the various needs of the employees which determines their efficiency and effectiveness , Pourezzat & Gholipour, 2008When one has job satisfaction, feels his/her job meets his/her needs. Unfulfilled needs have negative effects over job satisfaction. Meeting the needs and expectations cause to job satisfaction.

Kahn, 1981; Kalra & Ghosh, 1984 diged out the improvement of quality of work life has captured the imagination of managers and researchers alike. A number of researchers have tried to identify the kinds of factors that determine and their effort has resulted in different perspectives. Given the diversity in perspectives two questions remain: what constitutes a high quality of work life? How its impact can be measured? Researchers observed that a high quality of work life (QWL) is essential for organizations to achieve high performance and growth in profitability. Elizur & Shye, 1990, highlighted the earlier stages, QWL was focused on objective criteria like attracting talent, job security, earnings and benefits; its focus has gradually shifted to job satisfaction and commitment.

QUALITY OF WORK LIFE AS HUMEN RESOURCE MANAGEMENT STRETAGY

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ABSTRACT

As a result of dynamic changes in work environment, the employees in Information technology companies are seriously affected in quality of work life, it was seen as the latest insurgency in Information Technology sectors that was taking place in the relationship between employees and work. The aim of this paper is to determine the factors affecting quality of work life of the employees in the Information Technology companies and to study the relationship between the Job satisfaction and performance level with the quality of work life. In the present study the researcher has chosen the Information Technology companies in and around of Telangana State, based on the interview with the employees in the organization, a pilot study conducted. The factor contribute to quality of work life includes Work relate pressure, Leadership behavior description, Work life balance, Management Policies, Opportunity to develop and growth, Job security, Adequate and fair compensation, Inter-personal relation and Work culture. The information collected from the survey will be used to develop the quality of work life of the employees in the Information technology companies.

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1. INTRODUCTION

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An Investigative Study on Enhancement of Hardness of Low Carbon Steel

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Abstract – Mild steel also known as plain-carbon steel, is the most common form of steel because its price is relatively low while it provides material properties that are acceptable for many applications, more so than iron. Low-carbon steel contains approximately 0.05 to 0.32% C and are ductile, malleable, tough, machinable and weldable. Heat treatment is the only option to increase the hardness of low carbon steels which cannot be hardened in cold working. When heat treatment is chosen to increase the hardness in case of low carbon steels, only the Hardening operation is considered. Heat treatment is an operation that involves heating the steel to temperatures around 850–900°C and quenching them to achieve a Martensitic Microstructure. The material which possesses martensitic structure is treated as hardened highly and easily. Heat treatments to form martensite are generally applied to steels containing more than 0.3% C. In these steels, the gains in hardness are most substantial. But, steels containing less than 0.3% C are difficult to harden in heavy sections as they can't obtain martensite as micro structure. In this work, different types of quenching media had been selected to investigate their influence on hardness at different quenching temperatures.The prime object of this investigation is toillustrate the effect of heat treatment on low carbon steel (AISI 1020) to expose its mechanical property(hardness) and microstructural (microstructures) properties.

Index Terms – Plain-carbon steel, Heat treatment, martensitic structure, quenching media, hardness, microstructures.

1. HEAT TREATMENT- INTRODUCTION

Heat Treatment is an endeavour to obtain the maximum efficiency of the material under the demanding conditions of service. Steel is an outstanding versatile engineering material. Metals Hand Book defines heat treatment as, "A combination of heating and cooling operations, timed and applied to a metal or alloy in the solid state in a way that will produce desired properties, that is, it as an operation or combination of operations of heating and cooling of a solid metal or an alloy to endow it with certain predetermined physical and mechanical properties". These properties are dependent on the microstructure of the alloy, i.e., the nature, shape, size, distribution and amount of these micro-constituents, which are controlled by the changes in the alloy composition and the heat treatment. [1]

1.1. Stages of heat treatment

Heat treating is accomplished in three major stages:

Stage l: Heating the metal slowly to ensure a uniform temperature

Stage 2: Soaking (holding) the metal at a given temperature for a given time and cooling the metal to room temperature.

Stage 3: Cooling the metal to room temperature

1.1.1. Heating stage

The primary objective in the heating stage is to maintain uniform temperatures. If uneven heating occurs, one section of a part can expand faster than another and result in distortion or cracking. Uniform temperatures are attained by slow heating. The heating rate of a part depends on several factors. One important factor is the heat conductivity of the metal. A metal with a high-heat conductivity heats at a faster rate than one with a low conductivity. Also, the condition of the metal determines the rate at which it may be heated. The heating rate for hardened tools and parts should be slower than unstressed or untreated metals. Finally, size and cross section figure into the heating rate. Parts with a large cross section require slower heating rates to allow the interior temperature to remain close to the surface temperature that prevents warping or cracking. Parts with uneven cross sections experience uneven heating: however, such parts are less apt to be cracked or excessively warped when the heating rate is kept slow.

1.1.2. Soaking stage

After the metal is heated to the proper temperature, it is held at that temperature until the desired internal structural changes take place. This process is called SOAKING. The length of time held at the proper temperature is called the SOAKING PERIOD. The is used for metals that require a rapid cooling rate, and soaking period depends on the chemical analysis of the oil mixtures are more suitable for metals that need a metal and the mass of the part. When steel parts are slower rate of cooling. Generally, carbon steels are uneven in cross section, the soaking period is deter-water-hardened and alloy steels are oil-hardened. Ferrous metals are normally quenched in water.

Optimization of Process Parameters in Friction Stir Welding on Aluminum 6061 Alloys

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Abstract - High quality friction stir welding of Aluminum 6061 alloys materials present variety of issues, such welding technique is one of the foremost oftentimes used material joining of two materials AL 6061 Alloy produce a well-defined surface and has surface and tensile strength and high hardness . The tensile strength and hardness and dimensional precision greatly have an effect on the elements throughout their useful life, especially in cases wherever the elements come in contact with different elements or materials. Optimization of machining parameters is an necessary step in machining. This project presents a new approach for optimizing the machining parameters on aluminum 6061 alloy. Optimization of machining parameters was done by Taguchi's L26 orthogonal array and stir welding experiments were conducted for AL 6061 Alloys. The parameters of machining such as, welding speed, rotational speed and tool type are optimized by multi-response concerns particularly tensile strength and hardness. Based on mean effective plots, the optimum levels of parameters have been investigated and significant contribution of parameters is determined by analysis of variance.

Keywords: ANOVA; Design of Experiments; Aluminum 6061 alloy; Machining; Taguchi

1. INTRODUCTION

Friction welding is one of solid-state welding processes of rubbing two components together at a controlled rotational speed to create friction. Friction is used to generate enough heat to allow both components to reach a plastic state where the materials are forced together to form a bond. The force is the lateral force called as "upset" which is used to fuse the materials. The bond is created when layers of plasticized material from both components intertwine and create new layers of combined material. Technically, because no melt occurs, friction welding is not actually a welding process in the traditional sense, but a forging technique.

However, due to the similarities between these techniques and traditional welding, the term has become common. Friction welding can replace conventional welding and one-piece construction as one of the most economical welding processes available. In addition, it offers design, strength and cost reduction benefits. Friction welding has been successfully used in many industries. Applications include pump, agricultural and construction equipment; electric motors; and the automotive, drilling, marine and printing industries. The process can provide increased design flexibility, superior strength and significant cost savings over other conventional welding processes.

Friction stir welding (FSW) Process was invented at the welding institute (TWI) UK In 1991. FSW is initially used to weld aluminum and its alloys because the defects like porosity, alloy segregation, hot cracking, hydrogen entrapment etc.are not uncounted with this process those are mainly appeared in fusion welding process (1). This process uses a non consumable rotating tool with slides along with rotating on the faying surface of work pieces to be weld.

The welding institute (TWI) in the United Kingdom invented in 1991 friction stirs welding (FSW) process as a solid state joining techniques and was initially applied to aluminum alloys [1]. Friction stir welding process use a non consumable rotating tool consisting of a pin extending below a shoulder that is forced in to the adjacent meeting adjacent of the work pieces.

Welding is the extremely important joining method in the manufacturing process for the last year; the friction stir welding (FSW) method has significantly increased the quality of weld. Invented by Wayne Thomas at the welding institute to UK (TWI), Cambridge, England is in 1991. The process starts with clamping the plates to be welded to a breaking plates so that the plates would not fly away during the welding process and a rotating hard steel pin can be inserted between two contacting metal plates or into a solid section of a continues plates to create "a weld" in its walk or trailing side as illustrated.

Friction stir welding technique has high joining speed, autogenously welding, improved metallurgical

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Identification of exon segments in DNA sequences using Modified Normalized Adaptive Algorithms

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Abstract: ***A key task of genomics area is precisely tracing protein coding sections in a gene sequence. For identification of ailments and designing the drugs, analysis of these coding segments plays a crucial role. Information required for coding of proteins is present in gene fragments termed as Exons. Henceforth tracing the protein coding fragments of DNA is a key part in genomics. The elementary units in structure of DNA are Nucleotides. Three base periodicity (TBP) remains a typical property displayed thru only protein coding sections and not present within intron segments of DNA. TBP of exon segments can be easily predicted using Signal processing techniques. Amongst several techniques, adaptive techniques are promising due to their capability to alter coefficients of weight based on deoxyribonucleic acid (DNA) sequence. From these deliberations, we propose an adaptive exon predictor (AEP) using Modified Normalized Least Mean Square (MNLMS) algorithm. To minimize computational complexity of the proposed techniques, we combined MNLMS based AEP with its sign-based variants. It was shown that AEP based on Sign Regressor MNLMS stands much effective in applications relation to exon identification using measures like Sensitivity, Specificity and Precision. This greatly reduces computational complexity, so that projected AEPs are attractive in nano devices. Finally, the exon locating ability of different AEPs is verified by gene sequences considered from the renowned genomic data base NCBI databank.***

Index Terms: **adaptive exon predictor, ailments,** ***computational complexity, deoxyribonucleic acid, disease identification, nucleotide, three base periodicities***

I. INTRODUCTION

Extreme area of research in the area of genomics is tracing the protein coding fragments of DNA. Precise identification is vital aimed at analysis of ailments also designing drugs. Sequence of DNA forms the combination of coding and non-protein coding segments [1]. Gene finding is a key subarea of genomics aimed at finding the exon segments. Study related to principal arrangement of exons aids its ancillary also tertiary structure. We can find all anomalies, drugs design and treat ailments, the moment study of complete protein region structure is done. Likewise, the investigations help to know about assessment of phylogenic trees [2]-[3]. Whole living beings were classified depending on the elementary structure of molecules. These are prokaryotes and eukaryotes. Coding segments in prokaryotic cells are continuous and long; instances include archaea and bacteria. Arrangement of coding segments in genes is alienated by lengthy non-protein coding sections of eukaryotes. Coding sections responsible for protein synthesis are exons, while rest of segments is introns. Whole living beings excluding archaea and bacteria remain fall under this classification. The coding sections in eukaryotes of human beings comprise only around 3 % of gene sequence whereas introns comprise the rest of 97%. Therefore, locating the protein coding segments in a gene sequence is a significant job [4]-[5]. Three base periodicity (TBP) is pragmatic in relatively all gene sequences. A sharp peak is clearly shown part of power spectral density (PSD) at frequency f1=1/3 [6]. Numerous techniques for locating the exon segments depending on several signal processing methods are presented in the literature [7] – [11]. However, length of DNA sequences in practice is very long and position of coding sections within different sequences changes. To process such sequences adaptive techniques are favorable which are capable for lengthy sequences in several repetitions by changing weight coefficients with respect to statistical behavior of input sequence [12]. From these, AEP is developed with adaptive techniques. Due to its ease to implement, LMS is more used technique. It undergoes hitches alike weight drift, gradient noise amplification, and poor convergence [13]. So, to improve the performance of AEP we propose to use normalization. Data normalized variant of LMS is known as normalized LMS (NLMS) algorithm. NLMS resolves the setbacks of LMS also offers better tracking ability along with speed of convergence. Excess mean square error (EMSE) also reduces part of exon identification[12]. Computational complexity for an adaptive technique is crucial specifically for lengthy sequences due to overlap of samples to be given to AEP. This results in inter symbol interference (ISI) also inaccuracy in locating exon segments. Moreover, for AEP implementation on VLSI circuit or nano device, more complexity in computations tends to big circuit size also more operations. Henceforth, we combine proposed adaptive techniques using sign based algorithms to reduce multiply operations[13]. The three signum based simplified algorithms involves signed regressor (SRA), signed error (SEA) also signed signed algorithms (SSA) are combined thru MNLMS

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Adaptive Exon Prediction using MaximumModified Normalized Algorithms

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Abstract: *Exact identification of exon fragments in a deoxyribonucleic acid (DNA) sequence is a critical task in the field of genomics. This is a crucial part in finding health disorders and design drugs. Exons are the info essential in coding of proteins in DNA. Henceforward finding such DNA sections remains important part of genomics. In DNA arrangement, nucleotides form the key elementary units. Three base periodicity (TBP) is a basic property displayed by only exon fragments, and is not shown in other DNA sections that could be forecasted easily with techniques of signal processing. From many methods, adaptive methods were favorable because of their competence in altering weight coefficients depending on gene sequence. Hence, an adaptive exon predictor (AEP) is proposed with Maximum Modified Normalized Least Mean Square (MMNLMS) algorithm. The AEP derived using MMNLMS is combined with its sign versions to decrease complexity in computations. Also, this was clear that Modified Normalized Sign Regressor LMS (MMNSRLMS) based AEP was more effective in exon identification applications with metrics alike Specificity, Sensitivity, and Precision. Thus, computational complexity is greatly minimized, and AEPs proposed were suitable for use in nano devices. Lastly exon finding capability with diverse AEPs stands verified with DNA datasets from National Center for Biotechnology Information (NCBI) gene databank.*

Index Terms: **adaptive exon predictor,** *disorders, deoxyribonucleic acid, exon fragments, three base periodicity*

I. INTRODUCTION

Finding the exon sections in DNA is an intense part of research in bio-informatics. Actual tracing of such sections stands critical to find health disorders along with drug design. Fragments those remain responsible also those not involved in protein coding are part of DNA [1]. In the areaof bio-informatics, gene identification focuses on tracing theprotein coding fragments. Learning of main arrangement of protein coding segments helps to know about their tertiary also ancillary structure. The sooner study related to whole protein structure is completed; entire health disorders can befound, design drugs and cure them. Likewise, the investigations help to know about assessment of phylogenic trees [2]-[3]. Whole living beings were classified depending on the elementary structure of molecules. These areprokaryotes and eukaryotes. Coding segments in prokaryoticcells are continuous and long; instances include archaea and bacteria. Arrangement of coding segments in genes is alienated by lengthy non-protein coding sections of eukaryotes. Coding regions responsible for protein synthesisare exons, while rest of segments is introns. Whole living beings excluding archaea and bacteria remain fall under this classification. The coding sections in eukaryotes of human beings comprise only around 3 % of gene sequence whereas introns comprise the rest of 97%. Therefore, locating the protein coding segments in a gene sequence is a significant job [4]-[5]. Three base periodicity (TBP) is pragmatic in relatively all gene sequences. A sharp peak is clearly shown in power spectral density (PSD) at frequency f1=1/3 [6]. Abundant methods from literature to trace pretein coding fragments based on many techniques related to signal processing are discussed in [7] – [11]. Nevertheless, in real time, DNA sequence length is too long also exon fragments place alters inside diverse sequences. Techniques that follow adaptive strategy are used in more number of iterations thru modifying coefficients of weight depending on its numerical behavior [12]. Different AEPs are derived using such techniques. LMS is widely used as it is simple and more easiness for implementation. This faces technical hitches for instance poor convergence, weight drift, and noise amplification of gradient [13]. Subsequently, normalization concept is used in current work. Data normalized version of LMS is normalized LMS (NLMS) technique. This unravels hindrances related to LMS presents good ability of exon tracking accompanied by convergence rate and also minimizes excess mean square error (EMSE) in exon position identification. Complexity involved in computations for an adaptive strategy is a critical aspect explicitly for sequences of larger lengths on account of overlap of samples provided to AEP. Problems alike Inter symbol interference (ISI) furthermore inexactness in tracing exon fragments. Besides, complexity is high with respect to computations results in larger size of circuitry to implement AEP on nano device or VLSI circuit. So, presented adaptive methods with sign function were used so as to minimize operations related to number of multiplications. The three signum based simplified algorithms involves signed regressor (SRA), signed error (SEA) also signed signed algorithms (SSA) are combined with MNLMS algorithm. With normalization, higher length of the tap is minimized to one, using an approach termed as maximum normalization nevertheless of length of the tap. Depending on maximum normalized forms of MNLMS algorithm, several AEPs were developed also they are analyzed by actual DNA of National Center for Biotechnology Information (NCBI) gene bank [14]. Hybrid versions obtained includes maximum modified normalized signed regressor LMS (MMNSRLMS), maximum modified normalized signed error LMS (MMNSLMS) also maximum modified normalized signed signed LMS (MMNSSLMS) techniques. Different metrics such as complexity in computations, rate of convergence plots, precision (p_r), specificity (S_p), and sensitivity (S_n) were considered to verify many AEPs. Results of AEPs, theory of adaptive techniques,