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# Towards Optimization of Hadoop Map Reduce Jobs on Cloud

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**Abstract:** Hadoop is commonly used framework for solving applications which deal with large volumes of data. Most of the current day applications require large storage and computation to be performed. Hadoop jobs are executed in cloud as cloud environment provides flexible provision, maintenance and scalability of resources. Hadoop framework can be improved in terms of parameter automation and map reduce tasks scheduling with respect to the virtual machine states and job characteristics

**Keywords:** MapReduce, Amazon Cloud, EMR

## I. INTRODUCTION

Hadoop framework which is used to process big data has become a commonly used tool as most of the applications in current day world are data intensive. Hadoop jobs are executed in parallel fashion where it distributes the tasks to multiple nodes in the distributed system. The advantage of using hadoop over existing parallel and distributed technologies is that it performs automatic parallelization and distribution of work by providing a clean abstraction to programmers with inbuilt support of fault tolerance.

Hadoop implements the parallelism [1] by dividing the given job into map tasks that are executed on multiple nodes. The intermediate results from the map tasks are forwarded to reduce task which produces the final output by merging and reducing the output received from different map tasks. The map tasks output which is in the form of key value pair is hashed on key to decide which reducer should receive its output to perform the reduce operation.

Hadoop is basically designed for cluster environment which can handle processing of big data. As clusters are out of reach for many users, the best choice has turned to use the clusters for rent which is provided by many cloud providers. Cloud computing has made very easy for customers to use the infrastructure for the required amount of time and pay as per the usage without any burden of maintaining the infrastructure, installation of required software's. Cloud

computing enables proper utilization of machines by satisfying needs of different customers which are time variant. It enables to scale the computing nodes as per the requirement without incurring huge costs in establishing the required infrastructure. Thus Hadoop clusters on cloud have become an appropriate choice whenever there are adhoc hadoop jobs.

The schedulers that are provided in hadoop framework are designed for cluster environment. These schedulers only consider either time of arrival or the maximum capacity guaranteed. All the schedulers do not consider any parameters related to machine performance and job characteristics. Though the available schedulers are apt for cluster environment but can be improved further that makes it suitable for cloud environment. The cluster on cloud is provided by virtualization and the multitenancy factor affects the performance of the job. Scheduling of jobs can be more efficiently done if the virtual machine characteristics and job characteristics are involved in the decision process instead of going in a static way. If the characteristics related to virtual machines like load on Virtual Machine, Number of tasks currently running on that Virtual Machine, the jobs running on the VM (is it memory intensive or CPU intensive) and the job characteristics like no of tasks remaining to complete the job, is job memory intensive or CPU intensive, deadline of the job then a proper utilization of the cloud resources can be done along with improvement in the execution time of the hadoop job. Job completion time is an important factor in cloud environment as the user needs to pay for the resources as per the instance hours used. Job execution of hadoop jobs can be optimized considering the load on the virtual machine and the behavior of the hadoop job.

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# IMPLEMENTATION OF HIGH SPEED VEDIC BCD MULTIPLIER USING VINCULUM METHOD

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**Abstract:** This paper presents a BCD Multiplier that operates on Vedic Mathematics called Vedic sutras. It uses a method called Vinculum which converts higher complex numbers into its simplest form. In Decimal number system the numerals 6,7,8,9 are called high complex numbers and numbers consisting of 6,7,8,9 are converted into 4,3,2,1 there by total number or any number is between 1 to 5 digits only for any arithmetic operation. This feature reduces Carry generations and Carry propagations there by performance parameter like delay reduces especially in adders and multiplier structures. We choosen an arithmetic operation multiplication and it is compared with Conventional Multiplier [1] [2] [3] and Vedic Multiplier[5] and it has been observed that improvement in speed is 83.5% in case of conventional multiplier and 47.8% in case of vedic multiplier which is suitable for High Speed Applications.

The Architecture is implemented using Xilinx Vertex 4 FPGA and the same is done using Cadence Digital Encounter Tools of TSMC180nm Technology. The results indicate that the proposed BCD multipliers is very efficient in terms of speed when compared to decimal multipliers implemented with direct manipulation of BCD numbers.

*Key words: BCD multiplier, High speed, Vedic Mathematics, Vinculum multipliers.*

## 1. Introduction:

Decimal Arithmetic plays a very vital role in many Finance, Business and Commercial Applications for which binary arithmetic is not suitable. From the last decade lot of research is going on decimal arithmetics and Decimal Floating point number systems where most of research papers or literature is on conversion of Decimal numbers into Binary numbers and from Binary to Decimal

numbers with various Encoding and Decoding methods [7] [8] [10]. Small attempt was done in a different method using Vedic mathematics which is an emerging technology in engineering branches where we can perform all decimal arithmetic operations in a simple and easiest method. It was proved theoretically that vedic method is faster than conventional method mathematics and most of researches are motived in this angle for engineering applications.Vedic Mathematics holds good for both binary and decimal number systems [5] [14] [15].

The outline of the paper is arranged as follows. In Section 2 Vedic Mathematics and Sutras related to multiplication is presented. In Section 3 Concepts of Vinculum numbers, its Algorithm with examples is discussed. In Section 4 Detailed description of Proposed Vedic BCD Multiplier with Conversion Logic, Partial Product generation and its Adder structure is explained. Simulation and Synthesis results are discussed in Section 5 and Conclusion with Future scope in Section 6.

## 2. Vedic Mathematics and Sutras related to multiplication:

Among four Vedas Rig Veda is the root for Vedic mathematics which is an ancient method. It consists of 16 basic formulas also called sutras or aphorisms and 14 sub formulas. They were presented by a Hindu scholar and mathematician, Jagadguru Swami Sri Bharati Krishna Tirthaji Maharaja, during the early part of the 20th century [1]. The word "veda" means "knowledge" in sanskrit. Famous Indian Mathematicians like Aryabhata, Brahmagupta, and Bhaskara II made their contributions to geometry, algebra, computational mathematics like irrational

# OPTIMIZATION OF DUAL WAVELENGTH OPTICAL RADAR FOR MEASUREMENT OF AEROSOLS

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**Abstract-** Optical Radars or light radars are used to analyse the atmospheric reflections of the transmitted signals. Lidars are well suited for probing the atmosphere and characterising the vital parameters of the atmosphere. It is well established that the atmospheric aerosol play an imperative job both directly and indirectly in the Earth's radiation budget. The transportation of anthropogenic aerosol from the urban locations increases the aerosol loading in the surrounding semiurban regions. The solid waste disposal in the semi-urban regions also adds up to the total anthropogenic aerosol density. In this paper we present the technical features of a Mie Lidar system, which is in house, developed, used for the measurement aerosols and clouds in the troposphere and lower stratosphere. We depict the process opted for optimisation of the vital elements and parameters of the lidar system. The system is optimised with respect to for transmitting unit, detection unit and optical telescope.

**Keywords-** Lidar, Remote sensing, Signal to noise ratio, Aerosol Optical Depth, Aerosol Size Distribution.

## I. Introduction

Compared to traditional sampling techniques, remote sensing techniques offer many advantages for the study of air pollutants. Some of the remote sensing methods are of passive type and some are active techniques. One of the important passive techniques used widely is based on the determination of IR absorption spectrum of the solar radiation in the appropriate region depending on the pollutant of interest using a spectrophotometer. With the advent of laser, active remote pollution measuring methods have gained a new impetus. The laser-based remote sensing techniques are highly sensitive, inherently accurate and offer many advantages over the conventional methods. The measurements can be made in real time. Laser sensors are single-ended, and have the advantages of being able to probe without regard to the position of other radiation sources and making three dimensional measurements of the atmosphere. Mean concentration value of pollutants can be determined not only over a certain path length but also over a certain area or volume on a continuous basis. A complete range resolved map of distribution of constituents over large urban or industrial areas can be obtained. Laser systems can probe difficult or inaccessible locations, such as plumes near smoke stacks, aircraft runways, roadways, or the space around industrial areas including elevated paths. Specifically, laser-based system can make measurements up to several hundred meters in height as needed in some cases.

Laser based system used for remote sensing is generally referred to as LIDAR, the acronym of Light Detection and Ranging. Similar to RADAR, in LIDAR, a laser light pulse is sent into the atmosphere and is used as a spectroscopic probe of the physical state and chemical composition of the atmosphere. The emitted laser beam interacts with the constituents causing alterations in the intensity, polarization and wavelength of the backscattered light. From the measurement of these parameters of the received light, one can deduce the properties of the pollutants and other constituents of the atmosphere. The two important interactions used are *backscattering* and *absorption* of the incident radiation.

## II. Lidar Methodology

The lidar system essentially comprises a transmitter, a receiver and a lidar controller. The transmitter is a laser source. A fraction of the light in the transmitted pulse is scattered back to the receiver by the molecules and particles in the atmosphere it act as distributed reflector. This method allows a range resolved measurement by accurately measuring the time of flight to the scattering volume and back similar to in radar. The received radiation is collected by an optical system (telescope) and is focused on to the cathode of a photo multiplier tube (PMT). The electrical signal from PMT is amplified, digitized and analyzed using a computer (both

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# A HIGH-CAPACITY IMAGE DATA HIDING SCHEME USING ADAPTIVE LSB SUBSTITUTION

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**Abstract-** Many existing steganographic methods hide more secret data into edged areas than smooth areas in the host image, which does not differentiate textures from edges and causes serious degradation in actual edge areas. To avoid abrupt changes in image edge areas, as well as to achieve better quality of the stego-image, a novel image data hiding technique by adaptive Least Significant Bits (LSBs) substitution is proposed in this paper. The scheme exploits the brightness, edges, and texture masking of the host image to estimate the number  $k$  of LSBs for data hiding. Pixels in the noise non-sensitive regions are embedded by a  $k$ -bit LSB substitution with a larger value of  $k$  than that of the pixels in noise sensitive regions. Moreover, an optimal pixel adjustment process is used to enhance stego-image visual quality obtained by simple LSB substitution method. To ensure that the adaptive number  $k$  of LSBs remains unchanged after pixel modification, the LSBs number is computed by the high-order bits rather than all the bits of the image pixel value. The theoretical analyses and experiment results show that the proposed method achieves higher embedding capacity and better stego-image quality compared with some existing LSB methods.

**Keywords-** Data Hiding, Adaptive Least Significant Bits Substitution, Human Visual System, High Embedding Capacity, Optimal Pixel Adjustment Process.

## I. Introduction

With the development of the Internet and information processing technique, as an effective solution for copyright protection and information security, data hiding technique has been receiving much attention today.

Many data hiding methods have been proposed to hide secret data into an image. Data payload (embedding capacity) and imperceptibility are the two most important properties of a data hiding system. Generally, data hiding schemes are categorized as LSB substitution, LSB matching and Pixel-Value Differencing (PVD). LSB substitution is the most commonly used method directly replacing the LSBs of pixels in the cover image with secret bits to get the stego-image. The LSB matching scheme was introduced by A. Ker et al. LSB matching also modifies the LSBs of the cover image for data hiding, but it does not simply replace the LSBs of the cover image as LSB replacement does. On the other hand, if one secret bit does not match the LSB of the cover image, then another one will be randomly added or subtracted from the cover pixel value. PVD method provides good imperceptibility by calculating the difference of two consecutive pixels to determine the depth of the embedded bits. This paper focuses on LSB replacement and PVD methods. The simple LSB scheme is limited mainly by artificial noises in the smooth regions of the image. Artificial noises seriously damage visual quality of the stego-image. To improve the perceptual quality of the stego-image, Wang

et al. employed a genetic algorithm to generate a substitution table. According to this substitution table, the value of the secret data to be embedded into each host pixel is transformed to another value in advance which is closer to the original value of the host pixel; however, owing to the nature of a genetic algorithm, although the substitution table is good, it may not be the optimal solution. In order to obtain the optimal solution, Chang et al. proposed their dynamic programming strategy to efficiently pick out the best from all possible substitution tables. But the optimal substitution process may require huge computational cost because of using genetic algorithm and dynamic programming strategy. In Chan et al.'s methods, the genetic algorithm is not required. An Optimal Pixel Adjustment Process (OPAP) is used to improve efficiency and enhance the visual quality of the stego-image generated by simple LSB substitution. The above-mentioned LSB techniques replace the same length bits of each original pixel with the embedding data. However, not all pixels in the image can tolerate equal amounts of changes without noticeable distortion. Therefore, the stego-image has low quality when equally changing LSBs of all pixels. To solve this issue, some LSB based methods employed Human Visual System (HVS) masking characteristics to embed the secret data into the variable sizes of LSBs of each pixel. W. N. Lie et al. created a piecewise mapping function according to the HVS contrast sensitivity to determine the adaptive numbers of LSBs for data hiding. Lee et al. exploited

# EFFECT OF BURNISHING ON SURFACE PROPERTIES OF FERROUS AND NON-FERROUS METALS

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**Abstract:** - In all finish machining processes like, Grinding, Honing, Lapping, Super Finishing etc. the surface finish is improved by cutting the surface irregularities with the help of abrasives. In these processes only surface finish is improved, but improvement in the surface hardness is negligible. By cutting the surface irregularities, tensile stresses will be induced in the surface layer of the components, with which fatigue life of the components will be less.

Burnishing is a chip-less finishing process, in which the surface irregularities will be plastically deformed with the help of a hardened Ball or Roller. In this process, in addition to the surface finish improvement, considerable increase in surface harness will be possible. Hence, mechanical properties like Tensile strength; Wear resistance etc. will be improved. Fatigue life of the components also improved, as compressive stresses are induced in the surface layer of components.

In the present work, Roller Burnishing tool is designed and fabricated to use on Lathe machine for burnishing. The burnishing experiments are conducted on ferrous (Mild Steel and EN31) and

non-ferrous metals (Aluminium and Copper) at different burnishing parameters and improvement in their surface hardness surface finish are recorded. It is observed that there is considerable improvement in surface hardness, surface finish of both ferrous and non-ferrous metals.

**Keywords—** Burnishing Tool, Ferrous and Non Ferrous metals, Mechanical Properties, Lathe Machine.

## 1. INTRODUCTION

Improved surface finish on a component is the indication for quality surface. Surface with good surface finish will exhibit high wear resistance, corrosion resistance and other mechanical properties of metals. There are many finish machining processes like grinding, honing, lapping, super finishing etc., In all these processes the surface finish is improved by cutting the surface irregularities with abrasives as tool. With

# Experimental Analysis on Incompressible Fluid Jet through Passive Control Method

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**Abstract**— Fuel mixing, cooling system and chemical mixing is very predominant in automobile industries, pharmaceutical laboratories etc. for the better performance. In an effort to increase mixing tendency, we are planning to control the incompressible fluid flow jets by a passive control method, using vortex generators like Non-Circular cross sections in this paper. The experimental setup with non-circular jet flow and compare with a circular jet flow. Here different geometrical shapes with equivalent area are taken to study the flow. Rectangular models with different aspect ratios studied are  $L/D = 1$  and  $2$ . And these can be compared with the circular orifice of 10 mm diameter. Rectangular model shows significant effect on mixing mechanism.

**Keywords**— passive control method, noncircular jet, aspect ratio, circular orifice, mixing mechanism

## 1. INTRODUCTION:

Noncircular jets have been the topic of extensive research in the aerospace; it has the ability to enhance the mixing characteristics of a jet, which will greatly improve the performance of system. Non circular jets have potential to entrain ambient fluid more effectively than comparable circular jets.

## 2. CHARACTERISTICS OF JET FLOW WITH VORTICES:

Large-scale coherent structures control the dynamics of all free shear flows and wakes. These two-dimensional structures were found to play an important role in entrainment and mixing processes in incompressible shear layers<sup>1</sup>. The formation of coherent structures in a shear layer is initiated by Kelvin-Helmholtz instability and the behavior of fully turbulent shear layers suggest that large eddies constitute the dominant instability of the flow governed by Rayleigh's equation for in-viscid flows. The exponential growth of the velocity and vorticity perturbations leads to a nonlinear process that eventually causes the roll-up of the shear layer vortices<sup>2,3</sup>.

The initial vortices grow in the shear layer and coalesce as they are convecting downstream in a "pairing" process<sup>4</sup>. Due to merging and entrainment, the shear layer spreads, and the frequency associated with the large vortices decreases. The irrotational entrainment by the large-scale structures leaves the entrained fluids essentially unmixed during the lifetime of the vortices. Nonetheless, intense mixing occurs during pairing or other amalgamation processes. Some distance downstream of the splitter plate trailing edge, a secondary, span wise instability appears, leading to the development of stream wise vortices<sup>5</sup>.

In the shear layer of a jet, the physical dimensions of the nozzle introduce new length scales, not present in a plane shear layer. The number of vortex interactions is limited by the distance between the nozzle and the location where the shear layer surrounding the potential core merges. The jet flow characteristics at the end of the potential core are determined by the jet-column instability<sup>6</sup>.

## 3. JET CONTROL:

Passive control, which uses geometrical modifications of the element from which flow separation occurs to change the shear layer stability characteristics. Some examples of these modifications are: co-flow jets; trip wires in plane shear layers; convoluted splitter plates; non-circular jets such as square jets, and elliptic jets.

## 4. NONCIRCULAR JET CHARACTERISTICS :

Rectangular jets are popular among jet research community owing to their wide practical applications. Rectangular jets find application in fluidics, ink-jet printing, V/STOL aircraft, military aircraft etc. They are also currently in use on stealthy aircrafts and with other rapid mixing technologies<sup>7</sup>. Rectangular jets combine the aspect ratio features of an elliptic jet with corner (vertex) features of square jets. Nozzle exit shape, aspect ratio, initial turbulence level, and Reynolds number affect the development of the jet<sup>8</sup>. The flow field of the rectangular jet may be subdivided into three main regions: potential core region, followed by characteristic decay region and axisymmetric decay region. In the characteristic decay region, the axial velocity decay is dependent upon orifice configuration and the velocity

## Experimental Analysis on Incompressible circular and non-circular Fluid Jet through Passive Control Method

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**Abstract:** Fuel mixing, cooling system and chemical mixing is very predominant in automobile industries, pharmaceutical laboratories etc. for the better performance. In an effort to increase mixing tendency, we are planning to control the incompressible fluid flow jets by a passive control method, using vortex generators like Non-Circular cross sections in this paper. The experimental setup with non-circular jet flow and compare with a circular jet flow. The different geometrical shapes with equivalent area are taken to study the flow. Rectangular models with different aspect ratios studied are  $L/D = 1$  and  $2$ . And these can be compared with the circular orifice of 10 mm diameter. Rectangular model shows significant effect on mixing mechanism.

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### III. JET CONTROL

Passive control, which uses geometrical modifications of the element from which flow separation occurs to change the shear layer stability characteristics. Some examples of these modifications are: co-flow jets; trip wires in plane shear layers; convoluted splitter plates; non-circular jets such as square jets, and elliptic jets.

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# ANALYSIS OF PLY DROPS OF COMPOSITE MATERIALS

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**Abstract**—The laminated tapered beams are increasingly being used in engineering applications, such as turbine blades, helicopter blades, aero-foils, yokes, robot arms and satellite antennas where in the stiffness of the structure needs to be varied along the length of the beam. Such tapered laminated structures, which are formed by dropping off some of the plies at discrete positions over the laminate, have received much attention from researchers because of their structural tailoring capabilities, damage tolerance, and their potential for creating significant weight savings in engineering applications. The inherent weakness of this construction is the presence of material and geometric discontinuities at ply drop region that induce premature inter-laminar failure at interfaces between dropped and continuous plies. In this present work, the effect of these ply drops on the stress distribution on a composite structure is considered. In this work, three composite models (with symmetry & unsymmetrical orientation angles) are developed with and without ply drop off. The ply-drop off models is considered as external taper type and mid plane taper type. The maximum stress in all the three models is to be compared and the effect of the ply-drop on the stress distribution is to be studied. The effect of fibre orientation and the strength of composites are studied by using ANSYS software to estimate its strength when pressure load is applied.

**Keywords**—Composite materials, laminated tapered beams, ANSYS, ply drop region, inter-laminar failure, aero-foils

## 1. Introduction

**Composite Materials**:-Composites are engineered materials made from two or more constituent materials with significantly different physical or chemical properties.

**Reinforcement**: - Reinforcement for the composites can be fibers, fabrics particles. The function of the Reinforcement fibers is to carry the loads along their longitudinal direction.

**Matrix**:-The primary functions of the matrix are to transfer stresses between the reinforcing fibers and protect the fibers from mechanical damages.

## 1.1 Advantages of Composites Materials:

- Composite are engineered materials
- High fatigue strength.
- High facture energy absorption.
- Corrosion resistance.
- High elastic modulus.
- High tensile strength.
- High natural frequency.
- Low thermal expansion coefficient (some have negative thermal expansion coefficient).

## 1.2 Introduction to ply drop -off laminates:-

**Ply drop-off Laminates**:-In a shell there will be a layers (plies) of laminates, the laminate reduction is called ply drop-off laminates.

**Type 1**: Reduction of laminate thickness, plies can be gradually terminated thick to thin part of a shell. A typical ply drop zone is shown in Fig 1.

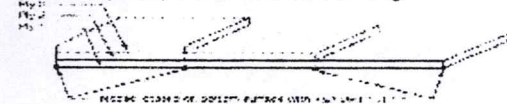


Fig 1 Ply drop of reduced ply.

**Type 2**: Every time a ply or set of plies is dropped, the material and thickness for those elements is changed. A typical laminated component with multiple ply drops and an exploded three dimensional view of a typical ply drop zone is shown in Fig 2.

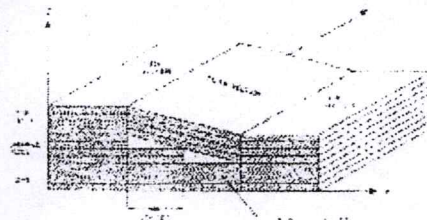


Fig 2 Ply drop of in between ply.

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# ADDITIVE MANUFACTURING FOR AUTOMOTIVE COMPONENTS

(A Textbook for students of Research Work)

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# Critical Spectrum

The Short Stories of P. Raja



Editor

P.V. Laxmiprasad

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at Sendhil's house, examined every nook and congratulated Sarala for having a such tidy manner. He expressed his er Sendhil's sister maintained her house.

husband and wife being physicians they re to maintain their house, for which : "Physicians, my foot!" yelled Mr. alone patients get cured. Good sanitation ions are a must for quick recovery from ster and her husband must learn the ABC y. Repeat my words to your sister when

s Sarala and tells: "This well maintained o me of the lessons your husband learnt i will help him in bringing up your twins i minds that beauty commonly produces ves it."(20)

alk behind to bade him good bye, when , "May I use your toilet?"(20)

a must, "said Sendhil ushering him into

Mr. Fishbowl waved his hand to his hosts, not tell anything to your sister." (20) One at this grim remark.

writer lies in the fact that the audience ay of time, from past to present

been a great source for bringing about al and society. Raja visualised the need ong back.

' reflects the present educational system n the story reminds us of many such he story is a mirror image of present

parents who run behind marks and ranks instead of knowledge and wisdom. The story revolves around a boy and his parents. The boy's father is happy that his son got admission into a school where all of his family members studied. On the contrary, the boy's mother was shocked and cried: "In that school! I have heard a lot about it. You too have told me many of your harrowing experiences as a student. They will cane our son to death. Let him continue his studies in the pyal school." The father's remarks are surprising "They will not kill him," responded my father. "They will only make him thick-skinned. They will teach him discipline, and also give him good education."(23) The father was successful in admitting him in the school in town, six kilometers away from the village. The boy never enjoyed his school. In his words: "In the new institution in the name of discipline they taught me how to be a slave. If mugging up the lessons and getting through weekly tests and terminal examinations can pass for good education, they imparted to me that too. And most of all they taught me fear and hatred. (23) The trauma the boy underwent is best explained in his words. "And when I passed out of that school, words were poor substitutes to describe the joy I experienced. Only a bird freed from the cage might have understood my feelings. (28) The story of the boy in the Crabs is the untold story of many children. The story is narrated by the boy in the story.

"Clouds" is a perfect example of an insecure mother-in-law who spoils the entire atmosphere at home because of her jealousy and insecure feelings. Jealousy is the fatal cause for strained relationships between Radha and Parvathi her mother-in-law, and between Parvathi and Chandru, her son.

Chandru buys a pair of diamond bangles to his wife Radha, which Parvathi could not digest. A feeling of insecurity and loneliness creeps into her. There was no peace at home ever since the diamond bangles came home. Parvathi searched reasons to fight with her son and daughter-in-law. Radha found out a solution to restore harmony at home. She informed Chandru to spend less on her. "All problems have solutions. The easy way to restore harmony in our house is to stop spending on me... It's nice way to save.

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**Dr.P.V.Laxmiprasad** is an active academician, an avid researcher, a literary critic, and a resource person. A teacher with two decades of experience, he is the author and editor of thirteen published books in English Literature. He is widely published in journals, books and anthologies. His publications speak of his outstanding credentials and long-standing commitment to literature. Overall, he has 300 publications to his credit. He strongly believes in the philosophy that "Man is like the last falling leaf in autumn". He has passion for literature and music.

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- *Exploring New Horizons: Myriad Dimensions in the Poetry of Manas Bakshi*, Authorspress, New Delhi, 2017.
- *The Poetry of I.K. Sharma: New Tracks and Literary Swings*, Authorspress, New Delhi, 2017.
- *The Spirit of Age and Ideas in the Novels of PCK Prem*, Authorspress, New Delhi, 2016.
- *Critical Readings on the Fictional World of Manju Kapur*, Aadi Publications, Jaipur, 2016.
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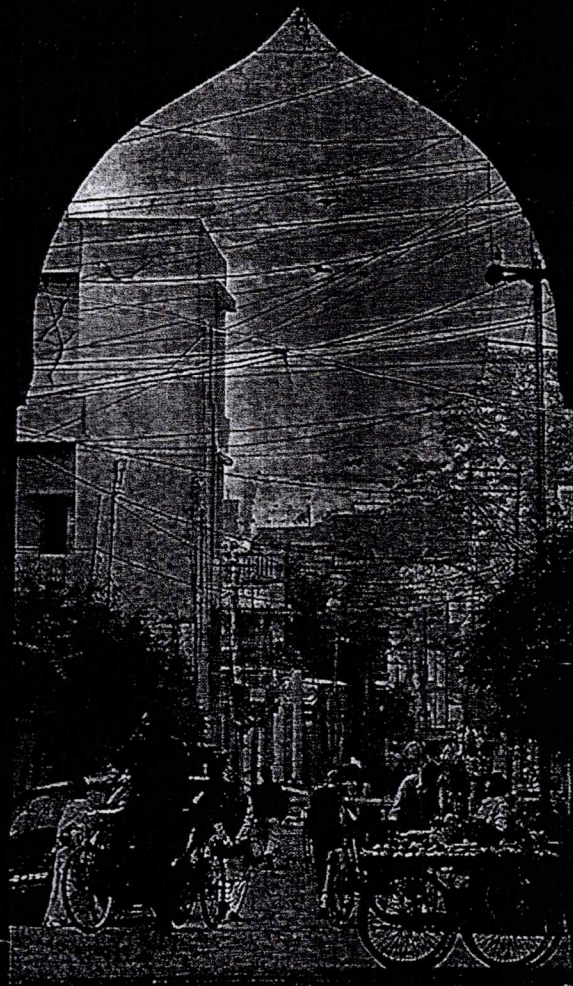


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The Nativist Vision of Life in the Works of  
*Basavaraj Naikar*



*Edited by*  
*P.V. Laxmiprasad*

e in the Works of Basavaraj Naikar

ntly into the registers of Kittur and  
om had 286 villages and 72 hamlets  
: from them was about Rs. 4,00, 000.  
y much impressed by the figures. The  
ll the treasuries of the kingdom and  
that the total cash amounted to Rs.  
all the jewellery, silver and gold  
9)

nt about the victory of Kittur. The  
ed to the Rani how the company had  
Chennamma. She was under the guard  
have any reduction in the comforts of  
y disturbed by the loss of the kingdom  
Mr Chaplin ordered his men to pack all  
ported them to Bombay with military

brought to Bailahongala and survived  
er death women narrated the whole  
singsong tones of mourning. Rani  
reen in the memory of the people who  
of the queen.

portrays the heroic character of Rani  
of Kittur. From the beginning of the  
exhibits courage, strength and  
the Britishers. She teaches her  
and inculcates patriotism. Thus the  
d in war with full spirits and were  
because, Rani says it is better to die in  
lered to the enemies. This reflects the  
ani Chennamma. Her life symbolises  
her ideals of strong nationalism. Her  
a grim reminder to all contemporary  
n from patriarchy.

f Kittur. New Delhi: Authorspress, 2009.

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life in the Works of Basavaraj Naikar

universal *Brahma* as Arut Perun Jothi. In a room telling his disciples not to open it for themselves. It was a fully closed room. His disciples waited for days, weeks and months. He never allowed government officials to come and open the room. It is assumed that Vallalar has a human body. Here, it should be recalled that it is not possible for Ramalinga Vallalar to get to heaven with his physical body. This was recorded in the Government of Andhra Pradesh District. The principles practised in the *Sathya Sangam* established by Vallalar are followed in the Monastery founded by him. He also believed in One God. The miracles of Ramalinga dharudha Bharati and his ideals have been recorded by Basavaraj Naikar in a simple, direct and readable style in his *Bird in the Sky*. The events that took place in the life of Ramalinga dharudha Bharati have parallels in the life of Vallalar.

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by Chidbhavananda. (Tirupparaiturai: Sri Lanka, 1991. Print.

Ramalinga Swamigal.

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## Feminine Heroism in Basavaraj Naikar's *The Queen of Kittur*

B. Nagamani

"To all those women – strong enough to be heroes: fair enough to be ladies."

– Robert Fanney

Basavaraj Naikar is a professor by profession and a bilingual writer by passion. He has translated many works from Kannada into English and vice versa. He is the recipient of Gulberga University Award for translation, Olive Reddick Award from A.S.R.C Hyderabad for research and Vasudeva Bhupalam Award from the Kannada Sahitya Parishat Bengaluru. Some of his notable books are *The Thief of Nagarahalli and Other Stories*, *The Rebellious Rani of Belavadi and Other Stories*. He is a recipient of Commonwealth Fiction Prize for the Best First Book from Eurasia in 2000. The present paper focuses on the feminine heroism in his widely read and much acclaimed novel *The Queen of Kittur*.

In his 'Preface' to the book Naikar explains that he decided to write about Rani Chennamma as he was disappointed that there was no reference to Rani Chennamma in a book titled *The Female Heroism* by a foreign author. Though there were quite a few books on the Rani of Kittur, both serious and popular, he found that they did not present the details in a 'systematic, chronological, comprehensive and exact manner.' (vii) While the serious books gave 'partial information', the popular ones gave a 'romantic, exaggerated and even wrong picture'. (vii) In one of his interviews

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one years to collect the relevant and oral. He studied historical and other official documents of the two important motives behind heroism known to people beyond approve upon the existing Kannada

1778 in Kakati, a small to Dhulappagowda Desai and others of the court forecasted that and fêted lady. Chennamma learnt Marathi, Urdu and Percian. Her trained her in martial arts, like horse pear throwing. She was a good ale costumes. Thus, the seeds of courage were sown at an early

for owning the responsibility of asarja of Kittur and Chennamma fternoon Rani Chennamma was mma, the first wife of Raja Chennamma's intelligence in

na, that you are a worthy ) After the demise of Raja urja inherited the throne. Rani prince is under the influence of ant decisions. One evening she ow his strategy in dealing with , "My dear son, I would like to ingency. Do you like to extend h?" (72). After listening to his awareness of the young raja. ainst the future threat from nemies for Peshwas and them.

A true leader is always a visionary. This quality is inbuilt in her. "My dear son, you think of only the immediate. But you do not know the things in the long run The British fellows are the common enemies of Peshwas and us. We are sure to suffer if the Peshwas are defeated by the British." (72)

She contradicted the opinion of Sivalingarudrasarja's idea of retiring Diwan Gurusiddappa due to his old age and appoints Mallappasetty in his place. She explains him the grave situations that follow if Mallappasetty is appointed as a Diwan. "You are too young to understand their subtleties and tactics." (86)

Raja Sivalingarudrasarja's health deteriorated gradually. In the event of any contingency, there was no heir to succeed him. Thus, they have decided to adopt a son. Nevertheless, Rani Chennamma decided to take the opinion of the courtiers. While Gurusiddappa, suggested adoption, Mallappasetty suggested to take the permission of British Collector Thackeray from Dharwad. After listening to this, the Rani shouted like a tigress. She raised her voice and said, "Who's that fellow called Thackeray? What business has he to interfere with our family affairs?" (91) There was a heated argument between Rani Chennamma and Mallappasetty. Knowing his character, she wanted to nip him off in the bud and make him realise her courage and administrative skills. Eventually she shouted at him and said, "Do you know with whom you are talking? Know your limits before talking with me." (91)

Much against the Doctrine of Lapse policy, Sawai Mallasarja was adopted. Rani Chennamma called for a confidential meeting and informed everybody about the need for her administrative interference and sought their co-operation in all aspects. She appealed everybody to set aside all the individual differences and get united for the cause of kingdom. She won the hearts of her courtiers through her approach. In another occasion she addressed the gathering and said, "My dear brothers and sisters, I am grateful to you all for your love and sympathy towards your young Raja. As you all know, he is too young to understand the intricacies of administration. It is therefore, my duty to guide him along the right

everything by himself. This was garudrasarja. I request you all to and help me protect our beloved

anur Mallappasetty and Haveri oi e kingdom in place of hennamma heard this, she was ght has he to dismiss our servants? siddhappa, you continue to be in re." (119) Rani Chennamma was of her people. The civilians were brations, as Thackeray has ceased yody expected Rani Chennamma's prised everybody by telling her of treasury and thus confronts the

to meet the Rani to sign a new her chiefs to see him were never d. She makes a surprise attack on Thackeray was killed. Elliot, en and children were taken as kindly.

loquent speaker. She gave an e people of kingdom to fight in particular and the Britishers in is sycophants are laboring under ish Kittur, a small princely state, aken. They do not know that the re than life. Their wealth is not land, but it is their 'self-respect.' hawks out an action plan to win ds. She treated the prisoners

eciated Rani for her boldness, hy. In the words of Thackeray

"This Rani seems to be a thorough gentle lady. I was really worried about our women and children, but now I am free from tension. She is really a courteous lady. I had not expected this kind of gesture from her." (147) Thackeray admires her courage and patriotism, though it is against their interests.

After her victory against Thackeray and his men, she visits Chowkimath Monastery to seek blessings of the Swami. Swami blesses her and tells, "Daughter, you have brought great honour to the kingdom of Kittur. Your victory is ascribable to your righteousness in thought, speech and action." (178)

Well aware of the fact that the British do not take the defeat, she prepares for a bigger fight. She uses their friendly ties with the neighboring rajas and seeks help. She uses Elliot and Stevenson to bury the hatchet. She assures the British that the prisoners will be released if the new king is accepted. Many letters were written to the officers. The British cleverly keeps the negotiations on to buy time for an attack on Kittur. They make certain that all communication to Kittur is blocked to curb the support from neighboring princely states. The Rani releases women and children and later Elliot and Stevenson to gain the goodwill of the British, but they stick to their guns.

The British attack Kittur. Rani Chennamma loses the battle because of treacherous tricks of pro-British courtiers who deceive her by adding cow dung in the gun powder thus making them inefficient. Though the traitors were identified and punished, the British emerge victorious. Rani denies leaving the fort and surrenders after giving a tough fight.

Eventually with heavy heart and trembling fingers she signs the document of the Company. Mr Chaplin says to Rani Chennamma "Rani Saheba, though we have fought against you, we have great respect for you. You have done your duty as a true patriot. Besides you have treated all the British officers, their wives and children with great affection and courtesy when they were imprisoned in your fort." (273)

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Compendium of Abstracts  
National Seminar on

# QUALITY EDUCATION: EMERGING TRENDS AND CHALLENGES FOR 21<sup>ST</sup> CENTURY

18<sup>th</sup> & 19<sup>th</sup> AUGUST, 2016

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### 3-24. NEED FOR QUALITY IN HIGHER EDUCATION IN INDIA

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#### ABSTRACT

Quality is a much-debated term. To some it is like 'beauty' that lies in the eye of the beholder! Those who believe in this are 'relativists', whereas those who believe quality can be specific attributes that can be identified, they are 'objectivists'. The word quality comes from the Latin word *qualis* meaning 'what kind of'. Quality as a concept is a 20th century phenomenon that has its roots in the industry and management. Quality became an issue with the advent of industrialization and adoption of new scientific approach to management based on strict division of labour as propounded by F.W.Taylor. With mass-production, and breaking down of work into smaller and repetitive tasks handled by machines, the role of workers for self-checking of quality was reduced. India's higher education system is the third largest in the world, next to the United States and China. The main governing body at the tertiary level is the University Grants Commission, which enforces its standards, advises the government, and helps coordinate between the centre and the state. Accreditation for higher learning is overseen by 12 autonomous institutions established by the University Grants Commission. Indian higher education is in need of radical reforms. A focus on enforcing higher standards of transparency, strengthening of the vocational and doctoral education pipeline, and professionalization of the sector through stronger institutional responsibility would help in reprioritizing efforts and working around the complexities. The rise of IT sector and engineering education in India has boxed students into linear path without giving them a chance to explore and discover their passions. Concerted and collaborative efforts are needed to broaden student choices through liberal arts education. In the full paper we will discuss the role of the Indian government and private sector in higher education.

**Keywords:** Quality, Higher Education, UGC

### 3.25. PEDAGOGY OF TEACHING

P. Rajitha

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#### ABSTRACT

Quality education is not an easy concept to qualify. Quality determines how much and how well children learn and the extent to which their education translates into a range of personal, social and developmental benefits. It emphasizes the need of a stimulating pedagogy. It is

the teaching and learning process that brings the curriculum to life that determines what happens in the classroom and subsequently the quality of the learning outcomes.

Regular, reliable, timely assessment is a key to improving learning achievement. A new approach to teaching practice, calibrated for the 21<sup>st</sup> century, requires teachers to be willing to assist the student in this regard. The teaching practice period is meant to expose student teachers to the most sobering technological frontier in history because they inherit a complex set of global dilemmas and this emphasises the rational of this study. The proposed study aims to prepare teacher-students for the classrooms of the future. Teachers often expressed their lack of confidence in their digital technology skills and this can implicitly affect their attitudes towards the use of digital technology in their teaching. Therefore, the presenters argue that, the teaching practice student should be empowered in the fast-paced digital environment of the current millennium generation.

In conclusion, a system that focuses on quality education allows children to develop and grow in school environments that are supportive and at the same time challenging, which nurture them to become confident, have good self-esteem and willing to strive forward yet at the same time feel a sense of responsibility towards others in their community.

### 3.26. QUALITY IMPROVEMENT AND ASSESSMENT IN HIGHER EDUCATION

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#### ABSTRACT

Higher education sector in India is undergoing rapid transformation. In education has come to occupy a prominent place in the ongoing effort to understand the determinants of educational outcomes. Since Independence, this sector has grown remarkably. The country now has the largest higher education system in the world in terms of number of institutions; it holds the second largest place in terms of student enrolment. The impact of student's peers on his/her academic performance has joined traditional determinants such as student ability, teacher quality and parental involvement as a critical driver of academic performance (Sacerdote, 2011). Rising commodification, substandard quality, inappropriate measures of assessment, lack of focus on quality research and development, poor infrastructure and faculty shortages are some of the enormous issues that the education sector is currently grappling with. In spite of the enormous size of the sector all is not well; Currently India's education sector is facing a crisis like situation. This paper addresses the quality improvement



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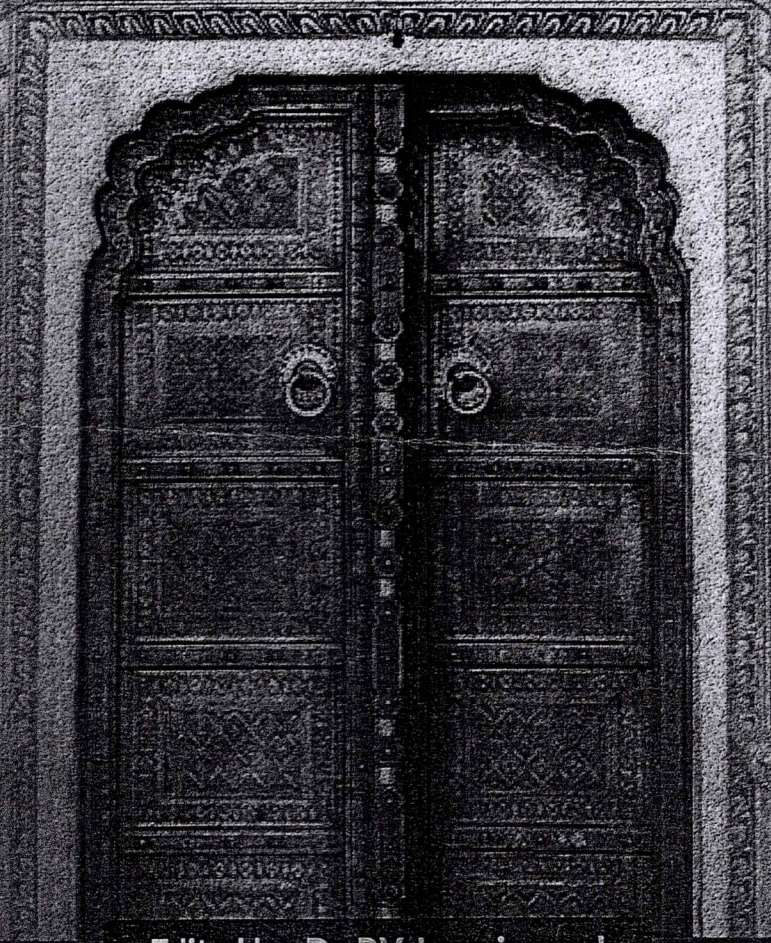
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# THE SPIRIT OF AGE AND IDEAS

in the Novels of PCK Prem



Edited by: Dr. P.V. Laxmiprasad

*File*

The novel indeed has shaped outlines and fundamentally, altered the march of time in the development of Indian English fiction. That is why his influence and preponderance particularly on and over today's writers and readers whose patronage is solicited by contemporary magazines, journal, publication houses and newly sprouting circulating Libraries is immense. I hope soon the author of 'Not Their Lives' will benefit us by providing new goodies to be chewed and digested.

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### Family Relationships in *A Handsome Man*

Dr. Nagamani B.

Family is the centre stage of all human relationships. In particular, the Indian family system is known for its age-old traditions and practices. It has become a model for the world to live in. But, Contrary to that, what we see today is going against that spirit. The present paper discusses the deteriorating family values as described in the novel *A Handsome Man*.

Jaycee, a famous politician and the protagonist of the novel, introduces his wife Romi, to his friend Jayanta. Through the discussion, the reader understands the busy schedule of Jaycee. Jaycee introduces Romi, as a responsible wife and also as an arduous social worker. They tease and praise each other. As the discussion continues, Jaycee urges to stop discussing politics at home, as it is a place where relations are nurtured and mutual understanding is created. A feeling of assurance is created because of small words spoken with great love and warmth.

As the story proceeds, Jaycee is depicted as an individual who is so busy with his politics and business. He neglects his parents Jai Bhadra and Rajshri, does not shower fatherly love and affection on his three children, Vicky, Ashy and Rahul.

Romi expresses her anguish when she speaks to her husband, requesting him to spend quality time at home. She, in a

The novel indeed has shaped outlines and fundamentally, altered the march of time in the development of Indian English fiction. That is why his influence and preponderance particularly on and over today's writers and readers whose patronage is solicited by contemporary magazines, journal, publication houses and newly sprouting circulating Libraries is immense. I hope soon the author of 'Not Their Lives' will benefit us by providing new goodies to be chewed and digested.

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Soma probably is an indication on the turn of events that take place in her own family.

Jai Bhadra narrates the story of Som Dawra, a godman among all the politicians. He was respected by everyone. People visited him from far of places to seek his blessings. He was very active and agile. When he became ineffective, no one visited him. His own children and grandchildren ignored him. He became mad. Eventually, he is one among the lunatics in an asylum. "I was appalled to see his fortitude. But what struck him hard was the indifference of his sons and... this attitude of dear ones drove him to mental imbalance. Filial ingratitude was the last thing he could have tolerated." (47)

The two stories as narrated by Raji and Jaya Bhadra are only two examples out of many. They clearly indicate the fading and degrading familial values in Indian society. The couple narrates the two stories without anticipating the fate of their own family. Jaycee becomes very busy with his business affairs. He is the last person who comes to his son's wedding. He neglects his family and friends. On the day of his Rahul's wedding, Romi shares her sentiments with Devayani, Jayanta's wife. She tells, "Vicky told me once that dad was so cool and indifferent. Everything we have but where is the fatherly hand? Mom, we shall live and tell you we are learning to live alone... it is a lonely existence. At the same time Ashley had said dryly, "Mummy, daddy abs no time. I can see in your eyes a wanting..." (160) Rahul, a very sympathetic and understanding son expresses his sour opinion about his father. "Mamma, I hear so many things. Dad is... he does not require us. He says he has given us money, hefty Dad... he does not require us. He says he has given us money, hefty bank balance, buildings, benami deals. What is the use?" (160) Thus family is united not with files, folders and finances but with love and concern towards everybody. By the end of the novel, he is alone in a big Haweli.

Though he lives in a big Haweli along with Zeera, the servant, Suraiya, the lady who rescued him from his opponent, he experiences forceful loneliness.

Romi lives a secluded life in an ashram. She is in touch with her three children. Rahul and Vicky leave the country and are not ready to come home. Ashley marries a Muslim man. Jaycee believes that he is alone in a whirlpool. He thinks Romi could take such a step. I never expected. How could she think without me? Everybody left me. It is a story of sinking ship! Is it? Now I feel tense and alone. It is all an outward joy that you find here." (220)

Responding to an interviewer's question that enquired about his life and its meaning, and role of emotions in achieving objectives in life, PCK Prem answers in the right sense. The essence of his answer is in fact the conclusion for the paper. He believes that life for any honest man who is always satisfying. A man who is involved and occupied with illegal and unlawful activities can never lead a peaceful life. This is exactly at this point that a man becomes greedy; corruption and immorality take deep roots from within and spreads in all possible directions to ruin the family in particular and the society in general.

As a master craftsman, Prem impresses his readers with his description of various emotions and sentiments as expressed by all his characters in the novel. The narrative is carefully woven by going back into the past. He is at his best in describing human psyche as exposed in various situations.

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His area of interest is primarily Indian Writing in English. With each published collection, he has enriched the image and glory of Indian Writing in English. He is an ardent lover of Karnatic music. Overall, he has 300 publications to his credit.



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