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# RAICHUR UNIVERSITY JOURNAL, <br> "A MULTI-DISCIPLINARY MULTI LANGUAGE, BI ANNUAL JOURNAL" BY <br> <br> RAICHUR UNIVERSITY, RAICHUR 

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Dr. Harish Ramaswamy
Executive Editor,
On behalf of the editorial Board

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# ANTON CHEKHOV'S THE CHERRY ORCHARD AS A SAD COMEDY 

Anil Apral<br>Department of English<br>Raichur University, Raichur - 584133, Karnataka, India


#### Abstract

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The nineteenth century offered two important developments to Russia which are manifested in the play. In the 1830's, the railroads arrived, an important step in Russia's move into a more international sphere. More importantly, in February of 1861, Russia's vast population of serfs was liberated for good, bringing a long- awaited social change. These two dimensions, social change and the growing importance of the international community, pervade the play and even drive the plot. Chekhov's writing style is very pertinent to the population of Russia at this moment. While former aristocrats still patronized the arts, there was also a growing class of less educated, nouveau-rich attending the theater. Chekhov's plays are famous for their simple language, which many hold partly responsiblefor his popularity. The fact that his play discusses every social class in language that everyone can understand makes his play accessible to people of all backgrounds. It makes high-brow jokes while also being universally comedic. Chekhov has given us new type of Comedy, which he can call Social Comedy. In the present play The Cherry Orchard he describes incidents which throw light on the conditions prevailing in modern Russia. The play may be regarded as the farewell of the new, youthful Russia of tomorrow to the past which has outlived its usefulness, is doomed to a swift end, is on the eve of extinction.


## KEYNOTE ADDRESS:

Anton Pavlovich Chekhov is one of the most important Russian writers. Other Russian writers were Tolstoy, Torgenine and Pushkane. Anton was born in Taganrog in 1860, got educated at Moscow to become a doctor, soon he realized he has love for literature. Being a doctor he developed into a famous short story writer and dramatist. On the Road(1884), The Bear (1888), The Wood Demon(1889) are his early plays. His later plays are Ivanhoe (1887), Three Sisters (1899), The Cherry Orchard (1904). His plays portray the $19^{\text {th }}$ century Russian life in its variety facets.

The present play The Cherry Orchard is a modern play of $20^{\text {th }}$ century, was not a comedy; it was not a tragedy. This play is admixture of both tragic and comic elements in their perfect balance, was rather tragic comedy or comedy with the under tools of sadness. The play is about the fall of feudal system in the post Tzar’s Russia. The play highlights most important human value I.e. love that binds the present and people at large. It is only love which pre-supposes sacrifice on the part of the individual and makes the life tolerably palatable.

The Cherry Orchard had deep impact on Russian life and revolution of 1905. The condition of Russia before 1905 was very backward. The Tzars who ruled Russia were despotic. There was no freedom to the common people of Russia. Civil liberties did not exist. People were uneducated and illiterate. There was no public system of education. There was worst type of exploitation of farmers and laborers. Under thesecircumstances Chekhov wrote The Cherry Orchard to revolutionize the social conditions of Russia. Even the political conditions of Russia were not satisfactory. People were harassed for realization of taxes and for minor offences of crimes. Severe punishments were given. The prisoners’ conditions were so badthat innocent people were punished very severely. Anton has described the intolerable sufferings of the people of Russia in this famous book "Sakhalin Island". Anton was very much grieved and upset to see the worst conditions of Russia.

The big land owners called kulkas were exploiting the peasantry. They were living very expensively. The luxurious life of the kulkas has been portrayed by Chekhov many of his plays. The title of the play The Cherry Orchard which belongs to Madame Raneveskya, owner of the orchard, has two children Anya and Varya. The whole action of the play takes place inside the house. Renevesky's husband, who was a big landlord, had built the most beautiful house in the cherry orchard. The house was so beautiful that it was mentioned in the world encyclopedia as the most beautiful orchard. The play begins with the return of the owners to their house in the cherry orchard and ends with a note of going away from the house that was on anauction.

During $19^{\text {th }}$ century the economic and political power of the noble family was gradually eroded in Russia. Many rich families gained debts. Tzar Alexander II freed serfs in 1861. They had only two options in front of them, one, to go for agriculture labor
or two, to factory, to earn their livelihood. Between 1880-90 these serfs became aware of their power. Meanwhile, a hardworking entrepreneur like Lophain in the play found to purchase land in which their ancestors once had sweat and blood.

The theme of the play is happiness and love. It implies that the whole play revolves around the same subject. The playwright wants to convey is that material wealth is immaterial. Raneveskya's husband died earlyand left behind large number of servants. In short times she was involved into debts. She had spent large amount of money extravagantly in fashionable society of Paris where she used to go to meet her loving friends. The family of her is the symbol of extravagant landlords in Russia. On the account of extravagance and luxuries the people of Russia were becoming very miserable. Raneveskya, in spite of grass, widow and unhappybecause of her unpaid debts, they are poor and do not want to show they are poor and unable to lead their high styled life , longing for the past life with her husband who was unfaithful but loves him still. The whole family appears to live in the world of fantasy and their aim is to be happy. So they arrange a party on the occasion of their auction of their house without knowing who would buy it. It is surprising coincidence that Lophain, the merchant who was the son of Reneveskya's serf, buys the house.

Here, Chekhov's play is on the land owners' custom of referring to serfs as souls, despite the fact that the land owners often treated them worse than animals. The cherry blossoms may be lovely, but orchard, because of the suffering of it represents for all concerned, must go and it must according to the rules of the new social order. The action of the play resolves into the characters acceptance of the harsh reality of the changing times. Its main theme is the passing of the old order is symbolized in the sale of the cherry orchard which is treated in spite of high comedy. In the first act, Lophain, the rich self made business man, the son of a serf, who adores the owner of the orchard Mrs. Raneveskya, as the personification of goodness because she saved him as a child from a beating by his brutal father, is determined to save her turns. He offers many plans to save the orchard from being put to auction. In the second act, however, is a significant change in his attitude, if therefore, Mrs. Reneveskya still refuses to accept Lophain's plan and permits her estate to be sold at a public auction to pay her creditors, she can no longer count on his loyalty, in fact this is what happens. Lophain suggests all these plans out of hypocrisy. Actually, he is interested in owning the cherry orchard Therefore, when the orchard is put to auction he buys it and becomes its owner. The occasion of the farewell becomes very painful and the most melancholy incident for the family of Reneveskya. Lophain comes to the orchard and declares that he has become the owner of the cherry orchard. He does not bother about the feelings of pain and sorrow of the Reneveskya's family.

Reneveskya: Who ought it?
Lopahin: I bought it.(A pause)
Reneveskya: What?
Lophain: Yes. I bought it.
Kindly wait a moment ladies and gentlemen. I bid up to ninety thousand, it was knocked down to me. The cherry orchard is mine. I bought the estate where my grandfather and father were slaves, where you wouldn't even let me in the kitchen. I am asleep, it's only some dream of mine, it only seems so to me- that's nothing but the fruit of your imagination, covered with the darkness of the unknown. Hey musicians, play the music, I want to hear you, let's dance everybody the cherry orchard is mine.(p 69)

Lophain orders his servants to cut down the trees of the garden. The farewell scene becomes very ironical and the play begins to bear a moral lesson. The Reneveskya's family becomes the symbol of the disintegration and Lophain becomes the symbol of the new bourgeois class

This play is combination of realism and symbolism. There is a realistic portrayal of the landlords of Russia. But at the same time the decadence of landlords is portrayed through symbolism. Cherry orchard is the decadent symbol of the past decline of landlordism. The landlords lived in palatial buildings surrounded byvery wide and special garden but landlords were unable to pay the excessive revenues of the Tzars (kings) their estates were being auctioned and this general condition of Russia has been described in The Cherry Orchard by the wretched condition of the owner of the cherry orchard. The owner Reneveskya's financial condition is totally unsound. She is unable to pay revenues of the estate, which was the condition of all the landlords in Russia. Chekhov has presented both realistically and symbolically the miserable condition ofRussia.

The play was written in 1903, a year before the death of Chekhov. But it was so powerful that it shookwhole of Russia. It was staged in various towns and cities of Russia. Its influence was so great that the people of Russia rose against the exploiting classes of landlords. In 1905 Russian people rebelled against the despotic power of the landlords and the rulers of Russia. But this revolution of 1905 was not a proletarian revolution. Even the middle classes and the petty traders and the businessmen took
part in the revolution and succeeded in bringing civil liberties to the people of Russia.

The terrible tragedy turns out to be no tragedy at all for the simple reason that the actors are incapable of feeling anything serious or tragic, that's why it is a sad comedy. Chekhov is a great dramatist of Russia who has given us a new type of comedy, which he can call social comedy. He does not give us developed characters. But he describes incidents which throw light on the conditions prevailing in modern Russia. Thus The Cherry Orchard is the greatest sad comedy of Chekhov. It is really a problem play which was a great success on the stage. It was a blow on the rollers of feudal systems. It pointed the realistic picture of Russia and created stir for the revolution of 1905.

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# A Study on Policy Interventions in Reducing the Income Gap between Rural and Urban Areas in India 

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#### Abstract

In the era of globalisation, there are still rural-urban regional inequalities in India. Ruralurban disparities are characterised from different perspectives such as geographically, politically, socially and economically. In the context of India, rural-urban inequality is seen from multiple dimensions viz., social and economic infrastructure, poverty, human development, etc. In the country, over $68.84 \%$ people are living in rural areas and their prime occupation has been agricultural sector. Whereas, in urban areas; people usually depended on industrial and service sector for livelihood. Ever since the implementation of economic reforms in India, it has created a divide between urban and rural areas in terms of socioeconomic indicators and for the last two and half decades, rural-urban inequalities are uniquely identified by per-capita income for distinguishing between rural-urban regional imbalances in the country. Of late, the SECC (2011-12) report revealed that, rural per-capita income based on (NVA) stood at Rs. 40,772 and in urban areas, it stood at Rs. 1,01,313 respectively. In addition, as many as 13.39 crore out of 17.97 households from rural areas declared that, their income was less than Rs. 5000 a month on account of over $70 \%$ rural households relied on agricultural sector in the country. In this direction, the government of India has launched a number of schemes to accelerate the agricultural growth with a view to double the farmers' income. In this regard, this paper examines about rural-urban inequalities, per-capita income difference between rural-urban areas and the government policy interventions in reducing the income gap between rural-urban areas in India.


Key words: Rural-urban inequalities, Per-capita income, Policy interventions

## I. Introduction

Regional inequalities are existed across the world. Even in developed nations, disparities are widening and developing countries are also having huge imbalances in socio-economic indicators. In the context of India, inequalities are varying across regions, rural - urban areas on account of geographical, political and manmade causes. As per census (2011), around $68 \%$ population are residing in rural areas and rest of population are in urban areas in the country. The inequalities between rural and urban are characterized by variations in social and economic parameters, viz., the growth of Agriculture, industrial, and service sectors. In addition, rural and urban inequalities are seen in these indicators also such as per-capita income, literacy, infant mortality rate, life expectancy, etc. In respect of per-capita income, rural areas still lag behind in per-capita income comparatively to urban areas because of over $50 \%$ workforce in the country relied on agriculture sector. In support of it, rural per-capita income stood at Rs. 40,772 (2011-12) and in urban areas stood at Rs. 1, 01,313 (2011-12) respectively. An extremely slow rate of growth in the agriculture sector of the Indian economy has serious implications for the rural-urban divide, both in terms of income and GDP. Some estimates say that the average income of a person living in an urban area may be up to 4 times higher than that of a person living in a rural area. ${ }^{[22]}$ The rising levels of urbanisation in India are a major reason for the rising levels of income disparity in the country.

## II. Review of literature

1. Viktoria Hnatkovska \& Amartya lahiri (April, 2015) - In this paper, authors examined about consequences of structural transformation and urbanisation for rural-urban inequality by focusing on the experience of China \& India since 1980.
2. Aviral Tiwari \& Muhammad Shahbaz (Jan, 2012) - This paper made analysis on the affect of financial development on rural-urban income inequality in India over the period of 1960-2008. Moreover, the study has suggested new sights for policy making authorities to implement suitable economic policies to reduce the ruralurban income inequality in India.
3. Parthapratim pal \& Jayati Ghosh (July, 2007) - This paper analyses the nature and causes of the patterns of inequality \& poverty in India.
4. Dr. Ramakrishna B.M - The study focused on knowing the disparities existing in the income distribution, drinking water supply, health facilities and access to electricity services in rural urban areas in Karnataka with special reference to Dakshina Kannada district.
5. Shiddalingaswami H \& Raghavendra V.K (Dec, 2010) - The study tries to analyse the trends and pattern of per-capita income of Karnataka with a special focus on district and division level disparities. This paper also tries to study the relationship among and between per-capita income, human development, and workforce and work participation rate from 1991 to 2007-08.

## III. Need for the study

Rural - urban regional inequalities has become a global issue and it existed across the world. In the context of India, a rural-urban inequality has been prevailing since long back. As per census (2011), around $68 \%$ population are residing in rural areas and rest of population are in urban areas in the country. Despite, govt. has taken several initiatives to mitigate disparity; yet, there is a wide inequality between rural and urban areas in terms of agriculture income, industrial growth and service sector. In respect of per-capita income, rural areas still lag behind in per-capita income comparatively to urban areas because of over $50 \%$ workforce in the country relied on agriculture sector. In this regard, the paper discusses about rural-urban inequalities, per-capita income variation between rural \& urban areas and govt. initiatives in mitigating the gap between rural and urban areas.

## IV. Objectives

1. To throw light on the rural and urban regional inequalities in India
2. To discuss the income inequality between rural and urban areas
3. To assess the policy interventions in reducing the income gap between rural and urban areas

## V. Methodology

This paper is a descriptive in nature. For this paper, data has been collected from secondary sources viz., books, articles, newspapers, reports and various websites. This paper deals with the issues regarding aforementioned objectives.

## * Rural and Urban Regional Inequalities In India

India lives in villages" were the golden words of Mahatma Gandhi many decades ago. Ironically after almost 50 years the data does not seem to disagree. Today a majority of the Indian population still live in the villages. Though there is substantial migration from rural to urban areas in India, still almost 68\% of India continues to live in rural areas. Yet, there is a wide inequality between rural and urban areas in terms of agriculture income, industrial growth, service sector \& sanitation. Apart from the said dimensions, there is lot more differences in education, health and standard of living between rural and urban areas in the country. Particularly about education in India, Literacy rate among persons of age 7 years and above in India was $75 \%$. In rural areas, literacy rate was $71 \%$ compared to $86 \%$ in urban areas. Adult literacy (age 15 years and above) rate in India was around 71\%. For adults also, literacy rate in rural areas was lower than that in urban areas. In rural areas, adult literacy rate was $64 \%$ as compared to $84 \%$ in urban areas. In terms of healthcare disparity between rural and urban areas is widening day by day because of adequate infrastructure is existed in urban areas rather than rural areas and the public sector is handicapped by poor infrastructure in rural areas, unwillingness of trained medical staff to serve in villages, absence of standardized diagnostic procedures and information systems, and an underdeveloped medical devices sector, etc. Hence, there is inequality in indicators of health viz., infant mortality rate, mortality rate, crude death rate \& birth rate and life expectancy. In India, rural- urban is still identified uniquely through per-capita income and many studies justified that rural areas are lagging behind in per-capita income relatively to urban areas on account of agriculture is not as profitable as industrial and service sector. Consequently, the prime minister promised the farmers to double their incomes through enhancing productivity with incentives by 2022.

## * Income Inequality between Rural and Urban Areas

Per-capita income inequality is fundamentally in rural and urban areas across the country and it can be justified through rural - urban sectors contribution to GDP of India. Basically, Indian economy is an agrarian economy; contribution from the sector around 14 to $15 \%$ is gradually shrinking due to rapid growth of industrial and service sectors in urban areas. As GDP increases, this leads to increase in per-capita income by creating wide gap in income between rural and urban areas across the country. Very importantly, the gap in per-capita income is identified through net value addition to GDP of the country and it could determine the source of income of rural masses. In fact, in India, as contribution comes down to GDP from agriculture; it influences on per-capita income of rural areas. In this direction, the per capita income for 2011-12 in the country for urban areas was Rs 1,01,313 and for rural areas it was Rs 40,772. Moreover, according to (SECC) 2011, 13.39 crore out of 17.97 households have declared income of less than Rs 5000 a month. This reflects that how inequalities are in rural and urban incomes in the country.

## * The Policy Interventions in Reducing the Income Gap between Rural and Urban Areas

The govt of India has launched the several schemes to accelerate the growth of agriculture sector and promised the farmers to double their incomes by 2022. Farmers in India have been backbone of the nation by ensuring food security to masses and their contribution is very large to the GDP. However, agriculture and its allied activities contribute less than $15 \%$ as Net Value Addition and income of farmers are in turn declining relatively to other sectors in the economy. Moreover, the majority of farmers in India are small and marginal and they usually face the some of the problems such as, climate change, more input cost, low MSP \& remunerative price, etc. In this direction, the govt. of India has taken the several measures to mitigate an agrarian crisis with a view to enhance productivity and income in the country by 2022.

- Development initiatives including infrastructure
- Technology
- Policies and
- Institutional mechanisms

The aforementioned issues are related to the strategy to increase farm income and output. Among them, policy interventions have greater role in transforming rural areas and also bridge the gap between rural and urban areas in terms of income inequality.

Table - 1: Govt. policy interventions to double farm income

| S. | Schemes | Objectives | Current Status |
| :---: | :---: | :---: | :---: |
| 1. | Pradhan Mantri Fasal Bima Yojana (2016) | It provides comprehensive insurance coverage for all food crops (cereals, millets \& pulses), oilseeds crops and annualcommercial/horticultural crops against all nonpreventable natural risks. | This scheme so far covered farmers both under Kharif and Rabi around 390.02 (2016-17) and $167.14 \quad$ (2016-17) respectively. |
| 2. | Pradhan Mantri <br> Krishi Sinchai <br> Yojana(2015-16)  | It aims to enhance physical access of water on farm and expand cultivable area under assured irrigation, improve on farm water use efficiency, introduce sustainable water conservation practices, etc. | Under the scheme, Ninety Nine (99) Major/Medium Irrigation Projects identified; which is having irrigation potential of 76.03 Lakh ha. To be completed by 2019. |
| 3. | Soil Health Card Scheme (2015) | It provides guidance to farmers about carry crop-wise recommendations of nutrients and fertilisers required for farms to improve productivity through judicious use of inputs. | Around 5.12 Crore SHCs have been distributed against the targeted value of around 14crore. |
| 4. | e- NAM <br> (National  <br> Agriculture Market) <br> $(2016)$  | A national e-market platform for transparent sale transactions and price discovery in regulated markets | As on 31st July 2017, 455 Mandis across 13 states have been integrated with e-NAM |

Source: compiled from different websites

## VI. Conclusion

Rural-urban regional inequalities in India are still prevailing because of variations in availability of resources and also some political, social and economic issues in the country. As rural-urban disparity increased, it led both for massive migration from rural to urban areas and expansion of urbanisation. Fundamentally, rural-urban disparity is existed due to heavy concentration of the government for urban areas in terms of investment into socio-economic infrastructure and now it is being termed as Smart City in the country. In this direction, the govt. since five year plans, intended and have had many incentives and schemes to economically empower the farming community for bringing balanced regional development. However, the current govt. has set the agenda of doubling farmers' income by 2022 and also giving an impetus to non-farming activities (Start up or MSME) in order to increase the income from different sources to partly bring per-capita income equality between rural-urban areas in the country.

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# REGIONAL DEVELOPMENT EXPENDITURE IN KARNATAKA: 

A DIVISIONAL ANALYSIS

Shankaranand G ${ }^{1}$


#### Abstract

Public expenditure constitutes an important element for upgrading the productive environment of the economy and improving the welfare conditions at different regions and localities. A significant and positive relationship existed between expenditure for development and growth (Vittorio, 2009). The allocations in Special Development Plan (SDP) across the divisions were based on the Cumulative Deprivation Index (CDI). Per capita fund allocation across divisions was not properly distributed in 2001-02 but in recent years in 2011-12 and in 2021-22, the divisions such as Belagavi and Kalaburgi were having lower per capita income, but were allocated higher money resources. Similarly, Higher per capita income divisions such as Bengaluru and Mysuru got allocated lesser resources during the same time periods. The districts having lower CCDI values were allocated higher funds but the districts which were having higher CCDI values got distributed lower funds. During 2011-12 and 2021-22 the north Karnataka achieved low income growth but had high ratio of fund allocation as percentage of GDDP and per capita fund allocation. The south Karnataka had a low fund allocation ratio, though it has achieved high growth of Income and CCDI. The correlation matrix has shown a strong and positive association has been found among Human Development Index (HDI), Per capita income (PCI), Literacy (LRTY), Rainfall (RNFL), Social Infrastructure (SI) with CCDI and Poverty and Per capita fund allocation (PCFA) has negative correlation with CCDI because the Per capita fund allocation and CCDI have been negatively associated, it indicates that more amount of fund has been allocated to backward regions to develop their socio-economic conditions. Economic infrastructure (EI), Area under forest (AUFST) and Industry per lakh population (INDY) are positive but have statistically insignificant relationship with CCDI.


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## 1. INTRODUCTION

Public investment expenditure constitutes an important element for upgrading the productive environment of the economy and improving the welfare conditions at different regions and localities. Investment in rural education and agricultural research and development (R\&D) in the western region has the largest and most favorable impact on reducing regional inequality (Zhang and Fan, 2000). Public investment has come again at the forefront in economic policy debates since it constitutes an important element for confronting economic downturn and provides vital support for employment creation. The distribution of tax revenue and the expenditure are extremely significant for the regional growth (Guisain and Cancelo, 2008). The spatial allocation of investments plays an important role not only for local or regional development but also for the effectiveness of public investment in tackling problems of national development and growth. A significant and positive relationship existed between expenditure for development and growth (Vittorio, 2009).

Effective public expenditure ipso facto improves balance in growth and also plays an important role in poverty reduction. The rapid rise in government spending, particularly in the areas of infrastructure development, health and education, acted as a major force behind the progress in economy (Mahmoud et al, 2008). The affect of public expenditure on regional development is divided into two ways: 1) The short run effect is that an increase in public investment expenditure directly and indirectly stimulates economic growth. 2) The long-run effect is that the public investment creates public capital which provides the economy and society with the necessary infrastructure and upgrades both the social wellbeing.

Regional development programmes focus mainly on macroeconomic, and in some cases also on microeconomic targets, and their main objective could be defined as the decrease of unemployment level and the increase of the per capita GDP in the region. The public resources to finance regional development in India are provided by Central assistance, state budget and state funds. State financial support for regional development is declared as a complement to regional own sources and it is not obligatory. The potential recipients are self-government regions, association of municipalities, municipalities and their legal bodies, business entrepreneurs, nongovernmental and non-profit organizations and other legal bodies. There are different forms of
support, like direct subsidies, credits with favoured interest rate, returnable financial support, including non-financial forms.

## 2. OBJECTIVE OF THE STUDY

The following objectives are as follows:

1. To anlyse the utilization of fund under SDP in Karnataka;
2. Impact of Per capita income, CCDI and Fund Allocation on Regional Development in Karnataka;

## 3. RESEARCH METHODOLOGY

The study is based on secondary data collected from various sources. Data regarding Gross State Domestic Product (GSDP) and Gross Domestic Product (GDP), Per capita income, per-capita fund allocation have been collected from Directorate of Economics and Statistics, Bengaluru; Finance Department, Government of Karnataka; Karnataka at a Glance; Economic Survey of both India and Karnataka; Karnataka State Budget Documents; and Population Census of 2001 and 2011 and 2021 (Projected Poulation).

The study also has constructed the Comprehensive Deprivation Index (CDI) which measures the distance between the place of a given district on the development scale and the average development level of the state. For the period 2001-02, the data was gathered from Siddu and Aziz (2012) work and for the period of 2011-12, the data was collected and compiled indices. The study has given relative Weights for Sectors Indicators for both time periods. The study has employed the methodology adopted by the HPCRRI. The study has used the per capita fund allocation as proxy variable for public expenditure at district level in Karnataka. Impact study has done in this work. The study has covered the 27 districts due to non-availability of data. CCDI is Comprehensive Composite Development Index which has constructed by considering 35 socioeconomic and demographic indicators.

## 4. RESULT AND DISCUSSION

### 4.1. ALLOCATION OF FUNDS UNDER SDP IN KARNATAKA

The allocations in SDP across the divisions were based on the Cumulative Deprivation Index (CDI). This is estimated on the basis of the distance of the CCDI Value from the State average (CDI=1-CCDI). The share of Kalaburagi division is maximum that is of Rs. 6,400 crore
(40 per cent) out of proposed additional investment of Rs. 16,000 crore and the share of north Karnataka is 60 per cent of the total allocation.

This is because the extent of development deprivation is more in Kalaburagi Division. In south Karnataka deprivation is comparatively less, in this respect allocation of fund is of 40 per cent for both Bengaluru and Mysuru divisions. The Government started implementation of Special Development Plan from 2007-08. Budget provision was made from 2007-08 every year for implementation of these recommendations in the backward regions by various departments (Table 6.1).

Table 6.1
Composite Deprivation Index and Resource allocation across Divisions

| Divisions | CDI Value | Estimated Resource Allocation <br> Pattern |
| :--- | :---: | :---: |
| Kalaburagi Division | 8.06 | $8.06 / 20.26=40 \%$ |
| Belagavi Division | 4.12 | $4.12 / 20.26=20 \%$ |
| Bangaluru Division | 5.35 | $5.35 / 20.26=25 \%$ |
| Mysuru Division | 2.76 | $2.76 / 20.26=15 \%$ |
| Total | 20.26 | $2.76 / 20.26=100 \%$ |

Sources: HPCRRI, 2002

### 4.2 Trends in Allocation, Release and Expenditure under SDP

The programmes under SDP are planned on the basis of the requirements sent by the taluks to the concerned departments. The progress of the works under SDP is reviewed at the State and district levels in KDP meetings every month, and a MIS system has been developed for providing online information about the programmes undertaken under SDP and the physical and financial progress achieved. A special cell has been established in the Planning Department to co-ordinate and monitors the implementation process.

The data on amount allocated, releases made and expenditure incurred so far is given in Table 6.2 which reveals that the expenditure as percentage to allocation under SDP increased significantly starting from 51.19 per cent in 2007-08 to 55.42 per cent in 2014-15 in Karnataka. Allocated fund was utilised more during 2010-11 to 2020-21 Similarly, expenditure as a percentage to release under SDP got fluctuated over a period of time. It was higher during 201314. Expenditure as a per cent of release was higher than that of expenditure as percentage of
allocation which implies that the released fund was properly utilized under SDP for the various schemes.

Table 6.2 Allocations, Releases and Expenditure under Special Development Plan

| Year | Allocation | Release | Exp | \% of Release <br> to total <br> allocation | \% of Exp. <br> to total <br> release |
| :--- | :---: | :---: | :---: | :---: | :---: |
| $2007-08$ | 1572 | 828 | 804 | 52.7 | 97.2 |
| $2008-09$ | 2547 | 1369 | 1154 | 53.8 | 84.3 |
| $2009-10$ | 2579 | 1731 | 1543 | 67.1 | 89.1 |
| $2010-11$ | 2584 | 1924 | 1763 | 74.5 | 91.6 |
| $2011-12$ | 2976 | 2530 | 2200 | 85.0 | 87.0 |
| $2012-13$ | 2680 | 2465 | 2403 | 92.0 | 97.5 |
| $2013-14$ | 2926 | 2054 | 2054 | 70.2 | 100.0 |
| $2014-15$ | 1228 | 1224 | 1213 | 99.6 | 99.1 |
| $2015-16$ | 2300 | 1967 | 1805 | 85.5 | 91.8 |
| $2016-17$ | 3000 | 2756 | 2495 | 91.9 | 90.5 |
| $2017-18$ | 3224 | 2650 | 2313 | 82.2 | 87.3 |
| $2018-19$ | 3587 | 3271 | 2980 | 91.2 | 91.1 |
| $2019-20$ | 3599 | 2875 | 3130 | 79.9 | 108.9 |
| $2020-21$ | 2426 | 2297 | 2223 | 94.7 | 96.8 |
| $2021-22$ (Nov) | 3211 | 1331 | 907 | 41.5 | 68.1 |
| Total | $\mathbf{4 0 3 8 5}$ | $\mathbf{3 1 2 7 4}$ | $\mathbf{2 8 9 8 7}$ | $\mathbf{7 7 . 4}$ | $\mathbf{9 2 . 7}$ |

Source: Economic Survey-2021-22, Government of Karnataka.
Figure 6.1 Trends in Utilisation of SDP Fund in Karnakata


Source: Economic Survey, Government of Karnataka.

### 4.3. PER CAPITA INCOME AND FUND ALLOCATION IN KARNATAKA

### 4.3.1 Division-wise Per capita Income and Allocation of Fund

Data presented in Table 6.5 presents the division wise per capita income and fund allocation in Karnataka. Per capita income and per capita allocation of fund both have increased significantly during 2001-02 and 2011-12 in the state. North Karnataka divisions i.e. Belagavi and Kalaburagi were allocated resources of 20 per cent and 40 per cent. Similarly for south Karnataka divisions i e Bengaluru and Mysuru allocated fund was of 25 per cent and 15 per cent (HPCRRI, 2002). During 2001-02, the per capita fund allocation was not accordance with highly deprived district During 2011-12, the per capita fund allocation was in accordance with highly deprived divisions in the state. It implies that the divisions those having lower per capita income had higher gain of per capita allocation.

Table 6.5 Division-wise Per capita Income and Per capita Fund Allocation in Karnataka (in Rs.)

| Divisions | 2001-02 |  | 2011-12 |  | Decadal Growth Rate <br> over 2001-02 |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Per Capita <br> Income | Per capita <br> Fund <br> Allocation | Per Capita <br> Income | Per capita <br> Fund <br> Allocation | Per Capita <br> Income | Per capita <br> Fund <br> Allocation |
|  | 20827 | 686 | 108045 | 1701 | 418.8 | 147.9 |
| Mysuru | 18607 | 754 | 73121 | 2345 | 293.0 | 210.9 |
| Belagavi | 14387 | 675 | 54139 | 2456 | 276.3 | 264.1 |
| Kalburgi | 12091 | 644 | 44860 | 2473 | 271.0 | 283.9 |
| Total | 90563 | 691 | 149891 | 2176 | 65.5 | 214.9 |
| CV | 40.05 | 33.50 | 44.68 | 22.07 |  |  |

Sources: Karnataka at Glance and Budget Documents, Government of Karnataka.
There is negative association between per capita income (PCI) and per capita fund allocation (PCFA) which indicates that the districts those are having higher per capita income and allocated lower level of per capita fund allocation visa versa. The higher per capita income districts are D. Kannada, Bengaluru Rural, Mysuru and Dharwad but fund allocated for these districts shows less (Figure 6.3).

Figure 6.2 Association between PCI and PCFA in Karnataka


Sources: Table 6.5

### 4.3.2. Region-wise Per capita Income and Allocation of Fund

Table 6.6 indicates per capita income and fund allocation in north and south Karnataka. It is evident that increasing trend has been found in both per capita incomes from Rs. 90,563 to Rs. 1,49,891 and fund allocation was from Rs. 692 to Rs. 2,176 during 2001-02 and 2011-12. Across regions, the highest per capita income and fund allocation during 2001-02 was in south Karnataka than in north Karnataka region. South Karnataka was having higher per capita income of around Rs. 19,885 and this region received higher amount of fund i e Rs. 715 than north Karnataka at Rs. 13,407 and received fund of Rs. 662 during the same period. In contrast, during 2011-12 the per capita fund allocation received was highest by north Karnataka which is lower in terms of per capita income, proper and equitable distribution is seen in Karnataka during the same period.

The growth of per capita income in Karnataka level was at 65.2 per cent which is lower than growth of fund allocation at 214.9 per cent. It was found higher in south Karnataka at 376 per cent than 274 per cent in north Karnataka. Whereas, in case of per capita fund allocation, the highest growth of fund is seen in north Karnataka at 272.2 per cent than in south Karnataka at 172.6 per cent.

Table 6.6 Per capita Income and Per capita Fund Allocation across South and North in Karnataka (in Rs.)

| Divide | 2001-02 |  | 2011-12 |  | Decadal Growth Rate <br> over 2001-02 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Per <br> Capita <br> Income | Per capita <br> Fund <br> Allocation | Per <br> Capita <br> Income | Per capita <br> Fund <br> Allocation | Per <br> Capita <br> Income | Per capita <br> Fund <br> Allocation |
| South <br> Karnataka | 19885 | 715 | 94647 | 1948 | 376.0 | 172.6 |
| North <br> Karnataka | 13407 | 662 | 50138 | 2463 | 274.0 | 272.2 |
| Total | 90563 | 691 | 149891 | 2176 | 65.5 | 214.9 |

Sources: Karnataka at Glance and Budget Documents, Government of Karnataka

### 4.3.3. District-wise Per capita Income and Allocation of Fund

District wise per capita income and fund allocation is depicted in Table 6.7 which reveals that the per capita income and fund allocation has increased significantly during 2001-02 and 2011-12 in Karnataka. Growth of per capita income during the periods was found negative but in fund allocation it was around 214.9 per cent. During 2001-02, the per capita income and fund allocation was found much higher in south Karnataka than in north Karnataka but during 2011-12, per capita fund allocation was received more by less income region of north Karnataka than south Karnataka.

The south Karnataka districts have received higher amount of fund even though they performed better in per capita income. Whereas, less amount of fund was received by the north Karnataka districts during 2001-02. Across the districts, the D. Kannada district of south Karnataka has highest per capita income of Rs. 33,676, while lowest per capita income was found in Bidar district of north Karnatak at Rs.9,723. Fund allocation during same period was found highest in Bengaluru Rural with Rs. 1628 and lowest was seen in Bengaluru Urban at Rs. 312.

During 2011-12, both per capita income and fund allocation have increased significantly. The per capita income is seen highest in Bengaluru Urban districts at Rs. 1,61,354 but lowest was found in Bidar district at Rs. 39,374. Similarly, the per capita fund allocation was received more by Kalaburagi district at Rs. 3,025 and lowest to Bengaluru Urban district of Rs. 727.

Proper distribution of fund was not found during 2001-02, because the districts which are having highest per capita income, received higher amount of resources. The lower income districts received lowest amount of funds. It is evident from the implementation of HPCRRI report. More
fund was allocated to more deprived districts in respect of lower level of income and development. It can be observed here that the regional disparities in per capita income increased across the districts but the disparity was reduced significantly in fund allocation in Karnataka.

Growth of per capita income got increased much faster in south Karnataka than the north Karnataka. Across districts, growth of per capita income increased at a faster rate i.e. at 488.1 per cent in Bengaluru Urban district and growth was less in D. Kannada district at 193.2 per cent. Similarly, growth of fund allocation increased at a faster rate in Kalaburagi district i e at 341.3 per cent. Whereas, it was lower at Bengaluru Rural at 46.7 per cent

Figure 6.3 District-wise Per capita Income and Per capita Allocation


Source: Table 6.

## 4. 4. CCDI AND FUND ALLOCATION IN KARNATAKA

### 4.1.1. District-wise CCDI and Per capita Fund Allocation

The relationship between CCDI and PCFA is negative. The districts those are better in socio-economic development received limited funds visa a versa. Some of the districts such as Udupi, D. Kannda, Dharwad and Bengaluru Urban performed better in socio-economic development but limited fund was allocated to these districts. Socio-economic well-off districts did not receive higher resources, the resource in terms of investment, allocation, expenditure are important for the deprived districts.

Figure 6.4 Relationship between CCDI and PCFA


Source: Table 6.8

### 4.4.2. Region-wise CCDI and Per capita Fund Allocation

Region wise CCDI and per capita allocation is depicted in Table 6.9 which indicates that the average index value for north and south Karnataka has increased. The CCDI value for Karnataka level got improved from 1.051 to 1.205 , the increase was 0.154 per cent point change during 2001-02 and 2011-12. Similarly, per capita allocation of fund also got increased significantly from Rs. 691 to Rs. 2,176 during the same periods. Index value and per capita allocation have increased for both in north and south regions in the state. The increase of CCDI index value was higher at 0.2 per cent point change in south Karnataka than north Karnataka around 0.09 per cent point change.

The lower index value is achieved by north Karnataka, in respect of this government has allocated more funds to this region. It has achieved 0.925 index value but per capita allocation to this region was Rs. 2463. Similarly, the index value of south Karnataka was higher at Rs. 1.377. In return it has received lower allocation of resources during 2011-12 but this was not the case during 2001-02 in both regions.

Table 6.9 CCDI and Per capita Allocation across South and North Karnataka

| Districts | 2001-02 |  | 2011-12 |  |
| :--- | :---: | :---: | :---: | :---: |
|  | CCDI | Per capita <br> Allocation | CCDI | Per capita <br> Allocation |
| North Karnataka | 0.883 | 662 | 0.975 | 2463 |
| South Karnataka | 1.177 | 715 | 1.377 | 1948 |
| Karnataka | 1.051 | 691 | 1.205 | 2176 |

Sources: Karnataka at a Glance and Budget Documents, Government of Karnataka

## 5. CONCLUSIONS

The expenditure as percentage to allocation under SDP increased significantly starting from 51.19 per cent in 2007-08 to 97.6 per cent in 2020-21 in Karnataka. Per capita fund allocation across divisions was not properly distributed in 2001-02 but in 2011-12, the divisions such as Belagavi and Kalaburgi were having lower per capita income, were allocated higher resources. Similarly, Higher per income divisions such as Bengaluru and Mysuru got allocated lesser resources.

The districts with higher per capita income are D. Kannada, Bengaluru (U), Bengaluru ${ }^{\circledR}$, Kalaburgi, Dharwad, Udupi, Ballari and Mysuru got lower funds. Whereas, the lower per capita income districts such as Shivamogga, Davangere, U Kannada, Hassan, Bidar, Mandya, Gadag, Haveri, Chitradurga, Tumakuru got allocated higher funds during 2011-12. The districts having lower CCDI values were allocated higher funds but the districts which were having higher CCDI values got distributed lower funds. During 2011-12, the north Karnataka achieved low income growth but had high ratio of fund allocation as percentage of GDDP and per capita fund allocation.

The south Karnataka had a low fund allocation ratio, though it has achieved high growth of Income and CCDI. Fund allocation as a percentage to GDDP was found highest in Tumkuru district of south Karnataka and lower in Bengaluru Urban district during 2001-02. During 201112, it was found higher in Bidar district at 7.12 per cent of north Karnataka. While lowest percentage share was seen in Bengaluru Urban district of south Karnataka.

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# ROLE OF KANNADA NEWSPAPERS IN COVERAGE OF ORGANIC FARMING DEVELOPMENT ISSUES 

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Dr. A.P.J. Abdul Kalam stated "Organic agriculture, a holistic system that focuses on improvement of soil health, use of local inputs and relatively high intensity use of local labor, is a admirable fit for dry lands in many ways and the dry land offer many benefits that would make it relatively easy to implement."

## INTRODUCTION

Agriculture is one of the world's oldest Occupation. In a developing country like India, it contributes for $18 \%$ of the national exchequer. There is almost a three-fold increase in India's population, since its independence (33crores to 110 crores) and food production has also received a boost from 50 million tones to 220 million tones (Sundesh, 2004). Every year, we need to raise the food production to the tune of 10 million tones, which calls for all our efforts by the concerned for integrated agricultural extension, educational programs for speedy transfer and adoption of improved technologies in the field of agriculture.
Agriculture plays a crucial role and is the backbone of our economic system. Agriculture not only provides food and raw materials but also employment opportunities to a very large proportion of population, thus being the factor, which feeds the country's trade. In India, the main occupation of our working population is agriculture and it is the major source of Livelihood. It plays a vital role in the increment of National Income as well. It works as a supplier of Food and Fodder in a larger way. Agriculture development process mainly involves generating knowledge, its transfer and utilization by the farmers. For rapid agricultural development, there is a need for constant flow of technological information from research system to extension system and there upon to the farmers for adoption. So, in the process of transfer of technology, effective communication has a significant role for agricultural development. Today, there is a greater need for communication of information as the present day, "Knowledge explosion" in the world has necessitated a "communication explosion" in its wake, because "never in the annals of human history was there a need for so many people to know so much and so quickly as it is today". At the same time, the key role of communication in any form is to plant new ideas in the minds of human beings. Due to all the influences to which man is subjected to, the influence of ideas is probably the most important one. Preparing and distribution of the message to the millions of Indian villagers in the ways that it is received, understood, accepted and applied is therefore, the greatest opportunity and paramount challenge to all extension workers. Hence, it is deemed important that communication specialists teach farmers in the dissemination of innovations or new ideas by using various channels of communication for adoption.
Amongst the various communication media, the mass communication medium like newspapers, television, radio etc. play an important role in creating awareness and also improving the knowledge level of the audience / readers as they diffuse the message to larger sector within the shorter period. During the process of use of mass media, the use of printed materials or publications like newspapers, farm magazines, books, booklets, circular letters, leaflets, folders etc. emerged as an important means of communication system. It is traditionally associated with the culture and carries higher prestige for people than do other media.
Aiyer (1958) pointed out that the medium of printed word is very favourite one in agricultural communication and has been widely adopted since the beginning of extension work. He further stated that within the limits of illiteracy, the scope for printed material was still fairly wide and this method deserved to be availed of more and more, since the information published regularly or in the appropriate seasons can serve a very useful purpose.
Organic Farming was the original type of agriculture and has been practiced for thousands of years. For example, forest gardening, a fully organic food production system which dates from prehistoric times, is thought to be the world's oldest and most resilient argo ecosytem. Orgnic Farming in India is experiencing at real boom-when considering the number of farmers turning to organic practices.

Therefore, this study is really going to help to bring some positive signs in the field to create more awareness and sensitivity among the farmers. This can really create a new dimension in farming.

## REVIEW OF LITERATURE

D V R Moorthi (2013) in his study on Development News Coverage in the Indian Press, opines that newspapers have to give worth coverage to Health, Population, and Electricity etc. Newspapers are more or less commercial. He mentioned that Rural news does not get required space on cover page.

P G Shrinivasappa (1999) conducted his study on the content analysis of Kannada Prabha, Prajavani and Samyukta Karnataka and on its coverage of rural news. The results say that all these newspapers fails to give sufficient rural development news. These newspapers carry minimum information regarding rural development news.

Muthazhagan (1990) conducted his study on content analysis and readers' perception on "Valarum velanmai" and "seithi madal" publications. The author also stated that majority of the farmer readers read farm literature in Tamilnadu and they belonged to medium level of mass media participation.

## RESEARCH OBJECTIVES:

- To evaluate the space and the kinds of Agricultural development news in the Kannada Agricultural supplements.
- To assess the kind of Organic news being covered in the Kannada supplements.


## Research Design and Methodology

The research design of this study is Quantitative content analysis. Its overall objective is to study the coverage of Developmental Issues in Agricultural Supplements and stress on the coverage of organic farming components. The newspapers taken up for the study are Udayavani and Samyukta Karnataka. The period of study is May to January 2023 and 48 newspapers have been taken up for the study.

## Findings and Analysis

Table 01: Total contents analysis of two newspapers supplements and their space analysis.

| Contents | Space in sq cm | $\%$ |  |
| :--- | :--- | ---: | ---: |
|  | Udayavani (kanaja) | $1,43,052$ | $46.03 \%$ |
|  | Samyukta karnataka (Ele-Bele) | $1,67,706$ | $53.97 \%$ |
|  | Total | $\mathbf{3 , 1 0 , 7 5 8}$ | $\mathbf{1 0 0 . 0 0}$ |

Table 1 revealed that the supplements of the Two newspapers Udayavani (Kanaja) accounts for 1,43,052 sq. cm. (46.03\%) and for samyukta karnataka it is $1,67,706 \mathrm{sq} . \mathrm{cm}$. $(53.97 \%$ ). The variation in the space depicts that there is more agricultural content in Vijaya Karnataka.

Table.2: Major Categories of the Agricultural Supplements

| Contents | Space in sq cm | \% | No of Items | \% |
| :--- | ---: | ---: | ---: | ---: |
| Agricultural <br> Content | 107768 | $35.39 \%$ | 462 | $34.74 \%$ |
| Advertisement | 14,934 | $4.90 \%$ | 56 | $4.21 \%$ |
| Photos | 59312 | $19.48 \%$ | 254 | $19.10 \%$ |
| Education | 9,410 | $3.09 \%$ | 57 | $4.28 \%$ |
| Entertainment | 30,840 | $10.14 \%$ | 70 | $5.26 \%$ |
| Finance | 49244 | $16.17 \%$ | 251 | $18.87 \%$ |


| Life style | 8,192 | $2.69 \%$ | 49 | $3.69 \%$ |
| :--- | ---: | ---: | ---: | ---: |
| Colomn | 9092 | $2.98 \%$ | 48 | $3.60 \%$ |
| Others | 15720 | $5.16 \%$ | 83 | $6.25 \%$ |
| Total | $\mathbf{3 , 0 4 , 5 1 2}$ | $\mathbf{1 0 0 . 0 0}$ | $\mathbf{1 3 3 0}$ | $\mathbf{1 0 0 . 0 0}$ |

From the table 2, it can be easily seen that, the major categories of the agricultural supplements in both the newspaper comprises of not only agricultural content but also other elements like advertisements, entertainment, Education, Lifestyle, Finance etc. Interestingly, agricultural supplements covering components of film gossips, fashion products and lifestyle was striking and should not be a part of it. Udayavani newspaper had more coverage on life styles, fashion and entertainment elements in its pages rather that agricultural news. Hence, it can be concluded that the agricultural supplements focuses on agricultural content but has other items placed in its pages which is a new revelations.

Table.3: Kinds of Agricultural content in the Supplements

| Contents | Udayavani <br> Space in <br> sq cm | \% | Samyukta <br> Karnataka <br> Space in sq <br> cm | \% |
| :--- | ---: | ---: | ---: | ---: |
| Farmer's Profile | 2,752 | $7.17 \%$ | $5,580.2$ | $12.07 \%$ |
| Farmer's Success Story | 6,738 | $17.56 \%$ | 18,122 | $39.15 \%$ |
| Animal Husbandry | 1,873 | $4.88 \%$ | 718 | $1.56 \%$ |
| Agricultural Information | 1,880 | $4.90 \%$ | $2,380.4$ | $5.14 \%$ |
| Fertilizer and Crops | ---------- | ---------- | 4,740 | $10.24 \%$ |
| Column | 9,092 | $23.71 \%$ | --------- | --------- |
| Agricultural Photo | $16,004.2$ | $42.77 \%$ | $14,7,38$ | $31.84 \%$ |
| Total | $\mathbf{3 8 , 3 3 9 . 2}$ | $\mathbf{1 0 0 . 0 0}$ | $\mathbf{4 6 , 2 7 8 . 4}$ | $\mathbf{1 0 0 . 0 0}$ |

From the table 3, it can be easily concluded that Samyukta Karnataka, has allotted more space to information related to agricultural content, farmer's profile, success stories and information related to seeds, pesticides and animal husbandry. Udayavani had more information related to Anaimal Husbandry ( 1873 sq cm ) and had columns ( 9092 sq cm ) dedicated to agriculture. Udayavani had more space dedicated to agricultural photos. Apart from these, Samyukta Karnataka has extensively covered the agricultural news and information.

Table.4: List of the Organic Issues Covered

| Organic | Space (Sq Cms) |
| :--- | :---: |
| Kokko Tree- Udayavani | 377 |
| Pappaya- Udayavani | 192 |
| Betel Nut- Samyukta Karnataka | 344 |
| Elephant foot- Udayavani | 204 |
| RiceSeeds-Samyukta Karnataka | 362 |
| Organic Vegetable Garden-Udayavani | 323 |
| Grapes-Udayavani | 405 |

From table 3, it can be seen that Udayavani has covered more organic farming issues in its pages. Though, from the above tables, it is evident that Udayavani had less coverage on agricultural and developmental issues, yet organic farming components were more in Udayavani. A qualitative study on specifically developmental issues related to Organic Farming revealed that not so popular elements like- Kokkum, Elephant Foot were given space in its pages.

## CONCLUSION

From this study, it can be concluded that Udayavani has devoted more space to lifestytles, finance, fashion and entertainment but its agricultural columns were highly informative. Whereas, in Samyukta Karnataka though there were no agricultural
columns yet it rendered ample information and news on farmers profile, seeds, pesticides, success stories. It is interesting to note that Udayavani always had agricultural content covered in the last page of its 4 -page supplements. Th first page and the subsequent were devoted to finance, lifestyle and entertainment. Agricultural news and information being covered in the last page denotes that Agriculture is given the least importance.
India being an Agrarian nation, it is important that farming and agricultural component be covered adequately. Newspapers try to grab more readers by providing light hearted issues and more of entertainment stuff. But, it is important to keep in mind the growing number of literate farmers who strive to seek information from the agricultural supplements.

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# A STUDY OF CONSTITUTIONAL FACILITIES IN EMPOWERMENT OF WOMEN 

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#### Abstract

The Constitution, which establishes the fundamental values and guidelines by which the government must abide, is a nation's highest law. The Constitution sets a framework for advancing gender equality and women's empowerment and guarantees the preservation of all citizens' rights, including those of women. The many articles of the Constitution that relate to women's rights and their ability to use different facilities and services are examined in a study of constitutional facilities in the empowerment of women. The study also examines the practical application of these provisions and the degree to which they have aided in the empowerment of women. It makes suggestions for resolving any gaps and difficulties encountered during the application of these laws. The study is significant because it aids in evaluating how well constitutional provisions promote gender equality and women's empowerment, which are essential for achieving social justice and sustainable development. The Study is Purely Theoretical. Secondary data sources provide the foundation of the study. The relevant data regarding Constitutional Facilities in Empowerment of Women and its different elements is gathered from books, journals, websites, or other related sources. The value of women's empowerment was studied by the researcher. Give specific details about Constitutional Facilities in Empowerment of Women. Research Work includes I. Introduction II. Review of related literature in brief III. Methodology IV. The detail information about Constitutional Facilities in Empowerment of Women V. Conclusion. etc.


Keywords: The Constitution, gender equality, women's empowerment, social justice, sustainable development, Rights etc.

## I. INTRODUCTION

The rights, benefits, and protections granted to people by a country's constitution are referred to as constitutional facilities. Giving women the same opportunities, safeguards, and rights as males as stated in the constitution is a key component of empowering women through constitutional provisions. As they create legal frameworks for the preservation of women's rights, eliminate gender inequities, and guarantee that women have equal access to opportunities and resources, constitutional facilities play a crucial role in the empowerment of women. These amenities include, but are not limited to, equal legal protection, the ability to vote and take part in political activities, equal access to employment and education opportunities, the absence of discrimination, safety from gender-based violence, and access to healthcare. In order to achieve gender equality, constitutional provisions are crucial because they offer a framework for addressing gender prejudices and ensuring that women are not subjected to discrimination. The government must execute policies and regulations that advance gender equality, offer access to resources and opportunities, and remove obstacles to women's participation in a variety of societal spheres in order to empower women through constitutional protections. The implementation of constitutional facilities can significantly improve women's life by enhancing their health, education, economic possibilities, and social standing. In general, constitutional facilities are essential to the empowerment of women.

## II. REVIEW OF RELATED LITERATURE IN BRIEF

The problem of women's empowerment is significant and has been thoroughly researched in a number of academic fields, including political science, sociology, and gender studies. Many studies have examined the function of constitutional provisions in fostering the empowerment of women in the setting of constitutional facilities. Constance Thomas and Joanna Regulska (2006) did a study that looked at the contribution of Latin American constitutional provisions to the advancement of gender equality. According to the report, constitutional measures like gender quotas and affirmative action programmes have been successful in promoting women's political representation and participation in decision-making. Another investigation was made by Catherine O'Rourke (2017), who looked at how Northern Ireland's constitution has helped advance women's rights.

According to the study, constitutional clauses that support women's rights and gender equality, such as those that incorporate international human rights norms into domestic legislation and create a human rights commission, have been successful. Balghis Badri (2015) did research on the Sudanese constitution's provisions and how they affect women's rights. According to the report, cultural and customary practices that discriminate against women have made it difficult to execute constitutional provisions that guarantee women's rights, such as the right to equality and non-discrimination. Nitya Rao (2014) looked at the function of constitutional clauses in advancing women's land rights in India. According to the study, constitutional provisions that protect women's land rights have had a positive impact on women's empowerment and the elimination of gender-based access disparities to land. These studies emphasise the significance of constitutional protections for women's empowerment overall. Yet, how constitutional provisions are applied and the social and cultural environment in which they are applied affect how effective they are. Consequently, more study is required to determine the elements that influence whether constitutional measures supporting gender equality and women's empowerment are effective or ineffective.

## III. METHODOLOGY

The Study is Purely Theoretical. The Study is based on secondary data sources. The necessary information about the Constitutional Facilities in Empowerment of Women and its various components are collected from Books, Journals, Internet Source or related topic. The Researcher study about the Constitutional Facilities in Empowerment of Women.

## IV. THE DETAIL INFORMATION ABOUT CONSTITUTIONAL FACILITIES IN EMPOWERMENT OF WOMEN

Constitutional rights are essential for women's empowerment. Most nations' constitutions include a number of clauses that protect women's rights and encourage their general development. Following are a few of the fundamental legal protections that support women's empowerment:

1. Right to Equality: The Constitution guarantees all of its citizens the right to equality, regardless of their gender. It indicates that women have the same rights as men and cannot be subjected to gender-based discrimination.
2. Right to Education: The Constitution also ensures that all citizens, including women, have the right to an education. This right guarantees that women have access to education and can learn things that will help them grow both personally and professionally.
3. Right to Work: The Constitution forbids discrimination against women in the workplace based on their gender, and women have the right to work. With the exercise of this right, women are able to work and support themselves.
4. Reservation in Public Services: In order to ensure that women are represented in all areas of society, the Constitution establishes reserves for them in public services. This clause contributes to giving women in the public sector equal opportunities.
5. Maternity Benefits: The Constitution also gives women access to maternity benefits, such as paid time off and support for nursing mothers. This clause encourages working mothers and advances the child's health and welfare.
6. Protection from Domestic Violence: Women are protected against domestic violence under the Constitution. Women are protected from domestic violence and abuse thanks to this clause, and they also have legal options to pursue redress.
7. Property Rights: Women have the legal right to own property, and the Constitution allows for women to inherit property. This clause guarantees women's control over and access to property, which is essential for their economic emancipation.
8. Right to freedom from discrimination: The right to be free from discrimination protects women from being treated unfairly because of their gender, race, ethnicity, religion, or any other feature.
9. Right to life and liberty: The right to life and liberty guarantees that women have the freedom to live their lives without fear of violence, including sexual assault and domestic violence.
10. Right to participate in government: The right to participate in politics: This guarantees that women have the right to vote, to run for office, and that their gender will not bar them from taking part in the political process.

## V. OUR CONSTITUTION INCLUDES PROVISIONS FOR WOMEN.

| S/No | Article | Details About Article |
| :---: | :--- | :--- |
| 1 | Article 14: | Equal rights and opportunities for men and women in the political, economic, and social areas. |
| 2 | Article 15(1). | Discrimination against any citizen on the basis of religion, race, caste, sex, etc. is prohibited. |
| 3 | Article 15(3) | Special provision authorizing affirmative action discriminating in favor of women by the State. |


| 4 | Article 16 | All citizens should have equal access to possibilities for public posts. |
| :---: | :--- | :--- |
| 5 | Article 23 | Prohibits forced labour and human trafficking. |
| 6 | Article 39(a) | The State shall direct its policy towards providing the equal right to a means of subsistence for <br> all citizens, male and female. |
| 7 | Article 39(d) | Fair compensation for equal labour for men and women is guaranteed |
| 8 | Article 42 | The State shall take all necessary measures to ensure just and humane circumstances. |
| 9 | Article51(A)(e) | Renounce practices that are offensive to women's dignity. |
| 10 | Article300 (A) | Women's property rights. |

73rd and 74th Amendment Act 1992-Reservation 1/3 of Seats in local bodies of Panchayats and municipalities for Women. Ultimately, by protecting their rights and giving them opportunity for growth and development, constitutional facilities play a critical part in advancing the empowerment of women.

## VI. SUGGESTIONS

To achieve gender equality and advance women's rights, it is crucial to empower women through constitutional protections. These are some ideas for constitutional provisions that can support women's empowerment:

1. Equal Rights Amendment: This proposed amendment to the U.S. Constitution would ensure that all people, regardless of gender, have equal rights. A constitutional assurance that women are entitled to the same legal rights and protections as males would be provided by ratifying this amendment.
2. Gender-Neutral Language: One key step towards achieving gender equality is the adoption of gender-neutral language in constitutional texts, laws, and policies. This may entail eliminating gender-specific language altogether or substituting pronouns like "they" for pronouns like "he" or "she".
3. Quotas and Affirmative Action: These measures can be used to guarantee that women have equal access to political representation, employment prospects, and educational possibilities. By removing structural obstacles, these measures can boost the participation of women in all spheres of society.
4. Maternity Leave and Childcare: Constitutional provisions may also cover maternity leave and child care, which can assist women in juggling their obligations to their families and their professional lives. With the help of these clauses, the gender pay gap may be closed and women could be protected from being punished for taking time off to care for their children.
5. Women's Rights Commissions: Creating Women's Rights Commissions or comparable organizations can aid in ensuring that women's issues are properly taken into consideration when developing policy. With these commissions, women's views may be heard and policies that specifically address their needs and concerns can be created.
6. Gender-Responsive Budgeting: This practice entails examining government spending plans to make sure that they take into account the requirements of both men and women. As a result, resources may be distributed more evenly and places where women are disproportionately affected by budget decisions may be identified.

These are but a few recommendations for constitutional features that can support women's emancipation. The need for a thorough and ongoing effort to achieve gender equality must be acknowledged, and these facilities must also be backed by larger social and cultural reforms.

## VII. CONCLUSION.

Constitutional rights are essential for women's empowerment. Gender equality can be attained with or without a constitution, although it is far more likely with or without one. Making sure that women have equal access to political representation, healthcare, employment, and education is crucial Constitutional provisions like reservations, quotas, and affirmative action programmes can support the involvement of women in various professions and assist redress past disparities. These resources give women an equal opportunity and support the elimination of prejudice and gender stereotypes. Constitutional clauses governing marriage, divorce, and inheritance can also support women's empowerment. These laws can guarantee that women have the freedom to make their own life decisions and shield them from damaging customs like underage marriage and forced marriage. In conclusion, constitutional rights are important for women's empowerment. They offer a framework for the law to ensure gender equality and safeguard women's rights. In addition to making sure that women are aware of their rights and know how to exercise them, it is crucial to guarantee that these facilities are implemented efficiently.

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# GENDER DISCRIMINATION -IN MODERN INDIAN SOCIETY 

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#### Abstract

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This paper mainly focuses of the Indian scenario system. Gender discrimination is the question here. The word 'gender' refers to the socio-economic definition of man and woman the way societies distinguish men and women and assign social roles to them. The distinction between genders was introduced to deal with the general tendency to attribute women's subordination to their anatomy. The reality of gender inequality in India, origin of gender inequality and how to deactivate it are discussed in this paper. Gender-based inequalities in India translate into greater importance being placed on the health and empowerment of males than of females. In India, health and population indicators that are driven by gender differences include sex ratios at birth, infant and child mortality by sex, and low ages at marriage for women. Main objectives of the studies are To analyze the status of different states regarding gender discrimination To provide reasons and facts of Gender discrimination. To suggest measures to reduce gender discrimination in India. Methodology of the study was a theoretical research paper, where secondary information produced by different authors and researchers has been used. For obtaining necessary information, various books magazines, journals, periodicals and different websites have been explored by the researcher which has been mentioned in the reference section. At the household level, dis-empowerment of women results in less access to education, employment, and income, and power and freedom of movement. Considering all these fact, India and its society has a mammoth task of empowering women to provide them the basic needs and to prepare them for a safe and productive future.


Keywords - Women in India, Gender Inequality in India, Modern India Problem

## INTRODUCTION

Gender discrimination is the major problems of the Indian traditional systems. After the World War II, in the post modernization era, one of the issues which had attracted the attention of the policy makers and social scientists was gender issues and concerns. Gender issues mean the discussion on both men and women, though women who suffer from gender inequality. From all gender issues, gender inequality is the most prevalent in India. Consideration of gender inequality is now common in Government, Non-Government organizations, and in the politics in India. The policy makers are strongly believed that a positive commitment to gender equality and equity will strengthen every area of action to reduce poverty because women can bring new energy and new sights. A lot of debates are going on women and their development since last few decades. Thus, several national and international organizations are trying to promote the advancement of women \& their full participation in developmental process \& trying to eliminate all forms of inequality against women. The importance of feminism has been steadily growing and gaining intellectual legitimacy.

Gender is closely related to the roles and behavior assigned to women and men based on their sexual differences, families and society begin the process of gendering with the birth of a child. The birth of son is being celebrated while the birth of a daughter begins with pains. Boys are encouraged to be tough and outgoing but girls are encouraged to be homebound and shy, these gender differences are created by our society. The word 'gender' refers to the socioeconomic definition of man and woman - the way societies distinguish men and women and assign them social roles. The distinction between genders was introduced to deal with the general tendency to attribute women's subordination to their anatomy. Gender is closely related to the roles and behavior assigned to women and men based on their sexual differences. As soon as a child is born, families and society begin the process of gendering. The birth of the son is being celebrated while the birth of a daughter is filled with pain. Boys are encouraged to be tough and outgoing but girls are encouraged to be homebound and shy. All these differences are gender differences and they are created by society.

## REVIEW OF LITERATURE

Jayachandran, S. (2014), has presented the roots of gender inequality in developing countries. This paper also discussed the several mechanisms through which the economic development could improve the relative outcomes of women \& gender gaps can be reduced as country grows.

Dunn, D. (1998), has focused on the situation of women in scheduled castes and tribes groups which are considered to as „weaker sections of people" and granted special safeguards and concessions under the Indian Constituents. This paper represented a descriptive picture of scheduled caste and tribe women"s status in Indian society and also suggested that socioeconomic development plays an important role to reduce the disadvantage of scheduled group women.

Thomas, R.E. (2013), has highlighted his paper with the state of gender based inequality in the modern India. It has presented gender inequality with the help of some facts \& figures and representing the inequality practiced in India \& its comparison with other Asian \& Western countries.

## GENDER DISCRIMINATION:-

Gender Discrimination means disparity between men and women in different social, economical \& political, cultural and legal aspects. This problem is simply known as gender biasness, which in simple term means the gender stratification or making difference a male or a female.

## OBJECTIVES:

1) To analyze the status of different states regarding gender discrimination
2) To provide reasons and facts of Gender discrimination
3) To suggest measures to reduce gender discrimination in India

## Methodology

This is a theoretical research paper, where secondary information produced by different authors and researchers has been used. For obtaining necessary information, various books magazines,
journals, periodicals and different websites have been explored by the researcher which has been mentioned in the reference section.

## TYPES OF GENDER DISRIMINATION: -

According to Nobel Laureate Prof. Amartya Sen (2001), there are seven types of gender inequalities at present in India. Here is a brief explanation of all the types of gender inequality.

1) Mortality Inequality:- In this, Inequality between women and men directly involves matters of life and death, and takes the brutal form of unusually high mortality rates for women and a consequent preponderance of men in the total population, as opposed to the preponderance of women found in societies with little or no gender bias in health care and nutrition.
2) Natality Inequality: - In this kind of inequality a preference is given to boys over girls. It is ardent in many of the male dominated societies and these manifests in the form of parents wanting their newborn to be a boy rather than a girl. With the availability of modern techniques to determine the gender of foetus, sex selective abortions has become common in India.
3) Employment Inequality: - In terms of employment as well as promotion at work women often face greater handicap than men. This is clearly exemplified as men getting priorities in getting better work opportunities and pay scale than their female counterparts.
4) Ownership Inequality: - In many societies ownership of property can also be very unequal. Since ages the traditional property rights have favored men in the most parts of India. The absence of claims to property can not only reduce the voice of women, but also make it harder for women to enter and flourish in commercial, economic and even some social activities

## COMPOSITION OF GENDER DISCRIMINATION IN INDIA:

Table 1: Population Composition of India

| Current Population of India in 2021 | 1.29 billion As of Jan 02, 2016 |
| :---: | :---: |
| Total Male Population in India | 667 million |


| Total Female Population in India | 625 million |
| :---: | :---: |
| Sex Ratio | 943 females per 1,000 males |

## Source: Govt. of India India,

with 1.29 billion people is the second most populous country in the world, while China is on the top with over 1.40 billion people. Table 1 shows total male population and female population. Table 2 shows the highest and lowest composition of sex ration. The data of five highest and five lowest states is depicted.

## REASONS OF GENDER DISCRIMINATION:

Cultural influences favour the preference for sons- reasons related to lineage, inheritance,

- Identity, status, and economic security. This preference cuts across class and it discriminates girls. In extreme cases, the discrimination takes the form of honour killing where families kill daughters or daughter in laws who fail to conform to gender expectations about marriage and sexuality. When a woman does not conform to expected gender norms, she is shamed and humiliated because it impacts both herself and her family's honor, and perhaps her ability to marry. The causes of gender inequalities are complex, but a number of cultural factors in India can explain how son preference, a key driver of daughter neglect, is so prevalent. Patriarchy is a social system of privilege in which men are the primary authority figures,
- Occupying roles of political leadership, moral authority, control of property, and authority over women and children. Most parts of India, with some exceptions, have strong patriarchal and matrilineal customs, where men hold authority over female family members and inherit family property and title. For example customs where inheritance passes from father to son, women move in with the husband and his family upon marriage, and marriages include a bride price or dowry.


## MEASURES OF GENDERDISCRIMINATION IN INDIA

Since independence, India has made significant strides in addressing gender inequalities, especially in the areas of political participation, education, and legal rights. Policies and legal reforms to address gender inequalities have been pursued by the government of India. For instance, the Constitution of India contains a clause guaranteeing the right of equality and freedom from sexual discrimination. India is also signatory to the Convention for the Elimination of All Forms of Discrimination against Women. The Constitution of India ensures gender equality in its preamble as a fundamental right. Government has adopted many measures of positive discrimination in favour of women through a number of legislations and policy reforms. India has also ratified various international conventions and human rights forums to secure equal rights of women, such as ratification of Convention on elimination of all forms of discrimination against women in 1993.

Women have been finding place in local governance structures, overcoming gender biases. Over one million women have been elected to local panchayats as a result of 1993 amendment to the Indian Constitution requiring that $1 / 3$ rd of the elected seats to the local governing bodies be reserved for women. The passing of Pre-natal Diagnostic Tech Act in 1994 also, is a step in removing gender discrimination. This Act seeks to end sex-determination tests and female feticide and prohibits doctors from conducting such procedures for the specific purpose of determining the sex of the fetus. The Government also announced the National Policy for Empowerment of Women in 2001 to bring out advancement, development and empowerment of women.

The Government has also drawn up a draft National Policy for the empowerment of women which is a policy statement outlining the state's response to problems of gender discrimination. As persistent gender inequalities continue, there is need to rethink concepts and strategies for promoting women's dignity and rights. Sania Mirza, the tennis ace, the first South Asian woman, became the United Nations Women's Goodwill Ambassador for the South Asian region, joining the Campaign to end violence against women and girls and also raise awareness on gender equality. Sania Mirza said, "Women face discrimination. They are treated like animals and it is not right. The thinking needs to be changed. Mentality needs to be changed. Men must understand that women also go out to do their work just as they do. But even women have to
realize their own worth. Women's safety is something that has been going on. Nirbhaya case had opened our eyes. Not that it was the first case that had happened, but a lot of people woke up to 'what's going on"

## LEGAL AND CONSTITUTIONAL SAFEGUARDS AGAINST GENDER INEQUALITY

Indian Constitution provides for positive efforts to eliminate gender inequality; the Preamble to the Constitution talks about goals of achieving social, economic and political justice to everyone and to provide equality of status and of opportunity to all its citizens. Further, women have equal right to vote in our political system. Article 15 of the Constitution provides for prohibition of discrimination on grounds of sex also apart from other grounds such as religion, race, caste or place of birth.

Article 15(3) authorizes the Sate to make any special provision for women and children. Moreover, the Directive Principles of State Policy also provides various provisions which are for the benefit of women and provides safeguards against discrimination. Other than these Constitutional safeguards, various protective Legislations have also been passed by the Parliament to eliminate exploitation of women and to give them equal status in society. For instance, the Sati (Prevention) Act, 1987 was enacted to abolish and make punishable the inhuman custom of Sati; the Dowry Prohibition Act, 1961 to eliminate the practice of dowry; the Special Marriage Act, 1954 to give rightful status to married couples who marry inter-caste or inter-religion; Pre-Natal Diagnostic Techniques (Regulation and Prevention of Misuse) Bill (introduced in Parliament in 1991, passed in 1994 to stop female infanticide and many more such Acts.

Furthermore, the Parliament time to time brings out amendments to existing laws in order to give protection to women according to the changing needs of the society, for instance, Section 304-B was added to the Indian Penal Code, 1860 to make dowry-death or bride-burning a specific offence punishable with maximum punishment of life imprisonment. So there are varied legislative safeguards and protection mechanisms for women but the ground reality is very different. Despite all these provisions women are still being treated as second rate citizens in our
country; men are treating them as an object to fulfill their carnal desires; crimes against women are at alarming stage; the practice of dowry is still widely prevalent; female infanticide is a norm in our homes.

## SUGGESTIONS: -

There is a solution of every problem. For reducing gender inequality in India, we should offer high level of education to girls and increase women empowerment. We should also give them opportunity in active politics \& social activities so that social integration in Indian society can be made. Government should make policies \& strategies regarding stopping the sex identification \& abortions. In context of above NGOs can also play an important role to eradicate Gender Inequality. Politicians should frame out policies for increasing social welfare development regarding this issue. The Campaign of our Prime Minister Mr. Narender Modi "Beti Bachao Beti Padhao" can be successful, when the mindset of Indian society will be changed towards women.

## RECOMMENDATIONS

1. Ensuring that boys and girls have equal access to good-quality education, equal rights and opportunities to successfully complete schooling and in making educational choices;
2. Reviewing and where necessary adapting school and early childhood education curricula, teaching and school practices to eliminate gender discrimination and stereotyping;
3.making the study of science, technology, engineering, mathematics (STEM) financial and entrepreneurship issues, as well as education, arts and the humanities, equally inclusive and attractive for both boys and girls; promoting the development of stronger reading habits among boys and girls;
3. campaigning and raising awareness among young men and women, parents, teachers and employers about gender-stereotypical attitudes towards academic performances and the likely consequences of overall educational choices for employment and entrepreneurship opportunities, career progression and earnings;

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# Street Children and Social Work Interventions: Evidences from Hyderabad Karnataka Region 

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## INTRODUCTION:

India is one of the highly concentrated countries in the world when it comes to street children, according an UNICEF estimate (Ferrara and Ferrara, 2005). Rane and Shroff (1994) have emphasised the role of institutions of Social Work in evolving systematic modules of training for personnel working with street children. D'Souza et al (20024) in their study have also documented the 'street child' phenomenon. Ferguson, et al (2005) provided profile of street children's organisations in Mumbai and review the range of services provided.
The schools of social work may play a very significant role in addressing the needs of street children in many ways. The training module may be devised and implemented with police and judiciary who deal with street children. Field action and research project may be done in order to understand conditions of street children and make direct intervention with the help of social work students. Also it can be played important role by advocating at different levels in policy formulation and designing developmental programmes. In fact, these types of activities provide good opportunities for the fieldwork placement of social work students. Further, a forum for street children may be established in order to bring together the agencies working for street children on a common platform to discuss their problems for effective working.

## INTERVENTION MODULE:

Interventions need to consider the root causes of the problem, which range from personal pathology to structural failings ranging from social control to social change. The model is based on the multidisciplinary of street children. The children are innocent, vulnerable and dependent. They are also active and full of hope. But for many children the reality of childhood is totally shattered. This study on such children has highlighted certain realities regarding their state of life. Their time should be one of joy and peace and their future should be shaped in harmony. Hence based on the major findings of the study, the following recommendations are made to make the future of these nameless children brighter.

## SHELTER HOMES:

The extent of the problem of street children in Gulbarga city is only growing in a steady manner. Hence it is felt that the existing shelter homes cannot reach out to all these children in need. Hence new shelter homes should be started in different parts of the city. The existing shelter homes are situated in the south zone where there is more concentration of street children. More shelter homes could be thought about in this zone. Since street children are present in all the four zones of the city the new shelter homes can be started in the remaining three zones.

The need for a shelter home was felt by the children themselves. They are very much in need of a decent place for their night rest. All the other problems like police harassment, anti-social elements, brokers and drug abuse, expressed by the children also arises because of the lack of proper shelter. Hence through the services of more shelter home most of these problems of children can be tackled.

Free shelter home services should be given a rethinking. There should also be a contribution by the street children themselves as they are daily wage earners. Apart from these shelter homes, few centres could be started near the main bus-stands and the railway station that can serve as 'open shelter' to which any street boy can come at any time. Where in basic facilities and first aid could be offered. These centres can be of help of build up rapport with new street children.

A separate shelter home should be thought about for the special care of smaller street children where food and non formal education can be provided since they cannot be encouraged to work. As it was revealed in the study smaller children usually left home due to lack of love and care. Hence a homely atmosphere can be created with a person as a 'Mother' for 4 to 5 years children like in S.O.S. village. Thus, abuse of smaller children by the grown-up boys can be avoided.

## HOME FOR STREET GIRLS:

The word street child has come to refer to only boys because of their large number and the numerous services available for them. The fact that there are also street girls can not be denied even though they are small in number. It is they who are in need of protection more than the boys. Added to all the other problem of a street child, they are also being sexually abused. Hence, a shelter home for the care of such runway, street and neglected girls could be started in the city.

## TECHNICAL TRAINING:

As per the study, many children left home due to their dislike for studies. Hence it is not advisable to force them with education again. They themselves desired, that technical education can be given along with non-formal education. The technical training should be directed to get job opportunities for them.

## EMPLOYMENT OPPORTUNITY:

Majority of the children's' expectation from the government is only employment. They firmly believe that the government can give job opportunities for them. The efforts of World Vision and some NGO's to create job opportunities for street children should be appreciated. Through this scheme, the children have received a social status and a permanent means for their livelihood, which has brightened up the lives of many street children in the city and has paved the way for a new way of life. Similar schemes could be thought about and can be initiated by the government for the welfare of such children.

## HOME PLACEMENT:

The shelter homes should not become like boarding or hostels for the street children. The children also should not be permitted to make the shelter home their permanent residence. As soon as a street child is brought to the centre, the first step should be always to trace out his/her family and find out the real reason for leaving home and the centre should try to place the children back at home immediately. If the home environment is not conductive to leave, the particular child at home then the agency can plan and start the rehabilitation process for that child.

## STREET BASED CENTRE:

All the street children cannot be expected to come to the agency and rehabilitated. Since the children are hostile to the adult world, initially they hesitate to come to such centres. Hence for such children street-based centres started in their place of work where non-formal education can be given. The existing agency is already doing it very effectively.

## A CENTRE FOR PROBLEMATIC CHILDREN:

The experience of working with such children showed that many of these children had number of problems. They do become addicted to drugs, a special de-addiction centre different from already existing centres could be started. Since these children are also different from the rest of the people. They are in need of a special treatment process appropriate to their situation. This deaddiction centre should also be equipped to treat the violent and problematic street children, since the existing shelter homes are not able to concentrate on such children. They are in need of a special care and understanding.

## STAFF TRAINING:

The staffs who are working in such agencies should be given regular training especially in skills of counselling. They should be taught to be patient and more understanding towards these children. Each staff has to go for regular street contacts. It is there in the field that they can feel one with these children and this will help them to understand the children better. The
children expect the staff working in these agencies to be available to them at any time. They are in need of someone who can listen to them, someone with to whom they can share their troubles and problems.

## LINK WITH GOVERNMENT SERVICES:

Government through the effective structure is helping the neglected children of the society in its own way. It can be made more effective if services like Juvenile Guidance Bureau, JAPU (Juvenile, Aid Police Unit), Probation Officers of Social Defence and prison department are linked with the local voluntary agencies, since all of them are reaching out to the same target group. There are chances of street children becoming juvenile delinquents and vice versa. Those delinquents who do not have any one to care for can be sent to those agencies working for street children.

The service of "May I help You" booths run by the police department in the bus stands and railway stations can also be linked with these voluntary agencies. They can be of much help to these agencies in identifying the neglected children found loitering in these places and in sending them to these agencies to be rehabilitated.

There is also a strong feeling among the voluntary agencies that the health services in the government hospitals could be made more easily available to these children. It is felt that these children are neglected when they approach the government hospitals and are not given proper care. Hence identity cards can be issued to these children for better care and treatment.

## TRAINING FOR LAW ENFORCES:

Law enforcing authorities like the police, Juvenile Home officials, Probation officers and corporation personnel who are immediately connected to the street children should be given a special training regarding the concept, background and nature of street children. They should also be trained in skills of counselling.

## ENHANCING EDUCATIONAL SYSTEM:

One of the main reasons for children dropping out of school was their dislike for studies or fear the teachers. Hence there is a need for enhancing the existing educational system to create situation of learning especially for the rural children. This might prevent children from being runaways to a certain extent.

## AWARENESS TO THE SOCIETY:

The society, which always looks at, these children with suspension and hatred need to be given awareness regarding the concept and nature of street children. A guided interaction with these street children might help in removing the negative attitude of the people. They should also be taught to help these children by giving employment opportunities.
Today, street children are an inevitable sight in almost all-metropolitan cities and developing cities like Gulbarga in India. Their number keeps on growing every day and it is considered as a serious problem. They are often labelled as antisocial elements, land in the eyes of the law enforcers, they are considered as criminals. But it should be always remembered that they too are human beings and they also have feelings like the rest of us, which should be respected. Hence, their rights as human beings and much more as children should be considered. More than mere programmes, children expect love, affection and opportunities from the society which has alienated them. If the street children grow up in an environment of trust and confidence, they will be better prepared to face the upcoming challenges of life towards turning up as a responsible citizen of the country.

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# ASSESSING THE ROLE OF GOVERNMENT POLICIES IN ENHANCING THE COMPETITIVENESS OF MSME IN INDIA 

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#### Abstract

: This paper aims to assess the role of government policies in enhancing the competitiveness of MSMEs in India. Micro, Small, and Medium Enterprises (MSMEs) are an essential part of any economy, contributing to economic growth and providing employment opportunities. MSMEs are characterized by their smaller size, lesser investment, and lower level of production compared to larger businesses. These enterprises operate in diverse sectors such as manufacturing, service, and trade, and are a critical source of innovation, creativity, and entrepreneurial spirit.In India, the MSME sector plays a crucial role in the economy, contributing significantly to the Gross Domestic Product (GDP), exports, and employment generation. The Government of India has implemented several policies and schemes to promote and support the growth and development of the MSME sector. These policies aim to enhance the competitiveness of MSMEs, increase their access to finance, encourage technology up-gradation, and promote their participation in national and international trade.Despite the numerous benefits of MSMEs, they face several challenges such as lack of access to finance, technology, skilled manpower, and regulatory constraints. The scope is limited to Karnataka state to carry out this research. This study is carried out by using of both primary data and secondary data. Researcher adopts survey method. Formulated and distributed to 150 respondents from beneficiaries of MSME's to gather data. Researcher adopted Percentage, Frequencies, table, and graph to analyse the data. Secondary data sources used for the study such as articles, websites, research papers, books and other resources. Researcher suggested that the government should continue to innovate and implement policies that support the growth of MSMEs and create a conducive environment for their success.


Keywords:Assess,role, government policies, competitiveness, MSME, India etc.

## INTRODUCTION:

MSMEs (Micro, Small, and Medium Enterprises) play a crucial role in the Indian economy, contributing significantly to employment generation, industrial output, and exports. MSMEs are characterized by their smaller size, lesser investment, and lower level of production compared to larger businesses. These enterprises operate in diverse sectors such as manufacturing, service, and trade, and are a critical source of innovation, creativity, and entrepreneurial spirit.In India, the MSME sector plays a crucial role in the economy, contributing significantly to the Gross Domestic Product (GDP), exports, and employment generation. The Government of India has implemented several policies and schemes to promote and support the growth and development of the MSME sector. These policies aim to enhance the competitiveness of MSMEs, increase their access to finance, encourage technology up-gradation, and promote their participation in national and international trade.

Despite the numerous benefits of MSMEs, they face several challenges such as lack of access to finance, technology, skilled manpower, and regulatory constraints. The role of government policies in addressing these challenges and creating a conducive environment for MSME growth and development is critical. The Indian government has implemented several policies to enhance the competitiveness of MSMEs and promote their growth. Here are some of the government policies that have been implemented to support MSMEs in India:

1. Credit Guarantee Fund Trust for Micro and Small Enterprises (CGTMSE): CGTMSE provides credit guarantee to the lending institutions for loans up to Rs. 200 lakhs to MSMEs. This policy has encouraged banks to lend more to MSMEs, thus enhancing their competitiveness.
2. Public Procurement Policy: The government has mandated that a minimum of $25 \%$ of its procurement should be from MSMEs, with $4 \%$ reserved for units owned by women entrepreneurs. This policy has created a level playing field for MSMEs in government procurement and has provided them with a significant market opportunity.
3. Technology Upgradation Fund Scheme (TUFS): TUFS provides subsidized loans to MSMEs for upgrading their technology and machinery. This policy has helped MSMEs to improve their competitiveness by modernizing their production processes.
4. One District One Product (ODOP) Scheme: ODOP is a scheme launched by the government to promote traditional industries and products in each district of the country. The scheme aims to increase the competitiveness of MSMEs by focusing on the development of locally made products and creating market linkages for them.
5. National Manufacturing Competitiveness Programme (NMCP): The NMCP provides support to MSMEs for enhancing their competitiveness by improving their quality, productivity, and technology. This policy has helped MSMEs to adopt best practices and modernize their production processes.

This paper aims to assess the role of government policies in enhancing the competitiveness of MSMEs in India, analyzing the policies' impact and identifying the gaps and areas of improvement for future policy interventions.

## OBJECTIVE OF THE STUDY:

To assess the role of government policies in enhancing the competitiveness of MSME in India.

## SCOPE OF THE STUDY:

The researcher limited to Karnataka state as geographical area to carry out this study.

## RESEARCH METHODOLOGY:

This study is carried out by using of both primary data and secondary data. Researcher adopts survey method. Formulated and distributed to 200 respondents from beneficiaries of MSME's to gather data by using of convenient sampling technique. Researcher adopted Percentage, Frequencies, table, and graph to analyse the data. Secondary data sources used for the study such as articles, websites, research papers, books and other resources.

## DATA ANLYSIS:

Table No.1: Which of the following policies provides credit guarantee to lending institutions for loans up to Rs. 100 lakhs to MSMEs in India?

| Particulars | Frequency | Percentage |
| :--- | :---: | :---: |
| A. One District One Product (ODOP) Scheme | 39 | 20 |
| B. National Manufacturing Competitiveness Programme (NMCP) | 46 | 23 |
| C. Credit Guarantee Fund Trust for Micro and Small Enterprises <br> (CGTMSE) | 87 | 43 |
| D. Technology Upgradation Fund Scheme (TUFS) | 28 | 14 |
| Total | $\mathbf{2 0 0}$ | $\mathbf{1 0 0 \%}$ |



## Interpretation:

The above table depicts about the policies provides credit guarantee to lending institutions for loans up to Rs. 100 lakhs to MSMEs in India. Majority of the respondents opined that Credit Guarantee Fund Trust for Micro and Small Enterprises, 23\% of the respondents believed that National Manufacturing Competitiveness Programme, 20\% of the respondents assumed that One District One Product (ODOP) Scheme and remaining 14\% said that Technology Upgradation Fund Scheme.

Table No.2: What is the primary objective of the One District One Product (ODOP) Scheme in India?

| Particulars | Frequency | Percentage |
| :--- | :---: | :---: |
| A) To promote traditional industries and products in each district <br> of the country | 66 | 33 |
| B) To provide subsidies to MSMEs for marketing their products | 49 | 25 |
| C) To provide credit guarantee to lending institutions for loans to <br> MSMEs | 54 | 27 |
| D) To provide export incentives to MSMEs | 31 | 15 |
| Total | $\mathbf{2 0 0}$ | $\mathbf{1 0 0 \%}$ |



## Interpretation:

The above table represents about the primary objective of the One District One Product (ODOP) Scheme in India. Majority of the respondents (i.e. 33\%) opined that to promote traditional industries and products in each district of the country, $27 \%$ of the respondents believed that to provide credit guarantee to lending institutions for loans to MSMEs, $25 \%$ of the respondents assumed that to provide subsidies to MSMEs for marketing their products and remaining $15 \%$ said that to provide export incentives to MSMEs.

Table No.3: What is the minimum percentage of government procurement mandated to be from MSMEs in India?

| Particulars | Frequency | Percentage |
| :--- | :---: | :---: |
| A. $15 \%$ | 46 | 23 |
| B. $25 \%$ | 79 | 40 |
| C. $35 \%$ | 38 | 19 |
| D. $45 \%$ | 37 | 18 |
| Total |  | $\mathbf{2 0 0}$ |
| $\mathbf{1 0 0 \%}$ |  |  |



## Interpretation:

The above graph represents about the minimum percentage of government procurement mandated to be from MSMEs in India. Majority of the respondents (i.e. 40\%) opined that $25 \%$ of government procurement mandated to be from MSMEs in India, $23 \%$ of the respondents believed that $15 \%, 19 \%$ of the respondents assumed that $35 \%$, and remaining $18 \%$ said that $45 \%$.

Table No.4: Which of the following policies provides subsidized loans to MSMEs in India for upgrading their technology and machinery?

| Particulars | Frequency | Percentage |
| :--- | :---: | :---: |
| A. One District One Product (ODOP) Scheme | 46 | 23 |
| B. National Manufacturing Competitiveness Programme (NMCP) | 39 | 20 |
| C. Credit Guarantee Fund Trust for Micro and Small Enterprises <br> (CGTMSE) | 66 | 33 |
| D. Technology Upgradation Fund Scheme (TUFS) | 49 | 24 |
| Total | $\mathbf{2 0 0}$ | $\mathbf{1 0 0 \%}$ |



## Interpretation:

The above table represents about the policies provides subsidized loans to MSMEs in India for upgrading their technology and machinery. Majority of the respondents (i.e. 33\%) opined that Credit Guarantee Fund Trust for Micro and Small Enterprises (CGTMSE), 24\% of the respondents believed Technology Upgradation Fund Scheme (TUFS), 23\% of the respondents assumed that One District One Product (ODOP) Scheme and remaining 20\% said that National Manufacturing Competitiveness Programme (NMCP).

Table No.5: Which of the following policies has supported MSMEs in India to improve their quality, productivity, and technology?

| Particulars | Frequency | Percentage |
| :--- | :---: | :---: |
| A) One District One Product (ODOP) Scheme | 68 | 34 |
| B) National Manufacturing Competitiveness Programme (NMCP) | 41 | 20 |
| C) Public Procurement Policy | 56 | 28 |
| D) Credit Guarantee Fund Trust for Micro and Small Enterprises <br> (CGTMSE) | 35 | 18 |
| Total | $\mathbf{2 0 0}$ | $\mathbf{1 0 0 \%}$ |



## Interpretation:

The above graph indicates about the policies has supported MSMEs in India to improve their quality, productivity, and technology. Majority of the respondents (i.e. 34\%) opined that One District One Product (ODOP) Scheme, 28\% of the respondents believed Public Procurement Policy, 20\% of the respondents assumed that National Manufacturing Competitiveness Programme (NMCP)and remaining 18\% said that Credit Guarantee Fund Trust for Micro and Small Enterprises (CGTMSE).

Table No.6: What are some of the challenges faced by MSMEs in India despite the government's policies to enhance their competitiveness?

| Particulars | Frequency | Percentage |
| :--- | :---: | :---: |
| A) Lack of access to finance | 71 | 36 |
| B) Bureaucratic red tape | 47 | 23 |
| C) Infrastructure deficits | 51 | 25 |
| D) All of the above | 31 | 16 |
| Total | $\mathbf{2 0 0}$ | $\mathbf{1 0 0 \%}$ |



The above data shows about the challenges faced by MSMEs in India despite the government's policies to enhance their competitiveness. Majority of the respondents (i.e. $36 \%$ ) opined that Lack of access to finance, $25 \%$ of the respondents believed Infrastructure deficits, $23 \%$ of the respondents assumed that Bureaucratic red tapeand remaining $16 \%$ said that All of the above.

Table No.7: How can MSMEs in India leverage government policies to grow their businesses?

| Particulars | Frequency | Percentage |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| A) By accessing credit guarantee schemes | 52 | 26 |  |  |  |
| B) By participating in government procurement opportunities | 41 | 21 |  |  |  |
| C) By adopting best practices and modernizing their production <br> processes | 45 | 22 |  |  |  |
| D) All of the above | Total | 62 |  |  |  |
| 4 |  |  |  | $\mathbf{2 0 0}$ | $\mathbf{1 0 0 \%}$ |



## Interpretation:

The above table represents about the MSMEs in India leverage government policies to grow their businesses. Majority of the respondents (i.e. 31\%) opined that all of the above, $26 \%$ of the respondents believed by accessing credit guarantee schemes, $22 \%$ of the respondents assumed that by adopting best practices and modernizing their production processes and remaining $21 \%$ said that by participating in government procurement opportunities.

## FINDINGS OF THE STUDY:

1. It is found that, Majority of the respondents opined that Credit Guarantee Fund Trust provides credit guarantee to lending institutions for loans up to Rs. 100 lakhs to MSMEs in India.
2. It is identified that, Majority of the respondents (i.e. $33 \%$ ) assumed that the primary objective of the One District One Product (ODOP) Scheme in India is to promote traditional industries and products in each district of the country.
3. The study found that, Majority of the respondents opined that $25 \%$ is the minimum percentage of government procurement mandated to be from MSMEs in India.
4. It is found that, Majority of the respondents (i.e. 33\%) believed that Credit Guarantee Fund Trust provides subsidized loans to MSMEs in India for upgrading their technology and machinery.
5. Majority of the respondents said that One District One Product (ODOP) Scheme has supported MSMEs in India to improve their quality, productivity, and technology.
6. The Study found that, $36 \%$ of the respondentsopined that Lack of access to finance as challenges faced by MSMEs in India despite the government's policies to enhance their competitiveness.
7. Majority of the respondents (i.e. 31\%) opined that by accessing credit guarantee schemes, by adopting best practices and modernizing their production processes and by participating in government procurement opportunities are the MSMEs in India leverage government policies to grow their businesses.

## CONCLUSION:

The Indian government has recognized the importance of MSMEs in the country's economic growth and has implemented several policies to enhance their competitiveness. These policies have focused on areas such as access to finance, technology Upgradation, market development, and quality improvement. While these policies have yielded positive results, there is still a need to address challenges such as bureaucratic red tape, infrastructure deficits, and skill development to fully unleash the potential of MSMEs. So, Researcher suggested that the government should continue to innovate and implement policies that support the growth of MSMEs and create a conducive environment for their success.

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# Design of Low-cost RTL SDR-VI for monitoring air space above Mantralayam-Raichur-Deosuguru Delta region 

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#### Abstract

A low-cost Real Teck- Software Defined Radio RTL- SDR, Ultra High Frequency (UHF) ground receiving system is used to assist future space vehicle monitoring and controlling programmers. The paper intends to represent the explored advantages of Software Defined Radio (SDR) + Virtual Instrument (VI) $=$ Software defined Virtual Instrument SDVI in the Air space of Mantralaya- RaichurDeosuguru Delta region, range of $\mathbf{6 0} \mathbf{~ k m}$ applications. We tried to track the aircraft by developing Software Defined Radio Virtual Instrument (SDR-VI), the complexity and the value of Automatic Dependent Surveillance-Broadcast (ADS-B) system implementation were drastically reduced. Authors have tried and have been successful in receiving signals emitted by the flying objects around (ICAO-800C8F, at an altitude of 35950 meters) The Design and interface work is based on real-time utilization of RTL-SDR, which are commercial off-the-shelf components available in the market.


Keywords- Software Defined Radio (SDR), Automatic Dependent Surveillance - Broadcast (ADS-B)

## I. INTRODUCTION

Software Defined Radios (SDRs) can receive multiple information of aircraft / un manned vehicles like altitude, latitude, longitude, speed, direction in real-time and received data could be displayed. By using an appropriate antenna, the usage of SDR maximizes the coverage of data with accuracy and may accomplish timely. Software Defined Radio (SDR) is the latest addition to Digital Signal Processing. It is a technology, whereby number of the physical layer functions are programmed and controlled by using software-defined virtual Instrument (SDVI).

SDVI design consists of an RF frontend that converts the RF frequency spectrum into a baseband spectrum. This is often passed to a High-Speed ADC that digitizes the baseband samples and passes them to the DSP software enforced on the computer. The ATC on ground stations receives the information and ADS-B is a second surveillance radar. By providing the situational awareness of air traffic, the information is received by other aircraft which leads to self-separation. ADS-B does not require external input or pilot as it is automatic.

## II. Literature survey

In year 1999, W. H. W. Tuttlebee, said about Softwaredefined radios and expressed many advanced issues on, how these technologies are changing in coming days for Facets of a developing technology [1] In year 2010, V. B. Alluri, J. R. Heath, M. Lhamon, explained about, architecture using field programmable-gate-array technology implementation . Said about A new multichannel coherent amplitude-modulated timedivision multiplexed software-defined radio receiver. [2] In year 2017, Akshay N, et al showed 'Live Aircraft Detection with Mode-S Transponder Using RTL-SDR’ up to certain limitations [3] In year 2019, Dr. Yedukondalu et al tried to show Implementation of Automatic Aircraft Tracking with RTL-SDR [4] In year 2021 H. Venkatesh Kumar, et al Tracked Aircrafts Using Software Defined Radio (SDR) With An Antenna. Which has some limitations. [5] apart from these un documented in journals very few developers have designed and developed applications which are seen in social media, blogs, etc but not documented or published.

## III. Problem Statement and motivation

## a. Problem statement

The proposed design/arrangement is for detecting the objects flying around and what if they could not detect by imaging/ photographic devices? The atmospheric densities/ disturbances were recorded from the images taken from the imaging devices sometimes along with manmade flying objects in the sky. And moreover, it is always not possible to have clear sky around. Hence the system fails

## b. Motivation

The necessity of the working system arises, which should have only flying object detection algorithm It should work in all-weather conditions for real time object detection. Enhanced safety and additional situational awareness from traffic and free weather information Maintain airframe value. More efficient search and rescue. ADS-B's GPSbased surveillance provides more accurate information about an aircraft's last reported position. This is because ADS-B Out avionics transmit data approximately once every second, compared to a ground-based SONAR/

SODAR/ RADAR'S sweep rate of $3-15$ seconds. More efficient spacing and optimal IFR routing in non-radar environments, by keeping these important things one can overcome those struggles and easily detect the systems even if there are Bomber drones. This is first time in this region such work is being conducted

## IV. PROPOSED SYSTEM AND IMPLEMENTATION

> a. Proposed system

The proposed design for the system which was based on hardware components required for this work are listed with few technical details, there are many components in the market but we intend to build the economic system, so we stream lined our requirement. The block diagram of the proposed system is shown in fig.1.


Fig 1 : Block diagram of the system
Our proposed and constructed system comprises The following hardware components,

## b. Hardware components

1. Dipole Antenna:
2. RTL-SDR tuner
3. Personnel computer with Detection software
4. Wide band frequency receiving antenna
5. Power supply
1). Dipole Antenna: A dipole antenna is made up with straight electrical conductor measuring $1 / 2$ wavelength from end to end and connected at the centre to a radiofrequency (RF) feed line., Half of 275 mm is 137 mm more or less. Ratio of the designed dipole antenna which is analyzed by an vector network analyzer shows as $1: 1.2$. at a frequency of about 1090 MHZ .
2). RTL-SDR dongle: As one of the cheapest available in the market, RTL2831SDR receiver from manufacturer is an excellent choice for a first approach to the technology. Most of the SDR devices available in the market operates in the VHF and UHF bands, allowing the exploration of a considerable part of the spectrum used for national broadcasts in various applications, as shown in Fig 2. It delivers to the DSP stage a spectral width of $3,2 \mathrm{MHz}$ at real time operation. The most important block in the system is receiver and its structure. Complete operation is dependent on the receiver of the system.


Fig 2: Location based dependent RTL-SDR signals available for usage
3). Personal Computer: The computer system or laptop or mobile device with Android or Apple device with IOS software is for using the interface program for applicable operating system. Either one can use virtual box or etc, but the base functionality is to use SDR - ADSB interface and virtual radar server software program (may be Android, IOS, Windows, Linux or any other), tuning in to the desired frequency of the user for specific action Air traffic monitoring frequency 1090 MHz softwares,
4) Internet: connection PC interfaced to RTL SDR dongle, also PC should have the internet connection.
5) Power supply: to source all the devices depending upon their needs a power supply and etc are needed.

> c. Software components:
1.OS Windows 10
2. Android system with Air Spy or similar apps
3. IOS, with Airspy or similar tuning applications,
4. GNU Linux or any other similar
5. Interface Cable

## d. Methodology

At first, we collect all the components required for the project. We connect and prepare the system as in Block diagram, system functionality could be understood with the help of Fig 1. Wherein the Radio Frequency signals from sky are received from airplane through RF Antenna and feed to RTL-SDR dongle, in which flexible RF front end will take care of signal-selection-signal boosting/ signal attenuation, using Low noise amplifier LNA, Band pass filter BPF. Analog to Digital convertor will convert the signals into digital signals, Later demodulation will take place and filtering will be decimated with the help of miscellaneous circuits present in the dongle the digital format information of the Airplane is given to the PC which include multiple parameters like speed position altitude, etc.

The information is (which is shown in Fig 3. as carrier and timing synchronization and baseband blocks in the diagram) decoded using the software like Air Spy or many available
software programs. Finally depending upon the tuning Frequency parameter of interest as shown in Fig 3 the baseband output is observed in the output.


Fig 3: Working of the real-time system receiver chain block diagram

## e. Software details

First, we collect all the components in GNU Radio software, block by block and connect them to form an virtual instrument, UHD USRP Source: which is the SDR source detector, which will take care of channel model/fft/snr estimator probe and later the signal will be estimated through OFDM Estimator leading to message display box. The energy detector will be used to source noise and complexity of the magnitude through fast Fourier transformation of the input signal. Signal to Noise ration will take care of elimination of unwanted noise in the system which is also scaled by USRP source. Finally the data will be shared to Waterfall sink. (which will indicate as the presence of the signal) and through user interface app the longitude, latitude, altitude, speed of vehicle and etc information could be overlapped on the google map, to monitor the live/real time location of the aircraft carrier / unmanned aerial vehicle system.


Fig 4: Designed SDVI: Simplified GNU Radio flow graph for extracting the radiometric features.

## V. EXPERIMENTAL RESULT

The waterfall window used in Airspy user interface software will look as in Fig 5. Which is giving the information of the frequency and amplitude of the selected frequency band from the user interface table. By tuning into the correct device frequency using interface software and overlapping on google maps, we can track the nearby Airspace and locate and detect the aircraft which would look as in Fig 6. Air space constructed by the software and giving information regarding the information about air craft. Here in this fig. 6 it is giving information of altitude which is about 35950 ft of the detected flying aircraft, speed is about 244 km , heading 5 degrees, distance from base SDR monitoring hardware station is 23.33NM,


Fig 5: Frequency detection, tuning, of the device through Airspy user interface window.
manufacturer/ owner/ type/ Squawk of the aircraft is not available and the detected flight is having number 800C8F, Indian flight and its location: Latitude 15.767, Longitude 77.652 is above Raichur University/ Raichur Delta region. Overlapped in google maps and its Radius circled information is seen in fig. 6 .


Fig 6: Air space view by overlapped software

## VI. CONCLUSION

The project is useful for detecting the flying object in bad weather conditions, noisy environments and etc. an application created acts as a distance detector, while also keeping track of norm violations. This includes application testing and data cross-checking until a satisfactory, necessary, correct, and good outcome was achieved.

## VII. FUTURE SCOPE

RTL-SDR devices are primarily concerned with observation of Aircraft detection. They have wide band of frequency detection capabilities most of the Radio Frequency operated devices could be tuned using these devices. They are also could be used to detect unmanned armed vehicles/ signals from far sky and etc. they also used in defense applications like monitoring cross boarders/ boundaries, to monitor the sky weather, Temperature, humidity, windspeed, wind direction etc.

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# Synthesis, characterization and LPG Sensing property of Polypyrrole Nanocomposites 

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#### Abstract

In-situ polymerization procedures were used to create Polypyrrole /tin oxide nanocomposites. Scanning electron microscopy (SEM) and Transmission Electron Microscopy (TEM) were used to describe the nanocomposites, and thermal characteristics were investigated using a Differential Scanning Calorimeter (DSC). The samples' dc conductivity was determined as a function of temperature in the range $\mathbf{3 0} \mathbf{- 1 9 0 0} \mathrm{C}$, and it was discovered that increasing the concentration of Tin oxide particles enhances conductivity due to polaron hopping and composite chain length extension. Because half of the nanocomposites have the highest conductivity and sensitivity, the study suggests that these nanocomposites could be valuable in future applications.


Keywords- Polypyrrole, Scanning Electron Microscopy, Conductivity, Sensitivity

## I. Introduction (HEADING 1)

Polypyrrole (PPy) is interesting physicochemical properties such as electrical conductivity, deep black colour, ion-exchange capacity, hydrophobic nature, and strong adsorption capacity towards molecular and macromolecular species, polypyrrole ( PPy ) is one of the most investigated intrinsically conductive polymers (ICPs). Thin films, powders, colloidal particles, hollow particles, nanotubes, micrometer-sized composites, and nanocomposites are all possible forms of polypyrrole [1, 2]. Due to their unusual mix of electrical and optical properties and processing advantages, Alan J. Heeger and Hideki Shirakawa conducted extensive research on the new generation of "synthetic metals" in 1976. The electrical conductivity of conjugated polymers is achieved through the delocalization of the electrons, which allows charge mobility along the polymer chain's backbone. Conducting polymers have been synthesized using an oxidising or reducing method, as well as chemical or electrochemical doping [3, 4].

The development of polymer/inorganic hybrid nanocomposites is attracting a lot of attention these days. Because of their intriguing optical and electrical properties, transparent conducting oxides (TCO) such as ITO, $\mathrm{SnO}_{2}$, $\mathrm{CdO}, \mathrm{TiO}_{2}, \mathrm{ZnO}, \mathrm{ZnSnO}_{4}, \mathrm{NiO}$, and others have been extensively researched. Zinc oxide ( ZnO ) and titanium dioxide $\left(\mathrm{TiO}_{2}\right)$ are the most appealing transparent conducting materials because of their non-toxicity, low cost, chemical stability, and ability to dope with a wide range of ions [5]. Various applications of conducting polymers have been proposed as transducers of biosensor, electrodes of rechargeable batteries, artificial nerves and muscles, gas sensors, solid electrolytic capacitor, diodes and transistors, anti-static electromagnetic shielding etc.

Tin oxide is a promising functional material because to features such great visual transparency, strong physical and chemical interactions with adsorbed species, and low
operating temperature [6]. Tin oxide $\left(\mathrm{SnO}_{2}\right)$ is an n-type wide band semiconductor with an Eg of 3.6 eV at 300 K that is widely employed in optoelectronic devices, transparent conductive electrodes, solar cells, catalyst support, and gas sensing material [7]. The enormous surface to volume ratio of nanoscale materials causes them to behave differently than their bulk counterparts, as is widely known. Mechanical, thermal, chemical, electrical, and optical properties of nanoparticles are superior [8]. Tin oxide nanoparticles are commonly utilized in gas sensors as sensing elements. $\mathrm{SnO}_{2}$ nanoparticles are synthesized by various techniques such as sol- gel, hydrothermal, co-precipitation, mechano-chemical, combustion route, spray pyrolysis, electrochemical deposition laser ablation, micro-emulsions technique etc. [9, 10]. Among all the above mention techniques the sol gel method is most suitable for the synthesis of nano-material due to its comparatively low processing cost and better control over the particle size of the crystallite.

## II. EXPRIMENTAL

## A. Synthesis of Tin oxide nanoparticles

Analytical Reagent grades of $\mathrm{SnCl}_{4} .5 \mathrm{H}_{2} \mathrm{O}$ and ethanol were successfully used to make tin oxide nanoparticles. To begin, a transparent sol solution was made by dissolving 3.50 gm. of tin chloride pentahydrate in 100 ml ethanol while swirling dynamically. Drop by drop, 4 mL of aqueous ammonia solution was added to the aforementioned solution under steady stirring. For purification, the gel was filtered and washed with ethanol before being dried for 4 hours at 60 ${ }^{\circ} \mathrm{C}$. The resultant powder was calcined for 2 hours at $400{ }^{\circ} \mathrm{C}$, yielding ash-colored tin oxide nanoparticles [11-13].

## B. Synthesis of $\mathrm{PPy}-\mathrm{SnO}_{2}$ nanocomposite

A known quantity of Aniline solution dissolved in HCl is taken in 1000 ml beaker and stirred for 5 minutes and 0.5 g ( $10 \mathrm{wt} \%$ ) of $\mathrm{SnO}_{2}$ nanoparticles were added and stirred with magnetic stirrer for about 15 minutes then ammonium per sulphate was added drop by drop. Even after complete addition of ammonium per sulphate stirring was continued for another 10 minutes and allowed the precipitate for about 30-40 minutes to settle down. Now precipitate was filtered and washed with distilled water several times to remove the impurities. Finally washed with acetone and precipitate was dried on its own at room temperature and was grinded for 15 minutes with morter and pestal. Now the resultant sample is the PANI- $\mathrm{SnO}_{2}$ nanocomposite with $10 \mathrm{wt} \%$ of $\mathrm{SnO}_{2}$. In the same manner, $\mathrm{PPy}-\mathrm{SnO}_{2}$ nanocomposites with $20 \mathrm{wt} \%, 30$ $\mathrm{wt} \%, 40 \mathrm{wt} \%$ and $50 \mathrm{wt} \%$ of $\mathrm{SnO}_{2}$ are synthesized.

## III. Preparation of pellet

The powders of PPY, PPY/ Tin oxide nanocomposites, so obtained from synthesis techniques discussed in early sections were crushed and finely ground in agate mortar in the presence of acetone medium. The powder is then pressed to form pellets of 10 mm diameter and thickness varying up to 2 mm by applying pressure of 90 MPa in a hydraulic press. For temperature dependent conductivity and sensor studies, the pellets of PPy and its metal oxide nanocomposites are coated with silver paste on either side of the surfaces to obtain better contacts.

## IV. Characterization

The morphology of the nanocomposites in the form of powder was investigated using scanning electron microscope (SEM) Model-EVO-18 (Special Edison, Zeiss, Germany),TEM . differential scanning calorimetry (DSC) was investigated by Instrument: DSC Q20 V24.10 Build 122. DC conductivity of these nanocomposites are studied by using Keithley 6514 electrometer, sensing properties of these nanocomposites were studied using laboratory set up.

## V. Results and Discussion

## A. Scanning Electron Microscopy

Figure 1 displays the morphologies of samples, As shown by the SEM images, PPy displays a typically cauliflower-like or tumor-like structure. The addition of SnO 2 with uniform spherical structure observed in the nanocomposites provides the space factors for PPy orderly growth, resulting in special morphology of PPy. PPy/SnO2 nanocomposite particle size is much less than that of PPy .Therefore, the SEM results elucidate that the reactions are remarkably effective for the PPy functionalization.


Fig.1. (a) shows that Scanning Electronic Micrograph image of pure PPy and (b) PPy/Tin oxide nanocomposites

## B. Differential Scanning Calorimetry

The DSC curve of PPy and PPy/dopant sample have a broad characteristic endothermic dip indicates the glass transition temperature of Polypyrrole at $99{ }^{\circ} \mathrm{C}$ as shown in figure 2. The nature of the curve indicates that the loss of water is overlapping with $\mathrm{T}_{\mathrm{g}}$ of polymer Lack of any shoulder or melting peak beyond this region indicates amorphous nature with less sequence of the PPy molecules. The DSC curve of PPy/20 wt\% composite trace has a sharp dip at higher temperature, namely at $100^{\circ} \mathrm{C}$. This sharpness indicates the better crystalline. It also contains few more inflection points from $330^{\circ} \mathrm{C}$ to $360^{\circ} \mathrm{C}$ may be due to the
melting of PPy chain, the other at $360^{\circ} \mathrm{C}$ to $400^{\circ} \mathrm{C}$ may be due to phase change of dopants.


Fig.2. shows that the DSC curve of PPy and PPy/dopant samples

## C. DC Conductivity

Figure 3 shows the temperature dependency of dc conductivity for Polypyrrole/ $\mathrm{SnO}_{2}$ Nanocomposites over a temperature range of 30 to $190^{\circ} \mathrm{C}$. The conductivity values of the examined composites are clearly higher than those observed for pure PPy. Up to a transition temperature, the conductivity increases continuously with temperature, demonstrating semiconductor characteristics. Conductivity rises when temperature rises due to the movement of charge carriers (polarans) from one localized state to another. The conductivity of 50 wt percent of all nanocomposites is higher, indicating that conductivity is determined not only by ion mobility $\left(\mathrm{SnO}_{2}\right)$ but also by charge carrier hopping. The conductivity is proportional to the, and follows an expression of the type:

$$
\left.\sigma(\mathrm{T})=\sigma_{0} \exp [-\mathrm{T} 0 / \mathrm{T}) 1 / 4\right]
$$

where: $\sigma$ is the conductivity, T is the temperature and $\sigma 0$ is the conductivity at characteristic temperature T 0 .


Fig. 3 shows DC conductivity of $\mathrm{PPy} / \mathrm{SnO}_{2}$ nanocomposites.

## D. Sensing Study

The sensitivity of Polypyrrole/ Tin oxide nanocomposite $50 \mathrm{wt} \%$ for LPG sensing is shown in figure 4. The variation in the Sensitivity of the composites could be due the following reasons. The LPG molecules induced and trapped into polymer matrix might cause it to swell leading to the disruption of conducting paths through the composites. This results in increased Sensitivity of composites. After removal of gas, the polymer returns to original size, restoring the conducting paths. The possible mechanism of detection of LPG gas by LPG is based on surface reactions. . The overall conduction in a sensor element is determined by the surface reactions, the resulting charge transfer processes with the underlying Tin oxide and the transport mechanism through the sensing material and morphology of sensing layer.


Fig. 4 shows DC conductivity of $\mathrm{PPy} / \mathrm{SnO}_{2}$ nanocomposites.

## VI. Conlusion

The fabrication of conducting $\mathrm{PPy} / \mathrm{SnO}_{2}$ nanocomposites utilizing an in-situ chemical polymerization technique is described in this paper. These composites' conductivity and sensing characteristics were investigated. The influence of $\mathrm{SnO}_{2}$ concentration on conductivity qualities has been studied. At room temperature, the composites' LPG sensing characteristics were examined, and the better responsiveness of the $\mathrm{PPy}-\mathrm{SnO}_{2}$ nanocomposite was explained in terms of the synergetic interaction of both PPy and $\mathrm{SnO}_{2}$ particles. The composites' rapid reaction to changes in sensitivity, as well as the linear fluctuation in the parameters, point to their potential as an effective LPG sensing material.

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# Multicasting of Bandwidth efficient video in Multi radio Multi cellular Wireless Sensor Network 

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#### Abstract

Video multi video multicast in multi-Rate wireless network attracted significant research, heterogeneity in clients, different bitrate of video data clients to adjust with video quality prior work defined for clients who expect client. This transmission cause data packed to be received by other users who have access of network (directly attached to transmission media) and security and robustness of network. Here we present a novel content aware secured video multicasting protocol for quality differentiated video multicasting. It works in simple two steps. 1) Frame analysis 2) Key Embedding \& Steganography for QDM. Frames are extracted from the video data and analyzed and then embedding the key message in that frames to continue processing steganography This transmission cause data packet to be received by other users who have access of network (directly attached to transmission media) and reduce the security and robustness of network. Here we present a novel content aware secured video multicasting protocol for quality differentiated video multicasting. It works in simple two steps 1) Frame analysis 2) Key Embedding \& Steganography for QDM. Frames are extracted from the Video data and analyzed and then embedding the key message in that frames to continue processing steganography.


Index Terms- Data Embedding, Steganography, QDM, CVM

## I INTRODUCTION

Wireless broadcast nature is amazing concept to manage bandwidth requirement while multicasting video over multiple bitrates network, devices have different modulation schemes [1], this will waste bandwidth if a member in multicast is having higher bit rate which desire good quality. To overcome this problem Dynamic Rate QDM and dynamic rate adaption. To secure data this paper proposed simple algorithms based procedure. This procedure include two major step step-1: Frame analysis in which we divide the video data into an frames to multicast.

Step2: Embedding Message and Steganography. The proposed method deals with the information security i.e. video data to provide security we have embedded text on selected frames of video data. The text we are embedding is simple message string. Steganography is applied to embed data into the video frames.

## II RELATED WORK

In Network Information Flow [3] Rudolf Ahlswede, Ning Cai, Shuo-Yen Robert Li stated with one information source, and they got simple types of the admissible coding rate region. their result can be followed as the Max-flow Min-cut Theorem for network information flow. Contrary to one's intuition, Their proposal shows that it is in general not optimal to esteem the information to be multicast as a "fluid" that can simply be sent or replicated. Radhika Gowaikar, Ravi Palanki, Babak Hassibi, Michelle Eros stated in Capacity of wireless erasure networks [4] at multicast problems over these networks. The capacity under the hypothesis that erasure places on all the links of the network are provided to the destinations is acquired. It depicts that the capacity region has a nice max- ${ }^{\circ}$ ow min-cut interpretation. The definition of cut-capacity in these networks integrates the broadcast ability of the wireless medium. It is further shown that linear coding at nodes in the network sources to achieve the capacity region. In Secure Routing for Mobile Ad hoc Networks [5] Panagiotis Papadimitratos and Zygmunt J. Haas present a route discovery protocol that eases the damaging effects of such malicious behavior, as to provide precise connectivity data. Our protocol guarantees that invented compromised or replayed route answers would either be rejected or never reach back the querying node. Also, the protocol sensitivity is secured under different types of attacks that exploit the routing protocol itself. In "Weakly Secure Network Coding" [6] Kapil Bhattad and Krishna R. Narayanan illustration that under the new security requirements communication is possible at the multicast capability. A lined alteration is provided for networks with a given linear code to mark the system safe. The transformation required
to be done solitary at the source and the operations at the intermediate nodes remain unaffected. "The Secure Ring Protocols for Securing Group Communication" Kim Potter Kihlstrom, L. E. Moser, P. M. Melliar-Smith describe here Secure Ring, a suite of group communication protocols that provide protection against Byzantine faults. These protocols multicast messages to groups of processors within an asynchronous distributed system, impose a consistent total order on messages, and maintain consistent group memberships. In CASM [2], A Content Aware Secure Multicast defined three modules

1) a scalable light-weight algorithm for group key management;
2) a content-aware key embedding algorithm that can make video quality distortion imperceptible and is reliable for clients to detect embedded keys
3) a smart two-level video encryption algorithm that can selectively encrypt a small set of video data only, this paper ensure the video as well as the embedded keys unrecognizable without a genuine key.
The implementation of the CASM protocol is independent of the underlying multicast mechanism and is fully compatible with existing coding standards. Performance evaluation studies built upon a CASM proto type have demonstrated that CASM is highly robust and scalable in dynamic multicast environments. Moreover, it ensures secure distribution of key and video data with minimized communication and computation overheads. The proposed content-aware key embedding and encryption algorithms are fast enough to support real-time video multicasting. QDM [1] propose a rate scheduling model that selects the optimal transmission bitrate for each video frame to maximize the total visual quality for a multicast group focus to the minimum-visual-quality guaranteed limit. We then propose a practical and easy-to-implement protocol, called QDM, which makes a cluster-based structure to divide node heterogeneity and adjusts the transmission bit-rate to network dynamics based on video quality observed by the representative cluster heads. Since QDM selects the rate by a sample-based method, it is appropriate for real-time communication streaming even without any preprocess. We demonstrate that QDM can adjust to network dynamics and variable video-bit rates competently, and yield a gain of 2-5 dB in relations of the average video quality as related to the leader based approach.

## III. PERFORMANCE PARAMETERS

a) Loss Probability: Packet loss occurs when packet fails to reach its destination. The probability of packet loss can also affect multicasting.
b) Time: time required transmitting subset of frames over the network as we are working with the multi rate network hence bandwidth heterogeneity of client effect time.
c) Video Quality: Video quality or visual quality of video to be transmitted. as we have clients whom bandwidth requirements may vary and here by our motive is to maintain the maximum quality as per their bandwidth requirement.
d) Visual Degradation: This norm calculates the perceptual distortion of the video data with respect to the plain video. In some applications, it could be desirable to achieve enough visual degradation.
e) Encryption Ratio: This criterion measures the ratio between size of encrypted part and the whole data size. Encryption ration has to be minimized or reduce computational complexity [8].
f) Speed: Encryption and decryption algorithms should be fast enough to meet real time requirements. [8].


## IV EXPERIMENTAL RESULTS

Frames are images which compose the complete moving picture as video that means video data is made up of sequence of frames which is audio visual element [9]. In this proposed system we divide video into the frame Group say $\mathrm{F}=\{\mathrm{f} 1, \mathrm{f} 2, \ldots, \mathrm{fn}\}$ where f denote the frame and n indicates no if frames in the video data. The system having Membersinm1ulticast $\mathrm{M}=\{\mathrm{m} 1, \mathrm{~m} 2, \mathrm{mj}\}$ where m is the member of multicast group and j is the no of members in the group. The rate of multicast group is given by $\mathrm{R}=\{\mathrm{r} 1, \mathrm{r} 2, \ldots, \mathrm{rk}\}$. In CVM we have analyzed frames to provide security. For the reason mentioned in CVM steganography is applied on the frames to provide security the frames are then multicast through the channel and only member are able to retrieve the content those are having the secret message key which is embedded in frames. We have conducted experiments over a variety of
video sequences to investigate the f measures. Shows a video frame with a 60 bit secret message embedded (left) and original frame (right), as well as the encrypted frame in5.1c.This sequence containing 100 frames is taken from a sample cookie video The Loss probability indicates the loss of packets in transmission in CVM the loss probability as same as QDM as we are dealing with security phase only hence two more parameters are same as QDM in CVM the video quality is same as QDM and the Time of transmission for the video in multicasting. The rest parameters are related to video encryption which we can improve to demonstrate the CVM. The video cryptography is broadly characterized in several algorithms enlist Fully Layered video cryptography permutation based video cryptography selective encryption. In CVM we used selective encryption as mentioned insection 4.1 we have selected any of four frames and applied encryption on the selected frames. Below table shows the comparison table of algorithms the parameters for fully layered and permutation based algorithms are referenced from the research of jolly shah and vikas saxena [8] and CASM content aware secure multicast algorithm parameters are referenced from the Hao Yin and other authors [2] and CVM parameters are calculated by the experiment performed. Where VD stands for Visual degradation, ER for Encryption ratio and Speed of Encryption denoted by Speed.


Figure 5.1: Video frame a) stego frame b) original frame c) encrypted frame

While the Mean Square Error is given by

$$
\begin{gathered}
\left.\operatorname{MSE}=\frac{1}{\mathrm{mn}} \sum_{\mathrm{i}=1}^{\mathrm{m}} \sum_{\mathrm{j}=1}^{\mathrm{n}}[f(i, j)]-f(i, j)\right]^{2} \\
P S N R=10 \log \frac{\mathrm{p}^{2}}{\mathrm{MSE}}
\end{gathered}
$$

## V) STEGANOGRAPHYANDENCRYPTION

The main objectives of CVM are to encrypt data and reduce the encryption time. The proposed system will use steganography to achieve the objectives. Steganography is the art of hiding text behind the other object like image, video etc. Video steganography using TPVD [11] uses all frames to embed data in it but the ir motive is just to embed data in the video. In this paper we are dealing to provide security by means of steganography. CVM is using steganography for providing the security by means of hiding text behind the analyzed frames. We consider here the text to be embed into the frame ft is T . Syndrome trellis code can be emerged here to provide the steganography. The compressed technique STC we could use to embed data behind the text. We hide the Tmess age into video, by using this we eliminate the need of another communication process which traditional methods use to authenticate and authorize data and reduce the time and durability of system. Digital watermarking is a mostly studied data embedding. As a result. For consistent data embedding, Al attar et al. [12] have suggested that the original compressed stream can be partially decoded to un cover its syntactic items such data (DCT)coefficients can then be modified to insert the watermark. The CVM is motivated by this technique. It lets the frames average size value of certain regions in ftframes to embed data. The video data has high data rate and long play back duration thus video have huge volume of data. It is not feasible to encrypt the entire video, thus selective encryption is advocated. These selective encryption algorithm in CVM uses for few frames $F^{\prime}=\{f 1, f 2, . . \mathrm{ft}\}$ where $\mathrm{t}<\mathrm{n}$, and $\mathrm{F}^{\prime}$ is the subset of F . This algorithm is quicker because of selective encryption. Therefore the steps in this paper include three major existing algorithms.1.Steganography algorithm syndrome trellis algorithm to embed the data into the selected frames. 2. DCT algorithm to provide digital watermarking on the video data. 3. Selective encryption to provide encryption of video data Then finally this process is applied to the QDM[1] protocol. The CVM works in the way it first analyze frames as shown in section4.1 means simple as a part of coding the we divide video data into $n$ frames e.g. say n is 100 then video is divided in the 100 frames and based on size of frames further processing is performed. In the next step we have to select the frames on which we have to embed secret key as the proposed part we are embedding secret keys on selected frames as mentioned in section 4.1. This embedded key is the core concept of this proposed work after multicasting this key is to be match with the receiver if found correct the video
data is allowed then otherwise this system will deny the video data. In the next step hiding data into the frame is done using syndrome trellis coding and key exchange process is performed using DCT Discrete Cosine Transform

## VI CONCLUSION

Broadcasting nature can allow the video streaming to be accessed by the unauthorized user hence here we can secure video by emerging digital signature to the video data by means of steganography over the network so that no unauthorized user can able to decrypt the video. QDM provide the best multi rate multicasting of video and we can provide security in the QDM. Data embedding, Group key management and Selective encryption can be emerged into the QDM protocol we embed rekey message to avoid separate control channel for key transmission for the clients. We encrypt motion vectors and DC components only. Modified version of these combined algorithms can provide extreme quality based multirate multicasting of QDM with the great securitybased on Content aware secure multicasting of video. In this paper we proposed a Secured video Multicasting for Quality differentiated video multicast based on selective encryption. We used selective encryption to demonstrate less use of encryption with strong.

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