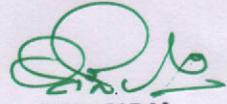


2.3.2: teachers use ICT enabled tools for effective teaching learning process teachers use ICT enabled tools for effective teaching learning process.

**Response:** ICT enabled teaching methodologies and advanced technology is being adopted by the faculty in classroom to ensure effective teaching learning process the college has ICT enabled classrooms which help in creating more interest and motivation among students. Screen display of graphs, diagrams audio visual tools improves the quality of teaching learning process. The accessibility and Wi-Fi enabled campus provide seamless internet in connection I need make ICT enabled teaching more effective. There is one compartment in the office room provided with the computers which help the teachers to make their teaching more effective and productive. The college library has internet zone find browsing centre which provides ICT facility to the students sufficient number of books journals are available in the library. All departments organize seminar/webinar/workshops. On the new development in various subjects effective teaching and learning. The auditorium is equipped with ICT tools. During Corona pandemic period the faculty members used ICT tools such as Google classroom, Google meet, trachmint, zoom and YouTube channel for teaching in order to cater to the needs of the students learning process. Hence the ICT support system prevailing in the college significantly contributing towards making teaching learning process more effective apart from classroom Faculty where using ICT in the Laboratories also have ICT this such as LCD projectors audio visual tools used in the teaching methods.



  
**Co-ordinator,**  
Internal Quality Assurance Cell  
M.G.V.C. Arts, Commerce & Science College  
MUDEBIHAL-586212. Dist: Vijayapur.

  
**PRINCIPAL,**  
M.G.V.C. Arts, Com. & Science College  
MUDEBIHAL - 586212.

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MUDDEBIHAL**



**2.3.2. Teacher use ICT enabled tools for effective Teaching Learning Process**

| Sl.No | Name of the Faculty | Department        | Topic  | Date       |
|-------|---------------------|-------------------|--|------------|
| 1     | Prof.Valappa Lamani | Kannada           | Human values of Ramayana to modern life  | 10/6/2020  |
| 2     | Prof.S.V.Gurumath   | botany            | Administration of blue green algae spirulina meneghiniana on the morus alba leaves to enhanced growth rate and economic traits of silkworm . | 17-11-2021 |
| 3     | Prof.S.V.Gurumath   | botany            | sampling devices for determining the bacterial content of Air  | 12/11/2021 |
| 4     | Dr.Prakash Naragund | Kannada           | kannad litreature in the beginning of 20th century   | 12/11/2021 |
| 5     | Prof.S.S.Hugar      | Education         | Features of traditional and non traditional approaches to continuous education   | 13/06/2020 |
| 6     | Dr.S.S.Patil        | Kannada           | Halegannad   | 25/11/2021 |
| 7     | Prof.A.S.Bagawan    | Chemistry         | Public concern forenvironmental pollution  | 20-1-2022  |
| 8     | Prof.S.H.Natikar    | Political Science | Parliament of Great Britain  | 18/11/2021 |
| 9     | Prof.S.V.Gurumath   | botany            | Frequency of red rot resistance in the progeny population of varius cross combinations   | 13/6/2020  |
| 10    | Prof.S.V.Gurumath   | botany            | Effect of human development on bacteriological water quality in costal watersheds  | 17/11/2021 |
| 11    | Prof.S.V.Gurumath   | botany            | Embroyology  | 24/11/2020 |
| 12    | Prof.B.N.Chowadapur | botany            | Embroyology and early ontogeny of an anemonefish amphiprion ocellaris  | 24/11/2020 |
| 13    | Dr.Prakash Naragund | Kannada           | chandrashekar kamar  | 25/11/2021 |
| 14    | Dr.B.A.Guli         | Economics         | Assessment and forecasting of regional economic system sustainability  | 25/11/2021 |
| 15    | Prof.S.V.Gurumath   | Botany            | Plant cell biotachnogoly   | 25/11/2021 |
| 16    | Prof.S.V.Gurumath   | Botany            | Conceptual ideas of carnivorous plants to utilize in the field of agriculture  | 7/12/2020  |
| 17    | Prof.S.V.Gurumath   | Botany            | Embroyology  | 8/12/2020  |



|    |                      |                   |  |            |
|----|----------------------|-------------------|--|------------|
| 18 | Prof.B.N.Chowadapur  | botany            | Physiology of Flowering in citrus species  | 8/12/2020  |
| 19 | Prof.P.H.Uppaladinni | Political Science | Indian constitution  | 27/11/2021 |
| 20 | Dr.S.S.Patil         | Kannada           | Kuvempu  | 27/11/2021 |
| 21 | Prof.S.N.Bidarakundi | Statistics        | The structure of decentralization  | 27/11/2021 |
| 22 | Prof.M.A.Biradar     | English           | William Hazlitt as a Critic of prose fiction   | 27/11/2021 |
| 23 | Prof.Valappa Lamani  | Kannada           | Dr.D,Bendre  | 27/11/2021 |
| 24 | Prof.R.G.Vastrad     | Zoology           | The effectiveness of a field study on vertebrate zoology to improve the mastery of student concept | 1/12/2021  |
| 25 | Prof.S.R.Hatti       | Commerce          | Housing loan   | 1/12/2021  |
| 26 | Prof.Valappa Lamani  | Kannada           | M.govind pai   | 1/12/2021  |
| 27 | Prof.A.A.Mulla       | Urdu              | Premchand  | 3/12/2021  |
| 28 | Prof.A.A.Mulla       | Urdu              | Nazeerahmed  | 3/12/2021  |

  
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Internal Quality Assurance Cell  
M.G.V.C. Arts, Commerce & Science College  
MUDDEBIHAL-586212. Dist: Vijayapur.

  
PRINCIPAL,  
M. G. V. C. Arts, Com. & Science College  
MUDDEBIHAL - 586212,



## Administration of blue green algae *Spirulina meneghiniana* on the *Morus alba* leaves to enhanced growth rate and economic traits of silkworm

V.K. Stanley Raja\* and S. Abraham Muthukumar

Department of Botany, St. John's College, Palayamkottai, Tirunelveli – 627 002, Tamil Nadu, India

### ABSTRACT

Blue-green algae *Spirulina meneghiniana* is one of the most popular microalgae that was found to be mostly protein. It includes amino acids, vitamins, protein, carbohydrates, minerals and trace minerals, omega 3 fatty acid, beta-carotene, chlorophyll, and many other nutrients. The mulberry leaves fortified with different concentrations of blue green algae *S. meneghiniana* extracts were given to silkworm larvae from 3rd instar onwards once a day. A significant increase in growth rate, silk gland ratio, cocoon weight, pupal weight, shell weight, shell ratio, filament length and fibroin percentage denier was observed.

**Key words :** Algae, *Morus alba*, rearing, silkworm, *Spirulina meneghiniana*.

### INTRODUCTION

*Bombyx mori* is a monophagous insect and a major portion of successful silk production, as well as the excellence of silk cocoon, depends on the nutritional value of mulberry leaf. Mulberry leaves as the only natural food of the *Bombyx mori* L. and the quality of the mulberry leaves has an exact bearing on the normal growth of the larvae and the quality of the cocoon (Horie *et al.*, 1966). Nutrition is the single most factor that impact the growth and development of silkworm (Kanafi *et al.*, 2007; Laskar and Datta, 2000). Nutritional supplements include vitamins, carbohydrates, amino acids, proteins, and minerals when added to larval feed tend to develop nutritional efficiency, growth silk ratio and economic traits of silkworm (Etebari *et al.*, 2004).

Recently many studies confirmed the effect of many plants and algal extracts on various metabolic activities resulting in increased of silk cocoon formation and spinning (Shivakumar, *et al.*, 1995 and Murugan *et al.*, 1998) and accelerate in larval, cocoon as well as shell weight (Sridevi, *et al.*, 2003; Pardesh and Bajad, 2004b). Microalgae *Spirulina* is a high source of protein and the most powerful and well-balanced source of nutrition. One kg of *Spirulina* is said to be equivalent to 1000 kg of assorted vegetables (Vijayalakshmi *et al.*, 2004).

*Spirulina* is one of the most popular microalgae that are grown for human and animal food and cosmetics (Spolaore *et al.*, 2006). The composition of microalgae *Spirulina* was found to be mostly protein (Sydney *et al.*, 2010). It was also reported to have the potential to grow on manure, capture carbon dioxide and produce biomass (Shelef *et al.*, 1980). The general composition of some microalgae species (*Spirulina*) compared to different food sources (Spolaore *et al.*, 2006) are shown in Table 1.

The present study is an attempt to evaluate the impact of *Spirulina meneghiniana* algal extracts extract on the growth and economic parameters of the silkworm, *B. mori* L. Blue-green algae *Spirulina* sp. is highly used in food applications and has the efficient to consume CO<sub>2</sub>. *S. meneghiniana* is a free-floating filamentous Cyanobacteria characterized by cylindrical form, multicellular trichomes in an open left-hand helix. The name '*Spirulina*' is obtained from the Latin word for helix' or 'spiral'; denoting the physical configuration of the organism when it forms swirling and cylindrical, microscopic strands. *S. meneghiniana* occurs naturally in tropical and subtropical water bodies with high pH and high concentrations of carbonate and bicarbonate.

*Spirulina* sp. includes 18 amino acids namely, histidine, lysine, methionine, glutamine, glycine,

\*Corresponding author's E-mail : stanlee31@gmail.com

अस्त प्रो. व. स. शर्मा Date: 10-6-2020  
सेत: कान्वादा

## HUMAN VALUES OF RAMAYANA TO MODERN LIFE



**SK. Naga Mastanvali \***

The whole universe is under the control of God. God is governed by Truth. Noble souls are the guardians of Truth. Such noble souls are verily the embodiments of Divinity.

[Sanskrit sloka]

Embodiments of Love! All are essentially the embodiments of Divinity. Eswara sarva bhoothanam (God dwells in all beings). Isavasyam idam jagat (God permeates the entire universe).

Where is the need to search for such an all-pervasive Divinity?

Sarvata Pani Padam Tath Sarvathokshi Shiromu- kham, Sarvata Sruthimalloke Sarvamavruthya Thi- sthati.

[Sanskrit sloka]

How can you search for Him who is moving about with thousands of feet, thousands of eyes, and thousands of ears? It

**Sathya Sai Speaks, Volume 32 part199**

is utterly foolish to search for God. God is within you. Since you have forgotten your true Self and are carried away by the temporary and transient physical body, you are unable to understand the Divine. When you get rid of body attachment and develop attachment towards the Self, only then you can understand the divine Atmic Principle.

\* M.A.Ph.D., Research Scholar., Dept. of Sanskrit, S.V. University, Tirupati - 517502

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## Sampling Devices for Determining the Bacterial Content of Air

MATTHEW LUCKIESH, A. H. TAYLOR, AND THOMAS KNOWLES

Lighting Research Laboratory, General Electric Company, Nela Park, Cleveland, Ohio

(Received September 20, 1948)

Appraisal of air contamination by micro-organisms which are responsible for infectious diseases or result in spoilage of products requires devices for sampling the air to determine bacterial content. The simplest technique involves the use of open petri dishes containing culture media upon which colonies of the organisms can grow. However, quantitative data require the use of devices which will sample the bacterial content of definite volumes of air.

Air samplers which yield quantitative data may be roughly divided into bubbler and impinger types. In the former type a definite quantity of air, with or without atomization, is bubbled through water, thus collecting a

large part of the organisms. In the impinger types the organisms are deposited on the culture medium, either by use of high linear velocity of the air or by application of an electrostatic field.

The authors have developed two types of impinger samplers. One of these, weighing approximately 12 pounds, employs an electrostatic field of about 7000 volts. It can be used wherever 110-120-volt, 60-cycle current is available. The other sampler, called a duplex radial-jet air sampler, uses a high velocity air flow to impinge the organisms on the culture medium. Examples of the use of the latter sampler in important laboratory studies are described and typical experimental results are presented.

MODERN air sanitation has for one of its objectives the reduction of air-borne micro-organisms which may be instrumental in the spread of infectious diseases or the contamination of foodstuffs and other products. The oldest and most commonly used method is ventilation, replacing contaminated indoor air with relatively fresh outdoor air. In the past decade two other methods have been introduced; *viz.*, the use of germicidal vapors and air irradiation with ultraviolet of the wave-length  $\lambda 2537$  which is highly destructive to such organisms.

The appraisal of air contamination and its improvement by air sanitation procedures necessitates the use of some method of air sampling which will indicate the concentration of air-borne micro-organisms. This usually involves the collection of the organisms directly onto a culture medium upon which colonies of the organisms will grow, or else their collection in a liquid by bubbling the air through it and incorporating a portion of this liquid in a culture medium. Since no single culture medium will grow all types of the organisms which may be collected, it is never possible to determine accurately the total concentration of such organisms in the air. By proper choice of the culture medium, the concentration of specific types can be determined.

Many air-sampling methods and devices have been developed and used. The simplest of these is the exposure of open petri dishes, containing

a culture medium, in the air to be sampled. Since only the heavier particles in the air will settle out, and since air currents disturb the natural settling due to gravity, this method is selective in its results and is erratic and inefficient. Furthermore, the results cannot be related to a definite quantity of air. Some droplet nuclei may be so small that they will never settle out.<sup>1</sup>

Air sampling devices fall generally into two distinct classes, impinging and washing or

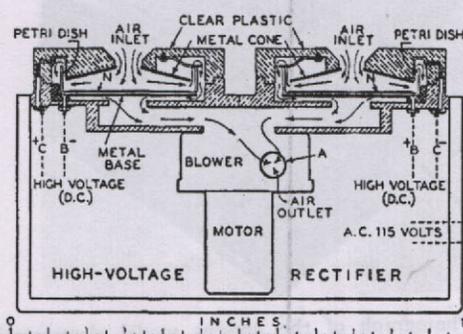


FIG. 1. Diagrammatic sketch of the Luckiesh-Holladay-Taylor electrostatic bacterial air sampler. Air entering the sampler is subjected to an electrostatic field (7000 volts) which increases in intensity towards the edges of the petri dish, as a result of the shorter spacing of the electrodes.

<sup>1</sup> E. B. Phelps and L. Buchbinder, "Studies on micro-organisms in simulated room environments. I. A study of the performance of the Wells air centrifuge and of the settling rates of bacteria through the air," *J. Bact.* **42**, 321 (1944).

bubbling devices. In the impinging types the air-borne organisms are collected on the culture medium by impingement from air moving at fairly high linear velocity, or by use of an electrostatic field to attract charged particles to the culture medium. In the bubbling devices the air is drawn through water in such a way that fine air bubbles are formed, it being assumed that most of the organisms will be collected by and remain in the water. In one sampler<sup>2</sup> the air passes through an atomizing chamber before passing through water.

One of the earliest samplers operating on the impingement principle was the Wells air centrifuge.<sup>3</sup> It employs a rotating glass cylinder, the inside walls being coated with the nutrient material upon which the organisms grow colonies. The organisms in the air drawn through the sampler are impinged, by centrifugal action, upon the walls of the cylinder which is rotating at high speed.

The United States Public Health Service has made an extensive study of the above two sampling devices and six other types.<sup>4</sup> That

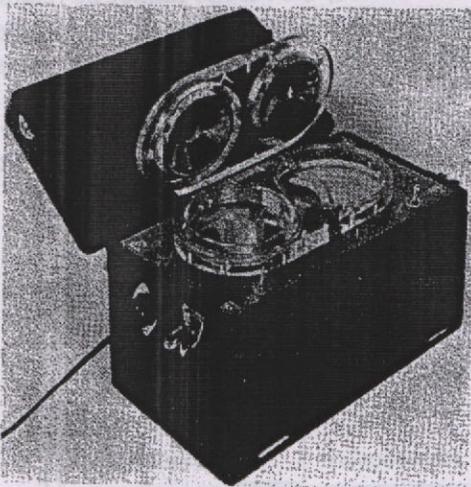


FIG. 2. Photograph of the present model electrostatic bacterial air sampler.

<sup>2</sup> S. Moulton, T. T. Puck, and H. M. Lemon, "An apparatus for determination of the bacterial content of air," *Science* 97, 51 (1943).

<sup>3</sup> W. F. Wells, "Apparatus for the study of the bacterial behavior of air," *Am. J. Pub. Health* 23, 58 (1933).

<sup>4</sup> H. G. du Buy, Alexander Hollaender, and Mary D. Lackey, "A comparative study of sampling devices for air-borne micro-organisms," Supplement No. 184 to the Public Health Reports, U. S. Government Printing Office, Washington, D. C., 1945.

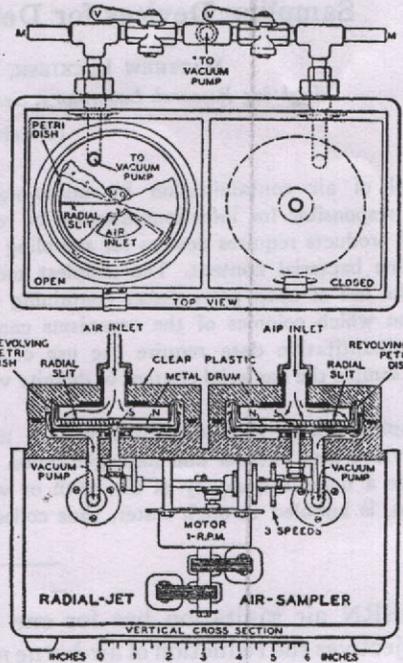


FIG. 3. Diagrammatic sketch of the duplex radial-jet air sampler which has two identical sampling units. The petri dish with culture medium rotates slowly below a stationary radial slit, visible in the open lid, through which air issues at high velocity, impinging the micro-organisms on the culture medium.

study showed that the highest bacterial counts are obtained with the bubbler and atomizer-bubbler types of samplers. The most plausible explanation for this finding is the theory that the micro-organisms are carried in the air in

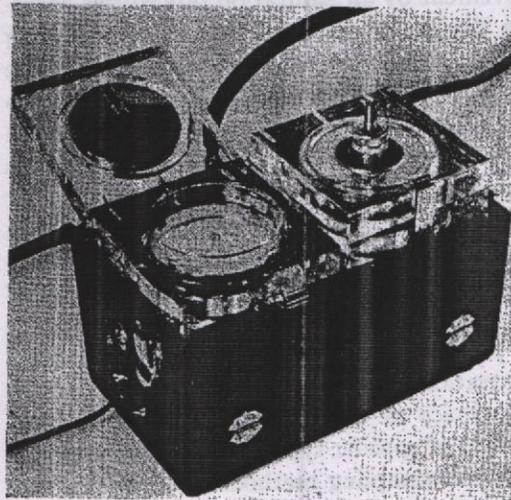


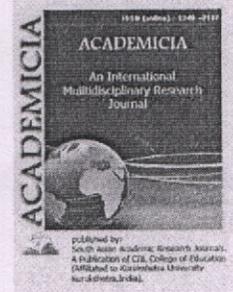
FIG. 4. Photograph of the duplex radial-jet air sampler shown in Fig. 3.



# ACADEMICIA

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### FEATURES OF TRADITIONAL AND NON-TRADITIONAL APPROACHES TO CONTINUOUS EDUCATION

Z. Ziyovutdinova\*

\*Teacher of Andijan State University,  
UZBEKISTAN



#### ABSTRACT

The article is devoted to the gradual use of non-traditional teaching methods, the phased application of new pedagogic and information technologies based on the extensive use of interactive teaching methods, the basic principles of non-traditional forms of education that form the core of the pedagogical process in all parts of the continuing education system, and their knowledge has a positive effect on the effectiveness of training. The teacher directs the learning activities of the students to achieve these goals through their activities, meaning that a certain part of the learning content is absorbed by them. Student performance depends on the degree to which they form a learning motivation. Students, in turn, absorb learning material through a teacher-provided or independent, creative search. In traditional educational settings, it would be better to equip students with more theoretical knowledge, to teach them knowledge from a willing teacher, and to the way we were living at that time. However, in the current market economy, such an approach is not appropriate. The market is essentially volatile. After the independence of the Republic of Uzbekistan began the introduction of teaching methods, called innovative technologies, which were developed and tested by advanced scientists of the foreign countries, which stimulate pupils in the educational process. Our great ancestors Abu Nasir Farabi, Abu Ali Ibn Sina, Yusuf Hosib, Abu Raihon Beruni, Ahmad Yugnaki, Mahmud Kashgari, Alisher Navoi, Zakhridin Muhammad Babur paid great attention to the education and upbringing of the younger generation. Under these circumstances, development has become a key concept in all parts of the system of continuous education that is the driving force of the new pedagogical technology.

**KEYWORDS:** Traditional, Non-Traditional, Humanization of Education, Democratization, Information Technologies, Inductance, Deductiveness.

S.V. Gurumath  
13.6.2020  
10.50 am



## ARTICLE TYPE

# Frequency of Red Rot Resistance in the Progeny Population of Various Cross Combinations

Sujeet Pratap Singh<sup>1\*</sup>, S.K. Vishwakarma<sup>1</sup>, S.P. Singh<sup>1</sup>, M.M. Das<sup>2</sup>, A. Kumar<sup>2</sup>, V.K. Srivastava<sup>2</sup>

10.18805/ag.D-4885

## ABSTRACT

Resistance pattern in parents produces resistance progenies predominantly. Inheritance of resistance gene against red rot intensely affected to the degree of frequency in progenies. The present study was commenced to find out the role of parental crosses to develop resistant progenies in the first clonal generation for two consecutive years. Total of 2262 progenies of 143 bi-parental and 27 local cross combinations were evaluated to red rot resistance. CoS 96260, CoS 95255, CoS 8436, Co 0238, CoSe 92423, Co 89003, Co 62198 and CoS 08272 were good parents which involved in bi-parental cross combination, produced predominantly resistant progenies ranging from 40 to 100%. The cross combination Co 8213 × CoS 96260 produced maximum proportion 100% resistant progenies, higher than CoS 95255 × CoA 7602 (83.33 %) and Co 8436 × Co 1148 (80%). These parents identified as a good combiner and also found to inherit resistance gene in bulk of its progenies. These parents could be used as donor parents in red rot resistance breeding programs of sugarcane.

**Keywords:** *Colletotrichum falcatum*, Parental line, Progenies, Red rot, Resistance, Sugarcane.

*Agricultural Science Digest* (2019)

## INTRODUCTION

Sugarcane progenies derived from various crosses based on their ability to produce high sugar yield and resistance to red rot. The genetic consistency generated not only done by inter-specific hybridization but also backcrossing of major poly, bi-parental, and general crosses for the sustaining of disease resistance and sugar quality (Babu *et al.* 2009). The back cross of hybrids to *S. officinarum* resulted in high sugar yield and red rot resistance in nobilization process (Roach, 1972). Although, the nobilization is highly successful but due to limits of the resistant gene pool in selected parents which exploited during traditional breeding programs, very limited progress has been achieved in increasing red rot resistant progenies with high sugar content and yield (Sreenivasan *et al.* 1987; Lima *et al.* 2002).

The red rot (*Colletotrichum falcatum* Went.) disease susceptibility is a vital limitation of sugarcane improvement in a breeding program. This disease is prevalent almost all the tropical and sub-tropical states in India, and also one of the major constraints in sugarcane advancement. So many good sugarcane cultivars have suffered and left out from general cultivation due to their red rot susceptibility within a short period. Genetic resistance to *C. falcatum* is unstable in certain condition due to the highly variable in nature. The race-specific resistance explored to obtain stable resistance genotypes/varieties to *C. falcatum*. Continuous evaluation processes of the sources of resistance with variable pathotypes are needed in the breeding program (Viswanathan, 2017). Till now, there is no well-known chemical control of this disease. The use of disease-resistant varieties is the easiest and most convenient way of accomplishing disease control. To develop resistant constant and continuous breeding is necessary, as well as testing varieties against pathotypes prevail the area is also needed for resistance sustainability (Satyavir, 2003; Dattamajumder, 2008; Viswanathan, 2010). The

<sup>1</sup>Plant Pathology Division, Sugarcane Research Institute (UP Council of Sugarcane Research), Shahjahanpur-242001, UP, India

<sup>2</sup>Breeding Division, Sugarcane Research Institute (UP Council of Sugarcane Research), Shahjahanpur - 242 001, UP, India

**Corresponding Author:** Sujeet Pratap Singh, Plant Pathology Division, Sugarcane Research Institute (Uttar Pradesh Council of Sugarcane Research), Shahjahanpur - 242001, UP, India, Email: sujeetsugarcane@rediffmail.com

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resistance clones with good yield and quality alone release for commercial cultivation. Resistant breeding for red rot is complicated by the existence of several races along with good combiners. Susceptible progenies to red rot are eliminated in the first clonal generation of sugarcane, which increases the frequency of resistant progenies and also enhances the selection efficiency for good sugar yield. The exploitation of the resistant gene into progenies depends upon good parental combiners (Ram *et al.* 2005; Babu *et al.* 2010). The present study was undertaken to find out the genetic basis of resistance and identification of suitable parents for the inheritance of red rot resistance gene in sugarcane breeding programs.

## MATERIALS AND METHODS

An investigation was done to analyze the association of red rot resistance for effective family selection. The present investigation was conducted at the experimental farm of



S.V. Gurumath  
17. 11. 2021  
1.56 pm

August 2000

MANAGING THE LAND-WATER INTERFACE

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## EFFECT OF HUMAN DEVELOPMENT ON BACTERIOLOGICAL WATER QUALITY IN COASTAL WATERSHEDS

MICHAEL A. MALLIN,<sup>1</sup> KATHLEEN E. WILLIAMS,<sup>1</sup> E. CARTIER ESHAM,<sup>2</sup> AND R. PATRICK LOWE<sup>3</sup>

<sup>1</sup>Center for Marine Science, The University of North Carolina, Wilmington, North Carolina 28409 USA

<sup>2</sup>Department of Marine Sciences, University of Georgia, Athens, Georgia 30602 USA

<sup>3</sup>New Hanover County Planning Department, Wilmington, North Carolina 28401 USA

**Abstract.** Human development along the land-seawater interface is considered to have significant environmental consequences. Development can also pose an increased human health risk. In a rapidly developing coastal region we investigated this phenomenon throughout a series of five estuarine watersheds, each of which differed in both the amount and type of anthropogenic development. Over a four-year period we analyzed the abundance and distribution of the enteric pathogen indicator microbes, fecal coliform bacteria and *Escherichia coli*. We also examined how these indicator microbes were related to physical and chemical water quality parameters and to demographic and land use factors throughout this system of coastal creeks. Within all creeks, there was a spatial pattern of decreasing enteric bacteria away from upstream areas, and both fecal coliform and *E. coli* abundance were inversely correlated with salinity. Turbidity was positively correlated with enteric bacterial abundance. Enteric bacterial abundance was strongly correlated with nitrate and weakly correlated with orthophosphate concentrations. Neither fecal coliforms nor *E. coli* displayed consistent temporal abundance patterns. Regardless of salinity, average estuarine fecal coliform abundance differed greatly among the five systems. An analysis of demographic and land use factors demonstrated that fecal coliform abundance was significantly correlated with watershed population, and even more strongly correlated with the percentage of developed land within the watershed. However, the most important anthropogenic factor associated with fecal coliform abundance was percentage watershed-impervious surface coverage, which consists of roofs, roads, driveways, sidewalks, and parking lots. These surfaces serve to concentrate and convey storm-water-borne pollutants to downstream receiving waters. Linear regression analysis indicated that percentage watershed-impervious surface area alone could explain 95% of the variability in average estuarine fecal coliform abundance. Thus, in urbanizing coastal areas waterborne health risks can likely be reduced by environmentally sound land use planning and development that minimizes the use of impervious surface area, while maximizing the passive water treatment function of natural and constructed wetlands, grassy swales, and other "green" areas. The watershed approach used in our study demonstrates that the land-water interface is not restricted to obvious shoreline areas, but is influenced by and connected with landscape factors throughout the watershed.

**Key words:** development; *Escherichia coli*; estuary; fecal coliform bacteria; impervious surface; nonpoint source; planning; shellfishing; watershed.

### INTRODUCTION

The land-water interfaces along developed and developing seacoasts represent key regions where the sustainability of natural ecosystem functions can be compromised. Coastal ecosystems are under increasing stress from a variety of human activities that cause increased pollution, floral and faunal changes, and physical alteration of the environment (Vitousek et al. 1997, Epstein 1998). This increase in human activities stems from coastal population increases coupled with

growing coastal tourism (USEPA 1992). Much of the attraction of coastal areas to both residents and tourists involves water contact, such as swimming, finfishing, and shellfishing. However, those who participate in such activities face increasing human health risk from pollutants resulting from growing coastal urbanization. Southeastern North Carolina, United States, is a rapidly developing area which typifies this situation. As human development has increased along this coastline, the numerous small estuaries subsequently have been closed to shellfish harvest for human consumption due to high fecal coliform bacterial counts (Mallin et al. 1998).

Pathogenic enteric bacteria enter the environment from human or animal excreta (Dadswell 1993). Both

Manuscript received 9 November 1998; revised 26 April 1999; accepted 15 September 1999. For reprints of this Invited Feature, see footnote 1, p. 939.

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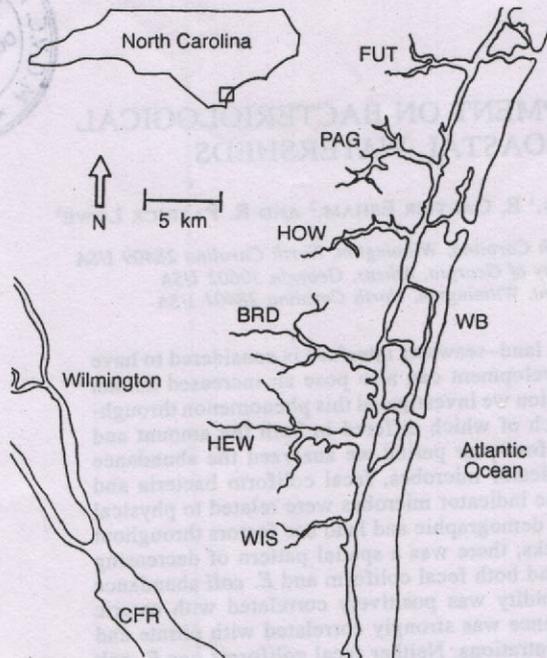


FIG. 1. Tidal creek system in New Hanover County, North Carolina, USA. Abbreviations are: CFR, Cape Fear River; FUT, Futch Creek; PAG, Pages Creek; HOW, Howe Creek; BRD, Bradley Creek; HEW, Hewletts Creek; WIS, Whiskey Creek; WB, Wrightsville Beach.

direct contact with contaminated water and consumption of contaminated shellfish can lead to human illness and even death (USFDA 1995, Ford and Colwell 1996, Epstein 1998). Over the past several decades public health officials worldwide have devised various water quality standards to protect human health (USEPA 1986, Dadswell 1993, Ford and Colwell 1996). While a variety of pathogenic indicators have been proposed, the most commonly used estimator of fecal pathogenic bacteria presence is fecal coliform bacterial abundance (Dadswell 1993, Ford and Colwell 1996, Rees et al. 1998). For example, in the United States, shellfishing waters must maintain geometric mean fecal coliform bacterial concentrations  $\leq 14$  colony forming units (CFU) per 100 mL, and  $< 10\%$  of the samples can have  $> 43$  CFU/100 mL (USFDA 1995). In the European Union, the Mandatory fecal coliform standard is 1000 CFU/100 mL and the Guideline fecal coliform standard for swimming beaches is only 100 CFU/100 mL (Rees et al. 1998). High use areas, where maintenance of these standards is most critical, are often the most highly contaminated areas along a coastline (Kocasooy 1995). Thus, anthropogenic activities along the land-seawater interface have a strong potential for contributing toward both ecological and human health problems.

In 1993 a comprehensive study was initiated to investigate five estuaries in urbanizing watersheds from perspectives of ecological and human health standards. Part of this study encompassed an analysis of the distribution and abundance of enteric bacterial indicators and how these indicators are associated with other water quality constituents. The discrete drainage areas, each with different populations and land use practices, allowed us to take a watershed approach to determining how human landscape practices affect the dynamics of coastal enteric bacterial assemblages.

#### SITE DESCRIPTION

The five estuarine creeks are located in New Hanover and Pender Counties, in southeastern North Carolina, United States. These systems drain into the Atlantic Intracoastal Waterway (ICW), and have a salinity gradient ranging from over 30.00 (according to the practical salinity scale) at the ICW to fresh water 3–5 km upstream (Fig. 1). Principal marsh vegetation consists of marsh cordgrass *Spartina alterniflora* Loisel in mesohaline and polyhaline salinities and black needlerush *Juncus roemerianus* Scheele in oligohaline areas. By the early 1990s, these tidal creeks had all become either fully or partially closed to shellfishing because of increased enteric bacterial counts (NHCPD 1993). An advantage to the goals of our investigation was that the five separate estuarine watersheds targeted for study were similar in climate, geography, and soil type because of inter-watershed proximity (NHCPD 1993). Aside from physical aspects such as drainage area and hydrology, the major variables differentiating the watersheds were population density and land use differences (Table 1).

The sampling period for each project-year began in August and continued until the following July. During 1993–1994 fecal coliforms and *E. coli* were sampled at five stations in Howe Creek (HW-M, HW-FP, HW-GC, HW-GP, and HW-DT), and seven stations in Hewletts Creek (HC-1, HC-2, HC-3, HC-NWB, NB-GLR, MB-PGR, and SB-PGR). During 1994–1995 fecal coliforms and *E. coli* were sampled at eight stations in

TABLE 1. Demographic and land use factors of the five coastal watersheds.

| Estuary  | Land area (ha) | Population† | Percentage developed land | Percentage impervious cover | Percentage developed land |
|----------|----------------|-------------|---------------------------|-----------------------------|---------------------------|
| Bradley  | 2448           | 13 657      | 77.8                      | 21.9                        | 33.3                      |
| Hewletts | 2393           | 13 000      | 69.0                      | 18.0                        | 26.1                      |
| Howe     | 1210           | 3937        | 51.0                      | 13.9                        | 27.3                      |
| Pages    | 1230           | 4185        | 69.4                      | 8.7                         | 12.5                      |
| Futch    | 1257           | 2108        | 42.9                      | 6.9                         | 16.1                      |

† Population is the number of people residing in the watershed.



## EMBRYOLOGY

Nick Hopwood

"If... we say that each human individual develops from an egg, the only answer, even of most so-called educated men, will be an incredulous smile; if we show them the series of embryonic forms developed from this human egg, their doubt will, as a rule, change into disgust. Few... have any suspicion," wrote evangelist of evolution Ernst Haeckel in the 1870s, "that these human embryos conceal a greater wealth of important truths, and form a more abundant source of knowledge than is afforded by the whole mass of most other sciences and of all so-called 'revelations.'"<sup>1</sup> Between this extravagant claim and the incredulity and disgust that it invokes lies a contradictory history. In nineteenth-century universities and medical schools embryology was a key science of life; around 1900 modern biology was forged within it; and as developmental biology it buzzes with excitement today. Embryology fired wide publics with Darwinist fervor, sexual knowledge, and the prospect of reproductive control; but it also bored generations of medical students, was molecular biologists' favorite example of scientific decline, and has attracted both feminist and antiabortionist critiques. There are, then, rich histories to be told, and as scholars in various disciplines begin to tell them, existing surveys have come to seem thin. Largely confined to concepts and theories, they tell us little about the daily life of embryology. Written within particular traditions, they do scant justice to the diversity of embryo science and the variety of perspectives on it. In response to these limitations, this highly selective chapter seeks to encourage more adequate attempts at synthesis by following two interlocking transformations: in forms of work and in identity.

Embryology has shared with other sciences two main ways of working: Since the end of the eighteenth century, physicians, professors, and curators,

<sup>1</sup> Ernst Haeckel, *The Evolution of Man: A Popular Exposition of the Principal Points of Human Ontogeny and Phylogeny*, 2 vols. (London: Kegan Paul, 1879), vol. 1, p. xix.

For comments on drafts, I thank John Pickstone, Peter Bowler, Tim Horder, Jim Secord, Silvia De Renzi, Scott Gilbert, Jonathan Harwood, Soraya de Chadarevian, and Denis Thieffry.



# Embryology and early ontogeny of an anemonefish *Amphiprion ocellaris*

Inayah Yasir\*<sup>†</sup> and Jian G. Qin\*<sup>‡</sup>

\*School of Biological Sciences, Flinders University, GPO Box 2100, 5001 SA Adelaide, Australia. <sup>†</sup>Department of Marine Sciences, Hasanuddin University, Makassar 90245, Indonesia. <sup>‡</sup>Corresponding author, e-mail: Jian.Qin@Flinders.edu.au

The present study describes the embryonic development and early ontogeny of *Amphiprion ocellaris* from fertilization to post hatching. Anemonefish spontaneously spawned at 27–28°C. The newly laid eggs were orange in colour and elliptical in shape (1.8×0.8 mm). Melanin appeared as a black mass situated at the vegetal pole in mature eggs. This is rarely seen in eggs of other fish species. We documented developmental times at 27–28°C to egg activation (0.5 h), cleavage (4 h), blastula (11.5 h), gastrula (20 h), neurula (24.5 h), somite (28.5 h), turnover (72 h), blood formation (113 h) and internal ear and jaw formation (144 h). Hatching occurred 152 h after fertilization. On day 4, the eye buds were pigmented and melanophores formed on the ventral surface of the embryo. Internal ear and gill formation were completed on day 5 and coincided with movement of the opercula and pectoral fins. The mouth formed on day 6 and the digestive tract appeared on day 7. By day 10, the yolk was fully absorbed and a substantial amount of food was observed in the gut. Dark and orange pigments were dispersed and aggregated through muscle contractions by day 14, but red pigments did not appear until the fish were three months old. This study contributes to a further understanding of the embryology and the early ontogeny of damselfish and may help improve the culture of coral reef fish.

## INTRODUCTION

Among all species of anemonefish, *Amphiprion ocellaris* is the best known to aquarium traders due to its colour pattern, interesting behaviour and robustness. From 1997 to 2002, *A. ocellaris* was the most common species of marine ornamental fish and made up 15.6% of total number exported worldwide and over 25% into European countries (Wabnitz et al., 2003). Thus, anemonefish are considered the 'goldfish' of marine aquaria (Hoff, 1996).

Most anemonefish species are symbiotic with tropical sea anemones (Allen, 1975; Dunn, 1981; Fautin, 1991; Fautin & Allen, 1997). Both anemonefish and anemone benefit each other through this mutual symbiotic relationship (Porat & Chadwick-Furman, 2004). All anemonefish are protandric hermaphrodite, starting life as a male and later changing to a female (Allen, 1975; Fautin, 1991; Fautin & Allen, 1997). Most anemonefish species form long-term monogamous pairs. The male–female bond only breaks when one member of the pair is lost (Hattori, 1994; Buston, 2003). In most cases, the female is larger making it more vulnerable to predation. In an anemonefish population, the conversion of a functional male into a female, or of an immature male into a mature male typically takes several months to a year (Moe, 1992; Hoff, 1996). Anemonefish are benthic spawners (Allen, 1975; Arvedlund et al., 2000a). Their eggs are highly pigmented and contain carotenoids in the yolk sac resulting in eggs that appear whitish-orange to purple in colour (Kunz, 2004). After spawning, both parents usually attend the nest until larvae hatch. The fanning behaviour of the parent fish brings oxygen to the nest and removes dead eggs (Green & McCormick, 2004).

There have been extensive studies of anemonefish taxonomy (Allen, 1975, 1991), their living habits associated with behavioural ecology (e.g. Brooks & Mariscal, 1984; Fautin, 1992; Arvedlund et al., 1999; Elliott & Mariscal, 2001; Chadwick & Arvedlund, 2005), reproductive biology (e.g. Busle-Sicard et al., 1994; Godwin et al., 2003; Hobbs et al., 2004; Holbrook & Schmitt, 2005) and rearing methodology (e.g. Delbare et al., 1995; Arvedlund et al., 2000c; Johnston et al., 2003). However, little attention has been paid to the embryology and early ontogeny (Green & McCormick, 2004), except for the early development of the olfactory system (Arvedlund et al., 2000b) and one recent preliminary study of the embryology of *A. ocellaris* (Liew et al., 2006). Further studies of the embryology of anemonefish would improve our broader understanding of the embryology of tropical reef fish. Such studies may also improve rearing methods of coral reef fish in general. The objectives of the present study were to examine the embryonic development and ontogeny during early life from fertilization to post hatching. Descriptions were based on observations of different developmental stages using light microscopy on fertilized eggs of anemonefish reared in captivity.

## MATERIALS AND METHODS

### *Brood fish preparation*

Six wild caught *Amphiprion ocellaris* from Indonesian waters with a mean total length of 5.5 cm were obtained from an aquarium shop (Sea's View) in Adelaide, South Australia. *Amphiprion ocellaris* has 11 dorsal fin-spines and 17 pectoral

# ಚಂದ್ರಶೇಖರ ಕಂಬಾರ

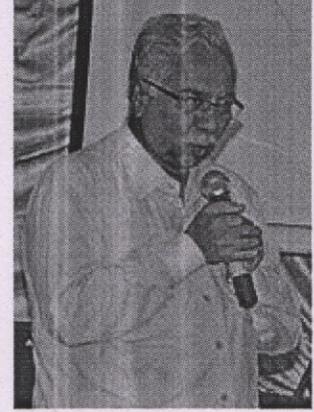


ಚಂದ್ರಶೇಖರ **Kambara** ( ಕನ್ನಡ : ಚಂದ್ರಶೇಖರ ಕಂಬಾರ ; 2 ಜನವರಿ 1937 ಜನನ) ಅವರು ಭಾರತದ ಹೆಸರಾಂತ ಕವಿ, ಆಗಿದೆ ನಾಟಕಕಾರ , ಜಾನಪದ ತಜ್ಞ , ಚಿತ್ರ ನಿರ್ದೇಶಕ ಕನ್ನಡ ಭಾಷೆ ಮತ್ತು ಸ್ಥಾಪಕ-ಉಪಕುಲಪತಿ ಕನ್ನಡ ವಿಶ್ವವಿದ್ಯಾಲಯ ರಲ್ಲಿ ಹಂಪಿ ಉದಾಹರಣೆಗಳು ಸಾಹಿತ್ಯ ಅಕಾಡೆಮಿ ಅಧ್ಯಕ್ಷ ರಾಷ್ಟ್ರದ ಪ್ರಧಾನ ಸಾಹಿತ್ಯ ಸಂಸ್ಥೆ, ವಿನಾಯಕ ಕೃಷ್ಣ ಗೋಕಾಕ್ (1983) ಮತ್ತು ಯುಆರ್ ಅನಂತಮೂರ್ತಿ (1993) ನಂತರ. [2] ಅವರು ತಮ್ಮ ನಾಟಕಗಳು ಮತ್ತು ಕವಿತೆಗಳಲ್ಲಿ ಕನ್ನಡ ಭಾಷೆಯ ಉತ್ತರ ಕರ್ನಾಟಕದ ಉಪಭಾಷೆಯನ್ನು ಡಿಆರ್ ಬೇಂದ್ರೆಯವರ ಕೃತಿಗಳಲ್ಲಿರುವಂತೆ ಅದೇ ಶೈಲಿಯಲ್ಲಿ ಪರಿಣಾಮಕಾರಿಯಾಗಿ ಅಳವಡಿಸಿಕೊಳ್ಳಲು ಹೆಸರುವಾಸಿಯಾಗಿದ್ದಾರೆ . [3]

ಕಂಬಾರರ ನಾಟಕಗಳು ಮುಖ್ಯವಾಗಿ ಸಮಕಾಲೀನ ಸಮಸ್ಯೆಗಳೊಂದಿಗೆ ಪರಸ್ಪರ ಸಂಬಂಧ ಹೊಂದಿರುವ ಜಾನಪದ ಅಥವಾ ಪುರಾಣಗಳ ಸುತ್ತ ಸುತ್ತುತ್ತವೆ , [4] ಅವರ ಕಠಿಣವಾದ ಕವಿತೆಗಳೊಂದಿಗೆ ಆಧುನಿಕ ಜೀವನಶೈಲಿಯನ್ನು ಬೆಳೆಸುತ್ತವೆ. ಅಂತಹ ಸಾಹಿತ್ಯದ ಹರಿಕಾರ ಎನಿಸಿಕೊಂಡಿದ್ದಾರೆ. [5] ನಾಟಕಕಾರರಾಗಿ ಅವರ ಕೊಡುಗೆಯು ಕನ್ನಡ ರಂಗಭೂಮಿಗೆ ಮಾತ್ರವಲ್ಲದೆ ಸಾಮಾನ್ಯವಾಗಿ ಭಾರತೀಯ ರಂಗಭೂಮಿಗೆ ಗಮನಾರ್ಹವಾಗಿದೆ ಏಕೆಂದರೆ ಅವರು ಜಾನಪದ ಮತ್ತು ಆಧುನಿಕ ನಾಟಕೀಯ ಪ್ರಕಾರಗಳ ಮಿಶ್ರಣವನ್ನು ಸಾಧಿಸಿದರು. [6]

ಅವರು ಸೇರಿದಂತೆ ಅನೇಕ ಪ್ರತಿಷ್ಠಿತ ಪ್ರಶಸ್ತಿಗಳನ್ನು ಪ್ರಧಾನ ಮಾಡಲಾಗಿದೆ ಪದ್ಮಭೂಷಣ , 2021 ರಲ್ಲಿ [7] [8] ಜ್ಞಾನಪೀಠ ಪ್ರಶಸ್ತಿ 2010-2011 ರಲ್ಲಿ, [9] ಸಾಹಿತ್ಯ ಅಕಾಡೆಮಿ ಪ್ರಶಸ್ತಿ , ಪದ್ಮಶ್ರೀ ಮೂಲಕ ಭಾರತ ಸರ್ಕಾರದ , [10] ಕಬೀರ್ ಸಮ್ಮಾನ್ , ಕಾಳಿದಾಸ್ ಸಮ್ಮಾನ್ ಮತ್ತು ಪಂಪ ಪ್ರಶಸ್ತಿ . ಅವರ ನಿವೃತ್ತಿಯ ನಂತರ, ಕಂಬಾರರು ಕರ್ನಾಟಕ ವಿಧಾನ ಪರಿಷತ್ತಿನ ಸದಸ್ಯರಾಗಿ ನಾಮನಿರ್ದೇಶನಗೊಂಡರು, ಅವರು ತಮ್ಮ ಮಧ್ಯಸ್ಥಿಕೆಗಳ ಮೂಲಕ ಗಮನಾರ್ಹ ಕೊಡುಗೆಗಳನ್ನು ನೀಡಿದರು. [11]

## ಚಂದ್ರಶೇಖರ ಕಂಬಾರ



2013 ರಲ್ಲಿ ಬೆಂಗಳೂರಿನಲ್ಲಿ "ತಂತ್ರಜ್ಞಾನದಲ್ಲಿ ಕನ್ನಡ" ಕುರಿತು ಸಂವಾದದಲ್ಲಿ ಕಂಬಾರರು

|                        |  |
|------------------------|--|
| ಹುಟ್ಟು                 | 2 ಜನವರಿ 1937<br>ಘೋಡಗೇರಿ , ಬೆಳಗಾವಿ ,<br>ಬಾಂಬೆ ಪ್ರೆಸಿಡೆನ್ಸಿ , ಬ್ರಿಟಿಷ್<br>ಇಂಡಿಯಾ |
| ಉದ್ಯೋಗ                 | ಕವಿ<br>ನಾಟಕಕಾರ<br>ಪ್ರೊಫೆಸರ್  |
| ಅಲ್ಮಾ<br>ಮೇಟರ್         | ನಿಂದ ಪಿಎಚ್‌ಡಿ ಕರ್ನಾಟಕ<br>ವಿಶ್ವವಿದ್ಯಾಲಯ , ಧಾರವಾಡ<br>[1]                         |
| ಅವಧಿ                   | 1937-ಇಂದಿನವರೆಗೆ  |
| ಪ್ರಕಾರ                 | ಕಾದಂಬರಿ  |
| ಗಮನಾರ್ಹ<br>ಪ್ರಶಸ್ತಿಗಳು | ಜ್ಞಾನಪೀಠ ಪ್ರಶಸ್ತಿ<br>ಸಾಹಿತ್ಯ ಅಕಾಡೆಮಿ ಪ್ರಶಸ್ತಿ<br>ಪದ್ಮಶ್ರೀ<br>ಪಂಪ ಪ್ರಶಸ್ತಿ      |
| ಸಂಗಾತಿಯ                | ಸತ್ಯಭಾಮಾ   |
| ಮಕ್ಕಳು                 | 4  |

## ಪರಿವಿಡಿ

### ಆರಂಭಿಕ ಜೀವನ

ವೃತ್ತಿ

ಕೆಲಸ ಮಾಡುತ್ತದೆ

ಧೀಮ್ನಳು

ಪ್ರಶಸ್ತಿಗಳು ಮತ್ತು ಗೌರವಗಳು

ಕೇಂದ್ರ ಪ್ರಶಸ್ತಿಗಳು

ರಾಜ್ಯ ಪ್ರಶಸ್ತಿಗಳು

ಕೃತಿಗಳ ಪಟ್ಟಿ

ಕಾವ್ಯ

ನಾಟಕಗಳು

ಕಾದಂಬರಿಗಳು



## ಆರಂಭಿಕ ಜೀವನ

ಚಂದ್ರಶೇಖರ Kambara ಜನಿಸಿದರು Ghodageri ಒಂದು ಹಳ್ಳಿ ಬೆಳಗಾವಿ ಜಿಲ್ಲೆಯ ಆಫ್ ಬಾಂಬೆ ಪ್ರೆಸಿಡೆನ್ಸಿ (ಇಂದು ಕರ್ನಾಟಕ ). ಅವರು ಕುಟುಂಬದಲ್ಲಿ ಮೂರನೇ ಮಗ, ಸಹೋದರರಾದ ಪರಸಪ್ಪ ಮತ್ತು ಯಲ್ಲಪ್ಪ ಅವರು ಇನ್ನೂ ಗ್ರಾಮದ ಕಂಬಾರ ಕುಟುಂಬಕ್ಕೆ ಸೇರಿದ ಚಿಕ್ಕ ಮನೆಯಲ್ಲಿ ವಾಸಿಸುತ್ತಿದ್ದಾರೆ. [5] ಚಿಕ್ಕ ವಯಸ್ಸಿನಿಂದಲೂ ಕಂಬಾರರು ಜಾನಪದ ಕಲೆಗಳು, ಸ್ಥಳೀಯ ಸಂಸ್ಕೃತಿ ಮತ್ತು ಆಚರಣೆಗಳಲ್ಲಿ ಆಸಕ್ತಿ ಹೊಂದಿದ್ದರು. [1] ಅವರ ನೆಚ್ಚಿನ ಕನ್ನಡ ಬರಹಗಾರರಲ್ಲಿ ಕುಮಾರ ವ್ಯಾಸ , ಬಸವ , ಕುವೆಂಪು ಮತ್ತು ಗೋಪಾಲಕೃಷ್ಣ ಅಡಿಗ ಸೇರಿದ್ದಾರೆ ಮತ್ತು ಇಂಗ್ಲಿಷ್ ಬರಹಗಾರರಲ್ಲಿ ಡಬ್ಲ್ಯೂ.ಬಿ ಯೇಟ್ಸ್ , ವಿಲಿಯಂ ಶೇಕ್ಸ್ಪಿಯರ್ ಮತ್ತು ಫೆಡೆರಿಕೊ ಗಾರ್ಸಿಯಾ ಲೋರ್ಕಾ . [12]

ಅವರ ಸ್ಥಳೀಯ ಜಿಲ್ಲೆಯಲ್ಲಿ ಶಿವಾಪುರ ಕಂಬಾರ ಮಾಸ್ಟರ್ ಎಂದು ಜನಪ್ರಿಯವಾಗಿ ಕರೆಯಲ್ಪಡುವ ಕಂಬಾರರು ಗೋಕಾಕ್‌ನಲ್ಲಿ ತಮ್ಮ ಶಾಲಾ ಶಿಕ್ಷಣವನ್ನು ಪಡೆದರು ಮತ್ತು ಲಿಂಗರಾಜ್ ಕಾಲೇಜಿನಲ್ಲಿ ಉನ್ನತ ಶಿಕ್ಷಣಕ್ಕಾಗಿ ಬೆಳಗಾವಿಗೆ ಮರಳಿದರು. ಬಡತನದ ಕಾರಣದಿಂದಾಗಿ, ಅವರು ಬಂತು ರೊಳಗಿನ ಶಾಲೆಯ [12] ಆದರೆ ಜಗದ್ಗುರು Siddaram ಸ್ವಾಮೀಜಿ Savalagi ಮಾತಾ Kambara ಆಶೀರ್ವದಿಸಿ ತನ್ನ ಪ್ರಾಥಮಿಕ ಮತ್ತು ಪ್ರೌಢಶಾಲಾ ಶೈಕ್ಷಣಿಕ ವೆಚ್ಚವನ್ನು Kambara ಗೌರವಗಳು ಇದಕ್ಕಾಗಿಯೇ ವಹಿಸಿಕೊಂಡರು ಪ್ರವಾದಿಯ ತನ್ನ ಹಲವು ಕೃತಿಗಳಲ್ಲಿ. [5] ನಂತರದ ಇವರ ಪದವಿಯ ನಂತರ, ಮಾಡಿದರು ತನ್ನ PhD ಪ್ರಬಂಧ ಉತ್ತರ Karnatakada Janapad Rangbhumi ( "ಫೋಕ್ ಥಿಯೇಟರ್ ಉತ್ತರ ಕರ್ನಾಟಕದ") ನಿಂದ ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ , ಧಾರವಾಡ. [13]

## ವೃತ್ತಿ

ಚಿಕಾಗೋ ವಿಶ್ವವಿದ್ಯಾನಿಲಯದಲ್ಲಿ ಬೋಧನೆಯಲ್ಲಿ ಅಲ್ಪಾವಧಿಯ ನಂತರ , ಅವರು ಎರಡು ದಶಕಗಳ ಕಾಲ ಬೆಂಗಳೂರು ವಿಶ್ವವಿದ್ಯಾಲಯದಲ್ಲಿ ಕಲಿಸಿದರು ಮತ್ತು ಫುಲ್ಬ್ರೈಟ್ ವಿದ್ವಾಂಸರಾಗಿದ್ದರು . [1]

ಅವರು 12 ಫೆಬ್ರವರಿ 2018 ರಂದು ಸಾಹಿತ್ಯ ಅಕಾಡೆಮಿಯ ಅಧ್ಯಕ್ಷರಾಗಿ ಆಯ್ಕೆಯಾಗಿದ್ದಾರೆ.

ಅವರು 1996 ರಿಂದ 2000 ರವರೆಗೆ ನವದೆಹಲಿಯ ನ್ಯಾಷನಲ್ ಸ್ಕೂಲ್ ಆಫ್ ಡ್ರಾಮಾ ಸೊಸೈಟಿಯ ಅಧ್ಯಕ್ಷರಾಗಿ ಮತ್ತು 1980 ರಿಂದ 1983 ರವರೆಗೆ ಕರ್ನಾಟಕ ನಾಟಕ ಅಕಾಡೆಮಿಯ ಅಧ್ಯಕ್ಷರಾಗಿ ಸೇವೆ ಸಲ್ಲಿಸಿದರು. ಅವರು ತಮ್ಮ ಕವನಗಳು ಮತ್ತು ನಾಟಕಗಳಲ್ಲಿ ಕನ್ನಡದ ಉತ್ತರ ಕರ್ನಾಟಕ ಅಡುಭಾಷೆಯನ್ನು ಬಳಸಲು ಪ್ರಾರಂಭಿಸಿದರು , ಅದು ಹೆಚ್ಚು ಸಾಮಾನ್ಯವಲ್ಲ. ಕನ್ನಡ ಸಾಹಿತ್ಯ .

Kambara ಸ್ಥಾಪಕ ಉಪಕುಲಪತಿ ಆಗಿದೆ ಕನ್ನಡ ವಿಶ್ವವಿದ್ಯಾಲಯ ನಲ್ಲಿ ಹಂಪಿ . ಕನ್ನಡ ಸಾಹಿತ್ಯ ಮತ್ತು ಕರ್ನಾಟಕ ಸಂಸ್ಕೃತಿಯ ಬಗ್ಗೆ ಅವರ ಭವ್ಯವಾದ ದೃಷ್ಟಿಯನ್ನು ಅವರು ನಿರ್ಮಿಸುವ ಬದ್ಧತೆಯನ್ನು ತೋರಿದ ರೀತಿಯಲ್ಲಿ ಪ್ರತಿಭೆವಿಶಿಷ್ಟರು. ವಾಸ್ತುಶಿಲ್ಪ, ಕರ್ನಾಟಕದ ವೈವಿಧ್ಯಮಯ ಸಂಸ್ಕೃತಿ ಮತ್ತು ಸಮಾಜವನ್ನು ಒಳಗೊಳ್ಳುವ ವಿಷಯಗಳ ಆಯ್ಕೆ, ಸ್ಥಳದ ಆಯ್ಕೆ, ಅಧ್ಯಾಪಕರು ಅಥವಾ ಶೈಕ್ಷಣಿಕ ಚಟುವಟಿಕೆಗಳು, ರಾಜ್ಯದ ವಿವಿಧ ಭಾಗಗಳಿಂದ ಅವರು ರಚಿಸಿದ ವಿದ್ವಾಂಸರು ಮತ್ತು ಗೌರವ ಡಾಕ್ಟರೇಟ್ ಬದಲಿಗೆ ನಾಡೋಜ ಗೌರವ ಪ್ರಶಸ್ತಿ ಅವರು ಪರಿಚಯಿಸಿದ, ಕಂಬಾರರ ಸ್ಥಳೀಯ ದೃಷ್ಟಿಯನ್ನು ತೋರಿಸುತ್ತದೆ, ಇದು ದಶಕಗಳಿಂದ ಅವರ ಸಾಹಿತ್ಯ ಕೃತಿಗಳಲ್ಲಿ ವಿಕಸನಗೊಂಡಿತು. [6]

ವಿಶ್ವವಿದ್ಯಾನಿಲಯದ ಮೊದಲ ಉಪಕುಲಪತಿಯಾಗಿ, ಕಂಬಾರರು ತಲಾ ಮೂರು ವರ್ಷಗಳ ಎರಡು ಅವಧಿಗೆ ಸೇವೆ ಸಲ್ಲಿಸಿದರು, ಆ ಸಮಯದಲ್ಲಿ ಅವರು ಇತರ ಸಾಂಪ್ರದಾಯಿಕ ವಿಶ್ವವಿದ್ಯಾಲಯಗಳಿಗೆ ಹೋಲಿಸಿದರೆ ಅದನ್ನು ವಿಶಿಷ್ಟ ರೀತಿಯಲ್ಲಿ ರೂಪಿಸಿದರು. ಅವರು ಉಪಕುಲಪತಿಗಳಾಗಿದ್ದ ಅವಧಿಯಲ್ಲಿನ ಎಲ್ಲಾ ನಿರ್ಮಾಣಗಳು ಗುಡ್ಡಗಳ ಮೇಲೆ ಇವೆ, ವಿಜಯನಗರ ಕಾಲದ ವಾಸ್ತುಶಿಲ್ಪವನ್ನು ಹೋಲುವ ಬೃಹತ್ ಕಲ್ಲಿನ ರಚನೆಗಳು . ಕನ್ನಡ ವಿಶ್ವವಿದ್ಯಾನಿಲಯದಲ್ಲಿ ನಡೆಯುತ್ತಿರುವ ಸಂಶೋಧನೆ ಮತ್ತು ಯೋಜನಾ ಕಾರ್ಯಗಳ ಫಲಿತಾಂಶಗಳನ್ನು ಪ್ರಕಟಿಸಲು ಪ್ರತ್ಯೇಕ ಪ್ರಕಾಶನ ಘಟಕವನ್ನು ರಚಿಸಿದರು. [14]

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## Assessment and forecasting of regional economic systems sustainability

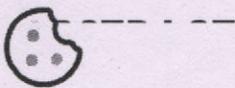
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Tatyana V. Tarasyeva<sup>1,2,a)</sup>, Alexandr A. Tarasyev<sup>1,b)</sup>, and Gavriil A. Agarkov<sup>1,c)</sup>

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The functioning of the regional system is associated with a constant change in the internal and external conditions of development, among which it is necessary to highlight the economic situation, social factors and the political situation. The dynamic nature of the environment could have a negative impact on the ability of the regional system to maintain stability and to strive for better development. Sustainable development is therefore a priority for all regional systems. Based on the position, that the sustainable development of the regional economic system depends on economic growth, and given the importance of forecasting this indicator to determine the vector of development of the territory, we consider the theoretical and model approaches to the economic growth of regional systems. In order to obtain the best result in forecasting the dynamics of macroeconomic indicators, we used the model of optimal economic growth, which is a modification of the Solow economic growth model. Both representatives of the authorities and representatives of the scientific environment solve the task of ensuring sustainable development of the economic system. The region's ability to maintain reliability of operation of the system and to ensure economic growth in the unstable conditions of global economic conditions determines the execution of the main purposes of any of the territory: increase of competitiveness of the economic system at various levels of interaction as well as improve the quality of life of the population. This modification of the model of economic growth allows us to forecast the dynamics of GRP, to calculate the optimal level of investments, required for the sustainable development of the regional economy. Using this model, it is possible to identify the trend of the labor force and predict its dynamics.



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## Agricultural internet of things using machine learning

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J. Sasi Bhanu<sup>a)</sup>, Sunitha Devi Bigul, and A. Prakash

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### ABSTRACT



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the because they are unable to adapt from the most technologies of agriculture. As the farmer is illiterate it is very difficult to give training. The farmers need an automated system which can guide and monitor the field. The automated system must give solution to the various problems such as watering the field, handling the environmental hazards and selection of fertilizers and their usage. To such types of problems one of optimal solution can be drawn from Internet of Things (IoT). IoT is an exceptionally encouraging innovation that is offering numerous imaginative answers for modernize the farming area. Exploration foundations and logical gatherings are consistently attempting to convey arrangements and items utilizing IoT to address various aspects. In this paper, a comprehensive study of various technologies like embedded systems, sensors-based systems, IoT and IoT using Machine Learning (ML) for agriculture.



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# PUBLIC CONCERN FOR ENVIRONMENTAL POLLUTION

BY ARVIN W. MURCH\*



The spring of 1970 was a milestone in the effort to increase public awareness of environmental problems. During this period, the nation's attention was increasingly drawn to pollution and other threats to the environment. A dozen special television broadcasts examined the issue, while numerous magazines picked up the theme, and environmental groups were formed in an attempt to coordinate local conservation efforts, and extend their concern to the entire community. A climax was reached on April 22, when communities across the nation were urged to observe Earth Day.

If it is clear that public opinion was a principal target of all these efforts, it is less clear just how much of the intended message has gotten across, and what other factors have affected public concern for the environment. Some answer to these questions is provided by the results of a recent survey of public opinion in Durham, North Carolina. In late March, 1970, questionnaires were distributed to a random sample of some 300 Durham residents, and nearly three-fourths of these were completed and returned.<sup>1</sup> The survey dealt with the issue of environmental damage on several different levels, and aimed at discovering how aware people were of this problem, who or what they felt was responsible for it, and how it might be solved.

## VARYING PERCEPTIONS OF ENVIRONMENTAL POLLUTION

When asked to evaluate the current level of environmental pollution, although most agreed that this is a serious problem on the national level, respondents were far less inclined to acknowledge that pollution is a serious threat to their own community. Nearly three-fourths (74 per cent) reported that pollution is a serious problem nationally, but only 13 per cent of the sample felt that pollution is serious in the Durham community, despite the fact that objective data indicate that Durham shares most of the nation's environmental problems. Recent measures of air quality, for example, show that air pollution in Durham actually exceeds the national average.<sup>2</sup>

\* The author is Assistant Professor of Sociology at Duke University.

<sup>1</sup> These questionnaires were distributed and collected by members of the spring, 1970 course in social research methods at Duke University.

<sup>2</sup> In 1967, the average level of suspended particulates stood at 110  $\mu\text{g}/\text{m}^3$  in Durham, as compared to a national average of 90  $\mu\text{g}/\text{m}^3$ . Durham ranked among the



The acknowledgment of pollution at other geographical levels was consistent with this finding. Over-all, the inclination to identify pollution as a significant problem steadily increased as the reference moved away from the respondent's immediate surroundings. Only 31 per cent of respondents regarded it as a moderate to serious problem in their immediate neighborhood, compared with 62 per cent who saw it as a moderate to serious problem for Durham, 68 per cent for North Carolina as a whole, and 83 per cent for the U.S.

TABLE 1  
TURNING TO THE QUESTION OF ENVIRONMENTAL POLLUTION,  
HOW SERIOUS WOULD YOU SAY THIS PROBLEM IS NOW?

| <i>Perception of Problem</i> | <i>In the U. S.</i> | <i>In Durham</i> |
|------------------------------|---------------------|------------------|
| Serious problem              | 74%                 | 13%              |
| Moderate problem             | 9                   | 49               |
| Minor problem                | 0                   | 21               |
| No problem                   | 0                   | 2                |
| No opinion                   | 8                   | 7                |
| No answer                    | 9                   | 8                |
| Total cases                  | 100%<br>(205)       | 100%<br>(205)    |

One reason for this pattern may be that concern over environmental pollution has been heavily influenced, if not generated, by the mass media, and these media have commonly focused on the broader aspects of the problem. This explanation is supported by the fact that the media clearly dominated as sources of information about environmental pollution, and among these, television was most often cited, while magazines were also commonly mentioned. Personal sources, such as friends, ranked further down the list.

The broader focus of television, and of magazines such as *Saturday Review*, *Life*, and others, is evident. More surprising is the fact that local newspapers also tend to concentrate on national, rather than local environmental problems. During the period of the survey, over a third of all the copy devoted by Durham papers to this subject dealt with national problems, and half of it focused on either the national or the global level. Less than ten per cent dealt with en-

lowest third of the 364 reporting communities according to this measure of air quality. More exact comparisons with these data are limited by the fact that the location of sensing stations has not been standardized throughout the national air surveillance network. Data from the Durham County Health Department and the U.S. Department of Health, Education and Welfare, *Air Quality Data from the National Air Surveillance Network: 1967* (November, 1969). Durham also suffers its share of littering, traffic and aircraft noise, threatened parklands and other environmental problems.

TABLE 2

DO YOU RECALL READING OR HEARING ABOUT POLLUTION OR DAMAGE TO THE ENVIRONMENT RECENTLY? IF SO, WHERE?

| Source          | Percentage of Mentions |
|-----------------|------------------------|
| Television      | 73%                    |
| Local newspaper | 62                     |
| Magazines       | 37                     |
| Friends         | 21                     |
| Other sources   | 12                     |
| Don't recall    | 1                      |
| No answer       | 6                      |
|                 | 212%*                  |
| Total cases     | (205)                  |

\* Total exceeds 100 per cent because of multiple answers.

vironmental problems within the Durham community. It seems reasonable to suggest, then, that the media have helped to produce the tendency to view pollution as a rather general problem, external to one's own community.

Another reason may be more psychological. The fact that while people reported significant pollution less often in the community than in the nation, they reported it *far* less often still in their own neighborhoods suggests a basic reluctance to acknowledge serious defects in one's own immediate surroundings. In finding that people tend to judge air pollution in their neighborhood as less serious than that in the community as a whole, De Groot suggests that just this sort of "denial system" may be at work. As he puts it:

The respondents were quite ready to admit that air pollution was bad for the whole community, probably because they felt all people in their city were equally exposed. But to say that their neighborhood was very bad, while the city as a whole was perhaps not so poor, appears to demand a great deal. It would demand the respondent to make a decision about whether air pollution was sufficient cause for him to move out of the neighborhood and uproot his friendships and usual patterns of life. In addition he would have to recognize that the health of his family would be impaired if he stayed.<sup>3</sup>

Extending this proposition slightly, it may be that the more attached or committed one is to a given environment, the less he is apt to acknowledge serious defects in it. This may be either because he has become so habituated to those defects that he no longer even perceives them, or because he perceives them, but prefers not to acknowledge the fact to others, and perhaps not even to himself.

<sup>3</sup> Ido de Groot, "Trends in Public Attitudes toward Air Pollution," *Journal of the Air Pollution Control Association*, Vol. 17, 1967, pp. 679-81. It may also be that on the local level, pollution competes with other, more immediate problems. Their importance to the individual may tend to "mask" his concern over pollution





If this is so, then we might expect that long-term residents, those with some economic investment in the community (such as owning a home), and those who find it a desirable place to live would be least inclined to report that their community has a significant pollution problem.<sup>4</sup> In fact, there is some tendency in this direction. Very satisfied residents less often reported significant pollution in the community than did dissatisfied residents (60 per cent and 73 per cent, respectively), and homeowners did so less often than renters (62 per cent versus 67 per cent), although these differences are small. Sheer length of residence appears to have no consistent effect on these reports.

Of course, it is possible that homeowners and more satisfied residents tend to live in more desirable areas, thus accounting for their relatively lower perception of pollution in the community as a whole. Available measures of air pollution in Durham indicate, however, that these people were no more likely to live in unpolluted areas than were less committed residents.<sup>5</sup> When the air pollution of residential areas is held constant, more committed residents still tend to understate the community's pollution problem, although they are more likely to do so in areas of lower pollution. This suggests that where pollution is serious and unmistakable, all residents are obliged to acknowledge the fact. But where the immediate environment is

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at this level. M. Jay Crowe refers to this tendency in "Toward a Definitional Model of Public Perceptions of Air Pollution," *Journal of the Air Pollution Control Association*, Vol. 18, 1968, pp. 154-157.

<sup>4</sup> Of course, this relationship may run the other way as well—that is, extreme consciousness of pollution may produce dissatisfaction with one's community. See, for example, "Air Pollution Effects Reported by California Residents," from *The California Health Survey*, State of California, Department of Public Health, 1956.

Although contrary to these findings, it has also been argued that those who are attached to their community should be more concerned over pollution than those who are unattached, because it detracts from an environment which they value. Van Arsdol, for example, has found that those who were most satisfied with their neighborhood were most apt to perceive local environmental hazards. Maurice D. Van Arsdol, Jr., et al., "Reality and the Perception of Environmental Hazards," *Journal of Health and Human Behavior*, Vol. 5, Winter, 1965, pp. 144-153.

Others have suggested that exasperation with an irritating condition like pollution tends to increase with the length of exposure to it. Medalia's finding that older residents were more apt to be concerned over air pollution than newer residents tends to support this view, although Crowe has found that length of residence has no significant effect on the perception of air pollution. See Nahum Z. Medalia, "Air Pollution as a Socio-Environmental Health Problem," *Journal of Health and Human Behavior*, Vol. 5, Winter, 1965, pp. 154-165.

<sup>5</sup> Measures of the annual dustfall in various sections of Durham were used to estimate the level of air pollution found in each of the residential areas sampled. Fifty-eight per cent of both satisfied and dissatisfied residents were found to live in relatively high dustfall areas. The proportion of older residents and homeowners living in such areas was even higher.

less obviously threatened, personal factors, such as commitment to the community, become operative to influence how one perceives the threat to his environment.<sup>6</sup>

ATTITUDES TOWARD THE SOLUTION OF  
ENVIRONMENTAL PROBLEMS

In considering attitudes toward the solution of problems such as air, water, and noise pollution, littering and the wastage of resources, we must first examine beliefs about their causes. Beliefs about who is responsible for these social ills should have some bearing on how one feels they can be remedied, and where that remedy should be directed. Here, the survey indicates that one of the simplest and perhaps most expected explanations was not often given. In response to the question, "Who or what would you say is most responsible for these environmental problems?" only 8 per cent blamed environmental damage simply on machines, such as the automobile. Many more (40 per cent) saw environmental problems in human, and even personal terms, ("man," "everybody," "greed," while 26 per cent blamed private industry. One out of ten respondents held some level of government most responsible for this damage, but very few (one per cent) felt that government *leaders* should take the blame. Finally, 35 per cent of respondents failed to answer this question, and an additional 4 per cent expressed no opinion.<sup>7</sup>

When asked whether they believed a solution could be found to environmental problems, most respondents replied optimistically. Nearly three-fourths (73 per cent) believed that these problems could be significantly reduced, if not solved completely. Although 19 per cent either expressed no opinion or failed to answer the question, no one denied the possibility of some measure of relief from pollution and wastage.

Turning to what that solution might be, however, nearly half of the sample said that they couldn't decide, or they skipped the question. Some sort of government or personal action was most often mentioned by the rest, although these ideas were usually vague. When asked more directly whether they, as individuals, could help to eliminate pollution and other damage to the environment, this uncertainty appeared again. Although 40 per cent of the respondents said that they could do something to help, 44 per cent again couldn't decide or skipped the question. Even those who believed that they could do something as individuals often didn't have a clear idea of

<sup>6</sup> Supporting the view that subjective factors and the objective characteristics of the community itself *interact* to affect beliefs about community problems, such as environmental pollution.

<sup>7</sup> This total exceeds 100 per cent because of multiple answers.



what that might be. Those who did suggest courses of action most often limited them to changing personal or family behavior. Others mentioned the possibility of becoming involved in citizens' action groups. Very few saw ways in which they could directly affect governmental or corporation policy.

Their uncertainty over ways to become personally involved did not mean that these individuals were unwilling to take action to salvage the environment. This is indicated by their reaction to several specific proposals for dealing with environmental problems. Two of these proposals involved economic "costs" (on the community and the individual level) that the respondent would be willing to pay to check environmental damage, and a third probed the political importance they assigned to this problem (see Table 3).

Most respondents attached enough political importance to this issue to at least consider it in their vote for public officials, and 28 per cent said that a candidate's stand on the environment would affect their vote a great deal. Turning to economic measures, more favored than opposed extending the current income tax surcharge to help reduce environmental damage, and over twice as many opposed as favored construction of a polluting industry in the community, even though this industry would bring certain economic benefits as well.

It might be expected that these attitudes would bear some relationship to how people perceived pollution in the community. All else being equal, those who believe pollution to be a significant local problem should be most concerned about it, and thus most willing to take these measures to remedy it. The data, however, only partly support this expectation. Those who saw a significant pollution problem in the community were far more willing to pay their tax dollars for environmental programs than were less pollution-minded residents, but they were not more inclined to support the other proposed measures. Obviously, other social and psychological factors stand between the perception of such threats, and active concern for them.<sup>8</sup>

This survey suggests that there is widespread recognition of national environmental problems, and general acknowledgment that pollution is at least a moderate problem on the community level as well. The acknowledgment of local pollution, however, appears to be inhibited by the national focus of the mass media, and by the tendency of residents who are committed to their community to minimize or overlook its defects under certain conditions.

<sup>8</sup> For example, the perception of pollution was most apt to be associated with willingness to take action among whites, among the better-educated, and among those in lower-status occupations. There is some evidence that these social factors condition willingness to take positive action through their effect on certain attitudes toward the future.



TABLE 3

## REACTION TO SEVERAL PROPOSALS FOR DEALING WITH ENVIRONMENTAL PROBLEMS

|   |                     |            |
|---|---------------------|------------|
| <i>Consider a candidate for public office. Generally speaking, how much would his stand on environmental pollution affect your vote for him?</i>  | A great deal        | 28%        |
|   | Some                | 43         |
|   | Very little         | 11.        |
|   | Not at all          | 4          |
|   | Can't decide        | 0          |
|   | No answer           | 14         |
|   |                     | 100% (205) |
| <i>Would you be willing to continue the present income tax "surcharge" indefinitely and use this money to reduce environmental damage and pollution?</i>  | Yes                 | 39%        |
|   | No                  | 26         |
|   | Can't decide        | 23         |
|   | No answer           | 12         |
|   |                     | 100% (205) |
| <i>Suppose that a new industrial plant were to be built in Durham which would provide many new job opportunities, but which would also pollute the community air and water resources. Would you favor or oppose its construction?</i> | Oppose construction | 50%        |
|   | Favor construction  | 20         |
|   | Can't decide        | 19         |
|   | No answer           | 11         |
|   |                     | 100% (205) |

## CONCLUSIONS

There also seems to be a general willingness to believe in a solution to environmental problems, but no clear idea of what that solution might be. Though less than a majority, a sizable fraction of the community appeared willing to accept some personal responsibility for these problems, and willing to contribute their efforts and their resources to solve them. Although they were often uncertain of how that might be done, respondents generally reacted favorably to specific measures proposed to them.

All this suggests certain guidelines for the future strategy of groups that are interested in affecting public attitudes and behavior toward the environment. The fact that most people now believe that pollution is a significant problem suggests that these groups, and particularly the media, have already effectively dramatized the problem. It may, then, be time to turn from simply revealing the existence of environmental pollution to generating clear and specific proposals for dealing with it. What appears to be most needed at this point are proposals that show the individual just how he can become engaged in the struggle within his own community. Although this is clearly a more demanding assignment, communicators may be encouraged by the optimism and the perhaps unsuspected willingness of many individuals to assume some responsibility for restoring the environment, even to the point of paying certain economic and political costs to do so.





## Plant cell biotechnology

Robert Verpoorte

Leiden University, The Netherlands

Hens J. G. ten Hoopen

Delft University of Technology, The Netherlands

- 23.1 Introduction
- 23.2 Plant cell biotechnology
- 23.3 Plant cell-culture techniques
- 23.4 Optimisation of productivity
- 23.5 Large-scale production
- 23.6 Further reading

### 23.1 Introduction

Plants are the basis of all human activities: they serve us as foods and medicines; as a source of building materials, of fibres for clothes, of bulk chemicals (such as cellulose, amylose and rubber) and of fine chemicals (such as flavours, fragrances, insecticides and dyes). Consequently, since ancient times, people have been searching for new applications of plants and plant-derived products and have tried to improve the production of known products.

At the advent of biotechnology also, plants became an important target for biotechnological research.

The basis of all plant biotechnology applications is the *totipotency* principle. Totipotency means that every individual plant cell carries all the genetic information needed for all the functions of the plant and, in principle, should be able to grow out to a complete plant again.

*Agrobiotechnology* concerns the growth of plants as crops and aims at improving yields or changing traits connected with the quality of the plant. This can be done via the classical breeding approach,

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*Basic Biotechnology*, third edition, eds. Colin Ratledge and Bjørn Kristiansen.  
Published by Cambridge University Press. © Cambridge University Press 2006.

Prof. S.V. Gurumathu

Date - 7.12.2020

11:30 am



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## SHORT REVIEW



# Conceptual ideas of carnivorous plants to utilize in the field of agriculture

M ANBARASU

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**ABSTRACT** Usually, when we think of "carnivorous," animals come to our mind. Yet there are some wonderfully fascinating plants that eat animals. It seems a contradiction, but this meat eating habit of some plants is an interesting and normal adaptation of nature. Carnivorous plants have evolved in places where the soil is poor and low in nutrients. Here, animals can provide them missing ingredients needed for survival. The carnivorous plants have fascinating methods of luring, trapping and digesting animals which provide an adequate supply of necessary nutrients. Green plants require sunlight for photosynthesis. Some selected carnivorous plants like venus flytrap, flypaper and pitfall, trap plants to use as catch crops or emergency crops, smother crops, trap crops, replacement inter crops and avenue crops which had naturally habit evolved to eat the insects. This habit can be used in agriculture, mainly for pest control (especially in sucking pest especially when they are more resistant to pesticides), weed management and nutrient management etc. These management strategies are mainly maintained through inorganic ways, as pesticides, weedicides and fertilizers are being discouraged by researchers as well as farmers. Carnivorous plants thus may occupy important place in future agriculture. This paper presents some of such ideas of better use of nature to maintain sustainable ecology / environment.

**KEYWORDS** Carnivorous plants, pest control, nutrient management, agriculture field

Anbarsu M

Department of Agronomy, Agricultural College and Research Institute, Tamil Nadu Agricultural University, Madurai- 625 104, Tamil Nadu

M Anbarsu (✉)

E mail: manbarasu@live.com

## INTRODUCTION

About 650 species of vascular carnivorous (Latin: *carnis* - flesh, *vorare* - to swallow) plants occur throughout the world, out of the total of about 300,000 species of vascular plants (Rice 2006). Carnivorous plants belong to 15-18 genera of 8-9 botanical families and 5 orders (Heubl et al. 2006, Porembski and Barthlott 2006). Due to many remarkable and striking morphological, anatomical, physiological and ecological features, carnivorous plants have always attracted considerable interest of both researchers and gardeners. Nevertheless, the degree and extent of knowledge of the main disciplines studying this particular ecological functional plant group, has always considerably lagged behind the study of non-carnivorous plants. In modern days, eco-physiological research of carnivorous plants has progressed considerably within the last decade and has elucidated most of the particulars of carnivorous plants (Darwin 1875).

## Uses of carnivorous plants in agriculture

In agricultural field, research on utilization of carnivorous plant has begun. Many plants have evolved adaptations in order to survive in low nitrogen environments. Insect carnivorous plants, such as pitcher plant and sundews (*Nepenthes* and *Drosera*, respectively) are able to obtain substantial amounts of nitrogen from the insects that they capture. Secondly, numerous plants form associations with mycorrhizal fungi that can provide soluble nitrogen from the soil, some of which may be insect-derived nitrogen, obtained from decaying insects or insect frass. Finally, a specialized group of endophytic insect-pathogenic fungi (EIPF) provide host plants with insect-derived nitrogen. These soil-inhabiting fungi form a remarkable symbiosis with certain plant species (Scott et al. 2013). The concept of murderous plants and inclusion of carnivorous plants as a subset, was



## 16

# EMBRYOLOGY

*Nick Hopwood*

“If... we say that each human individual develops from an egg, the only answer, even of most so-called educated men, will be an incredulous smile; if we show them the series of embryonic forms developed from this human egg, their doubt will, as a rule, change into disgust. Few... have any suspicion,” wrote evangelist of evolution Ernst Haeckel in the 1870s, “that these human embryos conceal a greater wealth of important truths, and form a more abundant source of knowledge than is afforded by the whole mass of most other sciences and of all so-called ‘revelations.’”<sup>1</sup> Between this extravagant claim and the incredulity and disgust that it invokes lies a contradictory history. In nineteenth-century universities and medical schools embryology was a key science of life; around 1900 modern biology was forged within it; and as developmental biology it buzzes with excitement today. Embryology fired wide publics with Darwinist fervor, sexual knowledge, and the prospect of reproductive control; but it also bored generations of medical students, was molecular biologists’ favorite example of scientific decline, and has attracted both feminist and antiabortionist critiques. There are, then, rich histories to be told, and as scholars in various disciplines begin to tell them, existing surveys have come to seem thin. Largely confined to concepts and theories, they tell us little about the daily life of embryology. Written within particular traditions, they do scant justice to the diversity of embryo science and the variety of perspectives on it. In response to these limitations, this highly selective chapter seeks to encourage more adequate attempts at synthesis by following two interlocking transformations: in forms of work and in identity.

Embryology has shared with other sciences two main ways of working: Since the end of the eighteenth century, physicians, professors, and curators,

<sup>1</sup> Ernst Haeckel, *The Evolution of Man: A Popular Exposition of the Principal Points of Human Ontogeny and Phylogeny*, 2 vols. (London: Kegan Paul, 1879), vol. 1, p. xix.

For comments on drafts, I thank John Pickstone, Peter Bowler, Tim Horder, Jim Secord, Silvia De Renzi, Scott Gilbert, Jonathan Harwood, Soraya de Chadarevian, and Denis Thieffry.



## Physiology of flowering in *Citrus* species

A. K. Jadhav, R. M. Sharma\* and A. K. Dubey

Division of Fruits and Horticultural Technology, ICAR-Indian Agricultural Research Institute, New Delhi 110012

### ABSTRACT

An experiment was conducted on the trees of acid limes (Pusa Udit, Pusa Abhinav and ALC-29), lemons (Konkan Seedless, Kagzi Kalan and Hill lemon) and sweet oranges (Pusa Sharad, Pusa Round and Mosambi) during 2017-18 with the objectives to understand the relationship of seasonal changes in physio-biochemical traits with the flowering behaviour of citrus species. Sweet oranges and Hill lemon expressed flowering once in a year (February to March), while lemons and acid limes bloomed almost round the year. The flowering genotypes showed lower value of photosynthetic rate ( $A$ ) than non-flowering genotypes. C:N ratio  $\geq 5.57$  could initiate the flowering in lemon (except Hill lemon) and limes, while in other genotypes, it was  $\geq 13.39$  for flowering. In sweet orange and Hill lemon,  $GA_3$  followed an upward trend till January, and declined thereafter, however, the trend was reverse in other genotypes till December. During spring season, the trees having  $GA_3$  ranging between 0.12-0.93 mg g<sup>-1</sup> FW showed the flowering. The content of free amino acids (FAA) increased till February and declined thereafter. Overall the level of FAA  $\geq 10$  mg g<sup>-1</sup> FW proved to be the critical level to induce flowering in all the genotypes tested. The level of total antioxidant capacity (TAC)  $\geq 18.12$   $\mu$ mol g<sup>-1</sup> FW favoured the flowering in all citrus genotypes tested. Overall low level (96.45-108.27 mmol H<sub>2</sub>O<sub>2</sub> mg<sup>-1</sup> FW) of hydrogen peroxide (H<sub>2</sub>O<sub>2</sub>) favoured the flowering.

**Key words:** C:N ratio, free amino acids, total antioxidant capacity, hydrogen peroxide.

### INTRODUCTION

Flowering represents a phase transition from vegetative to reproductive growth. This phenomenon is one of the most important events in the plant life cycle because it is the initial stage in the sequence of producing a new generation. The change from vegetative to reproductive growth is called the flowering transition, which is controlled by inheritance, internal and external factors, and is accompanied by various biochemical, physiological, cytological and morphological changes in the bud leading to the formation of reproductive structures.

Citrus is a perennial tree crop, exhibiting a very peculiar and unusual reproductive physiology, showing a wide range of behaviours regarding both flowering time and response to the inductive conditions particularly in subtropical plains of northern India. Citrus trees usually have several flushes of growth during the year. The number of flushes and their importance are determined by cultivar characteristics, crop load and climate. For example, sweet orange, Kinnow and grapefruit tend to show flowering once in a year rigidly during spring season responding to cold inductive temperature. Lemon flower twice in a year (spring and late summer seasons), while lime trees show sparse flowering round the year in sub-tropical conditions, and exhibit higher floral responses to water stress

than to cold inductive temperatures (Chaikiatiyyos *et al.*, 3). Flower formation occurs in response to chilling temperatures, and the number of flowers formed can increase with the duration of exposure to low temperature, and it has two separate effects, as it releases bud dormancy and induces flowering.

Various biochemical constituents and phytohormones have been reported to control flowering. Carbohydrates, protein and amino acids are important for flowering, but their relationship with flowering still not fully understood. The inhibitory effect of  $GA_3$  on flowering by exogenous application in citrus has been well documented, also at the anatomical level (Lord and Ekard, 13), but the endogenous effect is still unknown. Antioxidants are compounds produced by aerobic organisms to counteract oxidative stress caused by an imbalance of reactive oxygen species (ROS). ROS include the superoxide radicals and the hydroxyl radicals produced as by-products of oxidation/reduction (redox) reactions as a consequence of aerobic metabolism. The examination of the antioxidant capacity of flowers was mainly focused on annuals flowers, while few studies were conducted on the flowers of woody fruit trees to evaluate the efficiency of scavenging free radicals (Kaur *et al.*, 7).

Poor understanding about the biochemical and molecular mechanisms, involved in the regulation of flowering is the major constraint in the improvement

\*Corresponding author's Email: rmsharma345@gmail.com

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5 - ಭಾರತೀಯ ಸಂವಿಧಾನ

ಕೇಂಬ್ರಿಡ್ಜ್ ಯೂನಿವರ್ಸಿಟಿ ಪ್ರೆಸ್‌ನಿಂದ ಅನ್‌ಲೈನ್‌ನಲ್ಲಿ ಪ್ರಕಟಿಸಲಾಗಿದೆ: 26 ಅಕ್ಟೋಬರ್ 2011

ಎಂಎ ಯದುಗಿರಿ ಮತ್ತು ಗೀತಾ ಭಾಸ್ಕರ್

ಮೂಲಕ ಎಂಸಿ ಸೆಟಲ್ವಾಡ್

Book contents

ಪ್ರವೇಶ ಪಡೆಯಿರಿ

ಸಾರಾಂಶ

ಟಿ ಆಪಕು ಭಾರತ ಸಂವಿಧಾನದ ರಚಿಸುವುದು ಲಕ್ಷಣವಾದ ಬ್ರಿಟಿಷ್ ಹೇಳಲಾಗುತ್ತದೆ. 'ಸರ್ಕಾರದ ಯಂತ್ರವು ಮೂಲಭೂತವಾಗಿ ಬ್ರಿಟಿಷರದ್ದಾಗಿದೆ ಮತ್ತು ಬ್ರಿಟಿಷ್ ಸಾಂವಿಧಾನಿಕ ಸಂಪ್ರದಾಯಗಳ ಸಂಪೂರ್ಣ ಸಂಗ್ರಹವನ್ನು ಸ್ಪಷ್ಟವಾಗಿ ಸಂಪ್ರದಾಯಗಳಾಗಿ ಸಂಯೋಜಿಸಲಾಗಿದೆ.'

(ಸರ್ ಐವರ್ ಜೆನ್ನಿಂಗ್ಸ್, ಭಾರತೀಯ ಸಂವಿಧಾನದ ಕೆಲವು ಗುಣಲಕ್ಷಣಗಳು, ಪುಟ 2)

ಭಾರತೀಯ ಸಂವಿಧಾನದ ನಿರ್ಮಾತ್ಮಗಳು ಬ್ರಿಟಿಷರ ಆಳ್ವಿಕೆಯಿಂದ ಭಾರತದ ಪರಂಪರೆಯಾಗಿರುವ ಬ್ರಿಟಿಷ್ ಕಲ್ಪನೆಗಳು ಮತ್ತು ಸಂಸ್ಥೆಗಳ ಸಂಗ್ರಹದಿಂದ ಹೆಚ್ಚಾಗಿ ಸೆಳೆದುಕೊಂಡಿಲ್ಲ, ಆದರೆ ಅವರು ಬ್ರಿಟಿಷರ ಅಡಿಯಲ್ಲಿ ಬೆಳೆದ ಸರ್ಕಾರಿ ವ್ಯವಸ್ಥೆಯೊಂದಿಗೆ ನಿರಂತರತೆಯನ್ನು ಕಾಪಾಡಿಕೊಳ್ಳಲು ಕಾಳಜಿ ವಹಿಸಿದರು. ಅವರು ಗತಕಾಲದೊಂದಿಗಿನ ತಮ್ಮ ಸಂಬಂಧಗಳನ್ನು ಕಡಿದುಕೊಳ್ಳುವುದರಲ್ಲಿ ನಂಬಲಿಲ್ಲ, ಬದಲಿಗೆ ಉಪಯುಕ್ತವಾದ ಮತ್ತು ಅವರು ಒಗ್ಗಿಕೊಂಡಿರುವ ಎಲ್ಲವನ್ನೂ ಅಮೂಲ್ಯವಾಗಿ ಪರಿಗಣಿಸುತ್ತಾರೆ. ಆದ್ದರಿಂದ ಹೊರಹೊಮ್ಮಿದ ರಚನೆಯು ಅದರ ಚೌಕಟ್ಟಿನಲ್ಲಿ ಮೂಲತಃ ಬ್ರಿಟಿಷರದ್ದಾಗಿರಲಿಲ್ಲ ಆದರೆ ಹಿಂದೆ ಅಸ್ತಿತ್ವದಲ್ಲಿದ್ದವುಗಳ ಬದಲಾವಣೆ ಮತ್ತು ವಿಸ್ತರಣೆಯ ಫೊನ್ಸಿಯನ್ನು ತೆಗೆದುಕೊಂಡಿತು ...

1947 ರ ವರ್ಷವು ಸ್ವಾತಂತ್ರ್ಯಕ್ಕಾಗಿ ಭಾರತೀಯ ಹೋರಾಟದ ಫಲಪ್ರದಕ್ಕೆ ಸಾಕ್ಷಿಯಾಯಿತು; ರಕ್ತರಹಿತ ಕ್ರಾಂತಿಯು ಬ್ರಿಟಿಷರಿಂದ ಭಾರತೀಯರ ಕೈಗೆ ಅಧಿಕಾರ ಹಸ್ತಾಂತರವನ್ನು ತಂದಿತು. ಈ ವರ್ಗಾವಣೆ ಮಾಡಿದ ರೀತಿ ಕೆಲವು ವಿಷಯಗಳಲ್ಲಿ ವಿಶಿಷ್ಟವಾಗಿತ್ತು. ಸುಮಾರು ಒಂದು ಶತಮಾನದ ಕಾಲ ದೇಶವನ್ನು ಆಳಿದ ಬ್ರಿಟಿಷ್ ಪಾರ್ಲಿಮೆಂಟ್ ಅಧಿಕಾರ ತ್ಯಜಿಸಿತು; ಮತ್ತು ಅದು ತ್ಯಜಿಸಿದ ಅತ್ಯಂತ ಶಾಸನದ ಮೂಲಕ - ಭಾರತೀಯ ಸ್ವಾತಂತ್ರ್ಯ ಕಾಯಿದೆ - ಇದು ಹೊಸ ಡೊಮಿನಿಯನ್, ಭಾರತದ ಡೊಮಿನಿಯನ್ ಅನ್ನು ರಚಿಸಿತು.

ಮಾದರಿ

ಅಧ್ಯಾಯ

## Consensus and Conflict in Indian Politics\*

Published online by Cambridge University Press: 18 July 2011

Susanne Hoeber Rudolph

[Article contents](#)

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### Extract

Several hours before his assassination in 1948, Mahatma Gandhi submitted his proposal for revisions in the party constitution of the Indian National Congress. He suggested that the Congress dissolve, since partisanship appeared to him wrong, and convert itself into a Lok Sevak Sangh, an apolitical people's service association. The Congress did not in the event obey the testament, but no one thought the proposal funny or outrageous. More recently, a General Secretary of the Congress reiterated the non-partisan point of view underlying this proposal when he questioned whether the role of an opposition party was meaningful in India, and when he supported the idea of "a common national programme acceptable to all political parties, on the basis of which the administration of the country could be carried on." "The Panchayat system in India," the Secretary said, "was essentially based on this very principle of synthesis rather than antithesis. Economically underdeveloped countries like ours can hardly afford the luxury of opposition only for the sake of opposition."

#### Type

Research Article

#### Information

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DOI: <https://doi.org/10.2307/2009481>

Dr. S.S. Patil

Dept of Kannada

Date: 27/11/2021

Jo aankhon  
ke saage hain  
Woh pyaar  
ke dhage hain



ನಮ್ಮ ಬಗ್ಗೆ ಹೆಚ್ಚಿನ ಮಾಹಿತಿ

ಈ ವೆಬ್‌ಸೈಟ್‌ನಲ್ಲಿ ಹುದುಕಿ

ಮನೆ ರಿಫ್ಟಿಂಗ್ ರಿಯಲ್ ಎಸ್ಟೇಟ್ ನರ್ಸರಿ ಪ್ರವಾಸೋದ್ಯಮ ವಾಣಿಜ್ಯೋದ್ಯಮ ಉಪಕರಣಗಳು ಹೆಚ್ಚಿನ ಮಾಹಿತಿ ಕನ್ನಡ



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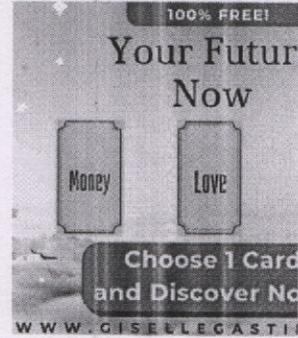
ಮುಖಪುಟ » ವ್ಯಕ್ತಿತ್ವಗಳು » ಕುವೆಂಪು - ಕನ್ನಡ ಸಾಹಿತ್ಯವನ್ನು ಪುನರ್ ವ್ಯಾಖ್ಯಾನಿಸಿದ ಕವಿ

ಸಾಮಾಜಿಕ

## ಕುವೆಂಪು - ಕನ್ನಡ ಸಾಹಿತ್ಯವನ್ನು ಪುನರ್ ವ್ಯಾಖ್ಯಾನಿಸಿದ ಕವಿ

ಆಗಸ್ಟ್ 13, 2017 ಮೂಲಕ MADUR

1904 ರಲ್ಲಿ ಕರ್ನಾಟಕದ ಚಿಕ್ಕಮಗಳೂರಿನಲ್ಲಿ ಜನಿಸಿದ ಕುವೆಂಪು ಅವರ ಜನ್ಮ ಹೆಸರು ಕುವೆಂಪು ವೆಂಕಟಪ್ಪ ಪುಟ್ಟಪ್ಪ. ಅವರು ಇಪ್ಪತ್ತನೇ ಶತಮಾನದ ಶ್ರೇಷ್ಠ ಕನ್ನಡ ಸಾಹಿತ್ಯದ ಗುರುಗಳಲ್ಲಿ ಒಬ್ಬರು ಎಂದು ಪರಿಗಣಿಸಲ್ಪಟ್ಟಿದ್ದಾರೆ. ಅವರು ಸಾಮಾಜಿಕ ಸಮಾನತೆಯ ಚಾಂಪಿಯನ್ ಆಗಿದ್ದರು ಮತ್ತು ಜಾತಿ ತಾರತಮ್ಯ, ಲಿಂಗ ಅಸಮಾನತೆ ಮತ್ತು ಮೂಢನಂಬಿಕೆಗಳ ವಿರುದ್ಧ ವ್ಯಾಪಕವಾಗಿ ಧ್ವನಿ ಎತ್ತಿದರು, ಅದು ಸಮಾಜವನ್ನು ತಪ್ಪು ದಾರಿಯಲ್ಲಿ ಕೊಂಡೊಯ್ಯುತ್ತಿದೆ ಎಂದು ಅವರು ನಂಬಿದ್ದರು.



ಉನ್ನತ ಫೋನ್‌ಗಳು ಮತ್ತು ಪುಟಗಳು



ಕರ್ನಾಟಕದಲ್ಲಿ ಜಾತಿ ಮತ್ತು ಆದಾಯ ಪ್ರಮಾಣಪತ್ರಗಳಿಗೆ ಅರ್ಜಿ ಸಲ್ಲಿಸುವುದು ಹೇಗೆ?



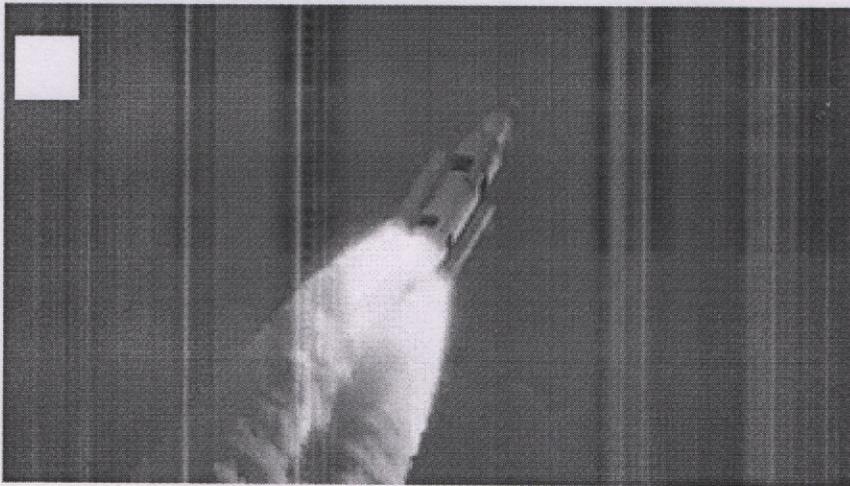
ಬೆಂಗಳೂರು - ಮಂಗಳೂರು ಮಾರ್ಗದಲ್ಲಿ ವಿಸ್ತಾರೋತ್ಸವ ತರಬೇತುದಾರರು



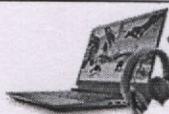
ಕರ್ನಾಟಕದಲ್ಲಿ ಮದುವೆಯ ಪ್ರಮಾಣಪತ್ರವನ್ನು ಹೇಗೆ ಪಡೆಯುವುದು



ಕರ್ನಾಟಕದಲ್ಲಿ ಮತದಾರರ ಗುರುತಿನ ಚೀಟಿಗಾಗಿ ಅರ್ಜಿ ಸಲ್ಲಿಸುವುದು ಹೇಗೆ



PREMIUM TECHNOLOGY

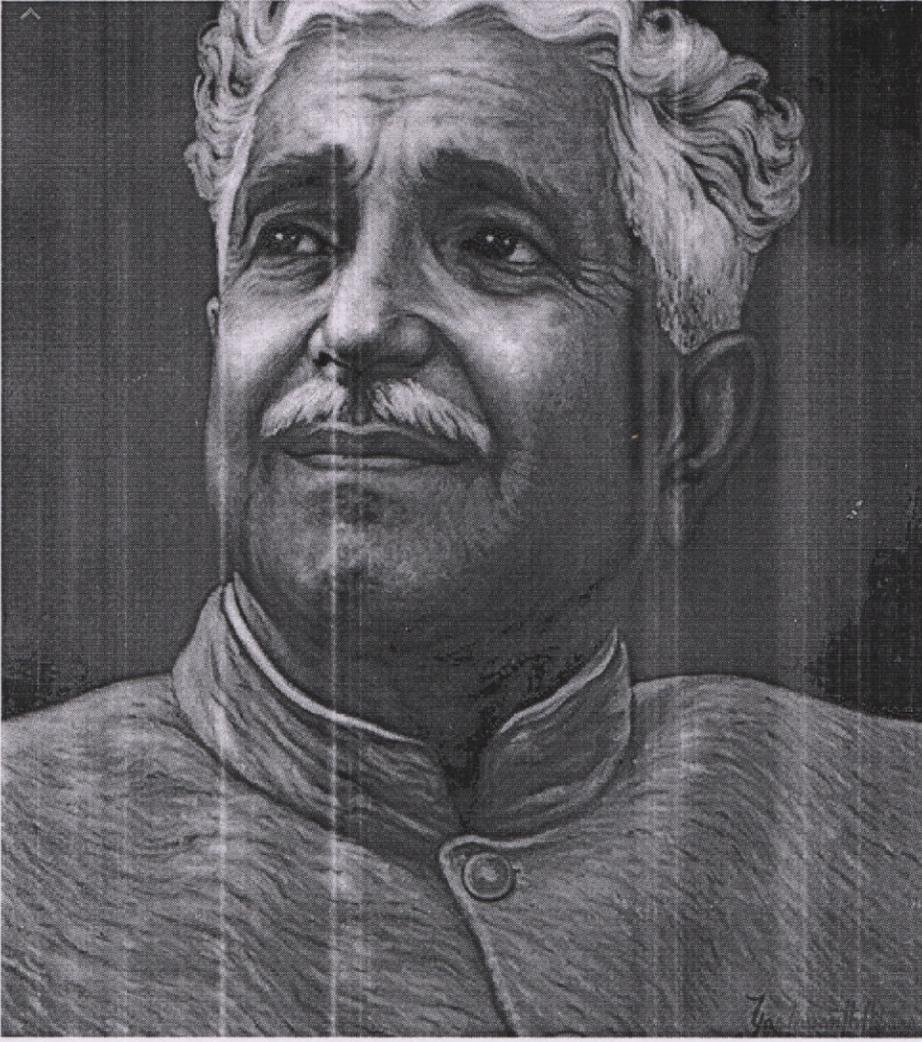


ALIENWARE HEADSET\*

G15

X

Jo aankhon  
ke aage hain  
Woh pyaar  
ke dhage hain



### ಆರಂಭಿಕ ದಿನಗಳು

ಕುವೆಂಪು ಅವರು 1929 ರಲ್ಲಿ ಮೈಸೂರಿನ ಮಹಾರಾಜ ಕಾಲೇಜಿನಲ್ಲಿ ಕನ್ನಡದಲ್ಲಿ ಪದವಿ ಪಡೆದರು ಮತ್ತು ನಂತರ ಅದೇ ಸಂಸ್ಥೆಯಲ್ಲಿ ಶೈಕ್ಷಣಿಕ ಉಪನ್ಯಾಸಕರಾಗಿ ಸೇರಿದರು. ಬದಲಾವಣೆಗಾಗಿ ಹುಡುಕುತ್ತಾ, ಅವರು ಮುಂದೆ ಬೆಂಗಳೂರಿನ ಸೆಂಟ್ರಲ್ ಕಾಲೇಜಿನಲ್ಲಿ ಸಹಾಯಕ ಪ್ರಾಧ್ಯಾಪಕ ಹುದ್ದೆಯನ್ನು ಪಡೆದರು. ಆದಾಗ್ಯೂ, ಅವರು ಕೆಲವು ವರ್ಷಗಳ ನಂತರ ಮಹಾರಾಜ ಕಾಲೇಜಿಗೆ ಹಿಂದಿರುಗಿದರು ಮತ್ತು ಅದರ ಪ್ರಾಂಶುಪಾಲರಾದರು. ನಂತರ ತಮ್ಮ ವೃತ್ತಿ ಜೀವನದಲ್ಲಿ ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯದಿಂದ ಉಪಕುಲಪತಿಯಾದ ಮೊದಲ ಪದವೀಧರ ಎಂಬ ಅಪರೂಪದ ಸಾಧನೆಯನ್ನೂ ಮಾಡಿದರು. ಅವರು 1936 ರಲ್ಲಿ 32 ನೇ ವಯಸ್ಸಿನಲ್ಲಿ ವಿವಾಹವಾದರು ಮತ್ತು ನಾಲ್ಕು ಮಕ್ಕಳಿಗೆ ತಂದೆಯಾದರು.



ಬೆಂಗಳೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯದ  
ದರಗಳು



ಕರ್ನಾಟಕ ಕ್ಯಾಬಿನೆಟ್ ಮಂತ್ರಿಗಳು -  
ಬೊಮ್ಮಾಯಿ ಸರ್ಕಾರ



ಕರ್ನಾಟಕದಲ್ಲಿ ಇ-ನ್ಯಾಂವ್ ಪೇಪರ್



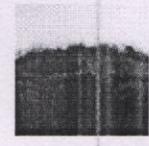
ಬೆಂಗಳೂರಿನಲ್ಲಿ ಟ್ರಾಫಿಕ್ ದಂಡವನ್ನು  
ಆನ್‌ಲೈನ್‌ನಲ್ಲಿ ಪಾವತಿಸುವುದು ಹೇಗೆ

### Square Online for restaurants.

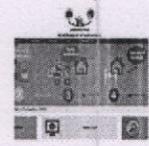


Square Online

### ಇತ್ತೀಚಿನ ವೋಸ್



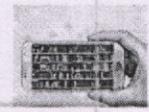
ಗಡಿಕಲ್ಲು, ಬೆಳ್ಳಂಗಡಿ: ಟ್ರೆಕ್ಟಿಂಗ್ ಮತ್ತು  
ಜಮಾಲಾಬಾದ್ ಕೋಟೆ  
ನವೆಂಬರ್ 23, 2021  
ನೀವು ಟ್ರೆಕ್ಟಿಂಗ್ ಮತ್ತು ಇತಿಹಾಸವನ್ನು  
ಬಯಸಿದರೆ ಮತ್ತು ನೀವು ಹುಡುಕುತ್ತಿದ್ದರೆ [...]



ಕರ್ನಾಟಕ ಜನನೇವಕ ಯೋಜನೆ -  
ಸರ್ಕಾರಿ ಸೇವೆಗಳು ನಿಮ್ಮ ಮನ ಬಾಗಿಲಿಗೆ  
ನವೆಂಬರ್ 17, 2021  
ಯಶಸ್ವಿ ಪ್ರಾಯೋಗಿಕ ಯೋಜನೆಯ  
ನಂತರ, ಕರ್ನಾಟಕ ರಾಜ್ಯ [...]



ಶೆಟ್ಟಿಹಳ್ಳಿ ಚರ್ಚ್, ಹಾಸನ - ಭಾರತೀಯರ  
ಏಕೈಕ ತೇಲುವ ಚರ್ಚ್  
ನವೆಂಬರ್ 10, 2021  
ನೀವು ಬರುವ ಸ್ಥಳಗಳಿಗೆ ಹಿಂತಿರುಗುತ್ತಿರಿ  
[...]



ವೈಟ್‌ಫೀಲ್ಡ್‌ನಲ್ಲಿರುವ ಡಿಜಿಟಲ್ ಟೈಪರಿ - ಸ  
ಶುಲ್ಕಗಳು ಮತ್ತು ಇನ್ನಷ್ಟು  
ಅಕ್ಟೋಬರ್ 18, 2021



PREMIUM  
TECHNOLOGY



ALIENWARE  
HEADSET\*

G15



Prof. S.H. Bidarakandi

Statistics Dept.

Date: 27-11-2021

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Home > Books > Democracy and Decentralisation in South Asia and West Africa > India (Karnataka)

## 2 - India (Karnataka)

Published online by Cambridge University Press: 12 October 2018

Richard C. Crook and James Manor



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### Summary

Book contents

#### The structure of decentralization

At an election in 1983, the Janata Party won control of the government in the Indian state of Karnataka at a time when the Congress Party held power at the national level. Janata leaders wanted to demonstrate that they were more imaginative and radically democratic than their Congress rivals, to revive their party's fortunes nationally. They also had next to no party organisation in the state, and they believed that a new system of elected councils at the district level and below would provide a framework for party-building. They therefore undertook a programme of decentralisation which gave elected councillors control of more than half of the state's bureaucrats and responsibility for nearly every field of development.

Elected councils were created at two levels - the district and the lower, Mandai level. A Mandai Council covered a group of adjacent villages with a population of between 8,000 and 12,000 and consisted of around thirty members. Each of them was directly elected from a distinct territorial constituency averaging just under 400 voters. 2,536 Mandais were established, with 55,188 members. The small size of the Mandais, in relation to the much larger and far more powerful District Councils (*Zilla Parishad*), made them the less important of the two elements in the system. This was apparent from the power of the District Council to approve the annual budget estimates of the Mandais, to investigate their annual accounts and administration reports, to intervene in the event of irregularities, and to appoint and control their administrative staff.

There were nineteen District Councils in Karnataka. Members were directly elected by distinct territorial constituencies with an average population of 28,000 (except in one small, eccentric district), and the number of elected members of these councils varied between twentythree and sixty-four, depending on population. The members of the state Legislative Assembly and Legislative Council (the upper house), and of the Indian Parliament from the district also sat on the District Council with voting rights, but they were greatly outnumbered by elected councillors.



**Type**

Chapter

**Information**

Democracy and Decentralisation in South Asia and West Africa , pp. 22 - 84

DOI: <https://doi.org/10.1017/9780511607899.002>

Publisher: Cambridge University Press

Print publication year: 1998

27.11.21, 11-15 am

Prof. M. A. Bradas

Dept of English



# Cambridge Core

< Back to search results

Home > Journals > PMLA / Publications of the Modern Language Association of America > PMLA  
> Volume 68 Issue 5 > William Hazlitt as a Critic of Prose Fiction

English | Français

## William Hazlitt as a Critic of Prose Fiction

Published online by Cambridge University Press: 24 March 2021

Charles I. Patterson

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### Extract

From his youth William Hazlitt was fond of prose fiction and liked to discuss it with other readers. When he turned from painting to literary criticism as a career, he therefore paid considerable attention to novels and romances. Since his criticism appeared chiefly between 1815 and 1830, it largely parallels the appearance of Sir Walter Scott's novels from 1814 to 1832—an important period in the development of the novel and its reading public. This was a time when most first-ranking critics refused to take novels seriously, had not made up their minds about them, or ignored them altogether. Hazlitt contended that this “department of criticism” deserved more attention for “settling the standard of excellence, both as to degree and kind” (vi, 108). He repeatedly asserted the worth and dignity of the genre, approved its effects upon readers, and judged novels by his fundamental aesthetic principles. Although his “Lecture on the English Novelists” is well known, the full extent of his criticism of prose fiction is not generally realized. For example, he wrote four essays on Sir Walter Scott. In addition to articles on various novelists, including minor figures, there are passages on prose fiction throughout the twenty volumes of Hazlitt's writings. From this mass of criticism it is easy to reconstruct his conception of what a novel should be—the first clear and well-defined conception of fiction from a great English critic

Type



## ಡಿಆರ್ ಬೇಂದ್ರೆ ಜೀವನಚರಿತ್ರೆ

ದತ್ತಾತ್ರೇಯ ರಾಮಚಂದ್ರ ಬೇಂದ್ರೆ (ಕನ್ನಡ:ದತ್ತಾತ್ರೇಯ ರಾಮಚಂದ್ರ ಬೇಂದ್ರೆ ; ಮರಾಠಿ: दत्तात्रेय रामचंद्र बेंद्रे) ನವೋದಯ ಕಾಲದ ಅತ್ಯಂತ ಪ್ರಸಿದ್ಧ ಕನ್ನಡ ಕವಿಗಳಲ್ಲಿ ಒಬ್ಬರು. ವರಕವಿ, ಅಕ್ಷರಶಃ 'ಪ್ರತಿಭಾನ್ವಿತ ಕವಿ' ಎಂದು ಶ್ಲಾಘಿಸಲ್ಪಟ್ಟ ಅವರು, ಭಾರತದಲ್ಲಿ ನೀಡಲಾಗುವ ಅತ್ಯುನ್ನತ ಸಾಹಿತ್ಯ ಗೌರವವಾದ ಕನ್ನಡಕ್ಕಾಗಿ ಜ್ಞಾನಪೀಠ ಪ್ರಶಸ್ತಿಯನ್ನು ಎಂಟು ಪುರಸ್ಕೃತರಲ್ಲಿ ಎರಡನೇ ವ್ಯಕ್ತಿಯಾಗಿದ್ದಾರೆ. ಅವರು ಅಂಬಿಕಾಂತನಯದತ್ತ ("ದತ್ತ, ಅಂಬಿಕಾ ಮಗು") ಎಂಬ ಕಾವ್ಯನಾಮದಲ್ಲಿ ಬರೆದಿದ್ದಾರೆ. ಅವರು ಉಡುಪಿ ಅದಮಾರು ಮಠದಿಂದ ನೀಡಲ್ಪಟ್ಟ ಕರ್ನಾಟಕ ಕುಲ ತಿಲಕ ("ಕನ್ನಡ ನಾಡಿನ ಬೆಳಕು") ಎಂಬ ಬಿರುದನ್ನು ಸಹ ಹೊಂದಿದ್ದರು. ಅವರಿಗೆ ಭಾರತ ಸರ್ಕಾರದಿಂದ ಪದ್ಮಶ್ರೀ ಪ್ರಶಸ್ತಿ ನೀಡಲಾಯಿತು.

### ಆರಂಭಿಕ ಜೀವನ ಮತ್ತು ಶಿಕ್ಷಣ

ಅವರು ಕರ್ನಾಟಕದ ಧಾರವಾಡದಲ್ಲಿ ಮಾಧ್ಯಮ ಶಿಕ್ಷಣ ಕುಟುಂಬದಲ್ಲಿ ಜನಿಸಿದರು. ಅವರ ಅಜ್ಜ ದಾಸಗೌಡ (ಪವಿತ್ರ ಜ್ಞಾನದ ಹತ್ತು ಸಂಪುಟಗಳ ಮಾಸ್ತರ್) ಮತ್ತು ಸಂಸ್ಕೃತ ಶಾಸ್ತ್ರೀಯ ಸಾಹಿತ್ಯದಲ್ಲಿ ವಿದ್ವಾಂಸರಾಗಿದ್ದರು. ದತ್ತಾತ್ರೇಯ ಅವರ ತಂದೆ ಕೂಡ ಸಂಸ್ಕೃತ ವಿದ್ವಾಂಸರಾಗಿದ್ದರು, ಅವರು ದತ್ತಾತ್ರೇಯ ಕೇವಲ 12 ವರ್ಷದವರಾಗಿದ್ದಾಗ ನಿಧನರಾದರು. ದತ್ತಾತ್ರೇಯ ನಂತರ ಅಂಬಿಕಾಂತನಯದತ್ತ ಎಂಬ ಕಾವ್ಯನಾಮವನ್ನು ಆಳವಡಿಸಿಕೊಂಡರು, ಇದರರ್ಥ ಅಕ್ಷರಶಃ ದತ್ತ, ಅಂಬಿಕಾ ಅವರ ಮಗ ಕುಟುಂಬವನ್ನು ಪೋಷಿಸಲು ಅವರ ತಾಯಿ ಖಾನಾವಳಿ ಅಥವಾ ಭೋಜನಾಲಯವನ್ನು ನಡೆಸುತ್ತಿದ್ದರು. ಬೇಂದ್ರೆಯವರು ತಮ್ಮ ಚಿಕ್ಕಪ್ಪನ ಸಹಾಯದಿಂದ ಧಾರವಾಡದಲ್ಲಿ ಪ್ರಾಥಮಿಕ ಮತ್ತು ಪ್ರೌಢಶಾಲಾ ಶಿಕ್ಷಣವನ್ನು ಪೂರ್ಣಗೊಳಿಸಿದರು ಮತ್ತು 1913 ರಲ್ಲಿ ತಮ್ಮ ಮೆಟ್ರಿಕ್ಯುಲೇಷನ್ ಮುಗಿಸಿದರು. ಅವರು ತಮ್ಮ ಉನ್ನತ ಶಿಕ್ಷಣಕ್ಕಾಗಿ ಪುಣೆಯ ಫರ್ಗುಸನ್ ಕಾಲೇಜಿಗೆ ಸೇರಿದರು. ಪದವಿಯನ್ನು ಪಡೆದ ನಂತರ ಬೇಂದ್ರೆಯವರು ಧಾರವಾಡಕ್ಕೆ ಹಿಂತಿರುಗಿ ವಿಕೋರಿಯಾ ಪ್ರೌಢಶಾಲೆಯಲ್ಲಿ ಕೆಲಸಲು ಪ್ರಾರಂಭಿಸಿದರು. ಅವರು 1919 ರಲ್ಲಿ ರಾಣಬೆನ್ನೂರಿನ ಲಕ್ಷ್ಮಿಬಾಯಿ ಅವರನ್ನು ವಿವಾಹವಾದರು. ಅವರು 1935 ರಲ್ಲಿ ತಮ್ಮ ಸ್ನಾತಕೋತ್ತರ ಪದವಿಯನ್ನು ಪಡೆದರು.

### ವೃತ್ತಿ

ಧಾರವಾಡದ ವಿಕೋರಿಯಾ ಪ್ರೌಢಶಾಲೆಯಲ್ಲಿ ಅಧ್ಯಾಪಕರಾಗಿ ವೃತ್ತಿಜೀವನವನ್ನು ಪ್ರಾರಂಭಿಸಿ, 1944 ಮತ್ತು 1956 ರ ನಡುವೆ ಡಿಎಂ ಕಾಲೇಜಿನ ಸೋಲಾಪುರದಲ್ಲಿ ಕನ್ನಡ ಪ್ರಾಧ್ಯಾಪಕರಾಗಿ ಕೆಲಸ ಮಾಡಿದರು. 1956 ರಲ್ಲಿ ಅವರು ಆಕಾಶವಾಣಿಯ ಧಾರವಾಡ ಕೇಂದ್ರಕ್ಕೆ ಸಲಹೆಗಾರರಾಗಿ ನೇಮಕಗೊಂಡರು.

### ನಂತರದ ಜೀವನ

ಬೇಂದ್ರೆಯವರು ಗೆಳೆಯರ ಗುಂಪು (ಗೆಳೆಯರ ಗುಂಪು) ಅನ್ನು 1922 ರಲ್ಲಿ ರಚಿಸಿದರು. ಮುಖ್ಯವಾಗಿ ಸಂಸ್ಕೃತಿ ಮತ್ತು ಸಾಹಿತ್ಯದ ಅಧ್ಯಯನಕ್ಕಾಗಿ ಗೆಳೆಯರ ಗುಂಪಾಗಿ ಉದ್ದೇಶಿಸಲಾದ ಈ ಗೆಳೆಯರ ಬಳಗವು ಆನಂದ ಕಾಂಡ, ಶಾಮ್ ಸೇರಿದಂತೆ ಕರ್ನಾಟಕದ ವಿವಿಧ ಭಾಗಗಳಿಂದ ಕವಿಗಳು, ಬರಹಗಾರರು ಮತ್ತು ಬುದ್ಧಿಜೀವಿಗಳನ್ನು ಸೇರಿಸಿತು. ಬಾ. ಜೋಶಿ, ಸಿದ್ದವನಹಳ್ಳಿ ಕೃಷ್ಣಶರ್ಮ, ಎಂಕೆ. ಜಿ.ಬಿ.ಜೋಶಿ, ಕೃಷ್ಣಕುಮಾರ್ ಕಲ್ಲೂರು, ವಿ.ಕೆ.ಗೋಕಾಕ್ ಮತ್ತು ಆರ್.ಎಸ್.ಮುಗಳಿ. 1926 ರಲ್ಲಿ ಬೇಂದ್ರೆಯವರು ನಾಡಹಬ್ಬ ಎಂಬ ಸಾಂಸ್ಕೃತಿಕ ಚಟುವಟಿಕೆಯನ್ನು ಪ್ರಾರಂಭಿಸಿದರು, ಇದು ಕರ್ನಾಟಕದಲ್ಲಿ ಇಂದಿಗೂ ಪ್ರಚಲಿತದಲ್ಲಿರುವ ನೆಲ ಮತ್ತು ಅದರ ಸಂಸ್ಕೃತಿಯ ಆಚರಣೆಯಾಗಿದೆ. ಈ ಹಬ್ಬವನ್ನು ನವರಾತ್ರಿಯ ಸಮಯದಲ್ಲಿ ಆಚರಿಸಲಾಗುತ್ತದೆ. 1932 ರಲ್ಲಿ ಬೇಂದ್ರೆಯವರು ನರ ಬಲಿ (ಮಾನವ ತ್ಯಾಗ) ಬರೆದಿದ್ದಕ್ಕಾಗಿ ಜೈಲು ಶಿಕ್ಷೆ ಗುರಿಯಾದರು, ನಂತರ ಅದನ್ನು ದೇಶದ್ರೋಹ ಎಂದು ಹೆಸರಿಸಲಾಯಿತು. ಮುಗದ್ ಗ್ರಾಮದಲ್ಲಿ ಗೃಹಬಂಧನದಲ್ಲಿದ್ದರು. ಬೇಂದ್ರೆಯವರ ಇಬ್ಬರು ಗಂಡು ಮಕ್ಕಳಾದ ಪಾಂಡುರಂಗ ಮತ್ತು ವಾಮನ ಮತ್ತು ಮಗಳು ಮಂಗಳಾ ಅವರು ಜನಿಸಿದ ಒಂಬತ್ತು ಮಕ್ಕಳಲ್ಲಿ ಉಳಿದಿರುವ ಮೂವರು ಮಕ್ಕಳು. 1943ರಲ್ಲಿ ಶಿವಮೊಗ್ಗದಲ್ಲಿ ನಡೆದ 27ನೇ ಕನ್ನಡ ಸಾಹಿತ್ಯ ಸಮ್ಮೇಳನದ ಅಧ್ಯಕ್ಷತೆ ವಹಿಸಿದ್ದರು. ಅವರು ಕನ್ನಡ ಸಾಹಿತ್ಯ ಪರಿಷತ್ತಿನ ಸಹವರ್ತಿಯಾದರು. 1972 ರಲ್ಲಿ ಕರ್ನಾಟಕ ಸರ್ಕಾರವು ಅವರ ಜೀವನದ ಕುರಿತು ಸಾಕ್ಷ್ಯಚಿತ್ರವನ್ನು ನಿರ್ಮಿಸಿತು.

### ಕೃತಿಗಳು ಮತ್ತು ಸಂದೇಶ

ಬೇಂದ್ರೆಯವರು ಸರಳ ಮತ್ತು ಐಹಿಕ ಪ್ರಣಯ ಕಾವ್ಯದೊಂದಿಗೆ ಪ್ರಾರಂಭಿಸಿದರು, ಆಗಾಗ್ಗೆ "ಮಾತನಾಡುವ" ಭಾಷೆಯನ್ನು ಬಳಸುತ್ತಿದ್ದರು. ಅವರ ನಂತರದ ಕೃತಿಗಳು ಸಾಮಾಜಿಕ ಮತ್ತು ತಾತ್ವಿಕ ವಿಷಯಗಳನ್ನು ಆಳವಾಗಿ ಅಗೆಯುತ್ತವೆ. ಕನ್ನಡದ ಪ್ರಮುಖ ವಿಮರ್ಶಕ ಜಿ.ಎಸ್. ಆಮೂರ್ ಹೇಳುತ್ತಾರೆ "ಬೇಂದ್ರೆ ಅವರು ಸಮಗ್ರ ವ್ಯಕ್ತಿತ್ವದ ಮೌಲ್ಯವನ್ನು ನಂಬಿದ್ದರು ಆದರೆ ತಮ್ಮನ್ನು ತಾವು ತ್ರಿವಿಧವಾಗಿ ಬಿಂಬಿಸಿಕೊಳ್ಳಲು

### ಡಿ ಆರ್ ಬೇಂದ್ರೆ

ಧಾರವಾಡ, ಕರ್ನಾಟಕ / ಭಾರತ

| ಅನುಸರಿಸಿ                      | ಸಂದೇಶ |
|-------------------------------|-------|
| ಡ್ಯಾಶ್‌ಬೋರ್ಡ್                 | >     |
| ಜೀವನಚರಿತ್ರೆ                   | >     |
| ಕವನಗಳು                        | >     |
| ಕಾಮೆಂಟ್‌ಗಳು                   | >     |
| ಅನುಯಾಯಿಗಳು                    | >     |
| ಅಂಕಿಅಂಶಗಳು                    | >     |
| ಇ-ಪುಸ್ತಕಗಳನ್ನು ಡೌನ್‌ಲೋಡ್ ಮಾಡಿ | >     |
| ಸ್ಮ ಭೂಮಿಕೆ                    | >     |
| ಹೊಸ ಕವಿತೆಯನ್ನು ಸೇರಿಸಿ         | >     |
| ಹೊಸ ಉಲ್ಲೇಖವನ್ನು ಸೇರಿಸಿ        | >     |

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ಬೇಂದ್ರೆಯವರು ಆಧುನಿಕ ಕನ್ನಡ ಕಾವ್ಯದ ಪಿತಾಮಹ ಎಂದು ಕೊಂಡಾಡಿದ್ದಾರೆ. ಅವರ ಕವಿತೆಗಳು ಜಾನಪದ, ವಚನಗಳು ಮತ್ತು ತೀರ್ಥನಗಳ ಬಳಕೆಯ ಮೂಲಕ ಕನ್ನಡ ಕಾವ್ಯ ಸಂಪ್ರದಾಯಕ್ಕೆ ಸಂಬಂಧಿಸಿವೆ. ಸ್ಥಳೀಯ ಛಂದಸ್ಸಿನ ರೂಪಗಳಲ್ಲದೆ, ಬೇಂದ್ರೆಯವರು ಸ್ಥಳೀಯ ಚಿತ್ರಣ, ಜಾನಪದ ನಂಬಿಕೆಗಳು, ಭಾರತೀಯ ಪುರಾಣಗಳ ಉಲ್ಲೇಖಗಳು ಮತ್ತು ಸಾಮಾನ್ಯ ಜನರು ಮಾತನಾಡುವ ಭಾಷೆಯನ್ನು ಸಹ ಬಳಸಿದ್ದಾರೆ. ನಾದ ಲೀಲೆ (ದ್ವನಿಗಳ ಆಟ) ಬಹುಶಃ ಅವರ ಕವನ ಸಂಕಲನಗಳಲ್ಲಿ ಅತ್ಯಂತ ಗಮನಾರ್ಹವಾಗಿದೆ.. ನವೋದಯ ಕಾವ್ಯದ ಎಲ್ಲಾ ವೈಶಿಷ್ಟ್ಯಗಳಾದ ದೇಶಭಕ್ತಿ, ಸುಧಾರಣಾ ಉತ್ಸಾಹ, ವಿಮರ್ಶಾತ್ಮಕ ಮನೋಭಾವ, ಭಾರತೀಯ ಸಂಸ್ಕೃತಿ, ಸಾಂಪ್ರದಾಯಿಕ ಶಕ್ತಿಯ ಬಲವರ್ಧನೆ, ಅತೀಂದ್ರಿಯ ನಂಬಿಕೆ ಮತ್ತು ಕವಿಯ ಪ್ರತಿಪಾದನೆ. ಈ ಕವನ ಸಂಕಲನದಲ್ಲಿ ಪ್ರತ್ಯೇಕತೆಯನ್ನು ಕಾಣಬಹುದು.



ಬೇಂದ್ರೆಯವರು ಆಧ್ಯಾತ್ಮಿಕ ಸಾಹಿತ್ಯಕ್ಕೆ ವೈವಿಧ್ಯಮಯ ತಂತ್ರಗಳನ್ನು, ಸಾಂಪ್ರದಾಯಿಕ ಶಾಸ್ತ್ರೀಯ ಶೈಲಿಯನ್ನು ಮತ್ತು ಗ್ರಾಮೀಣ ಮತ್ತು ಜಾನಪದ ಸಾಹಿತ್ಯಕ್ಕೆ ಸಾಂಪ್ರದಾಯಿಕ ಮತ್ತು ಅಡುಮಾತಿನ ಭಾಷಾವೈಶಿಷ್ಟ್ಯವನ್ನು ಬಳಸಿದರು. ಸಾಂಕೇತಿಕತೆ ಅವರ ಕಾವ್ಯದ ಲಕ್ಷಣವಾಗಿದೆ. ನರ್ಸರಿ ಪ್ರಾಸವಾಗಿ ಹಾಡಿದ ಅವರ ಪಾತಂಗಿತ್ತಿ (ಚಿಟ್ಟಿ) ಕವಿತೆ ಪ್ರಲೋಭನೆಯ ಬಣ್ಣಗಳನ್ನು ಹೇಳುತ್ತದೆ. ಇನ್ನೊಂದು ಮೂಡಲಮನೆಯ (ಬೆಳಗ್ಗೆ) ಎಲ್ಲಾ ವ್ಯಾಪಿಸಿರುವ ಶಾಂತಿಯ ಸಂಕೇತ ಅಥವಾ ಕವಿಯ ಹಂಬಲ. ಕುಣಿಯೋಣು ಬಾರಾದಲ್ಲಿ (ನೃತ್ಯ ಶಾಸ್ತ್ರ) ಎಲ್ಲಾ ವೈವಿಧ್ಯಮಯ ಚಿಂತನೆಗಳು ಮಹಾ ಸಂಗಮದಲ್ಲಿ ಸಂಧಿಸುತ್ತವೆ. ಸೃಷ್ಟಿವಾಗಿ, ಬೇಂದ್ರೆಯವರ ಎಲ್ಲಾ ಕವಿತೆಗಳನ್ನು ಸಂಗೀತಕ್ಕೆ ಹೊಂದಿಸಬಹುದು ಮತ್ತು ಉಪನಾಮದಲ್ಲಿ ಹೇರಳವಾಗಿರಬಹುದು; ಆದರೆ ಯಾವಾಗಲೂ ಒಂದು ಸುಪ್ರವಾದ ಅರ್ಥದ ಪದರವಿರುತ್ತದೆ, ಅದು ತರಬೇತಿ ವಡದ ಕಾವ್ಯಾತ್ಮಕ ಮನಸ್ಸು ಮಾತ್ರ ಅರ್ಥೈಸಬಲ್ಲದು.

ಒಬ್ಬ ವ್ಯಕ್ತಿಯಾಗಿ, ಬೇಂದ್ರೆಯವರು ಸ್ನೇಹಪರ, ಸೌಮ್ಯ ಮತ್ತು ಬೆರೆಯುವವರಾಗಿದ್ದರು. ಅವರು ಬುದ್ಧಿಜೀವಿಗಳು ಮತ್ತು ಅನಕ್ಷರಸ್ಥ ಗ್ರಾಮಸ್ಥರೊಂದಿಗೆ ಸಮಾನ ಪದಗಳಲ್ಲಿ ಬೆರತರು. ಅವರು ಜೀವನವನ್ನು ವಿವಿಧ ಬಣ್ಣಗಳಲ್ಲಿ ಪ್ರೀತಿಸುತ್ತಿದ್ದರು ಮತ್ತು ವ್ಯಾಖ್ಯಾನಿಸಿದರು. ತಮ್ಮ ಜೀವನದ ಅಂತ್ಯದ ವೇಳೆಗೆ ಬೇಂದ್ರೆಯವರು ಸಂಖ್ಯೆಯಲ್ಲಿ ಆಳವಾಗಿ ಲೀನವಾಗಿದ್ದರು. ಇದು ಅವರಿಗೆ ಹೊಸ ಆಸಕ್ತಿಯಲ್ಲ ಆದರೆ ಈಗ ಅದು ಕೇಂದ್ರ ಕಾಳಜಿಯಾಗಿದೆ. 1976 ರಲ್ಲಿ ಕರ್ನಾಟಕದ ಅನ್ವೇಷಣೆಯ ಸಮಯದಲ್ಲಿ ಡೊಮ್ ಮೋರೇಸ್ ಅವರನ್ನು ಭೇಟಿ ಮಾಡಿದಾಗ, ಅವರು ಸಂಪೂರ್ಣವಾಗಿ ಸಂಖ್ಯೆಯಲ್ಲಿ ಮುಳುಗಿರುವುದನ್ನು ಕಂಡುಕೊಂಡರು. ಬೇಂದ್ರೆಯವರು ತಮ್ಮ ಪುಸ್ತಕಗಳಾದ ವಿಶ್ವಧಾರಣಸೂತ್ರ ಮತ್ತು ಅಮರತ್ವದ ಸಿದ್ಧಾಂತದಲ್ಲಿ ಎಲ್ಲಾ ಜ್ಞಾನವನ್ನು ಅಂಕಿಅಂಶಗಳಿಗೆ ಒಳಪಡಿಸುವ ಮಹತ್ವಾಕಾಂಕ್ಷೆಯ ಪ್ರಯತ್ನಗಳನ್ನು ಮಾಡಿದರು.

**ಪ್ರಶಸ್ತಿಗಳು ಮತ್ತು ಗೌರವಗಳು**

- ಜ್ಞಾನಪೀಠ ಪ್ರಶಸ್ತಿ - 1974 (ನಾಕು ತಂತಿ ಕವನಗಳ ಸಂಗ್ರಹಕ್ಕಾಗಿ)
- ಪದ್ಮಶ್ರೀ - 1968
- ಸಾಹಿತ್ಯ ಅಕಾಡೆಮಿ ಪ್ರಶಸ್ತಿ - 1958
- ಕೇಳರ್ ಪ್ರಶಸ್ತಿ - 1965
- ಸಾಹಿತ್ಯ ಅಕಾಡೆಮಿಯ ಫೆಲೋಶಿಪ್ - 1968
- ಮತ್ತು ಇನ್ನೂ ಅನೇಕ.

**ಜನಪ್ರಿಯ ಕವನಗಳು**

**ದಾವನ್**

ಪೂರ್ವದ ಮನೆಯು ಮುತ್ತು-ನೀರಿನಿಂದ ಹೊಳೆಯಿತು

ತೆರೆದ ಬಾಗಿಲುಗಳ ಮೂಲಕ ಪ್ರವಾಹವು  
ಇಡೀ ಭೂಮಿಯನ್ನು ಮುಳುಗಿಸಿತು.

...

ಕವಿತೆ ಓದಿ >

**ಪ್ರೀತಿ ನಮ್ಮ ಜೀವನ**

ನಾನು, ಬಡ ಹುಡುಗಿ, ಮತ್ತು ಅವನು, ಒಬ್ಬ ಬಡ ಹುಡುಗ,  
ಪ್ರೀತಿ ನಮ್ಮ ಜೀವನ,  
ಪ್ರೀತಿಯು ಉಪಯುಕ್ತವಾಗಿದೆ  
ಅದು ಸಂತೋಷ ಮತ್ತು ಕಲಹದ ಹಾದಿಯಲ್ಲಿ



# The Effectiveness of A Field Study on Vertebrate Zoology to Improve the Mastery of Student Concept

Fitri Aryanti<sup>1, a)</sup> and Lilis Suhaerah<sup>1, b)</sup>

<sup>1</sup>Departement of Biology Education Universitas Pasundan, Jln. Tamansari No. 6-8 Bandung 40154, Indonesia

<sup>a)</sup>Corresponding author: fitriaryanti@unpas.ac.id

<sup>b)</sup>suhaerahlilis@unpas.ac.id

**Abstract.** Field study on vertebrate zoology is useful for students because students can observe many kinds of vertebrate species found in the location, get physical evidence directly in the form of documentation and describe the characteristics of the observed animals. Method of research used is quantitative descriptive. Techniques of data collections are pretest, posttest and questionnaires. Samples of research are 55 students. The data obtained are analyzed and described to get information as the results of the research. Based on the results of the process of data collected, it is found that the average pretest score is 17.164 and the average score of posttest is 23.709. The average score of N-Gain is 0.375 and the outcomes of the learning enhancement are put into a medium category. Based on the results of the research, it is inferred that the implementation of a field study on vertebrate zoology can improve the mastery of student concept, and with various limitations in the study, it is open to evaluation in order to improve the quality of lecturing process in class and the implementation of field study in the following semester.

## INTRODUCTION

Vertebrate Zoology is a subject that studies the development patterns, anatomic characteristics and morphology of vertebrates. Lecturing on vertebrate zoology is performed through the methods of talks, presentation, discussion, practicum and field study. The lecturing materials present the classification of vertebrates, anatomic characteristics and morphology of Pisces, amphibians, reptiles, Aves and mammals. On campus lectures, the lecturing materials are presented on powerpoint slides accompanied with videos.

A lecturing process based on Information and Communication Technology (ICT) is required in facing the industrial revolution 4.0. However, lecturers are still to guide students in implementing their lecturing programs [1]. The students will have difficulties in understanding the presented materials if the lecturing process uses powerpoint slides only. Hence, the use of powerpoint slides is to be complemented with other study sources that can make the students learn to be on their own [2].

For those reasons, field study on vertebrate zoology is required to offer students actual knowledge and learning experience. This field study is carried out by students that take a vertebrate zoology course in even semesters. The objectives of the implementation of the field study are to obtain descriptions of the field study, get information about the effectiveness of the field study, and enhance the mastery of student concept by seeing the outcomes of the student study after the activities of the field study are done. The learning process is not only done by the presentation of material in the classroom but must be able to construct the understanding of students by exploring learning resources and building their knowledge through direct interaction with their experiences and environments [3].

## EXPERIMENTAL DETAILS

The method used in the research is quantitative descriptive. It describes the effectiveness of a field study on vertebrate zoology that becomes the center of research without giving any special treatment to the activities. Descriptive research is a kind of research that is conducted to see the values of its variables (either one independent

variable or more) that neither compares nor connects with other ones [4-5]. Stages of research implementation are as follows the first stage of the research implementation is the preparation stage in which the students are made up into 3 groups and given explanation about the technical guidance, the second stage is the stage of the research implementation where each student group observes each vertebrate family such as reptiles, aves, mammals, and the groups take turn in doing it, the third stage is the stage of evaluation by giving tests and assigning students writing group reports.

Research is assigned to a single object, that is, 55 students consist of 45 female students and 7 male students. Data collections are processed through pretest and posttest in the form of essay, multiple choice and questionnaires. Data processing is done by calculating the normalized gain scores on Microsoft Excel. Data obtained through the students' questionnaires are qualitative and converted into quantitative ones. Calculation of N-Gain using the formula [6]:

$$N\text{-Gain} = \frac{\text{Skor posttest} - \text{Skor Pretest}}{\text{Skor Maks} - \text{Skor Pretest}} \quad (1)$$

Interpretation of N-Gain that is N-Gain with a high category with a range of  $g > 0.7$ , the medium category with a range of  $0.3 < g \leq 0.7$  and a low category with a range of  $g \leq 0.3$ .

## RESULT AND DISCUSSION

Based on the outcomes of the analyses of the scores of the pretest and posttest on the effectiveness of a field study on vertebrate zoology in enhancing the mastery of student concept, it is found out that the average score of pretest is 17.164, and the average score of posttest is 23.709 and the average score of N-Gain is 0.375. The average value graph can be seen in Fig. 1.

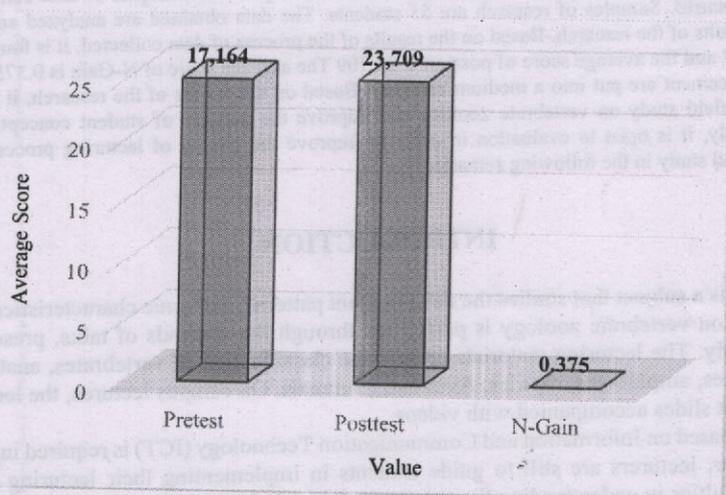


FIGURE 1. Average score of Pretest, Posttest and N-Gain

Effectiveness comes from the word effective that refers to having influence, impact or effect. The meaning of the word effectiveness is referred to as efficiency, being active, and conformity in activity between an individual who carries out a task and a goal that is expected to be achieved [7].

Effectiveness is an activity that can be measured by using several stages, among other things, by knowing the opinions of those who participate in the satisfaction of the whole activity, how much the concept is mastered, evaluate before and after the activity in order to learn about the effect on the performed activity, and to find out the impact of the activity as a whole [8]. Measuring and finding out effectiveness of a lecture can employ 4 indicators, that is, quality of assurance so that the information presented can be easily studied, appropriate level of instructions as to make sure about the readiness level of the students in receiving new materials, incentive, that is, how hard the efforts of a lecturer in completing his tasks and in learning the given materials, and the time needed to get his tasks completed on time [9].

S R Hadh<sup>3</sup>

Innovation Banking

Dept. of Commerce

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## Housing Ownership and Affordability among Low-Income Society in the Poorest Sub-District of Semarang, Central Java, Indonesia

Lulut Indrianingrum<sup>1,a)</sup>

<sup>1</sup>Architecture Engineering Program, Civil Engineering Department, Engineering Faculty, Universitas Negeri Semarang, Indonesia

<sup>a)</sup>Corresponding author: lutyindria@gmail.com

**Abstract:** The Government has intervened to deal with various affordable public housing programs, as well as financing programs for Low Income society in Indonesia. The characteristics of this society in each region are so diverse, that made the housing programs for this social segment uneasy in reaching the right target. Regulation of Housing and Settlement No. 2/2001 has mandated that the State are obliged to implement a habitable public housing for people, especially for the low income society. The purpose of this study is exploring the low-income residents' preferences and affordability of home ownership for their families in the poorest sub-district of Semarang. Aspects of studies include family conditions, financing, location, housing type and price. The research used a descriptive method to analyze a set of questionnaire data, distributed to low income residents in Sub district Tanjungmas, which is the poorest sub district in Semarang. The results showed that the respondents developed a vision of home ownership by saving their money for the allocated housing budget and taking a bank installment. They tended to plan to get a house in their current neighborhood or nearby or anywhere else with the same price range. They really understood that, in order to get a better home and neighborhood they have to pay for higher prices. Therefore, their housing criteria or standards were set based on the quality of life in their current residential area, and should be located in a township (*kampung*).

### INTRODUCTION

Housing becomes a priority in every household around the world. Consumers, especially low-income groups, find it harder to access appropriate and adequate housing at an affordable cost in countries including Australia, Canada and China (Beer, Kearins, & Pieters, 2007; Chen, Hao, & Stephens, 2010; Purdy, 2003). As a part of Asian countries, Indonesia's government regulated a decent and affordable housing as one of priorities highlighted in the implementation of housing and settlements. This is to ensure that low-income society have the same access to the ownership of housing as much the high-income groups generally do. Low-income society are the people who have a limited purchasing affordability, and thus needs the government's supports. Characteristic of this society, according to the Public Housing Ministry Regulation (Permenpera No.5/permen/M/2007), is a public group with a family income below two million five hundred thousand rupiahs per month.

Recently, the low income society becomes a priority because of their weaknesses in accessing an affordable housing. Some financial schemes have been offered eventually by the government to encourage developers to provide an affordable housing for this group. Developer's interest in providing a low-cost housing is still prominent or evident, because the demand is also significant. It is because this group really needs a home and not necessarily for an investment. Although there are improvements in terms of demand and supply, the supply of homes to meet the backlog was not easy, because of the complexity of the implementation of housing and settlements, as well as policies that do not address the existing problems. Some of the arising problems are related to the supply of land that is increasingly expensive and limited to housing development, the homebuyer's target does not match with

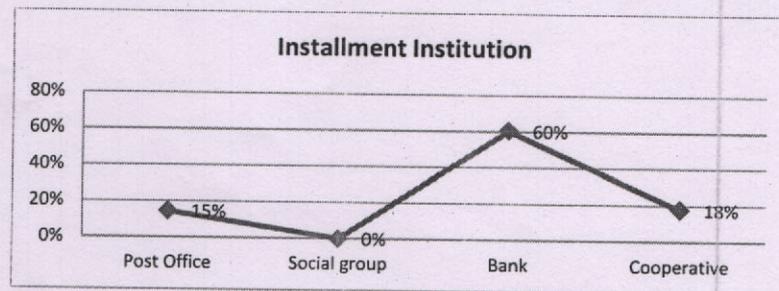


FIGURE 7. Installment Institution

The study reveals several emerging themes from the findings. There are: saving option for housing budget, choices of living in a village, choices of installment and negative response of living in a public housing. The discussion of these themes will be explored in the next section.

### DISCUSSION: HOME OWNERSHIP AND AFFORDABILITY

This research focuses on the low income society's preference concerning home ownership and affordability based on family economic conditions. Basically, the respondents showed a vision towards home ownership. They had the budget of home financing and the desire for owning a house, but with different affordability levels. Most respondents had a desire to own their houses, and to not rent, by saving their money for the allocated budget. This answer was quite interesting. Considering the structure of their income (below 1 million / month in average), they had a vision to own a house without taking or subscribing to any loan. In addition, the option to save their income for the housing budget was a highly creative decision, because they did not go for a bank installment option.

For them, the vision of home ownership was set based on conditions they were experiencing today. At this time, the respondents were residing in the housing village and they felt comfortable with the social conditions in the village. They also claimed that the house in the village has a price that is affordable for them. Through this comparison, it is learned that they still had a vision of living in and near their current neighborhood or anywhere else with the same price range. They really understood that in order to obtain environmental conditions and a better home, they had to pay for higher prices. Therefore, their future housing standard was based on the quality of life they live now or was about having a house in a village residence.

Living in a public apartment was not an option for respondents because almost none chose the public apartment as a vision of home ownership. Most respondents were reluctant to live in a multi-story public housing because of the inconvenient condition, cramped situation and difficulty for having to go up and down the stairs. This shows that the socialization policy on public housing needs to be emphasized on the sociological approach within the community. This is because a social transformation has more effects on the low income society's preference towards public housing.

From the description above, it showed that the respondents were affected by the condition of the house and the neighborhood currently occupied. The standards they expected for their future home were the same as those of the neighborhood they live now.

### CONCLUSION

The low income society, when not facing with the installment choice, tended to save their income rather than subscribe for debt. But when facing with the installment or debt choice, they chose a loan from a bank as a reliable institution.

Their vision was still about living in current or nearby neighborhood or anywhere else that had the same price range. They really understood that in order to obtain a more quality environmental conditions and a better home, they had to go with higher price housing. Therefore, the standards they applied referred to the quality of life in their current neighborhood and a home in the village complex.

## ಎಂ.ಗೋವಿಂದ ಪೈ

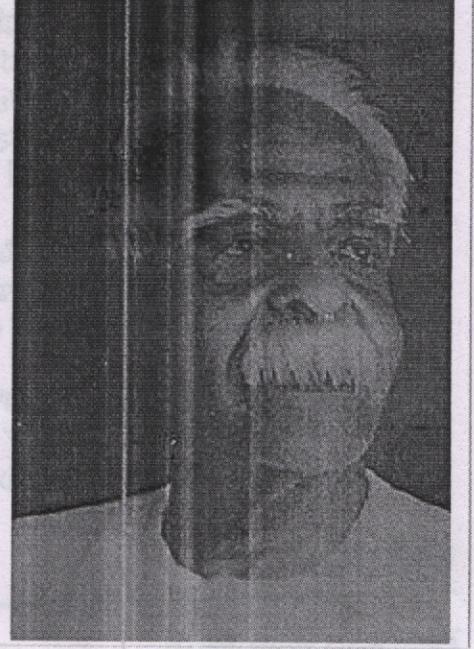
ಎಂ ಗೋವಿಂದ ಪೈ

ಒಂದು

ಮಂಜೇಶ್ವರ ಗೋವಿಂದ ಪಿ

ಐ (23 ಮಾರ್ಚ್ 1883 - 6 ಸೆಪ್ಟೆಂಬರ್ 1963), ರಾಷ್ಟ್ರಕವಿ ಗೋವಿಂದ ಪೈ ಎಂದೂ ಕರೆಯಲ್ಪಡುವ ಇವರು ಕನ್ನಡ ಕವಿ. ಅವರಿಗೆ ಮದ್ರಾಸ್ ಸರ್ಕಾರದಿಂದ ಮೊದಲ ರಾಷ್ಟ್ರಕವಿ ಪ್ರಶಸ್ತಿಯನ್ನು ನೀಡಲಾಯಿತು ( 1 ನವೆಂಬರ್ 1956 ರಂದು ರಾಜ್ಯಗಳ ಭಾಷಾವಾರು ಮರುಸಂಘಟನೆಗೆ ಮೊದಲು ಕಾಸರಗೋಡು ಜಿಲ್ಲೆ ಮದ್ರಾಸ್ ಪ್ರೆಸಿಡೆನ್ಸಿಯ ದಕ್ಷಿಣ ಕನರಾ ಜಿಲ್ಲೆಯ ಭಾಗವಾಗಿತ್ತು [2] ). ರಾಷ್ಟ್ರಕವಿ ಎಂ. ಗೋವಿಂದ ಪೈ ಅವರು ಮಂಜೇಶ್ವರವನ್ನು (ಈಗ ಕೇರಳದಲ್ಲಿದೆ) ಭಾರತದ ಸಾಹಿತ್ಯ ಭೂಪಟದಲ್ಲಿ ಇರಿಸಿದರು . [3]

ಮಂಜೇಶ್ವರ ಗೋವಿಂದ ಪೈ



|             |   |
|-------------|---|
| ಹುಟ್ಟು      | 23 ಮಾರ್ಚ್ 1883<br>ಮಂಜೇಶ್ವರ , ದಕ್ಷಿಣ ಕನರಾ ಜಿಲ್ಲೆ ,<br>ಮದ್ರಾಸ್ ಪ್ರೆಸಿಡೆನ್ಸಿ , ಬ್ರಿಟಿಷ್ ಇಂಡಿಯಾ (ಈಗ ಕಾಸರಗೋಡು ಜಿಲ್ಲೆ , ಕೇರಳ , ಭಾರತ ) |
| ನಿಧನರಾದರು   | 6 ಸೆಪ್ಟೆಂಬರ್ 1963<br>(ವಯಸ್ಸು 80)  |
| ಉದ್ಯೋಗ      | ಬರಹಗಾರ  |
| ರಾಷ್ಟ್ರೀಯತೆ | ಭಾರತೀಯ  |
| ಸಂಗಾತಿಯ     | ಕೃಷ್ಣಾ ಬಾಯಿ [1]   |

### ಪರಿವಿಡಿ

ಆರಂಭಿಕ ಜೀವನ

ವೃತ್ತಿ

ಕೆಲಸ ಮಾಡುತ್ತದೆ

ಪ್ರಶಸ್ತಿಗಳು ಮತ್ತು ಪರಂಪರೆ

ಎಂ ಗೋವಿಂದ ಪೈ ಪ್ರಾದೇಶಿಕ ಸಂಶೋಧನಾ ಕೇಂದ್ರ ಉಡುಪಿಯಲ್ಲಿ

ಕಲಾಕೃತಿಗಳು ಲಭ್ಯ

ಸಹ ನೋಡಿ

ಉಲ್ಲೇಖಗಳು

ಬಾಹ್ಯ ಕೊಂಡಿಗಳು

### ಆರಂಭಿಕ ಜೀವನ

ಎಂ. ಗೋವಿಂದ ಪೈ ಅವರು 23 ಮಾರ್ಚ್ 1883 ರಂದು ಕೊಂಕಣಿ ಗೌಡ್ ಸಾರಸ್ವತ ಬ್ರಾಹ್ಮಣ ಕುಟುಂಬದಲ್ಲಿ ಮಂಜೇಶ್ವರದಲ್ಲಿರುವ ಅವರ ತಾಯಿಯ ಅಜ್ಜನ ಮನೆಯಲ್ಲಿ ಜನಿಸಿದರು. [1] ಅವರು ಮಂಗಳೂರು ಸಾಹುಕಾರ ತಿಮ್ಮಪ್ಪ ಪೈ ಮತ್ತು ದೇವಕಿ ಅಮ್ಮನವರ ಮೊದಲ ಮಗ . ಗೋವಿಂದ ಪೈ ಅವರು ಮಿಷನ್ ಶಾಲೆಗೆ ಹೋಗಿ ನಂತರ ಮಂಗಳೂರಿನ ಕನರಾ ಹೈಸ್ಕೂಲಿಗೆ ಹೋದರು. ಕಾಲೇಜು ಶಿಕ್ಷಣಕ್ಕಾಗಿ ಪೈ ಮದ್ರಾಸಿಗೆ ( ಚೆನ್ನೈ ) ಹೋದರು . ಅವರ ತಂದೆಯ ಹಠಾತ್ ಮರಣದಿಂದಾಗಿ, ಅವರು ಹಿಂತಿರುಗಬೇಕಾಯಿತು. [4]

### ವೃತ್ತಿ

ಗೋವಿಂದ ಪೈ ಅವರು ಪ್ರಬುದ್ಧ ಗದ್ಯ ಲೇಖಕರೂ ಆಗಿದ್ದರು. ಗದ್ಯದಲ್ಲಿ ಅವರ ಆರಂಭಿಕ ಸಂಯೋಜನೆ ಶ್ರೀಕೃಷ್ಣ ಚರಿತೆ (1909) ಇದು ಗಮನಾರ್ಹವಾದ ಓದುವಿಕೆಗೆ ಕಾರಣವಾಗುತ್ತದೆ. ಗೋವಿಂದ ಪೈ ಅವರು ಕ್ರಿಸ್ತನ ಶಿಲುಬೆಗೇರಿಸಿದ ಕಥೆಯನ್ನು ತಮ್ಮ ಕೃತಿ ಗೊಲ್ಲೊಥಾದಲ್ಲಿ (1931) ವಿವರಿಸಿದ್ದಾರೆ. ಅವರು ಪ್ರಕಟಿಸಿದ ಮುಂದಿನ ಮೂರು ಪ್ಯಾನೆಜಿರಿಕ್ಸ್ ; ವೈಶಾಖಿ, ಪ್ರಭಾಸ ಮತ್ತು ದೇಹಲಿ, ಕ್ರಮವಾಗಿ ಬುದ್ಧ, ದೇವರು ಕೃಷ್ಣ ಮತ್ತು ಗಾಂಧಿಯ ಕೊನೆಯ ದಿನಗಳನ್ನು ವಿವರಿಸಿದರು; ಗೊಲ್ಲೊಥಾದ ದೊಡ್ಡ ಯಶಸ್ವಿನ ಫಲಿತಾಂಶವಾಗಿದೆ. [5] ಅವರ ಅತ್ಯುತ್ತಮ ಕೃತಿಗಳನ್ನು ಖಾಲಿ ಪದ್ಯದಲ್ಲಿ ಬರೆಯಲಾಗಿದೆ, ಅಂದರೆ, ಗೊಲ್ಲೊಥಾ ( ಕ್ರಿಸ್ತನ ಕೊನೆಯ ದಿನಗಳು, 1937 ರಲ್ಲಿ ಪ್ರಕಟವಾಯಿತು), ವೈಶಾಖಿ ( 1946 ರಲ್ಲಿ ಪ್ರಕಟವಾದ ಬುದ್ಧನ ಕೊನೆಯ ದಿನಗಳು ) ಮತ್ತು ಹೆಬ್ಬೇರಲು( 1946 ರಲ್ಲಿ ಪ್ರಕಟವಾದ ಹೆಬ್ಬೇರಲು , ಏಕಲವ್ಯನ ಕಥೆ ಪುನಃ ಹೇಳಲಾಗಿದೆ) ಕನ್ನಡ ಸಾಹಿತ್ಯದ ಶ್ರೇಷ್ಠ ಕವಿಗಳ ಗ್ಯಾಲರಿಯಲ್ಲಿ ಶಾಶ್ವತ ಸ್ಥಾನವನ್ನು ಗಳಿಸಿದೆ. [6] ಗೊಮ್ಮಟ ಜಿನಸ್ತುತಿ ಅವರ ಮೊದಲ ಪ್ರಕಟಿತ ಕೃತಿ. ಅವರು ಸಾನ್‌ಟ್ ರೂಪವನ್ನು ಕನ್ನಡಕ್ಕೆ ಪರಿಚಯಿಸಿದರು. [7] ಹೆಬ್ಬೇರಲು ಮಹಾಕಾವ್ಯದ ಮಹಾಭಾರತದ ಪಾತ್ರಗಳಾದ ದ್ರೋಣ ಮತ್ತು ಏಕಲವ್ಯನ ಕಥೆಯನ್ನು ನಾಟಕೀಯಗೊಳಿಸಿದ್ದಾರೆ. [8]



ಅವರ ಜೀವನದ ಸುಮಾರು ಅರವತ್ತು ವರ್ಷಗಳು ಮಂಜೇಶ್ವರದ ಈ ಮನೆಯಲ್ಲಿ ಕಳೆದವು

ಗೋವಿಂದ ಪೈ ಅವರು ತಮ್ಮ ಐತಿಹಾಸಿಕ ಅಧ್ಯಯನ ಮತ್ತು ಸಂಶೋಧನೆಯಿಂದ ಕನ್ನಡ ಕಲಿಕೆಯನ್ನು ಶ್ರೀಮಂತಗೊಳಿಸಿದರು. ಅವರು ತುಳುನಾಡಿನ ಕಾಲಗಣನೆ ಮತ್ತು ಇತಿಹಾಸದ ಬಗ್ಗೆ ಅಧಿಕಾರ ಹೊಂದಿದ್ದರು. ಅವರ ಕೃತಿಗಳು ಅವರ ಸಾರ್ವತ್ರಿಕ ದೃಷ್ಟಿಕೋನ ಮತ್ತು ಬಡವರು ಮತ್ತು ದೀನದಲಿತರ ಬಗ್ಗೆ ಅವರ ಆಳವಾದ ಸಹಾನುಭೂತಿಗೆ ಸಾಕ್ಷಿಯಾಗಿದೆ.

ಅವರು ಕನ್ನಡ , ಕೊಂಕಣಿ ಮತ್ತು ಇಂಗ್ಲಿಷ್ ಹೊರತುಪಡಿಸಿ ತುಳು , ಮಲಯಾಳಂ , ಸಂಸ್ಕೃತ , ತೆಲುಗು , ತಮಿಳು , ಮರಾಠಿ , ಬಂಗಾಳಿ , ಪರ್ಷಿಯನ್ , ಪಾಲಿ , ಉರ್ದು , ಗ್ರೀಕ್ ಮತ್ತು ಜಪಾನೀಸ್ ಸೇರಿದಂತೆ 25 ಭಾಷೆಗಳಲ್ಲಿ ನಿರರ್ಗಳವಾಗಿ ಓದಲು ಮತ್ತು ಬರೆಯಲು ಸಮರ್ಥರಾಗಿದ್ದರು . [9] ಅವರು ಹಲವಾರು ಜಪಾನೀ ಕೃತಿಗಳನ್ನು ಕನ್ನಡಕ್ಕೆ ಅನುವಾದಿಸಿದರು .

## ಕೃತಿಗಳು

ಅವರ ಕವನ ಸಂಕಲನಗಳು:

### ■ ಗಿಳಿವಿಂದು (1930) (ಗಿಳಿ ಹಿಂದುಗಳು)

ಅವರ ಮೊದಲ ಸಂಗ್ರಹ ಗಿಳಿವಿಂದು 46 ಕವಿತೆಗಳನ್ನು ಒಳಗೊಂಡಿದೆ, ಇದು ಕವಿಗಳ ಜೀವನದ ದೃಷ್ಟಿಕೋನ, ದೇಶಕ್ಕಾಗಿ ಅವರ ಪ್ರೀತಿ, ಅವರ ಸುತ್ತಲಿನ ಪ್ರಕೃತಿಗೆ ಅವರ ಸ್ಪಂದಿಸುವಿಕೆ ಮತ್ತು ಕನ್ನಡದ ಮೇಲಿನ ಅವರ ಪ್ರೀತಿಯನ್ನು ಪ್ರದರ್ಶಿಸುತ್ತದೆ

### ■ ನಂದಾದೀಪ (ಬಾಳುವ ದೀಪ)

ಅವರ ನಂದಾದೀಪವು 37 ಕವನಗಳನ್ನು ಒಳಗೊಂಡಿದೆ, ಇದು ದೇವರಿಗೆ ಭಕ್ತಿಯ ಗೌರವವಾಗಿದೆ. ಶ್ರೀ ಪೈ ಅವರ ಹೆಸರು ಕನ್ನಡ ಭಾಷೆಯ ಕ್ಷೇತ್ರದಲ್ಲಿ ಮತ್ತು ಕನ್ನಡಿಗರ ಮನಸ್ಸಿನಲ್ಲಿ ಎಂದೆಂದಿಗೂ ನೆನಪಿನಲ್ಲಿ ಉಳಿಯುತ್ತದೆ. [1]

### ■ ಹೃದಯರಂಗ [10]

ಅವರ ಇತರ ಕೃತಿಗಳು ಸೇರಿವೆ

- ಹೆಬ್ಬೇರಲು (ಏಕಲವ್ಯ ಮೇಲೆ)
- ಚಿತ್ರಭಾನು (ಕ್ವಿಟ್ ಇಂಡಿಯಾ ಚಳವಳಿಯ ಕುರಿತು)
- ವೈಶಾಖಿ (ಬುದ್ಧನ ಕೊನೆಯ ದಿನಗಳ ಬಗ್ಗೆ)
- ಮಣ್ಣಿನ ಸೊಗಡು
- ತಾಯಿ

سیکرٹری پر ائمز چند



سرکاری نام  
منشی پریم چند

پیدائش  
دھنپت رائے سری واستو  
31 جولائی 1880

لمہی، شمال مغربی صوبہ،  
برطانوی ہند

موت  
8 اکتوبر 1936 (عمر 56 سال)

وارانسی، برطانوی ہند کے  
متحدہ صوبے، برطانوی ہند

پیشہ  
ناول نگار، افسانہ نگار،  
انشائیہ نگار

زبان  
اردو-ہندی

قومیت  
برطانوی ہند

نمایاں کام  
گودان، بازار حسن،  
میدان عمل، شطرنج  
کے کھلاڑی

ساتھی  
شو رانی دیوی

بچے  
سری پتھ رائے، امرت  
رائے، کملہ دیوی

بینڈ

فہرست

منشی پریم چند کا ابتدائی سوانحی خاکہ

پرائمری ادبی زندگی کے سیکرٹری

منشی پریم چند کا افسانہ نگاری میں مقام

منشی پریم چند کی افسانہ نگاری کے ادوار

موضوعاتی اعتبار سے تقسیم

پریم چند کے افسانوں میں رومانیت اور حقیقت نگاری کا امتزاج

پریم چند کے کردار

پرائم ملٹی اسٹائل

پریم چند کے منتخب افسانوں پر تبصرہ =

کفن

غربت و افلاس کے میں پیدا ہونے والی بے حسی کا اظہار

حج اکبر

ٹائم لائن

افسانوں کے مجموعے

ادبی زندگی

پریم چند کے مکمل نگارشات کی طباعت

افسانوی مجموعے

فہرستِ تخلیقات

ناول

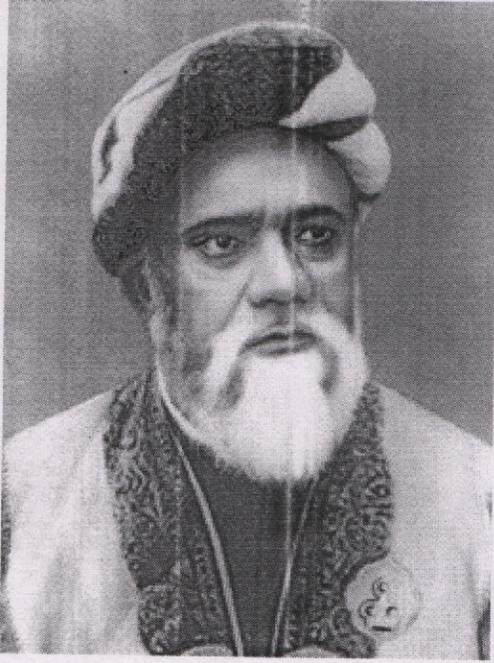
مزید دیکھیے

حوالہ جات

Head

نذير أحمد

(بالأردوية: ڈیٹی نذیر احمد)



نذير أحمد (1247 - 1320 هـ / 1831 - 1902 م) هو كاتب وشاعر، من أهل الهند.

هو نذير أحمد بن سعادت علي بن نجابت علي الأعظمبوري البنجوري الدهلوي. ولد في مدينة بنجور، قرأ على علي نصر الله الخويشكي ثم انتقل إلى دهلي، وبها تعلم الإنكليزية. كان من دعاة واتباع حركة التجديد التي قادها السيد أحمد خان.

من آثاره: نقل بعض معاني القرآن إلى اللغة الأوردية، ورواية باسم «التوبة» - ترجمة: سمير عبد الحميد إبراهيم - المجلس الأعلى للثقافة - القاهرة 2004 م ورواية «مرأة العروس» ترجمة: جلال السعيد الحفناوي - المجلس الأعلى للثقافة - القاهرة 2005 م.<sup>[4]</sup>

المصادر

1. المُعرّف مُتعدد الأوجه لمُصطلح الموضوع (FAST): <http://id.worl> باسم: Nazīr Aḥmad — تاريخ الاطلاع: 9 أكتوبر 2017 [dcat.org/fast/158331](https://dcat.org/fast/158331)

2. مُعرّف دليل الألماس العام: <https://opac.diamond-ils.org/ag> باسم: Nazir Ahmad — [ent/109777](https://ent/109777)

3. مُعرّف نفانس المكتبة الوطنية في أستراليا (NLA Trove): <https://tr> باسم: Nazīr Aḥmad — تاريخ الاطلاع: 9 أكتوبر 2017 [ove.nla.gov.au/people/1526945](https://ove.nla.gov.au/people/1526945)

4. "نذير أحمد". معجم البابطين لشعراء العربية في القرنين التاسع عشر والعشرين. مؤسسة جائزة عبد العزيز سعود البابطين للإبداع الشعري. مؤرشف من الأصل في 14 ديسمبر 2019. اطلع عليه بتاريخ آذار 2012.

معلومات شخصية

الميلاد سنة 1836<sup>[1][2][3]</sup>

الوفاة سنة 1912 (75–76 سنة)<sup>[1][2][3]</sup>

دهلي

مواطنة  الراج البريطاني

الحياة العملية

المدرسة الأم جامعة دهلي

المهنة كاتب، وشاعر

اللغات العربية، والفارسية، والأردية

تعديل مصدري (https://ar.wikipedia.org/w/index.php?title=

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https://ar.wikipedia.org/w/index.php?title=%D9%86%D

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Head  
Department of Urdu  
M.G.V.C. College, Muddebihal.



S.G.V.C.Vidya Prasarak Trust's

M. G.V.C.ARTS, COMMERCE AND SCIENCE COLLEGE MUDDEBIHAL

**ONLINE CLASSES**

Name of the Faculty: Prof M. A. Bissadur

Subject: English

| SrNo | Zoom meet, Google meet, Youtube etc | Title | Class           | Date              |
|------|-------------------------------------|-------|-----------------|-------------------|
| 1    | Zoom meet                           |       | B. A V. opt     | September 3, 2020 |
| 2.   | " "                                 |       | B. A V. opt.    | September 10, 20  |
| 3.   | " "                                 |       | B. A V. opt.    | September 17, 20  |
| 4.   | Zoom Meet                           |       | B. A V. opt     | Oct. 8, 2020      |
| 5    | " "                                 |       | B. A V. opt.    | Oct 22 2020       |
| 6    | " "                                 |       | B. A. V. opt.   | Oct 24, 2020 ✓    |
| 7    | " "                                 |       | BSc III - sem   | Oct 28, 2020      |
| 8.   | " "                                 |       | B. A. V - sem   | Oct 29 2020 ✓     |
| 9.   | " "                                 |       | "               | Nov. 4, 2020      |
| 10   |                                     |       | "               | Nov. 5, 20 -      |
| 11   | Zoom Meet                           |       | Bsc - III - sem | Sept. 2, 2020     |
| 12   | Zoom Meet                           |       | "               | Sept. 9, 2020     |
|      | Zoom Meet                           |       | "               | Sept. 16, 2020    |
|      | Zoom Meet                           |       | "               | Oct. 07, 2020     |
|      | Zoom Meet                           |       | Bsc III - sem   | Oct. 10, 2020     |
|      | Zoom Meet                           |       | "               | Oct 15, 2020      |
|      | Zoom Meet                           |       | "               | Oct 17 2020       |
|      | Zoom Meet                           |       | "               | Oct 21 2020       |
|      | Zoom Meet                           |       | "               | Oct 22 2020       |
|      | Zoom Meet                           |       | "               | Oct 24 2020       |
|      | Zoom Meet                           |       | "               | Nov. 04 2020      |
|      | Zoom Meet                           |       |                 |                   |

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MUDDEBIHAL



2.3.2. Teacher use ICT enabled tools for effective Teaching Learning Process

| Sl.No | Name of the Faculty   | Department        | Topic                           | Date       | Time    |
|-------|-----------------------|-------------------|---------------------------------|------------|---------|
| 1     | Prof.S.S.Hugar        | Education         | Value Education                 | 22-1-2022  | 10:45am |
| 2     | Dr.S.Cangadi          | Hindi             | Bakari Natak                    | 17-11-2021 | 10:30am |
| 3     | Dr.P.Huppalladinni    | Political Science | Power and Justice               | 18-1-2022  | 08:30am |
| 4     | Prof.S.V.Gurumath     | Botany            | Bonsai Technique                | 3/1/2022   | 10:45am |
| 5     | Prof.S.V.Gurumath     | Botany            | Bonsai Technique                | 19-1-2022  | 08:30am |
| 6     | Dr.S.B.Jadhav         | Sociology         | Jyotiba Phule                   | 20-01-2022 | 08:30am |
| 7     | Dr.A.Amulla           | Urdu              | Faiz Ahmad                      | 20-1-2022  | 08:30am |
| 8     | Prof.S.H.Natkar       | Political Science | Parliament of Great Britain     | 21-1-2022  | 11:30am |
| 9     | Prof.M.I.Biradar      | English           | The Age of Wordsworth           | 27-12-2021 | 09:30am |
| 10    | Prof.M.I.Biradar      | English           | Don't Quit: EdgerAlbert Guest   | 7/1/2022   | 10:30am |
| 11    | Prof.N.S.Patil        | Stastics          | Randam Variable in Probability  | 20-1-2022  | 09:30am |
| 12    | Prof.S.R.Hatti        | Commerce          | Innovative Banking              | 12/1/2022  | 09:30am |
| 13    | Prof.Valappa Lamani   | Kannada           | Sarvanna                        | 13-1-2022  | 09:30am |
| 14    | Dr.Prakash Naragund   | Kannada           | Kuvempu                         | 18-1-2022  | 09:30am |
| 15    | Dr.R.H.Sajjan         | History           | Lord Dalhousie                  | 20-1-2022  | 10:45am |
| 16    | Prof.S.R.Hatti        | Commerce          | Primary Functions               | 20-1-2022  | 09:30am |
| 17    | Prof.Umarfarooq Halya | Chemistry         | Preparation of Lipstick         | 20-1-2022  | 10:00am |
| 18    | Dr.S.S.Patil          | Kannada           | Nayasen                         | 20-1-2022  | 09:30am |
| 19    | Prof.A.D.Talugeri     | Commerce          | What is Forfeited Share         | 20-1-2022  | 07:30am |
| 20    | Prof.S.V.Gurumath     | Botany            | Embryology                      | 1/1/2022   | 09:30am |
| 21    | Prof.S.V.Gurumath     | Botany            | Microscopes                     | 31-12-2021 | 09:30am |
| 22    | Prof.M.I.Biradar      | English           | Victorian Novelists             | 11/1/2022  | 08:30am |
| 23    | Prof.M.I.Biradar      | English           | Charecteristics of Romantic Age | 27-12-2021 | 09:30am |

  
Co-ordinator,

Internal Quality Assurance Cell  
M.G.V.C. Arts, Commerce & Science College  
MUDDEBIHAL-586212. Dist: Vijayapur.

  
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M. G. V. C. Arts, Com. & Science College  
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## **DEPARTMENT OF BOTANY**

**Teachers Use ICT enabled tools for Effective teaching learning process**

**Name of the Staff Member: Prof-S.V.Gurumath**

**Class: First Semester**

**Date: 31.12.2021**

**Time: 9.30 to 10.30 am**



*S.V. Gurumath*  
**Co-ordinator,**

**Internal Quality Assurance Cell**  
M.G.V.C. Arts, Commerce & Science College  
MUDDEBIHAL-586212, Dist: Vijayapur.

*S.V. Gurumath*

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M. G. V. C. Arts, Com & Science College  
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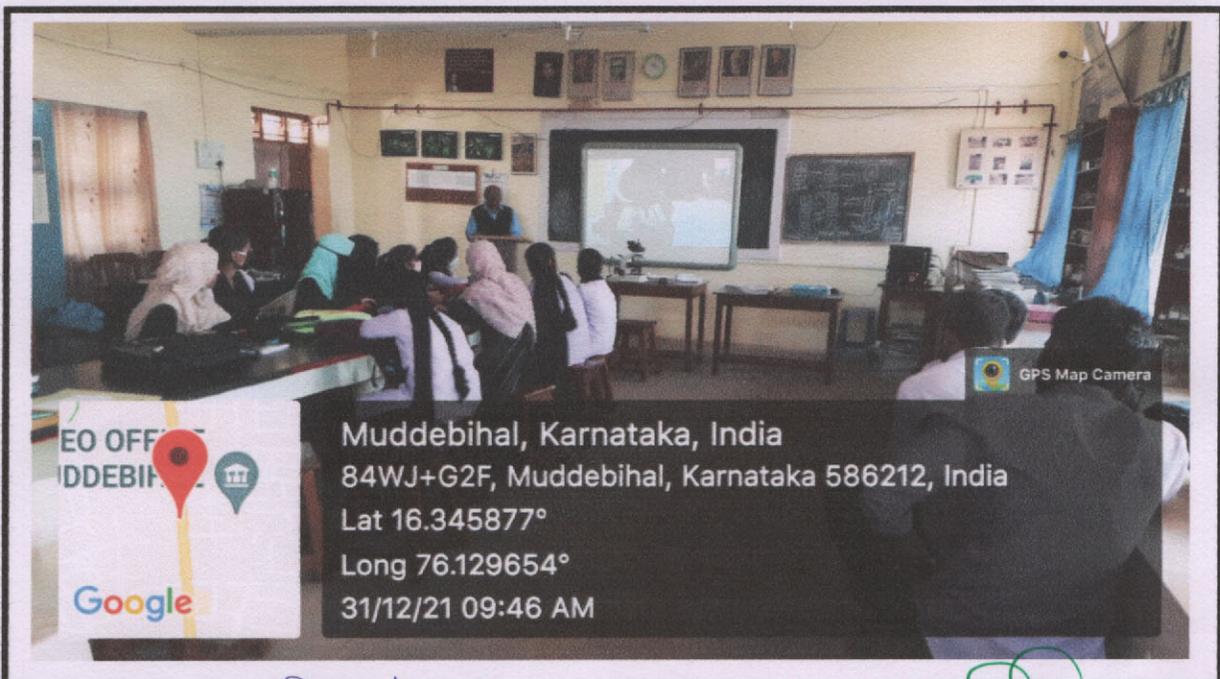
**Teachers Use ICT enabled tools for Effective teaching learning process**

**Name of the Staff Member: Prof-S.V.Gurumath**

**Class: First Semester**

**Date: 31.12.2021**

**Time: 9.30 to 10.30 am**



*S.V. Gurumath*  
**Co-ordinator,**  
Internal Quality Assurance Cell  
M.G.V.C. Arts, Commerce & Science College  
MUDDEBIHAL-586212. Dist: Vijayapur.

*S.V. Gurumath*  
**PRINCIPAL,**  
M. G. V. C. Arts, Com & Science College  
MUDDEBIHAL - 586212,



# MICROSCOPES



## 1. BINOCULAR MICROSCOPE:

A binocular microscope is any optical microscope with two eyepieces to significantly ease viewing and cut down on eye strain. Most microscopes sold today are binocular microscopes though the interplay between the two lenses can differ depending on the microscope type. For example, a compound microscope consists of a single optical path through which a 2D image is seen, a stereo microscope has two optical paths that display a separate image to the left and right eyes and overlay them to create a single 2D or 3D image, and a comparison microscope shows different images to each eye allowing comparison between two samples. Other differences to consider when purchasing a binocular microscope include the light source used, the maximum and minimum magnification available and whether a method for saving images is available.

**2. ELECTRON MICROSCOPE:** An **electron microscope** is a microscope that uses a beam of accelerated electrons as a source of illumination. As the wavelength of an electron can be up to 100,000 times shorter than that of visible light photons, electron microscopes have a higher resolving power than light microscopes and can reveal the structure of smaller objects. A scanning transmission electron microscope has achieved better than 50 pm resolution in annular dark-field imaging mode<sup>[1]</sup> and magnifications of up to about 10,000,000× whereas most light microscopes are limited by diffraction to about 200 nm resolution and useful magnifications below 2000×.

  
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Internal Quality Assurance Cell  
M.G.V.C. Arts, Commerce & Science College  
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M. G. V. C. Arts, Com & Science College  
MUDDEBIHAL - 586212.



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**MATOSHRI GANGAMMA VEERAPPA CHINIWAD**  
**ARTS, COMMERCE & SCIENCE COLLEGE, MUDDEBIHAL.**



**ATTENDANCE REPORT**

Name of the Event : Study of Microscopes : 1. Binocular & Electron Microscopes.

Class : B.Sc 1<sup>st</sup> sem

Date : 31.12.2021

Time : 9.30 to 10.30 am

| SL.NO.       | NAME  | SIGNATURE     |
|--------------|---|---------------|
| U15NU2150028 | Sangeeta D. Scinapur                                    |               |
| U15NU2150068 | Vinuta.   |               |
| U15NU2150093 | Bhagyashree. K  |               |
| U15NU2150072 | Muskan  |               |
| U15NU2150004 | Tasneem. M. Soudagar                                    | T.M. Soudagar |
| U15NU2150066 | Gurusiddamma. M. Kuchabal.                              |               |
| U15NU2150034 | widgashree. & sasanem                                   |               |
| U15NU2150027 | Pratibha. T. Dodamani                                   |               |
| U15NU2150024 | Manjula. Lalakarar                                      |               |
| U15NU2150086 | Rajiya - H. R   |               |
| U15NU2150002 | Sachin. Y. N  |               |
| U15NU2150023 | Ganvi. M.   |               |
| U15NU2150002 | Khawalabanderawaz. M. Mulwad<br>malap B- s-1 chikhalati |               |
| U15NU2150032 | MUSKAN. S. Mujawar                                      |               |

PRINCIPAL

S. G. V. C. Arts, Com. & Science College  
 MUDDEBIHAL - 586212

Head of the Department of Botany  
 M.G.V.C. College. MUDDEBIHAL-586212  
 Dist: Bijapur.



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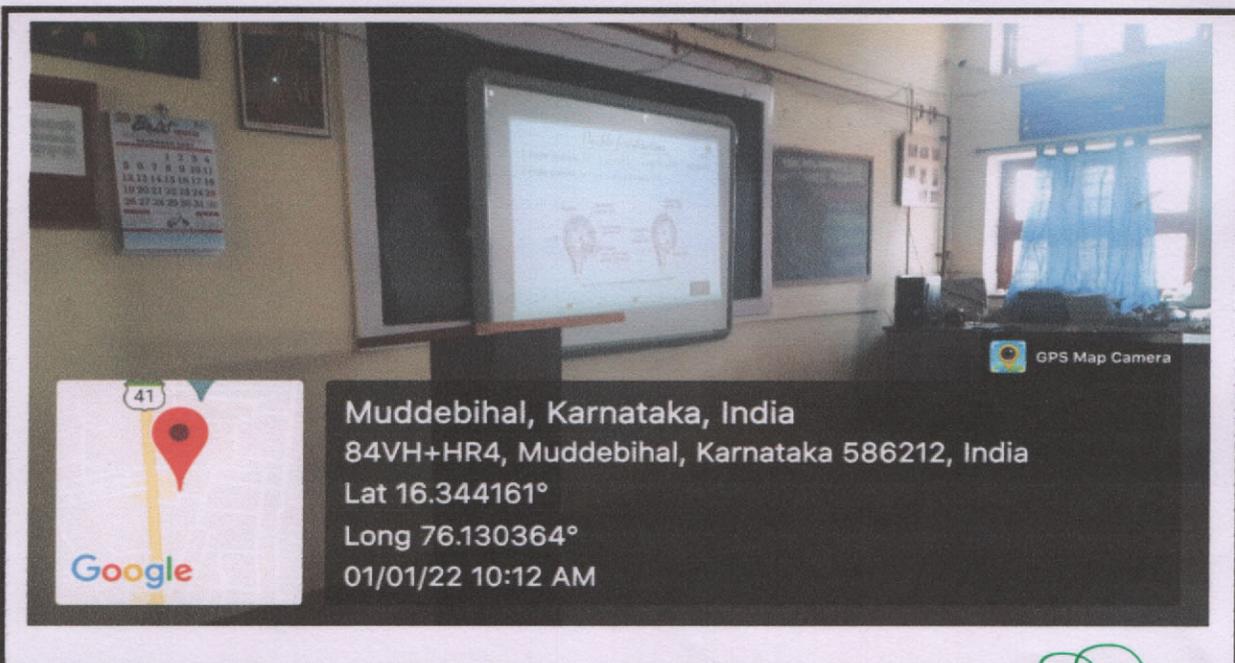
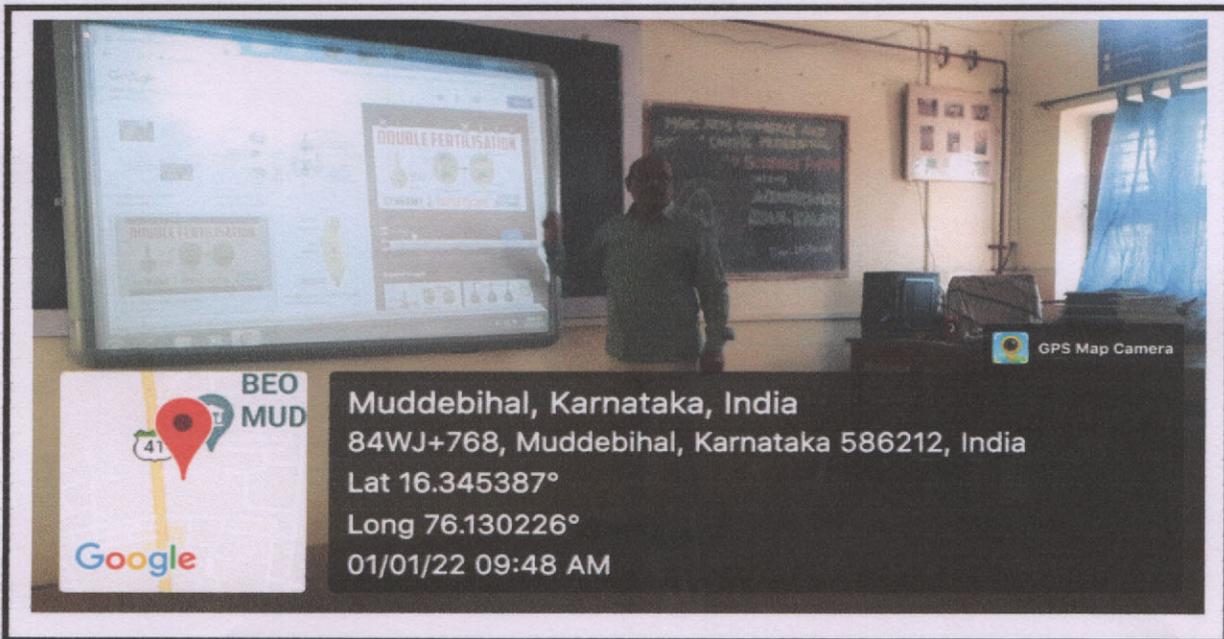
Teachers Use ICT enabled tools for Effective teaching learning process

Name of the Staff Member: Prof-S.V.Gurumath

Class: Third Semester

Date: 01.01.2022

Time: 9.30 -10.30 am



*S.V. Gurumath*  
**Co-ordinator,**  
Internal Quality Assurance Cell  
M.G.V.C. Arts, Commerce & Science College  
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*S.V. Gurumath*  
**PRINCIPAL,**  
M. G. V. C. Arts, Com & Science College  
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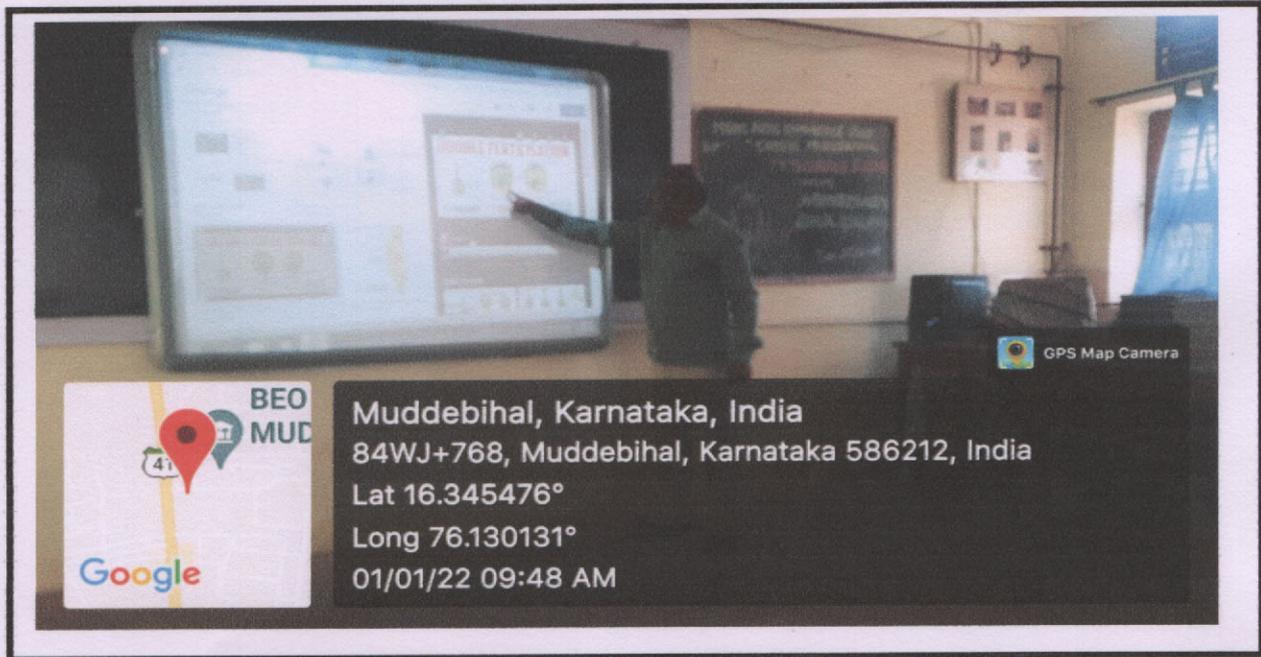
**Teachers Use ICT enabled tools for Effective teaching learning process**

**Name of the Staff Member: Prof-S.V.Gurumath**

**Class: Third Semester**

**Date: 01.01.2022**

**Time: 9.30 -10.30 am**



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*Antes*  
Internal Quality Assurance Cell  
M.G.V.C. Arts, Commerce & Science College  
MUDEBIHAL-586212, Dist. M...



## EMBRYOLOGY

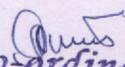
### Topic: Double Fertilization and Triple Fusion

#### Double fertilization

- is the fusion of the embryo sac with two male gametes. It occurs in angiosperms.
- Pollination is the deposition of pollen grains from anthers on the stigma of a flower, facilitating the fertilization, which is one of the major events of sexual reproduction of plants.
- Pollen contains two cells, a tube cell, which produces the pollen tube, and a generative cell, which produces two sperm cells.
- Pollen grains are germinated on the stigma, producing the pollen tube, which goes down the style until it reaches the micropyle in the ovule.
- Once it meets the micropyle, pollen tube bursts, releasing the two sperm cells which are carried through the pollen tube.
- One of the haploid sperm cells is fertilized with the haploid egg cell in the embryo sac, while the other haploid sperm cell fertilizes the central cell, which is also found in the embryo sac of the female gametophyte.

#### • Significance of double fertilization is as follows:

1. It gives stimulus to the plant due to which ovary develops into fruit and ovules develop into seeds.
2. It restores the diploid condition by fusion of haploid male and female gametes.
3. It results in the formation of diploid zygote, which develops into an embryo and gives rise to a new plant.
4. It results in the formation of triploid primary endosperm nucleus (PEN) which develops into endosperm in the seed. It provides nourishment to the developing embryo.
5. It brings about recombination of characters resulting in variation among the offsprings.

  
Co-ordinator,

Internal Quality Assurance Cell  
M.G.V.C. Arts, Commerce & Science College,  
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M. G. V. C. Arts, Com & Science College  
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**MATOSHRI GANGAMMA VEERAPPA CHINIWAR**  
**ARTS, COMMERCE & SCIENCE COLLEGE, MUDDEBIHAL.**



**ATTENDANCE REPORT**

Name of the Event : Embryology: Double Fertilization & Triple fusion.

Class : B.Sc III<sup>rd</sup> Sem

Date : 01.01.2022

Time : 9.30 to 10.30 am

| SL.NO.   | NAME                        | SIGNATURE      |
|----------|-----------------------------|----------------|
| S2031614 | Bhagyalakshmi, K. Kashetti  | B.Kj.          |
| S2031696 | Yasmin, H. Badeghar         | H. Badeghar    |
| S2031618 | Danamma, M. Hiremath        | D.M.H          |
| S2031610 | Anusha. B. Padmani          | Anu            |
| S2031688 | Tayyabamuskan. M. Soudagar. | T.M. Soudagar. |
| S2031691 | UmmeBariza - N - Shabhai    | U. Shabhai     |
| S2031659 | Sabaalam. N. Dakhani        | S.N. Dakhani   |
| S2031602 | Aisha. D. Tumbagi           | Aisha          |
| S2031627 | Lalita. K. Bedi             | L. K. Bedi     |
| S2031661 | Samarth. Patil              | Samrith        |
| S2031656 | RAMANA GOUDA                | Ramencigouda   |

**PRINCIPAL,**  
**M. G. V. C. Arts, Com. & Science College**  
**MUDDEBIHAL - 586212.**

**Head of the Department of Botany**  
**M.G.V.C. College, MUDDEBIHAL-586212**  
**Dist: Bijapur.**



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**DEPARTMENT OF COMMERCE**

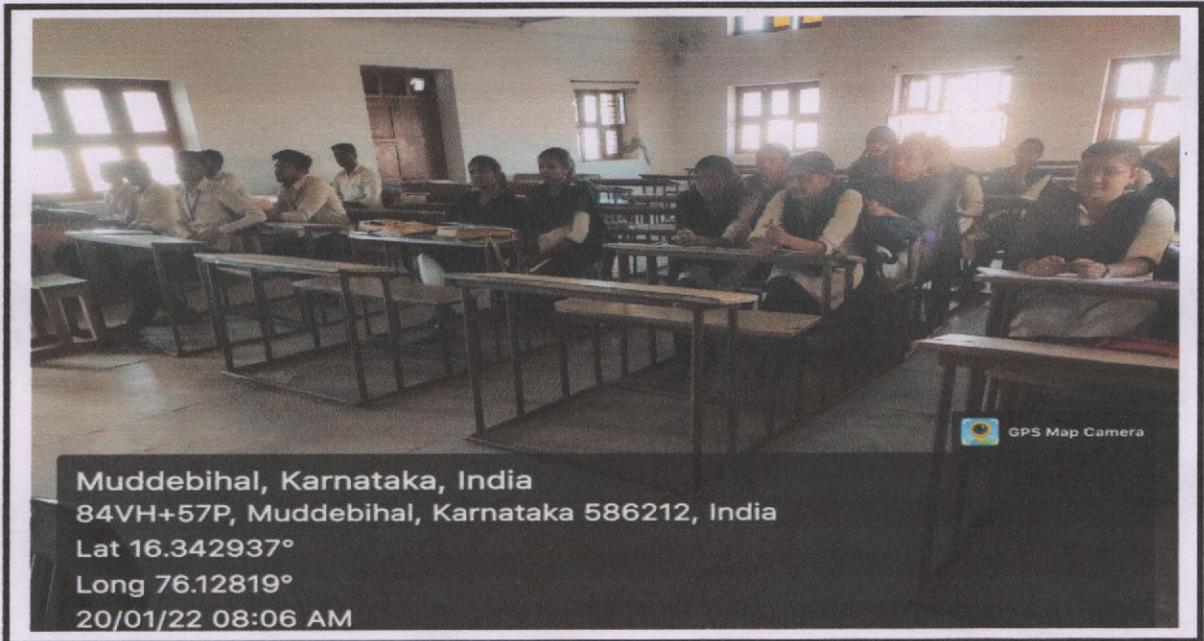
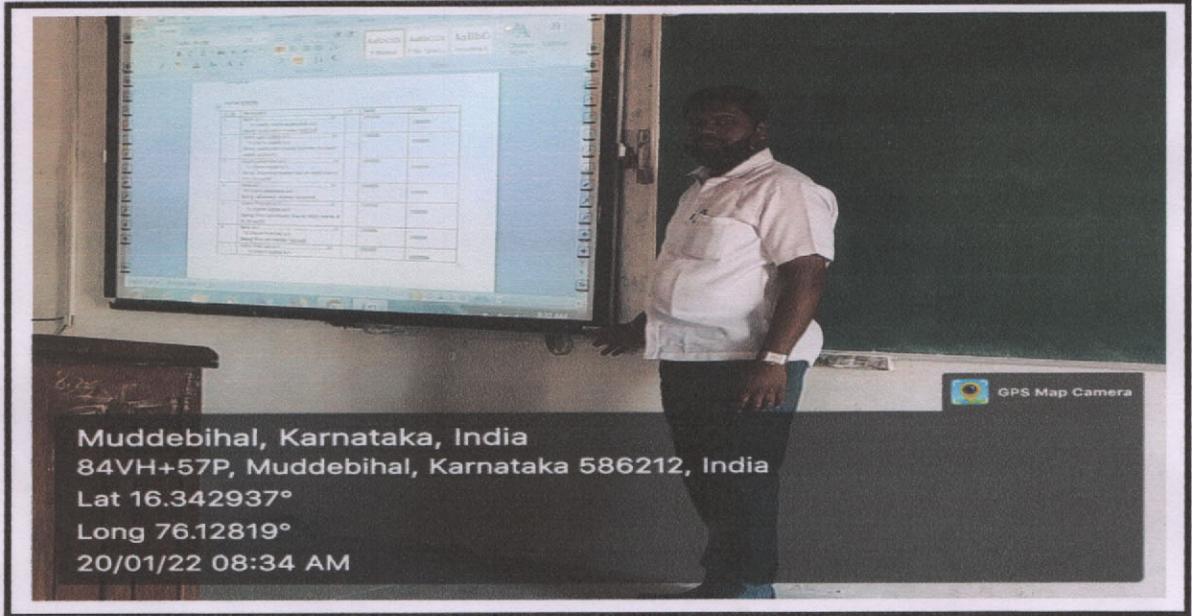
**Teachers Use ICT enabled tools for Effective teaching learning process**

**Name of the Staff Member: Prof. A.D.Talugeri**

**Class: B.Com III SEM**

**Date: 20.01.2022**

**Time: 7.30 -8.30 am**



*Adh*  
**Head,**

**Department of Commerce,  
M.G.V.C. College, Muddebihal**

**PRINCIPAL,**

**M.G.V.C. Arts, Commerce & Science College  
MUDDEBIHAL-586212. Dist: Vijayapur.**

M.G.V.C ARTS, COMMERCE AND SCIENCE COLLEGE  
MUDDEBIHAL



DEPARTMENT OF COMMERCE

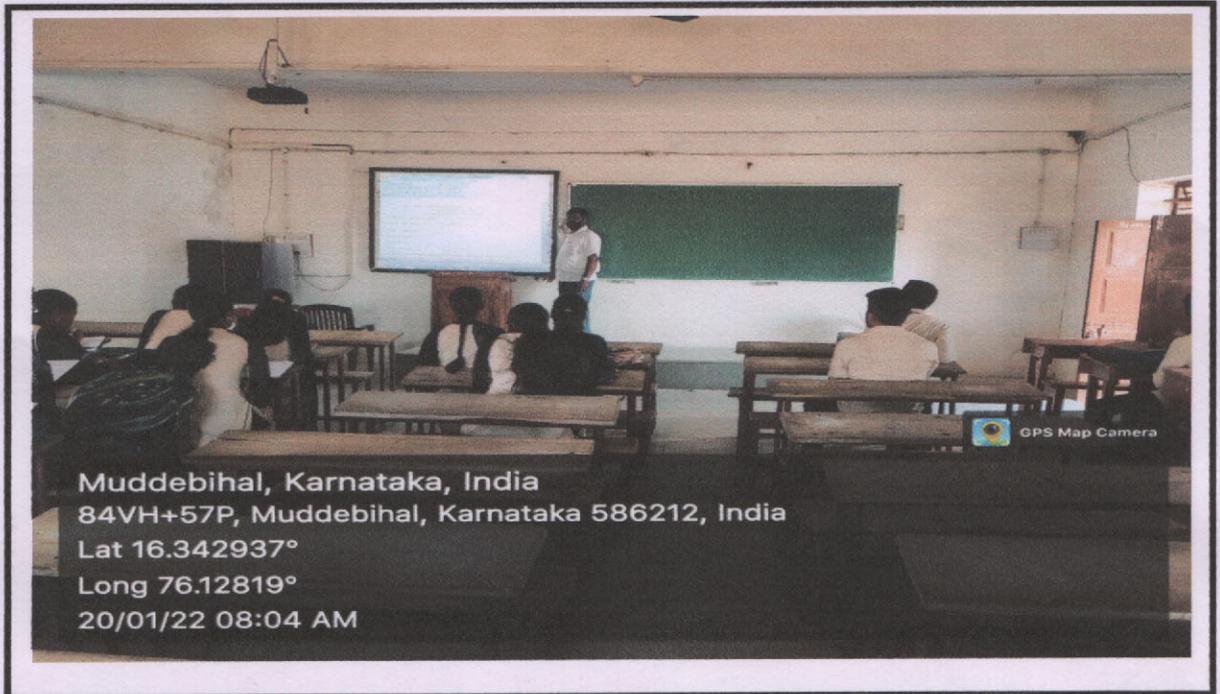
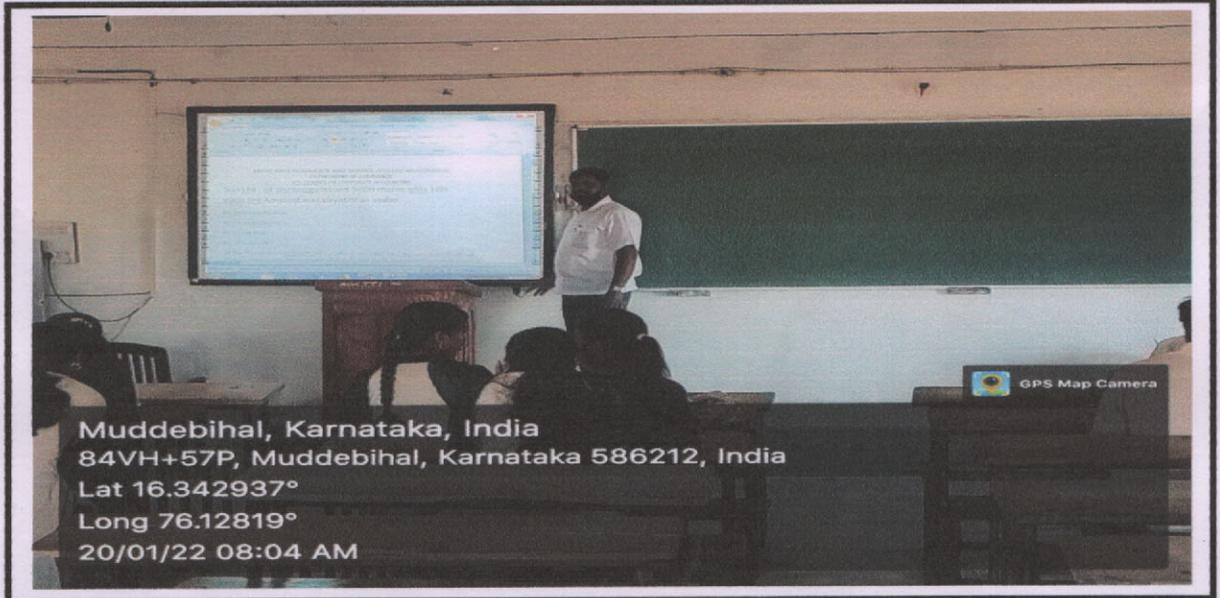
Teachers Use ICT enabled tools for Effective teaching learning process

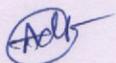
Name of the Staff Member: Prof. A.D.Talugeri

Class: B.Com III SEM

Date: 20.01.2022

Time: 7.30 -8.30 am



  
Head,

Department of Commerce,  
M.G.V.C. College, Muddebihal



PRINCIPAL,  
M.G.V.C. Arts, Commerce & Science College  
MUDDEBIHAL-586212. Dist: Vijayapur.



## What Is a Forfeited Share?

A forfeited share is a share in a publicly-traded company that the owner loses (or forfeits) by neglecting to live up to any number of purchase requirements. For example, a forfeiture may occur if a shareholder fails to pay an owned allotment (call money), or if he sells or transfers his shares during a restricted period.

When a share is forfeited, the shareholder no longer owes any remaining balance and surrenders any potential capital gain on the shares, which automatically revert back to the ownership of the issuing company.

## Reissue of Forfeited Share

Forfeiture of shares refers to the cancelation of shares. Sometimes, shareholders may be unable to pay the money due on allotment or calls on the due date. In this case, the company may forfeit such shares. On forfeiture, the company extinguishes the title of such shareholder. It also forfeits the money received on forfeited shares till the date of forfeiture. Consequently, the Company may opt for Reissue of Shares.



**Problem:**

Sun Ltd. Of Shimogga issued 5000 shares of Rs 100 each. the Amount was payable as under

RS 30 On application

Rs 20 on allotment

RS 30 On first call

RS 20 Final call

All the Shares were Subscribed and the money dully received except the final call on 400 Shares. The directors decided to forfeit these shares and reissued them at Rs 70 per share fully paid up.

Pass the Journal entries to record the above transactions in the books of company.

**Journal Entries**

| Sl.No | Particulars   | LF | Debit       | Credit      |
|-------|---|----|-------------|-------------|
| 1     | Bank a/c .....Dr<br>To Equity share application A/c<br>(Being Application money received)                             |    | 150000<br>- | -<br>150000 |
| 2     | Share Application A/c .....Dr<br>To Share capital A/c<br>(Being application money transfer to share capital account ) |    | 150000<br>- | -<br>150000 |
| 3     | Share Allotment A/C .....Dr<br>To Share capital A/c<br>(Being allotment money due on 5000 shares of Rs 20 each0       |    | 100000<br>- | -<br>100000 |
| 4     | Bank A/c .....Dr<br>To Share allotment A/c<br>(being allotment money received)  |    | 100000<br>- | -<br>100000 |
| 5     | Share first call A/C .....Dr<br>To Share Capital A/c<br>(Being First Call money Due on 5000 shares of Rs 30 each)     |    | 150000<br>- | -<br>150000 |
| 6     | Bank A/C .....Dr<br>To Share First Call A/c<br>(Being first call money received)                                      |    | 150000<br>- | -<br>150000 |



|    |   |                     |                    |
|----|---|---------------------|--------------------|
| 7  | Share final Call A/c .....Dr<br>To Share capital A/c<br>(Being final Call money due on 5000 shares of Rs 20 each)   | 100000<br>-         | -<br>100000        |
| 8  | Bank A/c (4600*20).....Dr<br>Call in arrears a/c.....(400*20).....Dr<br>To share final call A/c<br>(being call money received )   | 92000<br>8000<br>-  | -<br>-<br>100000   |
| 9  | Share capital a/c ( 400*100).....Dr<br>To forfeited share A/c (400*80)<br>To share final A/c (400*20)A/C<br>(Being forfeited of 400 share for non-payment of final call money ) | 40000<br>-<br>-     | -<br>32000<br>8000 |
| 10 | Bank A/c (400*70).....Dr<br>Forfeited shares A/c (discount ).....Dr<br>To share capital A/c<br>(Being reissue of 400 forfeited shares of Rs .70 each at a discount of Rs 30)    | 28000<br>12000<br>- | -<br>-<br>40000    |
| 11 | Forfeited shares A/c .....Dr<br>To capital reserves A/c<br>(Being the balance in forfeited shares A/c (i.e.32000-12000)transferred to capital reserve A/c )                     | 20000<br>-          | -<br>20000         |

*Adh*  
Head,

Department of Commerce,  
M.G.V.C. College, Muddebihal

*[Signature]*  
PRINCIPAL,

M.G.V.C. Arts, Commerce & Science College  
MUDDEBIHAL-586212. Dist: Vijayapur,

Block No. ....



Signature

ICT Classes

S. G. V. C. Vidya Prasarak Trust's

Room No. ....

Roll No. ....

**MATOSHRI GANGAMMA VEERAPPA CHINIWAR****ARTS, COMMERCE & SCIENCE COLLEGE, MUDDEBIHAL.**

Subject

Corporate Accounting - I Date: 20/01/2022

Time

7.30 to 2:30

Class

B. Com

**ATTENDANCE REPORT**

Jr. Supervisor : .....

DEGREE

III

SEMESTER EXAMINATION 2021 - 2022

| Roll No. | University Seat No. | Name of the Candidate     | Signature        |
|----------|---------------------|---------------------------|------------------|
| 1        | C2059654            | Shivanagouda R Patil      | [Signature]      |
| 2        | C2059630            | Mounesh. H. Badigex       | [Signature]      |
| 3        | C2059613            | Aspaki. I. Yalagi         | [Signature]      |
| 4        | C2059666            | Viresh. M. Surapur        | [Signature]      |
| 5        | C2059656            | Shivraj. S. Hatti         | [Signature]      |
| 6        | C2059660            | Sudeep. S. Patil          | [Signature]      |
| 7        | C2059628            | Mouledi Chappaband        | [Signature]      |
| 8        | C2059608            | Arusha. A. Kusli          | [Signature]      |
| 9        | C2059643            | Rashmi. T. Biradar        | [Signature]      |
| 10       | C2059641            | Prema. S. Nerabenchi      | p. s. Nerabenchi |
| 11       | C2059605            | Ambilga S. Hariwal        | [Signature]      |
| 12       | C2059609            | Anusha. v. Deshpande      | [Signature]      |
| 13       | C2059652            | Shakuntala. S. Shivayogi  | S. S. Shivayogi  |
| 14       | C2059616            | Boramma. P. Choudari      | B. P. Choudari   |
| 15       | C2059637            | pavitra. y. Satihal       | p. y. Satihal    |
| 16       | C2059618            | Channamma. N. Talikoti    | C. N. Talikoti   |
| 17       | C2059663            | Tashin. H. Choudari       | T. H. Choudari   |
| 18       | C2059627            | Misba Kousar. A. Mulla    | [Signature]      |
| 19       | C2059665            | Vijayalaxmi. S. Hurashyal | V. S. Hurashyal  |
| 20       | C2059664            | Veena. S. Goudar          | [Signature]      |
| 21       | C2059633            | Nivedita. S. Ambige       | N. S. Ambige     |
| 22       | C2059602            | Akshata. P. Hirenath      | [Signature]      |
| 23       | C2059636            | pavitra. S. Radamani.     | [Signature]      |
| 24       | C2059658            | Saumyashree. S. Patil     | S. S. Patil      |
| 25       | C2059614            | Boramma. B. Myaguri       | Boramma. B. M.   |
| 26       | C2059659            | Suchiter. K. Kethad       | [Signature]      |
| 27       | C2059661            | Suma. M. Pattar.          | [Signature]      |
| 28       | C2059619            | Depa. s. chalawadi        | [Signature]      |
| 29       | C2059648            | Sahana. M. Badiger        | [Signature]      |
| 30       | C2059624            | Lata. H. Biradar          | [Signature]      |
| 31       | C2059612            | Ashwini. M. Nidagurde     | [Signature]      |
| 32       | C2059640            | Pranavi. P. Hirenath      | P. P. Hirenath   |
| 33       | C2059634            | Pallavi. P. Hirenath      | [Signature]      |



S.G.V.C Vidya Prasarak Trust's

M.G.V.C ARTS, COMMERCE AND SCIENCE COLLEGE MUDDEBIHAL

## DEPARTMENT OF KANNADA

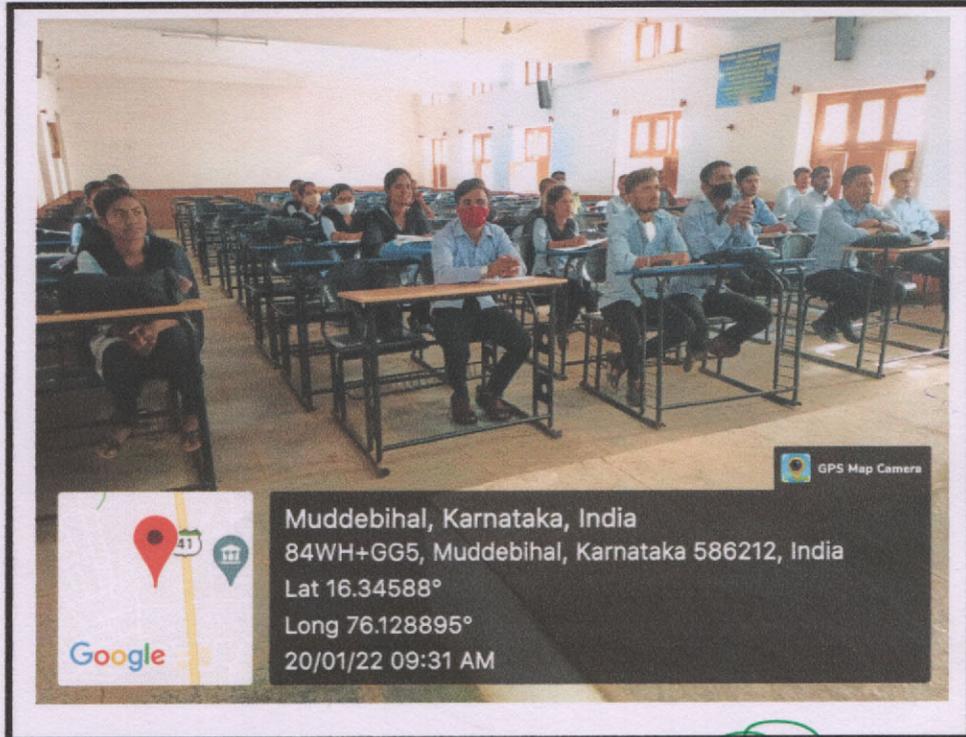
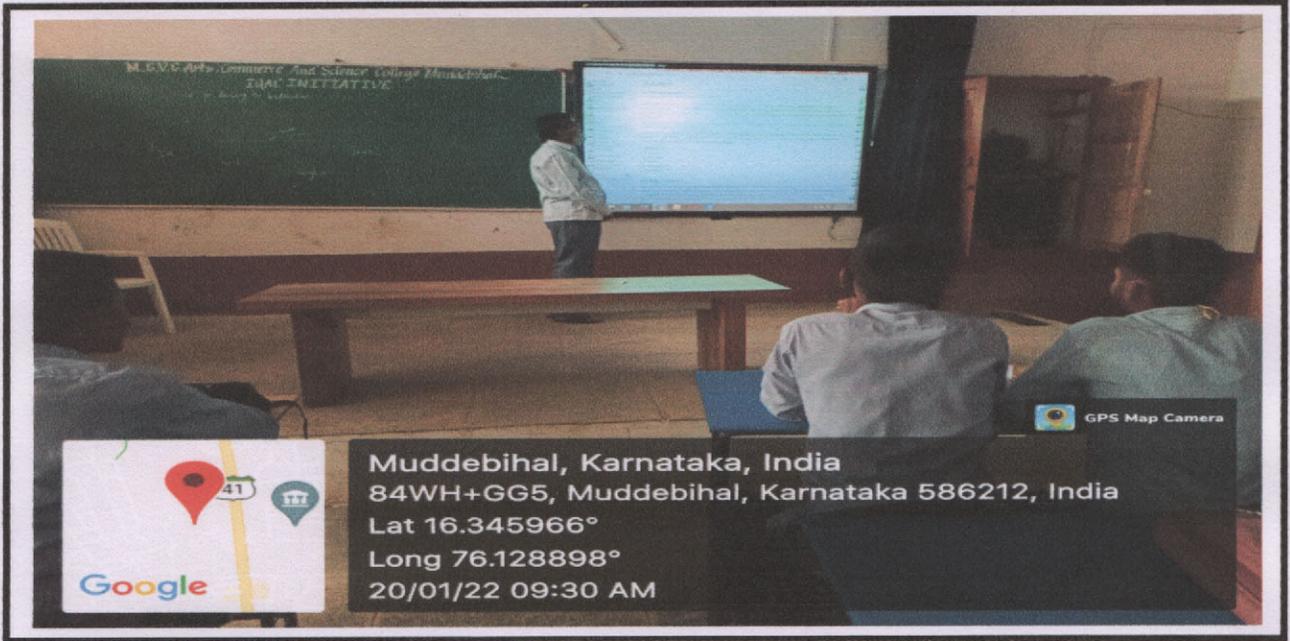
Teachers Use ICT enabled tools for Effective teaching learning process

Name of the Staff Member: Dr. S.S. PATIL

Class: B.A. I SEM

Date: 20.01.2022

Time: 9.30 -10.30 am



*Co-ordinator,*  
Internal Quality Assurance Cell  
M.G.V.C. Arts, Commerce & Science College  
MUDDEBIHAL-586212. Dist: Vijayapur.

*PRINCIPAL,*  
M.G.V.C. Arts, Commerce & Science College  
MUDDEBIHAL-586212. Dist: Vijayapur.



S.G.V.C Vidya Prasarak Trust's

**M.G.V.C ARTS, COMMERCE AND SCIENCE COLLEGE MUDDEBIHAL**

## **DEPARTMENT OF KANNADA**

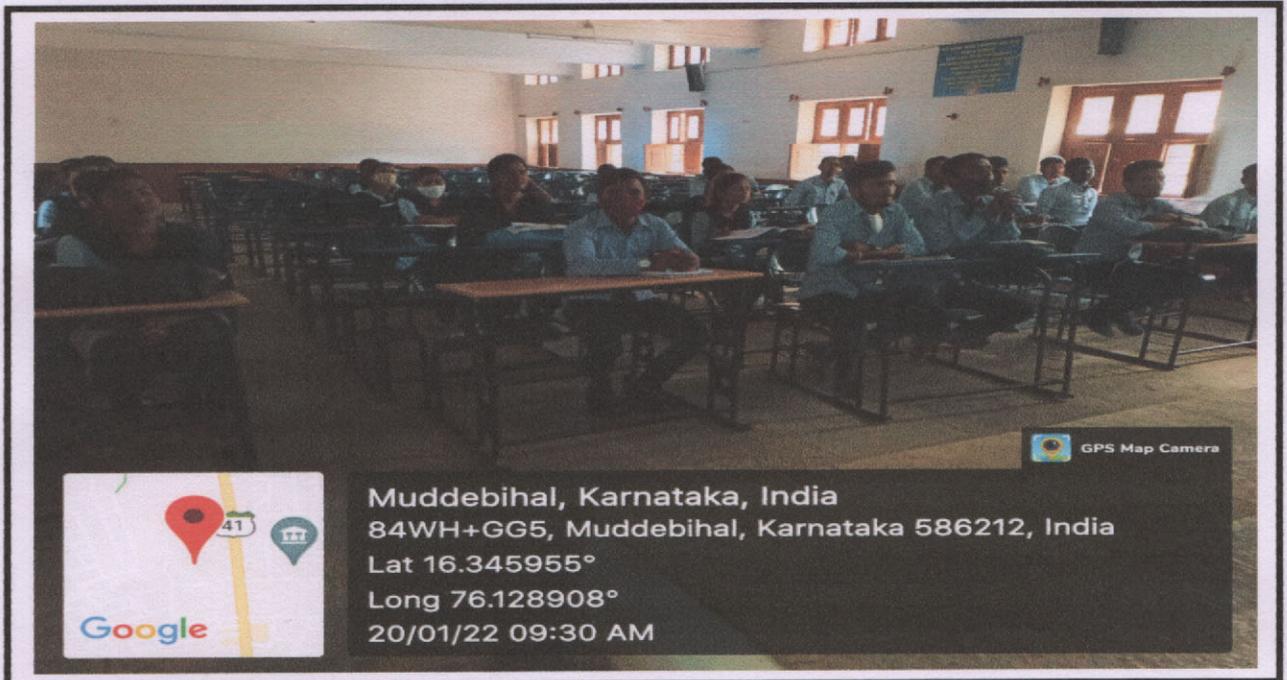
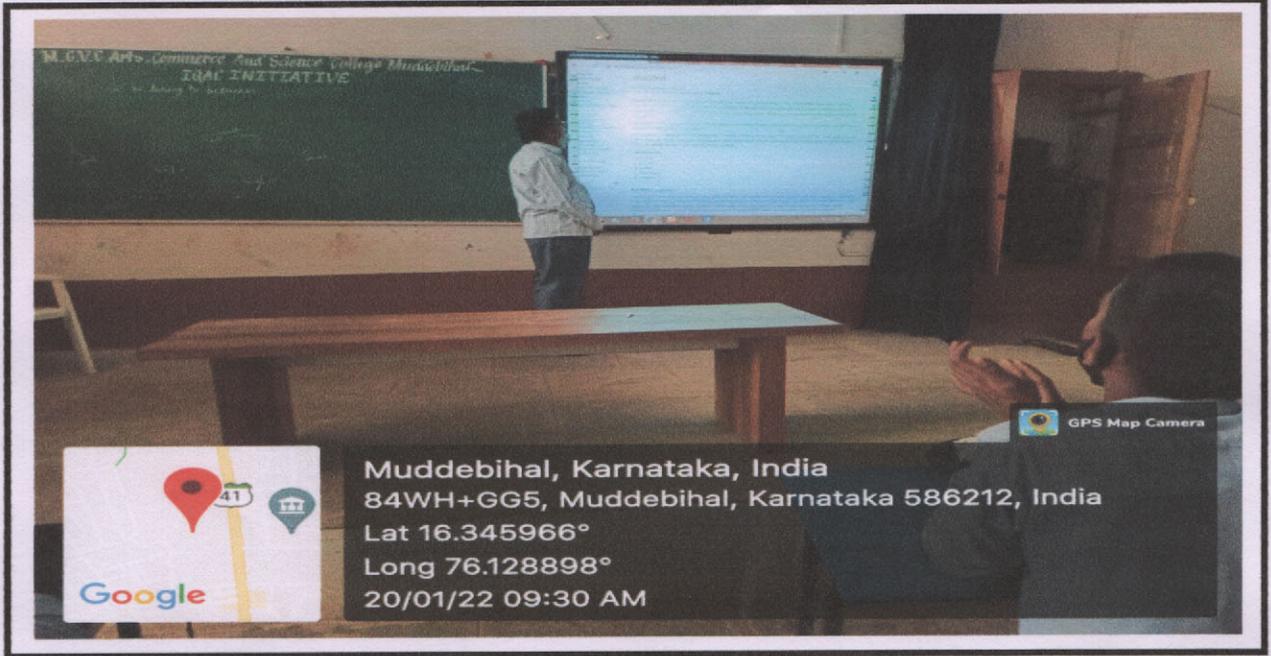
**Teachers Use ICT enabled tools for Effective teaching learning process**

**Name of the Staff Member: Dr. S.S. PATIL**

**Class: B.A. I SEM**

**Date: 20.01.2022**

**Time: 9.30 -10.30 am**





ಎಷ್ಟಿದೆಯೋ ಅಷ್ಟೂ ತನ್ನ ಕೃತಿಯಲ್ಲಿ ಭಟ್ಟಿಯಿಳಿದಿದೆ ಎಂದು ಕವಿ ಹೇಳಿಕೊಂಡಿದ್ದಾನೆ. ಈ ಕತೆಗಳ ಉದ್ದೇಶ ಬರಿಯ ಮನರಂಜನೆಯಲ್ಲ. ಜೈನಧರ್ಮದ ಬೋಧನೆ, ಜೈನಧರ್ಮದಲ್ಲಿ ಜನಕ್ಕೆ ಶ್ರದ್ಧೆ ಹುಟ್ಟುವಂತೆ ಮಾಡುವುದು ಅಥವಾ ಇರುವ ಶ್ರದ್ಧೆ ಬಲಿಯುವಂತೆ ಮಾಡುವುದು.

ಈತನ ಕಾಲದಲ್ಲಿ ಜೈನಧರ್ಮ ಇಳಿಮುಖವಾಗುತ್ತಿತ್ತು. ಆ ಧರ್ಮದಿಂದ ಬೇರೆ ಧರ್ಮಗಳಿಗೆ ಜನ ಹೆಚ್ಚು ಸಂಖ್ಯೆಯಲ್ಲಿ ಮತಾಂತರ ಹೊಂದುತ್ತಿದ್ದರೆಂಬುದಕ್ಕೆ ಸ್ಪಷ್ಟ ಆಧಾರಗಳಿವೆ. ಅಂಥ ಸಮಯದಲ್ಲಿ, ಜೈನಧರ್ಮಕ್ಕೆ ಸಂಬಂಧಿಸಿದ ಸ್ವಾರಸ್ಯವಾದ ಕತೆಗಳನ್ನು ಸರಳ ಭಾಷೆಯಲ್ಲಿ ನಿರೂಪಿಸುವ ಅಗತ್ಯವಿದ್ದಿತು. ಈ ಹಿನ್ನೆಲೆಯಲ್ಲಿ ಧರ್ಮಾಮೃತ ಕೃತಿಯನ್ನು ನೋಡಬೇಕಾಗುತ್ತದೆ.

## ಛಂದಸ್ಸು

ಈತ ಆರಿಸಿಕೊಂಡ ಕಾವ್ಯರೂಪ ಚಂಪೂ. ಇದು ಈತನಿಗಿಂತ ಹಿಂದಿನ ಜೈನಕವಿಗಳೆಲ್ಲ ಬಳಸಿ ಸಿದ್ಧವಾಗಿದ್ದ ಕಾವ್ಯಪ್ರಕಾರ. ಆದರೆ ಅನೇಕ ಕವಿಗಳಂತೆ ಈತ ಬಹುಕಷ್ಟವಾದ ಭಾಷೆಯನ್ನು ಬಳಸದೆ, ತನಗಿಂತ ಸ್ವಲ್ಪ ಹಿಂದಿದ್ದ ದೇವರ ದಾಸಿಮಯ್ಯನಂತೆ ಸಮಕಾಲೀನ ಭಾಷೆಯನ್ನು ಬಳಸದೆ, ಒಂದು ಬಗೆಯ ಮಧ್ಯಮ ಮಾರ್ಗವನ್ನು ಹಿಡಿದಂತೆ ತೋರುತ್ತದೆ. ಈತನ ಭಾಷೆ ಹಳಗನ್ನಡದ ಬಿಗಿಯನ್ನೂ ನಡುಗನ್ನಡದ ಸರಳತೆಯನ್ನೂ ಒಳಗೊಂಡಿದೆ. ಈತನ ಕಾವ್ಯೋದ್ದೇಶವನ್ನು ಗಮನಿಸಿದರೆ, ಈತನ ಹಳಗನ್ನಡ ಭಾಷೆ ಸಾಮಾನ್ಯ ವಿದ್ಯಾವಂತರಿಗೂ ಅರ್ಥವಾಗುವಂಥದಾಗಿತ್ತು ಎಂಬುದರಲ್ಲಿ ಸಂದೇಹವಿಲ್ಲ. ತನ್ನ ಕೃತಿಯನ್ನು ವಿದ್ವಾಂಸರೂ ಮೆಚ್ಚಬೇಕೆಂಬ ಸಹಜ ಆಸೆಯ ಜೊತೆಗೆ, ತನ್ನ ಕಾವ್ಯ ಸಕಲಜೀವಿಗಳಿಗೆ ಹಿತವನ್ನುಂಟುಮಾಡಲೆಂಬ ಕಾವ್ಯೋದ್ದೇಶವೂ ಈತನಿಗೆ ಇದ್ದಿತು.

## ಕಾವ್ಯ ಗುಣಗಳು

ನಯಸೇನ ಜನತೆಯಿಂದ ದೂರವಿದ್ದ ಸಂನ್ಯಾಸಿಯಾಗಿರಲಿಲ್ಲ. ಜನರ ಮಧ್ಯೆ ಬಾಳುತ್ತ, ಜನತೆಯ ಜೀವನವನ್ನು ಸೂಕ್ಷ್ಮದೃಷ್ಟಿಯಿಂದ ಅರ್ಥಮಾಡಿಕೊಂಡಿದ್ದ ವ್ಯಕ್ತಿಯಾಗಿದ್ದ. ಸಾಮಾನ್ಯ ಜನರು ಆಡುತ್ತಿದ್ದ ಭಾಷೆಯನ್ನು ಇವನಷ್ಟು ಚೆನ್ನಾಗಿ ಬಲ್ಲವರು, ಬಳಸಿದವರು ಚಂಪೂ ಸಂಪ್ರದಾಯದ ಕವಿಗಳಲ್ಲಿ ಮತ್ತೊಬ್ಬರಿಲ್ಲ. ಈತನ ಕೃತಿಯಲ್ಲಿ ಗಾದೆಗಳ ದೊಡ್ಡ ಸಂಗ್ರಹವೇ ಹುದುಗಿದೆ. ಈತ ಬಳಸಿದ ಡೊಂಕೆಂಬ ನಾಯ ಬಾಲದ ತೆರದಿಂ ಮುಂತಾದ ಗಾದೆಗಳು ಇನ್ನೂ ಜೀವಂತವಾಗಿವೆ. ಆ ಕಾಲದ ಜನಜೀವನವನ್ನು ಅರಿಯುವ ಸಮಾಜಶಾಸ್ತ್ರದ ವಿದ್ಯಾರ್ಥಿಗೆ ಈತನ ಕೃತಿ ಒಂದು ಗಣಿಯೇ ಸರಿ.

ಸಾಹಿತ್ಯದ ವಿದ್ಯಾರ್ಥಿಗಳಿಗೆ ನಯಸೇನ ಮುಖ್ಯವೆನಿಸುವುದು ಎರಡು ಕಾರಣಗಳಿಗಾಗಿ: ಒಂದು ಈತನ ಕತೆಗಾರಿಕೆ; ಮತ್ತೊಂದು ಈತನ ಮಾಲೋಪಮೆಗಳು. ನಯಸೇನ ಹುಟ್ಟುಕತೆಗಾರ. ಈತನ ಕತೆಗಳಲ್ಲಿ ಎಷ್ಟು ಗ್ರಂಥಸ್ಥ, ಎಷ್ಟು ಜೈನರಲ್ಲಿ ಮಾತಿನ ಮಟ್ಟದಲ್ಲಿ ಮಾತ್ರ ಬಳಕೆಯಲ್ಲಿದ್ದವು, ಇವುಗಳಲ್ಲಿ ಈತ ಏನು ವ್ಯತ್ಯಾಸ ಮಾಡಿಕೊಂಡಿದ್ದಾನೆ ಎಂಬ ಬಗ್ಗೆ ಇನ್ನೂ ವಿಚಾರ ಮಾಡಬೇಕಾಗಿದೆ. ಅಲ್ಲಿಯ ಕತೆಗಳನ್ನು ಹಾಗೆ ನೋಡಿದರೂ ಒಂದು ಕತೆಯನ್ನು ಕಲೆಗಾರನಂತೆ ಬೆಳಸಿ ನಿರೂಪಿಸುವ ಕೌಶಲ ಈತನಿಗಿದೆ ಎಂಬುದು ಗೊತ್ತಾಗುತ್ತದೆ. ಬ್ರಾಹ್ಮಣನಾಗಿದ್ದ ವಸುಭೂತಿ ಕೇವಲ ಹಣದ ಆಸೆಗಾಗಿ ಕೆಲವು ಕಾಲ ಜೈನ ಸಂನ್ಯಾಸಿಯಂತಿರಲು ಒಪ್ಪಿಕೊಂಡವ ಹೇಗೆ ಕ್ರಮೇಣ ಜೈನಧರ್ಮದಲ್ಲಿ ಶ್ರದ್ಧೆ ಬೆಳೆಸಿಕೊಂಡ ವ್ಯಕ್ತಿಯಾದನೆಂಬುದನ್ನು ಕವಿ ಅತ್ಯಂತ ಪರಿಣಾಮಕಾರಿಯಾಗಿ ಹೇಳಿದ್ದಾನೆ. ಇಲ್ಲಿ ಬರುವ ಅನೇಕ ಕತೆಗಳಿಗೂ ಹಿಂದೂ ಸಂಪ್ರದಾಯದ ಅನೇಕ ಕತೆಗಳಿಗೂ ಹೋಲಿಕೆಯುಂಟು. ಕೆಲವು ಕಡೆ ಕವಿ ಪರಮತೀಯರೊಂದಿಗೆ ಪ್ರಾಮಾಣೀಕರಲ್ಲದ ಜೈನರನ್ನೂ ವಿಡಂಬನೆಮಾಡುತ್ತಾನೆ.

ಮಾಲೋಪಮೆಗಳು ಈತನ ವೈಶಿಷ್ಟ್ಯ. ಒಂದು ಸಂಗತಿಯನ್ನು ಸ್ಪಷ್ಟಪಡಿಸಲು ಸಾಮಾನ್ಯವಾಗಿ ಒಂದು ಉಪಮೆಯನ್ನು ತರುವುದು ರೂಢಿ. ಮಾಲೋಪಮೆಗಳನ್ನು ಬಹುತೇಕ ಎಲ್ಲ ಕವಿಗಳೂ ಬಳಸಿರುತ್ತಾರೆ. ಆದರೆ ನಯಸೇನನವು ತಮ್ಮ ಬರಿಯ ಗಾತ್ರದಲ್ಲೇ ಹಿಂದಿನವೆಲ್ಲವನ್ನೂ ಮೀರಿಸುತ್ತವೆ. ಒಂದು ಸಂಗತಿಯನ್ನು ಸ್ಪಷ್ಟಪಡಿಸಲು ತೊಂಬತ್ತೊಂದು ಉಪಮೆಗಳ ಒಂದು ಮಾಲೆಯನ್ನೇ ಕವಿ ಕಟ್ಟಿದ್ದಾನೆ. ಇಂಥವು ಅನೇಕವಿವೆ. ಇವುಗಳಲ್ಲಿ ಎಲ್ಲವೂ ಉಚಿತವಾಗಿರುವುದಿಲ್ಲ. ಕೆಲವು ಕಡೆ ತೀರ ಸಾಮಾನ್ಯವಾದ ಹೋಲಿಕೆಗಳನ್ನೂ ಕವಿ ತಂದುಬಿಡುತ್ತಾನೆ. ಕಾವ್ಯವನ್ನು ಓದುವವರು ತಾವೂ ಕೆಲವನ್ನು ಸೇರಿಸಬಹುದಲ್ಲ ಎಂದು ಅಂದುಕೊಳ್ಳುವಂತೆ ಮಾಡುತ್ತಾನೆ. ಹಾಗೆ ಕೆಲವರು ಸೇರಿಸಿಯೂ ಇದ್ದಾರೆ ಎಂಬುದು ಧರ್ಮಾಮೃತದ ಹಸ್ತಪ್ರತಿಗಳಿಂದ ಗೊತ್ತಾಗುತ್ತದೆ. ಈ ಉಪಮೆಗಳು ತಮ್ಮ ಸಂಖ್ಯೆಯ ಬಲದಿಂದ ಉಪಮೇಯವನ್ನೇ ಮರಸಿಬಿಡುತ್ತದೆ. ಉಪಮೆಗಳ ದುಂದುಗಾರಿಕೆಯಿರುವ ಈ ಮಾಲೋಪಮೆಗಳು ಈ ಕವಿಯ ವೈಶಿಷ್ಟ್ಯವೂ ಹೌದು, ದೌರ್ಬಲ್ಯವೂ ಹೌದು.

ಈತ ಹಳಗನ್ನಡದ ಚಂಪೂ ಸಂಪ್ರದಾಯ ಮತ್ತು ನಡುಗನ್ನಡದ ವಚನ ಸಂಪ್ರದಾಯ- ಇವುಗಳ ಸಂಧಿ ಕಾಲದಲ್ಲಿ ಇದ್ದವ. ಈತನ ಕೃತಿಯ ಹಲವಾರು ಉಕ್ತಿಗಳಿಗೂ ಬಸವಣ್ಣನವರ ವಚನಗಳಿಗೂ ಇರುವ ಸಾಮ್ಯ ಆಕಸ್ಮಿಕವಲ್ಲವಾದರೆ, ಈತನಿಂದ ವಚನ ಸಾಹಿತ್ಯ ಅನೇಕ ಸೂಚನೆಗಳನ್ನು ಸ್ವೀಕರಿಸಿದ್ದಿರಬಹುದು ಎಂಬ ಊಹೆ ನಿರರ್ಥಕವಾಗುವುದಿಲ್ಲ. ಪಂಪ, ರನ್ನ ಮುಂತಾದ ಕವಿಗಳ ಮಾರ್ಗದರ್ಶನದಲ್ಲಿ ನಡೆದ ನಯಸೇನ ಮುಂದೆ ಜನ್ನನಂಥ ಸಮರ್ಥ ಕವಿಗಳ ಮೇಲೆ ಪ್ರಭಾವವನ್ನು ಬೀರಿದ್ದಾನೆ.



**PRINCIPAL,**  
M.G.V.C. Arts, Commerce & Science College  
MUDDEBIHAL-586212. Dist: Vijayapur.

**Co-ordinator,**  
Internal Quality Assurance Cell  
M.G.V.C. Arts, Commerce & Science College  
MUDDEBIHAL-586212. Dist: Vijayapur.



**MATOSHRI GANGAMMA VEERAPPA CHINNIWAR  
ARTS, COMMERCE & SCIENCE COLLEGE, MUDDABIHAL.**

Subject : Kannada

Date : .....

Time : .....

Class : B.A.II Sem

**ATTENDANCE REPORT**

Jr. Supervisor : .....

**DEGREE I SEMESTER EXAMINATION 2020 - 2021**

| Roll No. | University Seat No. | Name of the Candidate    | Signature               |
|----------|---------------------|--------------------------|-------------------------|
| 204      | A2056905            | Vinod. B. Madar          | <u>B. Madar</u>         |
| 205      | A2056888            | Sunilkumar. J. Basarkod  | <u>S. Basarkod</u>      |
|          | A2056846            | Sachin. B. Madar         | <u>S. Madar</u>         |
|          | A2056758            | Gurusai. S. Bidaxakindi  | <u>G. Bidaxakindi</u>   |
|          | A2056798            | Marjunath. T. Upana      | <u>M. Upana</u>         |
|          | A2056759            | Habooob. M. Nadaf        | <u>H. Nadaf</u>         |
|          | A2056829            | Praveen. M. Biradar      | <u>P. Biradar</u>       |
|          | A2056816            | Porashuram. N. Ilage     | <u>P. Ilage</u>         |
|          | A2056724            | Anil. S. Gore            | <u>A. S. Gore</u>       |
|          | A2056817            | Parashuram. S. Kanase    | <u>P. S. Kanase</u>     |
|          | A2056858            | Santosh. G. Ilage        | <u>S. Ilage</u>         |
|          | A2056827            | Avvappa. H. Kamadal      | <u>A. H. Kamadal</u>    |
|          | A2056851            | Sahabagouda. N. Konnur   | <u>S. Konnur</u>        |
|          | A2056784            | Mahantesh. S. Bittadon   | <u>M. Bittadon</u>      |
|          | A2056815            | Rasashuram. G. Chalawadi | <u>P. G. Chalawadi</u>  |
|          |                     | Manglu. C. Podamani      | <u>M. Podamani</u>      |
|          | A2056703            | Abhishek. Humashyal      | <u>A. Humashyal</u>     |
| 02       | A2056702            | Abhishek. P. deroor      | <u>A. deroor</u>        |
|          | A2056732            | Basavaraj. C. Bhavikatti | <u>B. C. Bhavikatti</u> |
|          | A2056872            | Shrikant. B. Guled       | <u>S. Guled</u>         |
|          | A2056737            | Basavaraj. S. Dhavalagi  | <u>B. S. Dhavalagi</u>  |
|          | A2056870            | Shridhar. B. Jadhav      | <u>S. Jadhav</u>        |
|          | A2056722            | Aneel. G. Rathod         | <u>A. Rathod</u>        |
|          | A2056899            | Veerendra. N. Rathod     | <u>V. Rathod</u>        |
|          | A2056833            | Rajkumar. D. Rathod      | <u>R. Rathod</u>        |
|          | A2056904            | Vinod. S. Pawar          | <u>V. Pawar</u>         |
|          | A2056719            | Ameerpatil. D. Biradar   | <u>A. Biradar</u>       |
| 50       | A2056760            | Hanant A. Chawade        | <u>H. Chawade</u>       |
|          | A2056826            | Prashant. K. Jadhav      | <u>P. Jadhav</u>        |
|          | A2056789            | Malingaraya. R. Pujari   | <u>M. Pujari</u>        |
|          | A2056733            | Basavaraj. S. Gudlamani  | <u>B. Gudlamani</u>     |
|          | A2056755            | Geetha. Y. Bhajantha     | <u>G. Y. Bhajantha</u>  |
|          | A2056843            | Rijwanbeegem H Kushtagi  | <u>R. H. Kushtagi</u>   |
|          | A2056840            | Rekha. S. Biradar        | <u>R. Biradar</u>       |
|          | A2056718            | Ameerabai. M. Jamadar    | <u>A. Jamadar</u>       |





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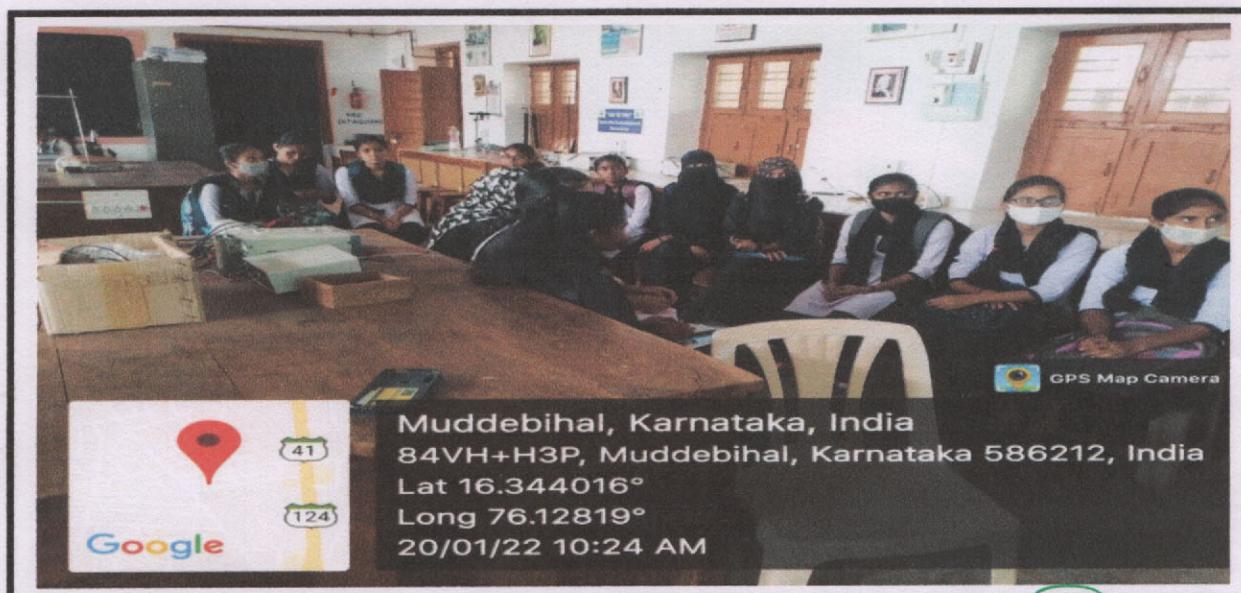
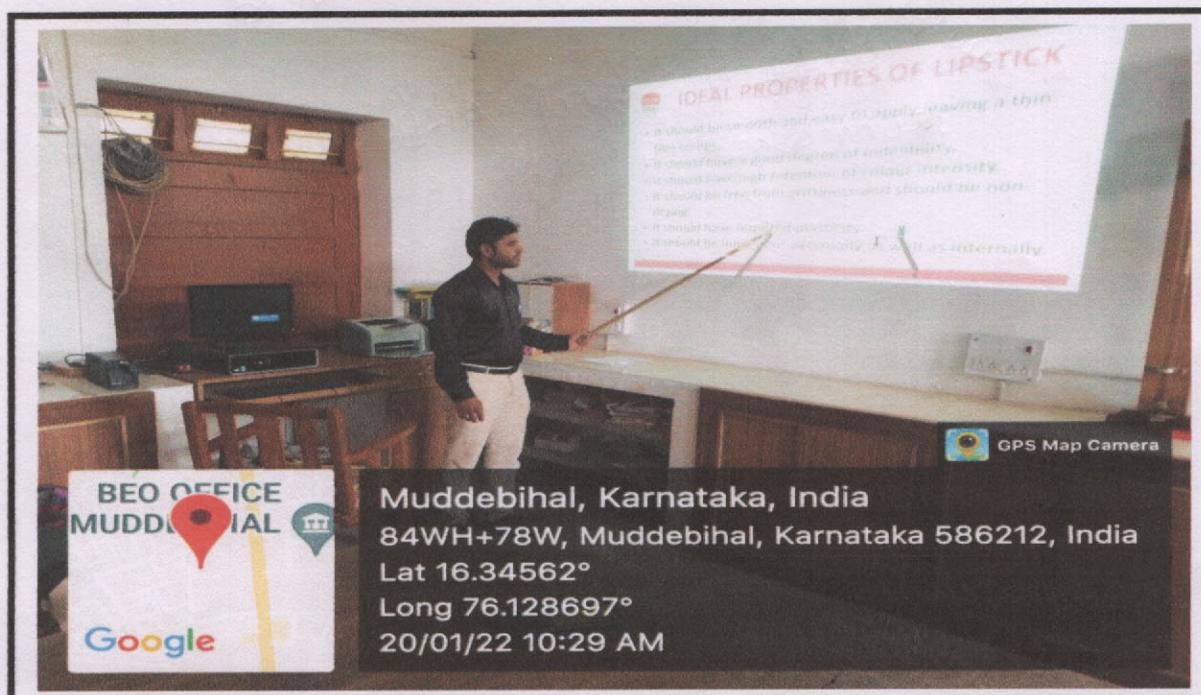
## DEPARTMENT OF CHEMISTRY

Teachers Use ICT enabled tools for Effective teaching learning process

Name of the Staff Member: Prof-UMARFAROOQ A HALYAL

Topic-PREPARATION OF LIPSTICK

Class: B.Sc III rd Semester Date: 20.01.2022 Time: 10.30 to 11.30 am



*Internal*  
Co-ordinator,

Internal Quality Assurance Cell  
M.G.V.C. Arts, Commerce & Science College  
MUDDEBIHAL-586212. Dist: Vijayapur.

*Umarfarooq A Halyal*  
PRINCIPAL,

M.G.V.C. Arts, Com. & Science College  
MUDDEBIHAL - 586212.



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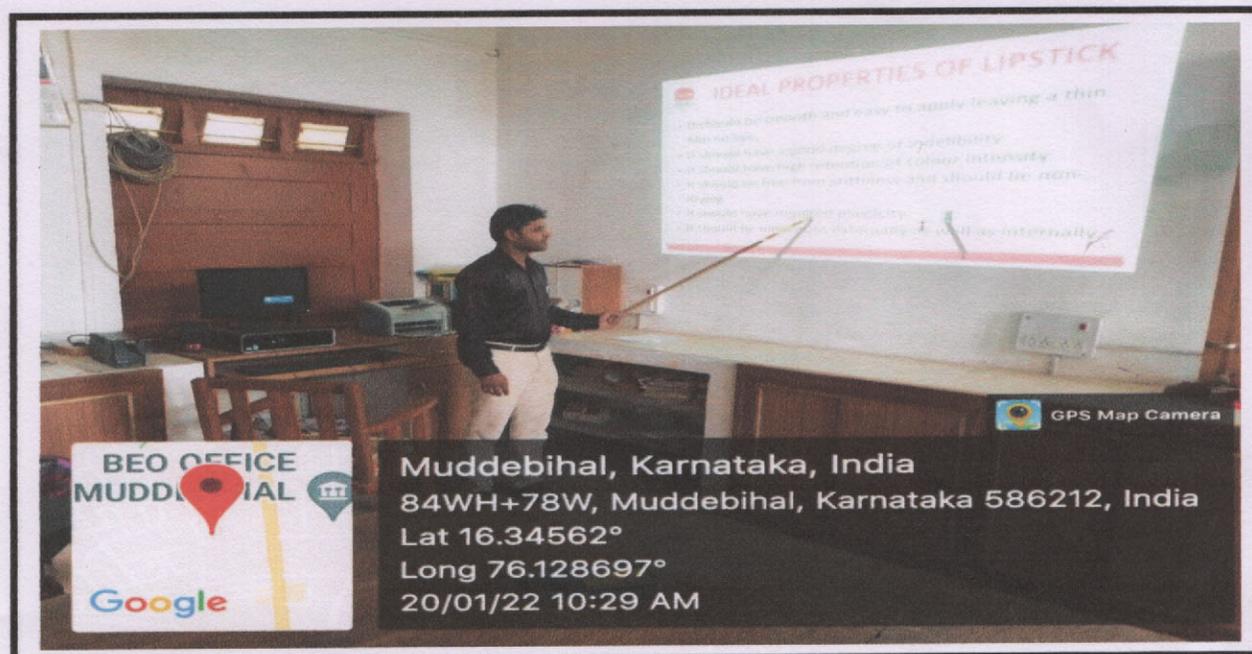
## DEPARTMENT OF CHEMISTRY

Teachers Use ICT enabled tools for Effective teaching learning process

Name of the Staff Member: UMARFAROOQ A HALYAL

Topic- PREPARATION OF LIPSTICK

Class: B.Sc III rd Semester Date: 20.01.2022 Time: 10.30 to 11.30 am



## Topic- PREPARATION OF LIPSTICK

**Ingredients in Lipsticks**

▣ **Colouring materials-**

| Ingredient                  | Amount in % |
|-----------------------------|-------------|
| Staining dyes (Bromo Acids) | 0.5 - 3     |
| Oil Soluble Pigments        | 2           |
| Insoluble Pigments          | 8 - 10      |
| Titanium Dioxide            | 1 - 4       |



### **Lipstick structuring agents**

The types of structuring agents used in lipstick formulations include waxes, polymers, particles (e.g. silica, organo clays) and fiber network forming agents. The most common structuring agents used include:

- Ozokerite
- Carnauba
- Candelilla
- Beeswax
- Polyethylene
- Microcrystalline

It's critical to use a blend of crystalline and amorphous waxes that provide a small crystal size on cooling, which creates good oil binding/compatibility and stick strength. Common combinations include:

- Ozokerite/Microcrystalline
- Polyethylene/Microcrystalline
- Polyethylene/Ozokerite
- Beeswax/Candellila/Carnauba

### **Lipstick emollients**

Emollients are important lipstick ingredients that impact product application, color, spreading, and shine. The best emollients are normally high molecular weight, viscous ingredients that don't spread quickly on skin. This can help prevent bleeding, and feathering or wicking of product into the skin creases around lips.



Emollients that provide shine normally are viscous to provide cushion and have a refractive index over 1.49. Examples of commonly used emollients include:

- Lanolin
  - Castor oil
  - Bis-Diglyceryl Polyacyladipate-2 (synthetic Lanolin)
  - Shea Butter
  - Polybutene
  - Hydrogenated Polyisobutene
  - Triisostearyl Citrate
- 
- Lipsticks are usually formulated in three stages: a pigment grind, a wax base, and a dilution oil blend.
  - Use pigment grind premixes that have been high-shear processed in a viscous emollient like castor oil, via roller mill or Kady mill. Also include a good dispersing agent.
  - Use blends of crystalline and amorphous waxes to get good oil binding. Most sticks contain three to five structuring waxes.
  - Slight variations in the formulation can sometimes produce big differences in hardness, crystal size, and appearance.
  - Lipsticks should harden quickly and easily come out of molds.
  - Waxes that produce adequate shrinkage of the lipstick on cooling must be incorporated for good mold release. It is helpful to include a small amount of wax which melts above the molding temperature, to give faster nucleation during the cooling process.
  - It can sometimes be difficult to produce a lipstick which is stable across a wide range of temperatures. Materials which liquefy or solidify within the stick under different temperature conditions can alter the texture and surface appearance of the stick over time. Cocoa butter, which melts at body temperature, is a good example of a material which can produce this type of effect.
  - The oils and waxes used should be close enough in polarity to readily mix when the lipstick is melted, before the stick is formed. Problems can occur if excessively high levels of a microcrystalline wax are used in a high castor oil containing lipstick, the microcrystalline wax only having limited solubility in polar castor oil.
  - Use materials which produce a small crystal structure. Larger crystals can reduce gloss characteristics of the stick. Microcrystalline waxes can help form smaller crystals.
  - Use fumed silica in the formulation to improve payoff, reduce pigment settling and reduce oil bleeding.

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B.Sc III sem

| Reg No.  | Name                        | Signature       |
|----------|-----------------------------|-----------------|
| S2031614 | Bhagyalakshmi, K, Kashuti   | BK              |
| S2031696 | Yasmin H Badeghar           | H Badeghar      |
| S2031618 | (Dhanamma, M, Hiremath)     | DHP             |
| S2031603 | Aishwarya S. Patil          | Aspatil         |
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| S2031642 | Nisarga. V. patil           | N. V. Patil     |
| S2031691 | Umme Bariza - N - shabha    | U. N. Shabha    |
| S2031610 | Anuha. B. Dodamani          | Anu             |
| S2031692 | Vandana. V. Rathod          | V. Rathod       |
| S2031623 | Kavya. S. Nalatawad         | Kavya           |
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| S2031695 | Yalagowadappa.              | Y. G. Wadappa   |
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| S2031675 | Siddanagarda Bivaders       | S. Bivaders     |
| S2031656 | RAMANAGOUDA                 | Ramanagouda     |

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## **DEPARTMENT OF HISTORY**

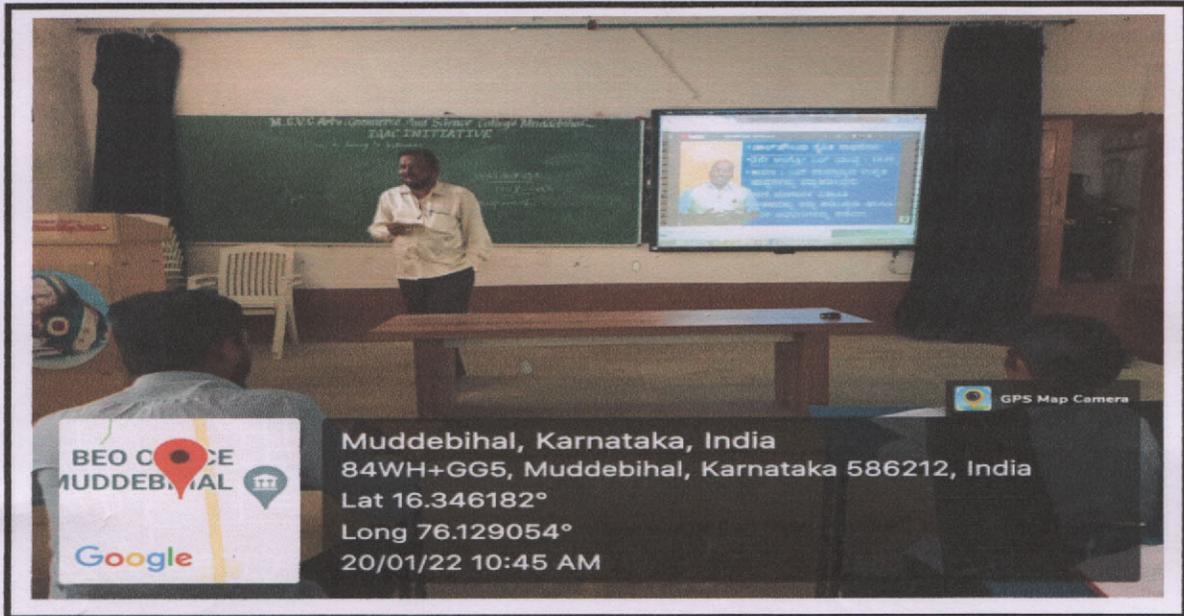
**Teachers Use ICT enabled tools for Effective teaching learning process**

**Name of the Staff Member: Dr. R.H. SAJJAN**

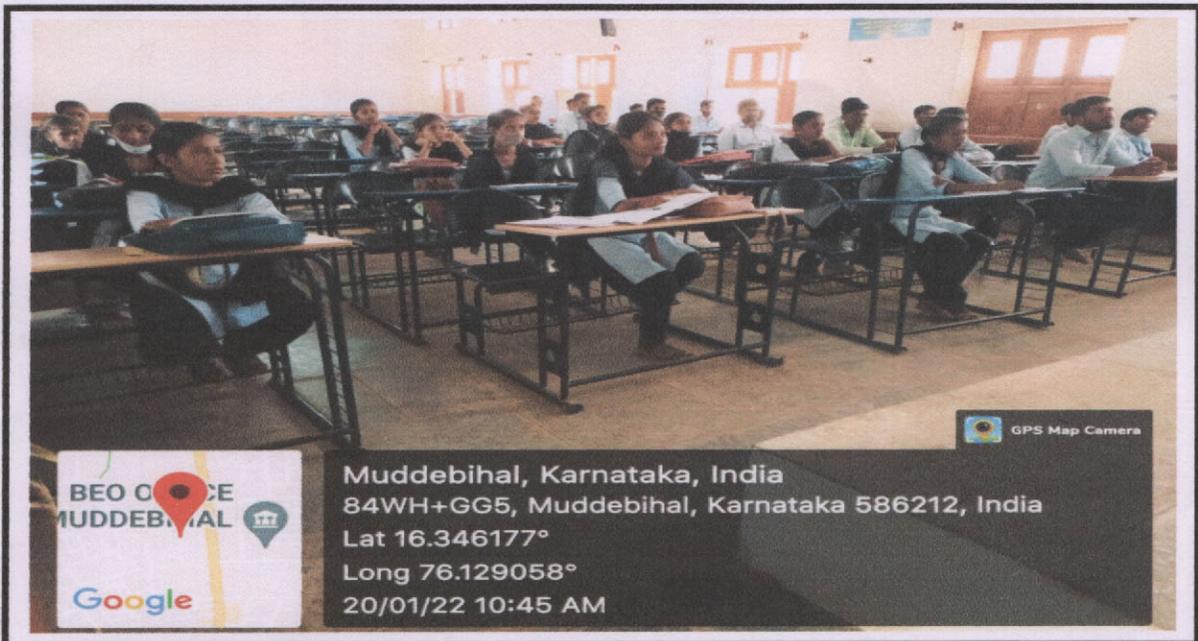
**Class: B.A V SEM**

**Date: 20.01.2022**

**Time 10.45 -11.45 am**



Muddebihal, Karnataka, India  
84WH+GG5, Muddebihal, Karnataka 586212, India  
Lat 16.346182°  
Long 76.129054°  
20/01/22 10:45 AM



Muddebihal, Karnataka, India  
84WH+GG5, Muddebihal, Karnataka 586212, India  
Lat 16.346177°  
Long 76.129058°  
20/01/22 10:45 AM

*(Signature)*  
**Head**

Dept. of History  
M.G.V.C. College,  
MUDDEBIHAL. Dt: Bijapur.

*(Signature)*

**PRINCIPAL,**  
M. G. V. C. Arts, Com. & Science College  
MUDDEBIHAL - 586212.

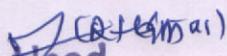


## History

The family descends from Sir George Ramsay, who represented Kincardineshire in the Scottish Parliament in 1617. He received a charter of the barony of Dalhousie and also of the barony of Melrose on the resignation of John Ramsay, 1st Earl of Holderness. In 1618 he was raised to the Peerage of Scotland as **Lord Ramsay of Melrose**. However, as he did not like the title, he obtained a letter from James VI in 1619 to change it to **Lord Ramsay of Dalhousie** (with the precedence of 1618). He was succeeded by his eldest son, the second Lord. He sat as a member of the Scottish Parliament for Montrose in 1617 and 1621 and served as Sheriff Principal of Edinburghshire. In 1633 he was created **Lord Ramsay of Keringtoun and Earl of Dalhousie**, in the County of Midlothian, in the Peerage of Scotland. His grandson, the third Earl (who succeeded his father in 1674), fought at the Battle of Bothwell Brig in 1679. His eldest son, the fourth Earl, was killed in a duel with a Mr Hamilton. He was unmarried and was succeeded by his younger brother, the fifth Earl. He was a colonel in the Scots Guards and brigadier-general in the British Army and fought in the War of the Spanish Succession.

He was succeeded by his first cousin once removed, the sixth Earl. He was the son of Captain the Hon. John Ramsay, second son of the first Earl. Lord Dalhousie's eldest son of George Ramsay, Lord Ramsay (died 1739), married Jean, daughter of the Hon. Harry Maule of Kelly, younger son of George Maule, 2nd Earl of Panmure, brother of James Maule, 4th Earl of Panmure, who took part in the Jacobite Rebellion of 1715 and was attainted in 1716 with his titles forfeited (see Earl of Panmure). Dalhousie was succeeded by his grandson, the seventh Earl. He was the eldest son of Lord Ramsay. He died unmarried and was succeeded by his younger brother, the eighth Earl. He sat in the House of Lords as a Scottish Representative Peer from 1774 to 1787. His second son the Hon. William Ramsay succeeded to the Maule estates in 1784 and was created Baron Panmure in 1831. Lord Dalhousie was succeeded by his eldest son, the ninth Earl. He was a distinguished soldier and served as Governor General of British North America and as Commander-in-Chief of India. In 1815 he was created **Baron Dalhousie**, of Dalhousie Castle in the County of Edinburgh, in the Peerage of the United Kingdom, which entitled him to an automatic seat in the House of Lords.

He was succeeded by his eldest surviving son, the tenth Earl. He was an influential Tory politician and also served as Governor-General of India from 1847 to 1856. In 1849 he was created **Marquess of Dalhousie**, of Dalhousie Castle in the County of Edinburgh and of the Punjab, in the Peerage of the United Kingdom. Lord Dalhousie assumed the additional surname of Broun of Colstoun upon succeeding to the Colstoun estates. He had no male issue and on his death in 1860 the marquessate and barony of 1815 became extinct. He was succeeded in the Scottish titles by his first cousin Fox Maule, 2nd Baron Panmure, the eleventh Earl (see Baron Panmure for earlier history of this branch of the family). He was a prominent Liberal politician and notably held office as Secretary of State for War. On succeeding to the earldom in 1860 he assumed the surname and arms of Ramsay of Dalhousie after that of Maule. Lord Dalhousie was childless and on his death in 1874 the barony of Panmure became extinct. He was succeeded in the Scottish titles by his first cousin, the twelfth Earl, who was the second son of the Hon. John Ramsay, fourth son of the eighth Earl.

  
Head

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M.G.V.C. College,  
MUDDEBIHAL. Dt: Bijapur.



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**MATOSHRI GANGAMMA VEERAPPA CHINIWAR  
ARTS, COMMERCE & SCIENCE COLLEGE, MUDEBIHAL.**

Subject : History of Modern India Date : 20/01/2022Time : 10.45 to 11.45Class : V<sup>th</sup> Semester**ATTENDANCE REPORT**Jr. Supervisor : R. H. Sarda**DEGREE BA SEMESTER EXAMINATION 2022 - 2022**

| Roll No. | University Seat No. | Name of the Candidate    | Signature      |
|----------|---------------------|--------------------------|----------------|
| 01)      | A1950441            | Chandrababu              |                |
| 02)      | A1950512            | Muttappa R. Tlages       | Muttappa R.    |
| 03)      | A1950556            | Piyazali H. Balagi       | P. H. Balagi   |
| 04)      | A1950652            | Yalappa H. Kattiman      |                |
| 05)      | A1950577            | Sangamesh S. Biradar     | Sangamesh      |
| 6)       | A1950509            | Mouresh T. Dodamani      | M. T. Dodamani |
| 7)       | A1950505            | Ramesh H. Pirangi        | R. H. Pirangi  |
| 8)       | A1950447            | CHE TAN RATHOD           |                |
| 9)       | A1950409            | Ambresh S. Rathod        |                |
| 10)      | A1950654            | Yashwantrao P. Chalamudi |                |
| 11)      | A1950569            | Sagar B. Chalawadi       |                |
| 12)      | A1950620            | Siddanagouda Biradar     |                |
| 13)      | A1950500            | Manjunath P. Chalawadi   | M.P.C.         |
| 14)      | A1950492            | Mahadev Choudaker        | Mahadev C.     |
| 15)      | A1950430            | Bacavraj M. Chalawadi    | B. Chalawadi   |
| 16)      | A1950475            | Kavishma M. Chavan       |                |
| 17)      | A1950634            | Surita S. Chavan         | S. S. Chavan   |
| 18)      | A1950414            | Aarti S. Rathod          | A. S. Rathod   |
| 19)      | A1950486            | Gangamma S. Khatagi      | Gangamma       |
| 20)      | A1950519            | Neelamma S. Patil        | N. Patil       |
| 21)      | A1950604            | Shilpa S. Chalawadi      |                |
| 22)      | A1950483            | Lavanya G. Joshi         | L. G. Joshi    |
| 23)      | A1950597            | S. H. Hanamasagar        |                |
| 24)      | A1950472            | Jyoti H. DODAMANI        | Jyoti          |
| 25)      | A1950629            | Sudha S. Rathod          | S. S. Rathod   |
| 26)      | A1950424            | Ashwini Y. Chalawadi     |                |
| 27)      | A1950548            | Ratnamma Handaragada     | Ratnamma       |
| 28)      | A1950655            | Yamuna U. Dodamani       | Y. U. Dodamani |

(Signature)  
Head

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MUDEBIHAL, Dt: Bijapur

(Signature)  
Principal

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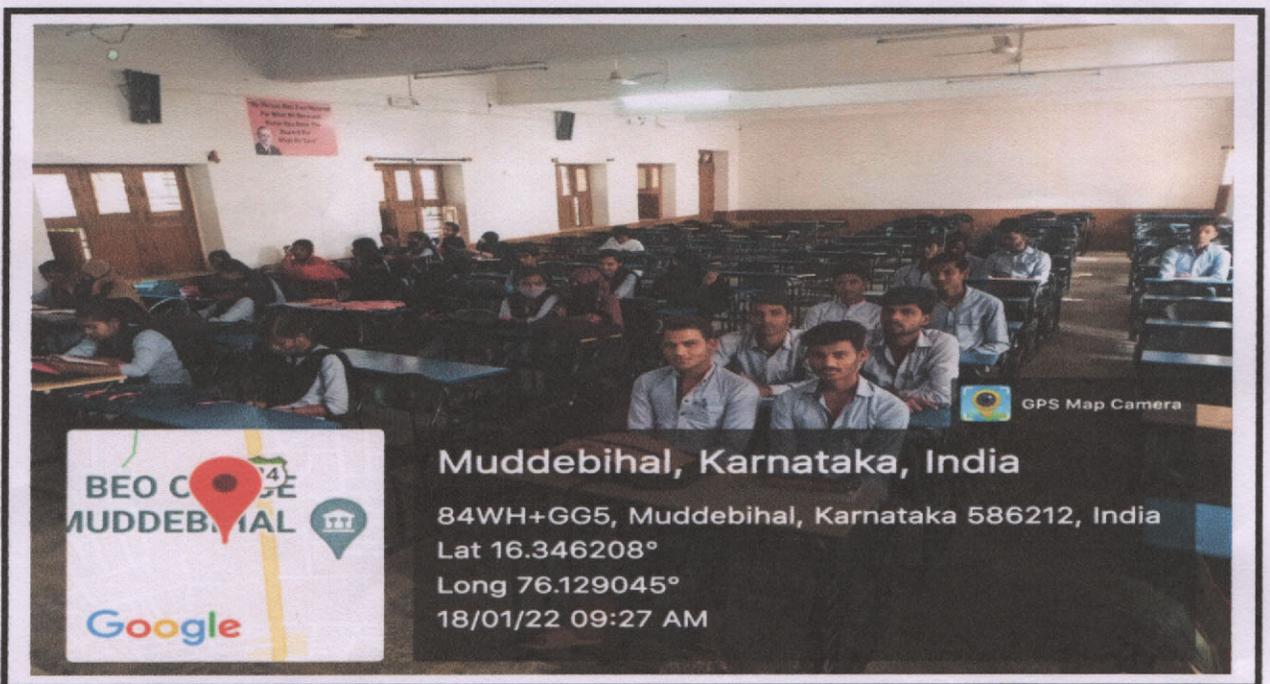
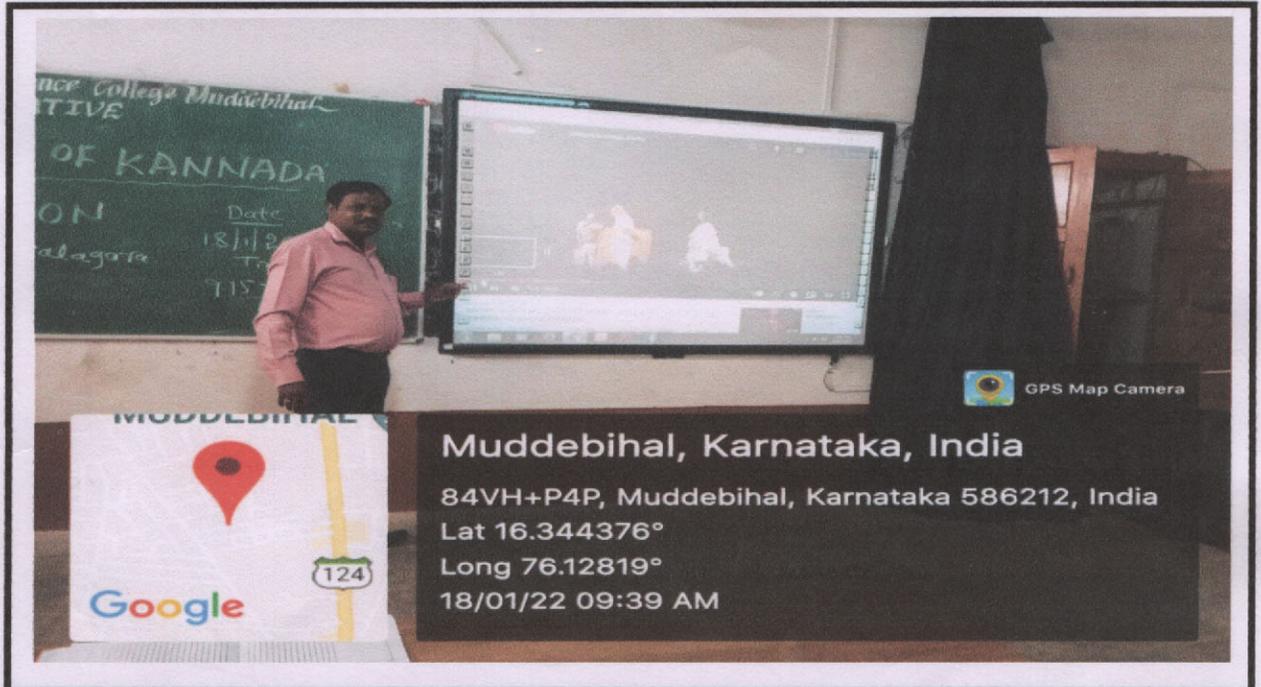
M.G.V.C ARTS, COMMERCE AND SCIENCE COLLEGE MUDDEBIHAL

## DEPARTMENT OF KANNADA

Teachers Use ICT enabled tools for Effective teaching learning process

Name of the Staff Member: Dr.Prakash.Naragund

Class: B.A III rd Semester Date: 18.01.2022 Time: 9.30 to 10.30 am



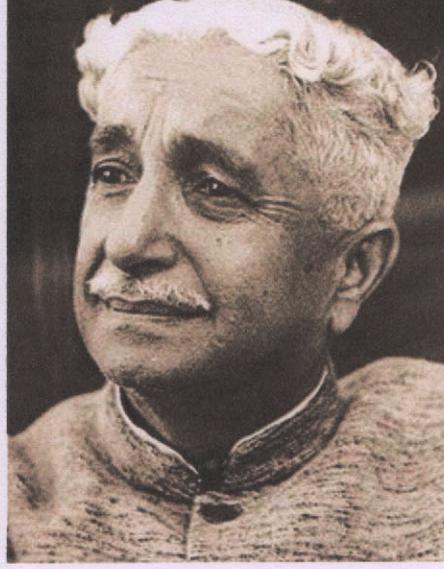
*Prakash Naragund*  
Co-ordinator,

Internal Quality Assurance Cell  
M.G.V.C. Arts, Commerce & Science College  
MUDDEBIHAL-586212. Dist: Vijayapur.

*Prakash Naragund*

PRINCIPAL,  
M.G.V.C. Arts, Commerce & Science College  
MUDDEBIHAL-586212. Dist: Vijayapur.

## KUVEMPU DRAMA JALAGARA



**Kuppali Venkatappa Puttappa** (29 December 1904 – 11 November 1994),<sup>[2]</sup> popularly known by his pen name **Kuvempu** was an Indian poet, playwright, novelist and critic. He is widely regarded as the greatest **Kannada** poet of the 20th century. He was the first Kannada writer to receive the **Jnanpith Award**.

Kuvempu studied at **Mysuru University** in the 1920s, taught there for nearly three decades and served as its vice-chancellor from 1956 to 1960. He initiated education in Kannada as the language medium. For his contributions to **Kannada Literature**, the **Government of Karnataka** decorated him with the honorific **Rashtrakavi** ("**National Poet**") in 1964 and **Karnataka Ratna** ("**The Gem of Karnataka**") in 1992. He was conferred the **Padma Vibhushan** by the Government of India in 1988. He penned the Karnataka State Anthem **Jaya Bharata Jananiya Tanujate**.

೧೯೨೭-೨೮ **ಕುವೆಂಪು** ಅವರ ಸಾಹಿತ್ಯಕ ಜೀವನದ ಮಹತ್ತರ ಘಟ್ಟ. ಅವರು ಎಂ.ಎ. ಕನ್ನಡ ತರಗತಿಗೆ ಸೇರಿದ್ದರಿಂದ ಕನ್ನಡ ಸಾಹಿತ್ಯ ಸಂಸ್ಕೃತಿ ಪರಂಪರೆಯ ಶಾಸ್ತ್ರೀಯವಾದ ಅಭ್ಯಾಸದ ಅವಕಾಶ ಲಭಿಸಿತು. ಕವಿಯ ಸೃಜನ ಪ್ರತಿಭೆಯ ತಾಯಿಬೇರಿಗೆ ಅಮೃತಾಹಾರ ಒದಗಿದಂತಾಗಿತ್ತು. ಕನ್ನಡದಲ್ಲಿ ಇಂಗ್ಲೀಷಿನಂತೆ ಸರ್ವವಿಧವಾದ ಛಂದೋವೈವಿಧ್ಯತೆಯಿಂದ ಕೂಡಿದ ಸಾಹಿತ್ಯವನ್ನು ಸೃಷ್ಟಿಸಬೇಕೆಂಬ ಅವರ ಹಂಬಲ ಕ್ಷಣಿಕವಾದುದಾಗಿರಲಿಲ್ಲ. ಕುಳಿತಲ್ಲಿ, ನಿಂತಲ್ಲಿ, ಓದುವಾಗ, ಬರೆಯುವಾಗ - ಕೊನೆಗೆ ನಿಧ್ಧ ಮಾಡುವಾಗಲೂ ಅದರ ಬಗ್ಗೆ ಚಿಂತಿಸುತ್ತಿದ್ದರು. ಸಾನ್‌ಟ್ ಮತ್ತು ಬ್ಲಾಂಕ್‌ವರ್ಸ್ ಛಂದಸ್ಸುಗಳಲ್ಲಿ ಪರಿಣತಿ ಸಾಧಿಸುತ್ತಿದ್ದಂತೆ, ಅವುಗಳಲ್ಲಿ ಹೊಸ ಹೊಸ ಪ್ರಯೋಗಗಳಿಗೆ ಮನಸ್ಸು ಹಾತೊರೆಯುತ್ತಿತ್ತು. ಬ್ಲಾಂಕ್‌ವರ್ಸ್ ಗತಿಯಲ್ಲಿ ಆಗಲೇ ಕರಿಸಿದ್ದ ಮತ್ತು ಪ್ರಾಯಶ್ಚಿತ್ತ ಎಂಬ ದೀರ್ಘ ಕಥನಕವನಗಳು ರಚಿತವಾಗಿದ್ದವು. ಆಗ ಕವಿಗೆ, ಈ ಬ್ಲಾಂಕ್‌ವರ್ಸ್ ಛಂದೋಶೈಲಿಯನ್ನು ಬಳಸಿಕೊಂಡು ಕನ್ನಡದಲ್ಲಿ ನಾಟಕ ರಚಿಸಬಹುದಲ್ಲ ಎಂಬ ಯೋಚನೆ ಪ್ರಬಲವಾಗಿ, ಒಳಗಿನ ಒತ್ತಡವಾಗಿ ಬೆಳೆಯತೊಡಗುತ್ತದೆ. ಅದುವರೆಗೆ ಯಾರೂ ಕನ್ನಡದಲ್ಲಿ ನಾಟಕಕ್ಕೆ ಬ್ಲಾಂಕ್‌ವರ್ಸ್ ಪ್ರಯೋಗ ಮಾಡಿರಲೂ ಇಲ್ಲ. ಅದಕ್ಕೆ ಅನುಗುಣವಾದ ನಾಟಕದ ವಸ್ತು, ವಿಷಯ, ರೂಪ ಇವುಗಳ ಬಗ್ಗೆ ಏನೊಂದೂ ಹೊಳೆಯದೆ ಕವಿ ಭಾವಶೂನ್ಯನಾಗಿದ್ದಾಗಲೇ ಒಂದು ದಿನ ಅಸಮಾನ್ಯವೆನ್ನಬಹುದಾದ ಘಟನೆಯೊಂದು ನಡೆದುಬಿಡುತ್ತದೆ.

ದಿವಾನರ ರಸ್ತೆಯಲ್ಲಿ ಬಾಡಿಗೆ ಮನೆಯಲ್ಲಿದ್ದ ಆಶ್ರಮದಲ್ಲಿ ಕವಿಯ ವಾಸ. ಮನೆ ಚಿಕ್ಕದಾಗಿದ್ದರಿಂದ, ಪ್ರತ್ಯೇಕ ದೇವರ ಮನೆಯಿರಲಿಲ್ಲ. ಪೂಜೆ ಮುಗಿದ ಮೇಲೆ, ಪರದೆಯೊಂದನ್ನು ಅಡ್ಡ ಎಳೆದು, ದೇವರ ಕಡೆ ತಲೆ ಹಾಕಿ ಮಲಗುವ ವ್ಯವಸ್ಥೆ ಮಾಡಿಕೊಂಡಿದ್ದರು. ಒಂದು ಭಾನುವಾರ ಹಗಲು ವೇಳೆಯಲ್ಲಿಯೇ ಕವಿ ಗಡದ್ದಾದ ನಿಧ್ಧೆಯಲ್ಲಿ ಮುಳುಗಿಬಿಟ್ಟಿರುತ್ತಾರೆ. ಕನ್ನಡ, ನಾಟಕ, ಬ್ಲಾಂಕ್‌ವರ್ಸ್ ಈ ವಿಚಾರಗಳೇ ತಲೆಯಲ್ಲಿದ್ದುರಿದಲೋ ಏನೋ ಕವಿಗೆ ಅದರದೇ ಒಂದು ಕನಸು ಬೀಳುತ್ತದೆ. ಅದು ಹೀಗಿತ್ತು: ನಾನೊಂದು ಬೃಹದ್‌ಗಾಥ್ಯದ

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ಅಪ್ರಾಸಭಂದಸ್ಸಿನ (ಬ್ಲಾಕ್‌ವರ್ನ್) ಮಹಾಕಾವ್ಯ (ಎಪಿಕ್) ರಚಿಸಿದ್ದೇನೆ. ಅದು ಅಚ್ಚಾಗಿ ಬಂದಿದೆ! ಕೈಯಲ್ಲಿ ಹಿಡಿದಿದ್ದೇನೆ. ತೂಕವಾಗಿದೆ! ಎಷ್ಟು ಮನೋಹರವಾಗಿ ಮುದ್ರಿತವಾಗಿದೆ! ಅದರ ಕ್ಯಾಲಿಕೊ ಬೈಂಡಿನ ಸೌಂದರ್ಯವೂ ಹೇಳತೀರದು! ಹಾಳೆಗಳನ್ನು ಮಗುಚಿ ನೋಡುತ್ತಿದ್ದೇನೆ: ನುಣ್ಣಿನೆ ಕಾಗದ, ಮುದ್ದಾದ ಅಚ್ಚು! ಓದುತ್ತಿದ್ದೇನೆ....

ಅಷ್ಟರಲ್ಲಿ ರೀ, ರೀ ಪುಟ್ಟಪ್ಪ! ಎಷ್ಟು ನಿನ್ನೆ ಮಾಡ್ತೀರಿ? ಏಳಿ! ಎಂದು ಭುಜ ಹಿಡಿದು ಅಲುಗಿಸುತ್ತ ಎಚ್.ಬಿ.ನಂಜಯ್ಯ ಎಂಬುವವರು ಕವಿಯ ನಿನ್ನೆಗೂ ಅದಕ್ಕಿಂತ ಹೆಚ್ಚಾಗಿ ಕನಸಿಗೂ ಭಂಗ ತಂದುಬಿಡುತ್ತಾರೆ. ಪಾಪ! ಆತನಿಗೆ ಹೇಗೆ ಗೊತ್ತಾಗಬೇಕು ತಾನೆಸಗಿದ ಮಹಾ ಅನರ್ಥ? - ಕವಿಯ ಪ್ರತಿಕ್ರಿಯೆಯಿದು. ಆದರೂ ಕವಿಗೆ ಸಂತೋಷವಾಗುತ್ತದೆ; ಕನಸಿನಲ್ಲಾದರೂ ಎಪಿಕ್‌ಗೆ ಬೇಕಾದ ಅಪ್ರಾಸ ಭಂದಸ್ಸಿನ ಗುಟ್ಟು ಸಿಕ್ಕಿತಲ್ಲಾ ಎಂದು. ಆದರೆ ಕನಸಿನಲ್ಲಿ ಕಂಡಿದ್ದ ಪುಸ್ತಕದಲ್ಲಿದ್ದ ಭಾಷೆ ಲಿಪಿ ಯಾವುದೂ ನೆನಪಾಗುವುದಿಲ್ಲ. ಅದರ ಒಂದು ಸಾಲನ್ನಾದರೂ ನೆನಪಿಗೆ ತಂದುಕೊಳ್ಳುವ ಪ್ರಯತ್ನ ಸಫಲವಾಗುವುದಿಲ್ಲ.

ಅಂದು ಕನಸಿನಲ್ಲಿ ಸಿಕ್ಕ ಅಪ್ರಾಸ ಭಂದಸ್ಸಿನ ಗುಟ್ಟು ವ್ಯರ್ಥವಾಗಲಿಲ್ಲ. ಆ ಭಂದೋಲಯದಲ್ಲಿ ಹಿಡಿತ ಸಾಧಿಸಿದ ಕವಿ ಕೇವಲ ನಾಲ್ಕು ದಿನಗಳಲ್ಲಿ 'ಜಲಗಾರ', 'ಯಮನಸೋಲು' ಮತ್ತು 'ಮಹಾರಾತ್ರಿ' ಎಂಬ ಮೂರು ನಾಟಕಗಳನ್ನು ಬರೆದು ಮಗಿಸಿಬಿಡುತ್ತಾರೆ. ಇವುಗಳಲ್ಲಿ ಮೊದಲನೆಯದೇ ಅಪ್ರಾಸ ಭಂದಸ್ಸಿನ 'ಸರಳರಗಳ' ರೂಪದಲ್ಲಿರುವ, ಕೇವಲ ಎರಡು ದೀರ್ಘ ದೃಶ್ಯಗಳಿರುವ ಜಲಗಾರ ಎಂಬ ನಾಟಕ. ನಾಟಕ ರಚನೆಯಾದ ದಿನವೇ, ರಚಿಸುವಾಗ ಇದ್ದ ಆವೇಶದಲ್ಲಿಯೇ, ಆಶ್ರಮದಲ್ಲಿ ಸ್ವಾಮೀಜಿ, ನಾ.ಕಸ್ತೂರಿ ಮುಂತಾದವರ ಮುಂದೆ ಓದುತ್ತಾರೆ. ಅದರಲ್ಲಿದ್ದ ಹೊಸ ಆಲೋಚನೆಗಳು, ಹೊಸ ಭಾವಗಳು ಎಲ್ಲರ ಗಮನ ಸೆಳೆಯುತ್ತವೆ. ಹೀಗೆ ಕನ್ನಡದ ಮೊತ್ತಮೊದಲ ಸರಳರಗಳೆಯ ನಾಟಕ ಸಿದ್ಧವಾಗುತ್ತದೆ.

ಮಹಾಶಿವರಾತ್ರಿಯ ದಿನ ಶರತ್ಕಾಲದ ಸುಂದರ ಮುಂಜಾನೆ. ಊರಿನ ಕಾಯಕಯೋಗಿಜಲಗಾರನು ಸಂತೋಷವಾಗಿ 'ಮಂಜು ಹರಿಯುವವರೆಗೆ ಕುಳಿತಿಲ್ಲ, ನಲಿಯುವೆನು ನಲ್ಲಬ್ಬಗಳ ಹಾಡಿ' ಎಂದು ಹಾಡುತ್ತಿದ್ದಾನೆ. ಮುಂಜಾವಿನ ಸೊಬಗಿಗೆ ಆತನೂ ಮಾರುಹೋಗಿದ್ದಾನೆ. 'ಸೃಷ್ಟಿಕರ್ತನನಮಗೆ ಸಾಧಿಸಲು, ತೋರಿಸಲು, ಸೃಷ್ಟಿಯಿದು ಸಾಲದೇ? ..... ಬಿಜ್ಜೆಯೇಂ ತೋರ್ಕುಮೇ ಎದೆಯರಿವು ತೋರದಾ ಪರಮನಂ?' ಎನ್ನಿಸಿಬಿಡುತ್ತದೆ. ಆಗ 'ನೇಗಿಲ ಯೋಗಿಯು ನಾನು; ಮಣ್ಣಿನ ಭೋಗಿಯು ನಾನು!' ಎಂದು ಹಾಡುತ್ತಾ ಒಬ್ಬ ರೈತನ ಆಗಮನವಾಗುತ್ತದೆ. ಆಗ ಜಲಗಾರ 'ಮುಂಜಾನೆಯೊಳಗೆ ಹೋಗುತಿಹೆ, ರೈತ?' ಎನ್ನುತ್ತಾನೆ. ಆಗ ರೈತ-

ಓಹೊ ನೀನರಿಯೆಯಾ? ಇಂದು ನಮ್ಮೂರ  
ಶಿವಗುಡಿಯ ಜಾತ್ರೆ! ಬರುವುದಿಲ್ಲವೆ ನೀನು?  
ತೇರಳೆಯಲೆಂದನಿಬರೂ ಬರುತಿಹರು.

**Co-ordinator,**  
Internal Quality Assurance Cell  
M.G.V.C. Arts, Commerce & Science College  
MUDDEBIHAL-586212. Dist: Vijayapur,

**PRINCIPAL,**  
M.G.V.C. Arts, Commerce & Science College  
MUDDEBIHAL-586212. Dist: Vijayapur.



S. G. V. C. Vidya Prasarak Trust's,  
**MATOSHRI GANGAMMA VEERAPPA CHINIWAR**  
**ARTS, COMMERCE & SCIENCE COLLEGE, MUDDEBIHAL.**



**ATTENDANCE REPORT**

Name of the Event : Kuvempu Drama Talavara

Class : B.A III

Date : 18/1/2022

Time : 8:30 to 9:30

| SL.NO.   | NAME                          | SIGNATURE                   |
|----------|-------------------------------|-----------------------------|
| A2056850 | Sangeeta M. Hemageund         | S.M. Hemageund              |
| A2056813 | Pallavi M. Gothed.            | <del>Pallavi</del>          |
| A2056883 | Sumanda P. Malagi             | Malagi                      |
| A2056893 | Tayyaba M. Shelsha            | T.M. Shelsha                |
| A2056856 | Saniya I. Hallur              | S.I. Hallur                 |
| A2056413 | Jamuna D. Talavara            | J.D. Talavara               |
| A2056710 | Kaveri V. Karabhaeri          | <del>Kaveri</del>           |
| A2056861 | Shahista H. Choudhri          | S.H. Choudhri               |
| A2056819 | paaja R. Rathod               | <del>paaja</del>            |
| A2056774 | Bhagyashree Sbi, Gundakarsoyi | <del>Bhagyashree</del>      |
| A2056753 | Draonarra, g, Police patil    | <del>Draonarra</del>        |
| A2056725 | Annapoorna B. Somnath         | <del>Annapoorna</del>       |
| A2056878 | Simran M. Sinyamp?            | S.M. Sinyamp?               |
| A2056850 | Sahana R. Kulkarni            | S.R. Kulkarni               |
| A2056843 | Rijwanbegum H. Kushtagi       | RH Kushtagi                 |
| A2056767 | Jyoti M. Badager              | <del>Jyoti</del>            |
| A2056808 | Safa A. Nalband               | <del>Safa</del>             |
| A2056755 | geeta Y Bhajantri             | J.Y. Bhajantri              |
| A2056791 | Manjula T Aparadi             | <del>Manjula</del>          |
| A2056844 | Riyaz M. Nadaf                | <del>Riyaz</del>            |
| A2056858 | Santosh G. Tegar              | <del>Santosh</del>          |
| A2056747 | Chandrashekhar V. Pawar       | <del>Chandrashekhar</del>   |
| A2056833 | S Rajkumar D Rathod           | <del>S Rajkumar</del>       |
| A2056870 | Shyidha D. Jadhav             | <del>Shyidha</del>          |
| A2056846 | Sachin B. Madar               | <del>Sachin</del>           |
| A2056836 | Ravi D. Chavan                | <del>Ravi</del><br>D.Chavan |



| SL.NO.   | NAME                       | SIGNATURE |
|----------|----------------------------|-----------|
| A2056752 | Peragappa L. Chavara       |           |
| A2056738 | Basavaraj, y. Chinnirathod |           |
| A2056794 | Manjunath R - Madar        |           |
| A2056800 | Mithun. S. Chavhan         |           |
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**Co-ordinator,**  
Internal Quality Assurance Cell  
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MUDDEBIHAL - 586212.



S.G.V.C Vidya Prasarak Trust's

**M.G.V.C ARTS, COMMERCE AND SCIENCE COLLEGE MUDDEBIHAL**

**DEPARTMENT OF KANNADA**

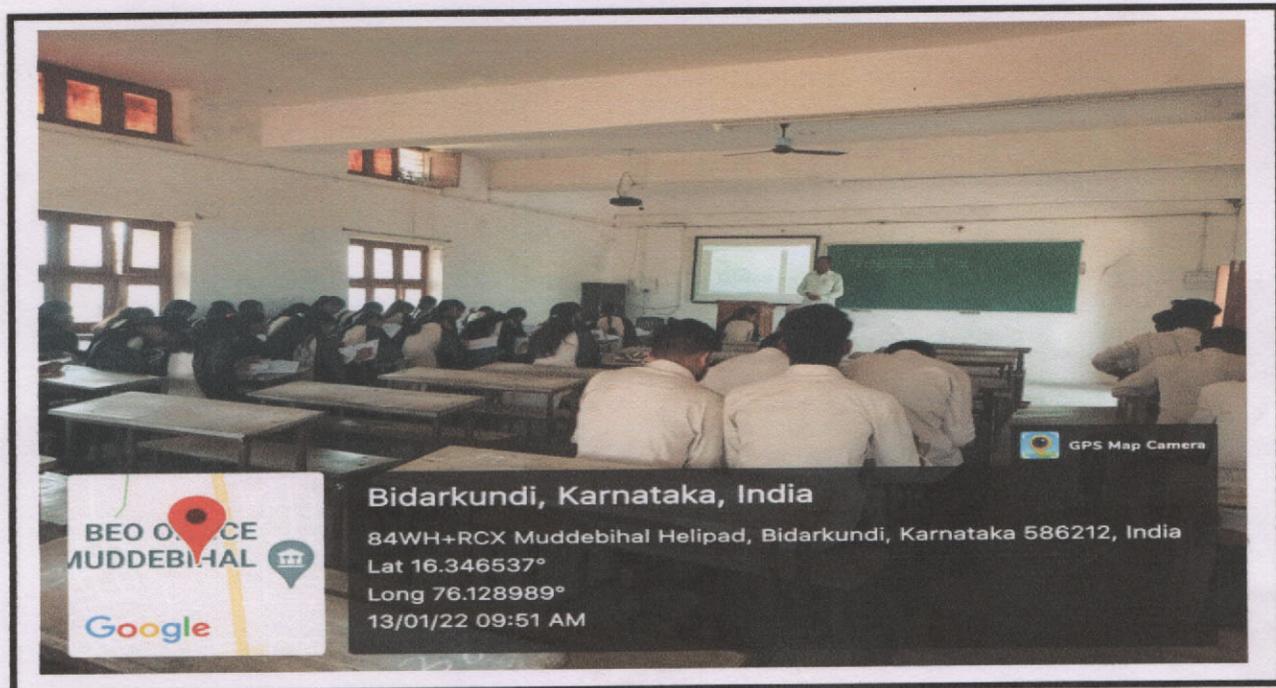
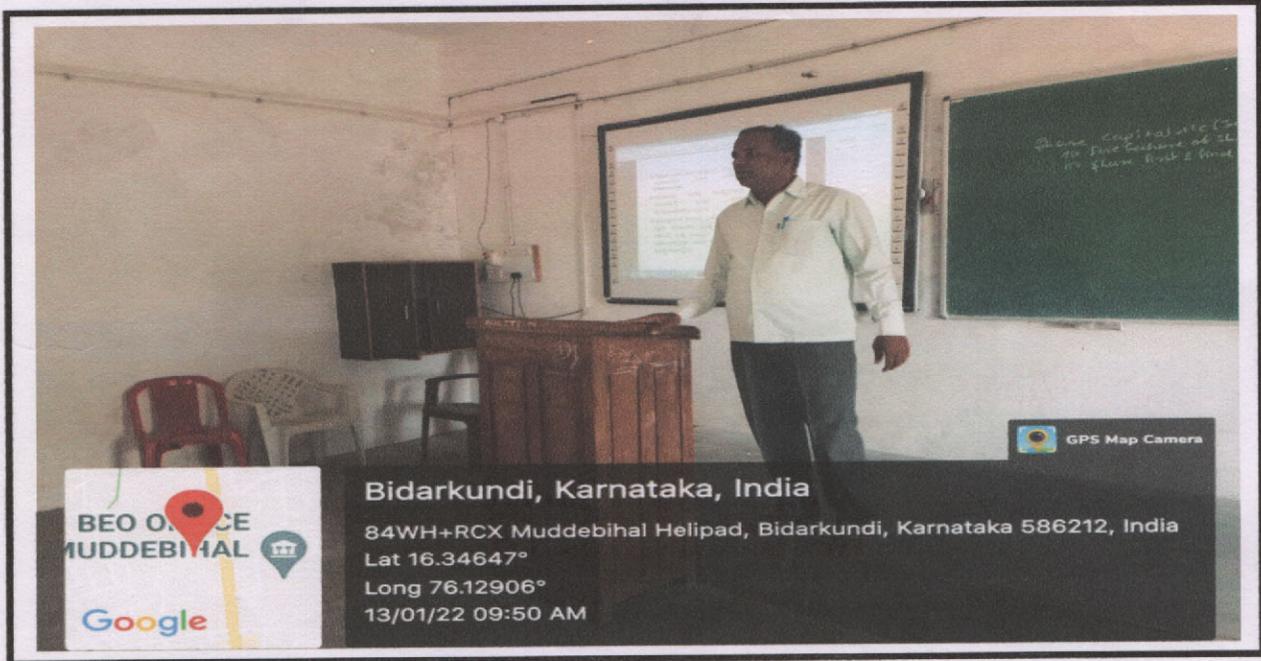
**Teachers Use ICT enabled tools for Effective teaching learning process**

**Name of the Staff Member: Prof. V.S.LAMANI**

**Class: B.Com III SEM**

**Date: 13.01.2022**

**Time: 9.30 -10.30 am**



*Co-ordinator,*

Internal Quality Assurance Cell  
M.G.V.C. Arts, Commerce & Science College  
MUDDEBIHAL-586212, Dist: Vijayapur.

*PRINCIPAL,*

**M. G. V. C. Arts, Com & Science College  
MUDDEBIHAL - 586212,**

## SARVAJNA

### Early life

The period of Sarvajña's life has not been determined accurately, and very little is known about his personal life. Based on studies of his literary style and the references by later writers, historians estimate that he may have lived during the first half of the 16th century. Some references in his works indicate that his real name was **Pushpadatta** - Sarvajña appears to have been his **pseudonym**. From information gleaned from his poems, historians believe that his father, a Veerashaiva-Lingayat, met his mother, named Mali in present-day Haveri district (formerly part of Dharwad district) of Karnataka state on his way to **Benares** while on a pilgrimage. Sarvajña upheld the wisdom of pastoral life in rural areas in his poems and tried to persuade villagers to give up superstition, meaningless customs and traditions.

### ಜನನ ಮತ್ತು ಬಾಲ್ಯ

- ಸರ್ವಜ್ಞ ಜನಿಸಿದ್ದು ಇಂದಿನ ಹಾವೇರಿ ಜಿಲ್ಲೆಯ ಹಿರೇಕೆರೂರ ತಾಲ್ಲೂಕು ಅಬಲೂರು. ಇದು ಈಗ ಸರ್ವಜ್ಞನ ಅಬಲೂರ ಎಂದೇ ಪ್ರಸಿದ್ಧಿ ಪಡೆದಿದೆ.
- ಅವನ ಹೆತ್ತಮ್ಮ ಕುಂಬಾರ ಮಾಳೆ, ಪ್ರೀತಿಯಿಂದ ನಾಮಕರಣ ಮಾಡಿದ ಹೆಸರು -ಪುಷ್ಪದತ್ತ. ಸಾಕು ತಾಯಿ ಮಲ್ಲಕ್ಕ. ತಂದೆ ಬಸವರಸ. ಹಾವೇರಿ ಜಿಲ್ಲೆಯ ಹಿರೇಕೆರೂರು ತಾಲ್ಲೂಕು ಮಾಸೂರಿನಲ್ಲಿ ವಾಸವಾಗಿದ್ದ ಆರಾಧ್ಯ ಬ್ರಾಹ್ಮಣ, ಬಸವರಸನು, ಎಷ್ಟು ದಿನಗಳಾದರೂ ಮಕ್ಕಳಾಗದಿದ್ದಾಗ ಮಲ್ಲಮ್ಮನನ್ನು ಸಮಾಧಾನ ಮಾಡಿ, ಪುತ್ರಸಂತಾನದ ವರ ಪಡೆಯಲು ಕಾಶೀ ಕ್ಷೇತ್ರಕ್ಕೆ ಹೊರಡುತ್ತಾನೆ.
- ಭಕ್ತಿಯಿಂದ ಸೇವೆ ಮಾಡಿದ ಬಸವರಸನಿಗೆ ಕಾಶಿ ವಿಶ್ವನಾಥನು ಕನಸಿನಲ್ಲಿ ಪ್ರತ್ಯಕ್ಷನಾಗಿ, 'ನಿನಗೆ ಪುತ್ರಪ್ರಾಪ್ತಿಯಾಗುವುದು. ಹುಟ್ಟುವ ಮಗನು ನನ್ನ ಪ್ರಸಾದದಿಂದ ಮಹಾಜ್ಞಾನಿಯಾಗುವನು' ಎಂದು ಹೇಳಲು ಆನಂದಭರಿತನಾದ ಬಸವರಸನು, ಪ್ರಾತಃಕಾಲದಲ್ಲಿ ಎದ್ದು, ಪವಿತ್ರ ಗಂಗಾಸ್ನಾನ ಮಾಡಿ, ವಿಶ್ವನಾಥನನ್ನು ಅರ್ಚಿಸಿ, ಪ್ರಸಾದಗಳೊಂದಿಗೆ ತನ್ನ ಗ್ರಾಮದ ಹಾದಿ ಹಿಡಿದನು.
- ಹಗಲಿರುಳು ಪ್ರಯಾಣ ಮಾಡಿ ಅನೇಕ ಗ್ರಾಮಗಳಲ್ಲಿ ವಿಶ್ರಮಿಸಿ, ದಾರಿಯಲ್ಲಿ ಸಿಕ್ಕ 'ಅಂಬಲೂರ ಎಂಬ ಗ್ರಾಮಕ್ಕೆ ಬರುವಾಗ ಭಯಂಕರ ಗುಡುಗು, ಸಿಡಿಲುಗಳಿಂದ ಮಳೆ ಸುರಿಯುತ್ತಿತ್ತು. ಸಮೀಪದಲ್ಲಿದ್ದ ಕುಂಬಾರಸಾಲೆಯಲ್ಲಿ ಕುಂಬಾರ ಮಾಳೆ ಎಂಬುವಳ ಮನೆಯಲ್ಲಿ ವಸತಿ ಮಾಡಿದನು. ಕಾಲಧರ್ಮ ಸಂಯೋಗದಿಂದ ಮಾಳೆಯಲ್ಲಿ ವ್ಯಾಮೋಹಗೊಂಡ ಬಸವರಸನಿಗೆ ಕಾಮ ವಿಕಾರವಾಯಿತು.
- ಕಾಶಿಯಿಂದ ತಂದ ತೀರ್ಥ ಪ್ರಸಾದಗಳನ್ನು ಕೊಟ್ಟು ಅವಳ ಸಂಗ ಮಾಡಿದನು. ೯ ತಿಂಗಳ ನಂತರ ಮಾಳೆ ದಿವ್ಯ ತೇಜಸ್ಸಿನ ಗಂಡು ಕೂಸಿಗೆ ಜನ್ಮವಿತ್ತಳು. 'ಪುಷ್ಪದತ್ತ'ನೆಂದು ನಾಮಕರಣವೂ ಆಯಿತು. ಮುಂದೆ ಈ ಮಗುವೇ ಜಗತ್ತಿಗೆ ಸರ್ವಜ್ಞನೆಂದು ಪ್ರಸಿದ್ಧಿಯಾದನು. ಬಾಲ್ಯದಲ್ಲಿಯೇ ಅಗಾಧವಾದ ಪಾಂಡಿತ್ಯವನ್ನು ಶಿವನ ವರಪ್ರಸಾದದಿಂದ ಪಡೆದಿದ್ದನು.
- ತಂದೆ ತಾಯಿಗಳಿಂದ ಅಗಲಿ ಪುಣ್ಯಕ್ಷೇತ್ರಗಳನ್ನೂ ಗುರುಮಠಗಳನ್ನೂ ಭೇಟಿ ಮಾಡಿ ಜ್ಞಾನಾರ್ಜನೆ ಮಾಡಿದನು. ಎಲ್ಲಾ ಶಾಸ್ತ್ರಗಳ ಜ್ಞಾನವನ್ನು ಸಂಪಾದಿಸಿದನು. ಅವನ ಜನಪ್ರಿಯ ವಚನಗಳು ಅವನ ಬಗ್ಗೆ ಸಾಕಷ್ಟು ಮಾಹಿತಿಗಳನ್ನು ಒದಗಿಸಿವೆ. ಅವನು ರಚಿಸಿದ ತ್ರಿಪದಿಗಳಿಗೆ ಲೆಕ್ಕವಿಲ್ಲ. ಅವನು ಆಶುಕವಿಯಾದ್ದರಿಂದ, ಎಷ್ಟೋ ಕವನಗಳು ಅವನ ಸ್ಮೃತಿಯಲ್ಲೇ ಉಳಿದಿರಬಹುದು. ಸುಮಾರು 2,020 ವಚನಗಳು ಲಭ್ಯವಾಗಿದೆಯೆಂದು ತಜ್ಞರ ಅಭಿಪ್ರಾಯ.

  
Co-ordinator,

Internal Quality Assurance Cell  
M.G.V.C. Arts, Commerce & Science College  
MUDDEBIHAL-586212. Dist: Vijayapur.

  
PRINCIPAL,

M. G. V. C. Arts, Com. & Science College  
MUDDEBIHAL - 586212.



S. G. V. C. Vidya Prasarak Trust's,  
**MATOSHRI GANGAMMA VEERAPPA CHINIWAR**  
**ARTS, COMMERCE & SCIENCE COLLEGE, MUDEBIHAL.**



**ATTENDANCE REPORT**

Name of the Event : Sarvana (Pooja)

Class : B.Com.-III Date : 13-01-2022 Time : 9:30 to 10:30

| SL.NO.   | NAME                         | SIGNATURE          |
|----------|------------------------------|--------------------|
| C2059653 | Shilpa, S. Hiregoudar        | Shilpa             |
| C2059606 | Anita .B. Hinemath           | A.B. Hinemath      |
| C2059618 | Channamma, N, Talikoti       | C, N, Talikoti     |
| C2059651 | Shakuntala S Shivayogi       | S.S. Shivayogi     |
| C2059645 | Renuka G. Madar              | Rmadar             |
| C2059643 | Rashmi. I. Biradar           | Rashmi             |
| C2059658 | Soumyashree S. Potil         | S. S. Potil        |
| C2059634 | Pallavi .P. Hiremath         | Pallavi            |
| C2059636 | pavitra. S. Adaman.          | Pavitra            |
| C2059649 | Sanam, Chapparband           | Sanam              |
| C2059614 | Basamma. B, Myageri          | Basamma, B.M       |
| C2059616 | Basamma P. Choudari          | B.P. Choudari      |
| C2059637 | pavitra, y. Satihal          | p.y. Satihal.      |
| C2059608 | Anusha, A. Kusti             | Anusha             |
| C2059659 | Suchita. K. Petwad           | Suchita            |
| C2059665 | vijayalakshmi. S. Hunashyal. | V. S. Hunashyal.   |
| C2059602 | Akshata .B. Hiremath         | Akshata            |
| C2059633 | Nivedita, S. Ambige          | N. S. Ambige       |
| C2059664 | Veena S Goudar               | Veena              |
| C2059603 | Akshata M. Lingadalli        | A. M. Lingadalli   |
| C2059612 | Ashwini, M. Vidagundi        | Ashwini            |
| C2059605 | Ambilca S, Hariwal           | Ambilca            |
| C2059641 | Prema. S. Nerabenchi         | Prema.S.Nerabenchi |
| C2059609 | Anusha .v. Deshpande         | Anusha             |
| C2059631 | Muskan Bhagavan              | Muskan M.B         |
| C2059663 | Taskin. H. Choudri           | T. H. Choudri      |

| SL.NO.   | NAME   | SIGNATURE   |
|----------|--|---|
| C2059640 | Praveen. P. Hiremath   | P. P. Hiremath  |
| C2059658 | Shivaraj. S. Hatti   |   |
| C2059660 | Sudeep. S. Patil   |   |
| C2059628 | Moulali. M. Chappaoband  |   |
| C2059601 | Abishek Biradar  |   |
| C2059657 | Siddappa Emmi  |   |
| C2059635 | Parshuram Rathod   |   |
| C2059632 | Praveen. Biradar   | P. M. Biradar   |
| C2059639 | maulasab humagunda   | maulasab  |
| C2059666 | vishh. M. Surapur  |   |
| C2059630 | Mounesh. H. Badiger  |   |
| C2059613 | Aspatk. I. Yalagi  |   |
|          | <br>Co-ordinator,<br>Internal Quality Assurance Cell<br>M.G.V.C. Arts, Commerce & Science College<br>MUDDEBIHAL-586212. Dist: Vijayapur. | <br>PRINCIPAL,<br>M. G. V. C. Arts, Com. & Science College,<br>MUDDEBIHAL - 586212. |



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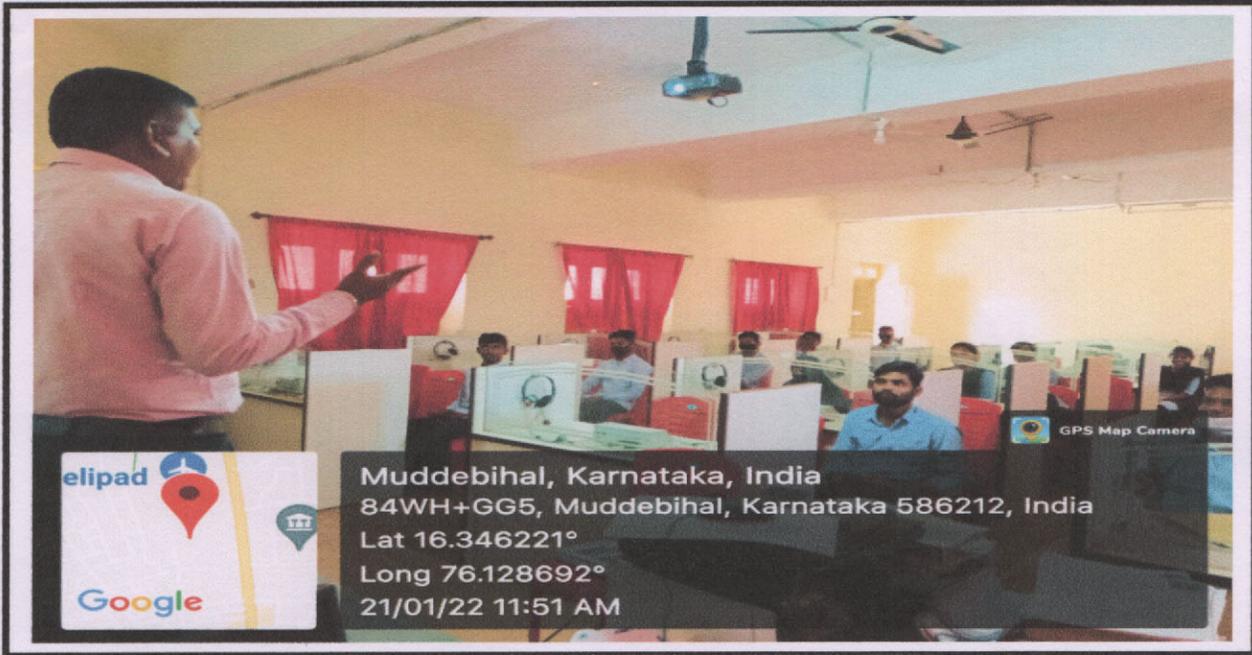
**M.G.V.C ARTS, COMMERCE AND SCIENCE COLLEGE  
MUDDEBIHAL**

**DEPARTMENT OF POL- SCIENCE**

**Teachers Use ICT enabled tools for Effective teaching learning process**

**Name of the Staff Member: Prof. S H NATIKAR**

**Class: B.A V SEM    Date: 21.01.2022    Time 11.30 -12.30 PM**



*S. H. Natar*  
**Co-ordinator,**

**Internal Quality Assurance Cell  
M.G.V.C. Arts, Commerce & Science College  
MUDDEBIHAL-586212. Dist: Vijayapur.**

*S. H. Natar*  
**PRINCIPAL,**

**M.G.V.C. Arts, Commerce & Science College  
MUDDEBIHAL-586212. Dist: Vijayapur.**



S.G.V.C Vidya Prasarak Trust's

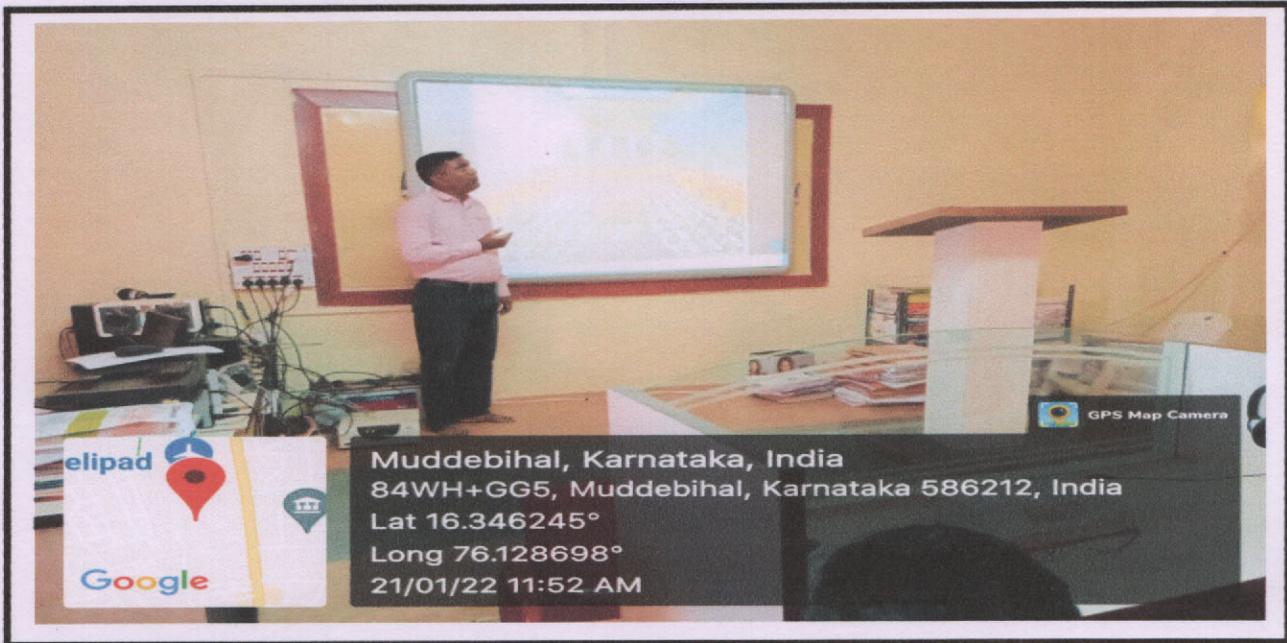
**M.G.V.C ARTS, COMMERCE AND SCIENCE COLLEGE  
MUDDEBIHAL**

**DEPARTMENT OF POL- SCIENCE**

**Teachers Use ICT enabled tools for Effective teaching learning process**

**Name of the Staff Member: Prof. S H NATIKAR**

**Class: B.A V SEM    Date: 21.01.2022    Time 11.30 -12.30 PM**



*Coordinator,*  
Internal Quality Assurance Cell  
M.G.V.C. Arts, Commerce & Science College  
MUDDEBIHAL-586212. Dist: Vijayapur.

*Principal,*  
**PRINCIPAL,**  
M.G.V.C. Arts, Commerce & Science College  
MUDDEBIHAL-586212. Dist: Vijayapur.

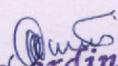


# Parliament of Great Britain

The **Parliament of Great Britain** was formed in May 1707 following the ratification of the Acts of Union by both the Parliament of England and the Parliament of Scotland. The Acts ratified the treaty of Union which created a new unified Kingdom of Great Britain and created the parliament of Great Britain located in the former home of the English parliament in the Palace of Westminster, near the City of London. This lasted nearly a century, until the Acts of Union 1800 merged the separate British and Irish Parliaments into a single Parliament of the United Kingdom with effect from 1 January 1801.

Following the Treaty of Union in 1706, Acts of Union ratifying the Treaty were passed in both the Parliament of England and the Parliament of Scotland, which created a new Kingdom of Great Britain.<sup>[1][2]</sup> The Acts paved the way for the enactment of the treaty of Union which created a new parliament, referred to as the 'Parliament of Great Britain', based in the home of the former English parliament. All of the traditions, procedures, and standing orders of the English parliament were retained, although there is no provision for this within the treaty, and to this day this is a contentious issue, as were the incumbent officers, and members representing England comprised the overwhelming majority of the new body. It was not even considered necessary to hold a new general election. While Scots law and Scottish legislation remained separate, new legislation was thereafter to be enacted by the new parliament, with the exception of that pertaining to private right which could only be legislated on for the "evident utility" of the people.

After the Hanoverian King George I ascended the British throne in 1714 through the Act of Settlement of 1701, real power continued to shift away from the monarchy. George was a German ruler, spoke poor English, and remained interested in governing his dominions in continental Europe rather than in Britain. He thus entrusted power to a group of his ministers, the foremost of whom was Sir Robert Walpole, and by the end of his reign in 1727 the position of the ministers – who had to rely on Parliament for support – was cemented. George I's successor, his son George II, continued to follow through with his father's domestic policies and made little effort to re-establish monarchical control over the government which was now in firm control by Parliament. By the end of the 18th century the monarch still had considerable influence over Parliament, which was dominated by the English aristocracy, by means of patronage, but had ceased to exert direct power: for instance, the last occasion on which the Royal Assent was withheld was in 1708 by Queen Anne.

  
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M.G.V.C. Arts, Commerce & Science College  
MUDDEBIHAL-586212. Dist: Vijayapur



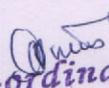
# House of Lords

The **House of Lords**, formally **The Right Honourable the Lords Spiritual and Temporal of the United Kingdom of Great Britain and Northern Ireland in Parliament assembled**,<sup>[2]</sup> is the second chamber of the Parliament of the United Kingdom.<sup>[3]</sup> Membership is by appointment, heredity or official function. Like the House of Commons, it meets in the Palace of Westminster.<sup>[4][5]</sup>

The House of Lords scrutinises bills that have been approved by the House of Commons.<sup>[6]</sup> It regularly reviews and amends Bills from the Commons.<sup>[7]</sup> While it is unable to prevent Bills passing into law, except in certain limited circumstances,<sup>[8]</sup> it can delay Bills and force the Commons to reconsider their decisions.<sup>[9]</sup> In this capacity, the House of Lords acts as a check on the more powerful House of Commons that is independent from the electoral process.<sup>[10][11][12]</sup> While members of the Lords may also take on roles as government ministers, high-ranking officials such as cabinet ministers are usually drawn from the Commons. The House of Lords does not control the term of the prime minister or of the government.<sup>[13]</sup> Only the lower house may force the prime minister to resign or call elections.

While the House of Commons has a defined number of members, the number of members in the House of Lords is not fixed. Currently, it has 772 sitting members. The House of Lords is the only upper house of any bicameral parliament in the world to be larger than its lower house,<sup>[14]</sup> and is the second-largest legislative chamber in the world behind the Chinese National People's Congress.

The Queen's Speech is delivered in the House of Lords during the State Opening of Parliament. In addition to its role as the upper house, until the establishment of the Supreme Court in 2009, the House of Lords, through the Law Lords, acted as the final court of appeal in the United Kingdom judicial system.<sup>[15]</sup> The House also has a Church of England role, in that Church Measures must be tabled within the House by the Lords Spiritual.

  
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**PRINCIPAL,**  
M.G.V.C. Arts, Commerce & Science College  
MUDDEBIHAL-586212. Dist: Vijayapur.

Block No. ....

Sri G.M.S.C. Vidya Prasarak Trust's

Room No : .....

01 1562 ylavirv

**MATOSHRI GANGAMMA VEERAPPA CHINIWAR  
ARTS, COMMERCE & SCIENCE COLLEGE, MUDDEBIHAL.**

Subject : .....

Date : .....

Time : .....

Class : .....

**ATTENDANCE REPORT**

Jr. Supervisor : .....

**DEGREE****SEMESTER EXAMINATION 202 - 202**

| Roll No. | University Seat No. | Name of the Candidate  | Signature      |
|----------|---------------------|------------------------|----------------|
| 1)       | A1950629            | Sudha. S. Rathod       | S. S. Rathod   |
| 2        | A1950548            | Ratnamma Handarajale   | Ratnamma       |
| 3)       | A1950424            | Ashwini. Y. Chalavadi  | Ashwini        |
| 4)       | U15NU21A0018        | Bhagyelaxmi. P. Pujari | B. P. Pujari   |
| 5)       | U15NU21A0158        | Vaishnavi. A. Cholan   |                |
| 6        | U15NU21A0058        | Supriya. S. Rathod     | S. S. Rathod.  |
| 7)       | U15NU21A0105        | Soundarya I. Belal     | S I Belal      |
| 8        | A1950597            | S. H. Manamasagar      |                |
| 9)       | A1950483            | Laxmya. G. Joshi       | L. G. Joshi    |
|          | A1950456            | Gangamma. S. S         | Gangamma       |
| 10)      | U15NU21A0078        | Rajashree. M. Pattar   | Rajashree      |
| 11)      | A1950403            | Akshata. B. Balawat    |                |
| 12)      | U15NU21A0079        | Lakshmi. S. Ramatal    | Lakshmi        |
| 13)      | A1950459            | Hanamant. B. M.        |                |
| 14)      | A1950518            | Naveen Chalavadi       | Naveen         |
| 15)      | A1950519            | Neelamma. Patil        | N. Patil.      |
| 16)      | A1950441            | Chandrakanta           | Chandrakanta   |
| 17)      | A1950576            | Sandeep Patil          | Sandeep        |
| 18)      | A1950409            | Ambresh. S. Rathod     |                |
| 19)      | A1950447            | CHE TAN RATHOD         | Che Tan Rathod |
| 20)      | U15NU21A0024        | Vinod. R. Chavan       | V. Chavan      |
| 21)      | U15NU21A0027        | Nikhil. Jadhav         |                |

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Number of Candidates Present

Number of Candidates Absent



S.G.V.C Vidya Prasarak Trust's

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**DEPARTMENT OF URDU**

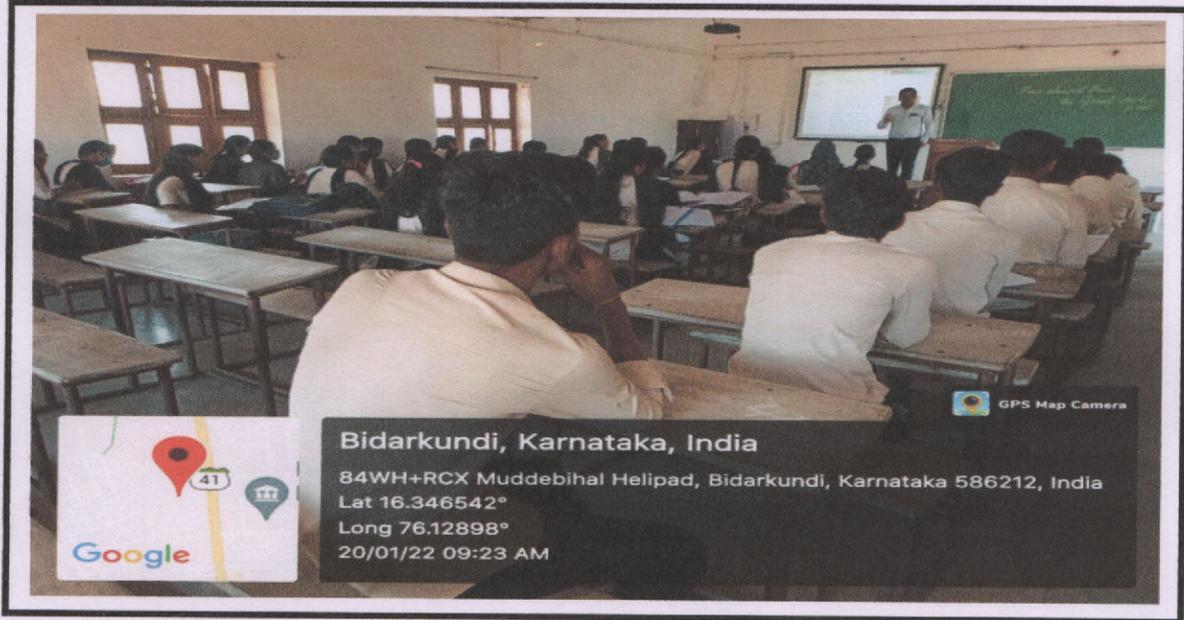
**Teachers Use ICT enabled tools for Effective teaching learning process**

**Name of the Staff Member: Dr. A.A. MULLA**

**Class: B.Sc I & III SEM**

**Date: 20.01.2022**

**Time: 8.30 -9.30 am**



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Internal Quality Assurance Cell  
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**M.G.V.C ARTS, COMMERCE AND SCIENCE COLLEGE  
MUDDEBIHAL**

**DEPARTMENT OF URDU**

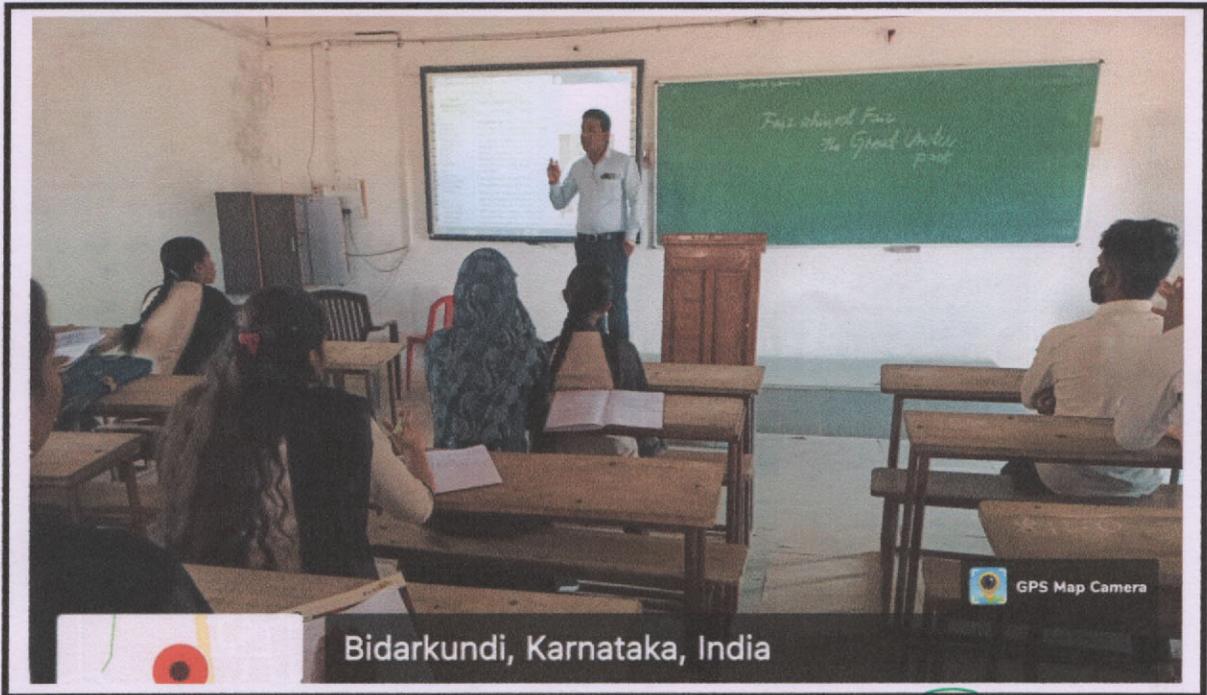
**Teachers Use ICT enabled tools for Effective teaching learning process**

**Name of the Staff Member: Dr. A.A. MULLA**

**Class: B.Sc I & III SEM**

**Date: 20.01.2022**

**Time: 8.30 -9.30 am**



*Dr. A.A. Mulla*  
**Co-ordinator,**  
Internal Quality Assurance Cell  
M.G.V.C. Arts, Commerce & Science College  
MUDDEBIHAL-586212. Dist: Vijayapur.

*Dr. A.A. Mulla*  
**PRINCIPAL,**  
M.G.V.C. Arts, Commerce & Science College  
MUDDEBIHAL-586212. Dist: Vijayapur.

# Faiz Ahmad Faiz

**Faiz Ahmad The Hero**

NI LPP MBE



|                    |   |
|--------------------|---|
| <b>Native name</b> | فیض احمد فیض  |
| <b>Born</b>        | Faiz Ahmad Faiz<br>13 February 1911<br>Sialkot District, Punjab, British India (present-day Faiz Qader, Punjab, Pakistan) |
| <b>Died</b>        | 20 November 1984 (aged 73)<br>Lahore, Punjab, Pakistan  |
| <b>Occupation</b>  | poet, journalist and Army officer   |
| <b>Language</b>    | Urdu<br>Punjabi   |
| <b>Nationality</b> | British Indian (1911–1947) Pakistani (1947–1984)  |
| <b>Education</b>   | Arabic literature<br>B.A., MA   |

English literature

Master of Arts

**Alma mater** Murray College at Sialkot  
Government College University  
Punjab University

**Genre** *Ghazal, Nazm*

**Subject** Revolution, justice, love, respect

**Literary movement** Progressive Writers' Movement  
Communist Party of Pakistan

**Notable works** *Subh-e-Azadi*  
*Naqsh-e-Faryadi*  
*Dast-e-Sabah*  
*Zindan-nama*

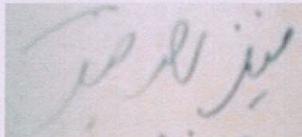
**Notable awards** Nigar Awards (1953)  
Lenin Peace Prize (1962)<sup>11</sup>  
HRC Peace Prize  
Nishan-e-Imtiaz (1990)<sup>11</sup>  
Avicenna Prize (2006)

**Spouse** Alys Faiz

**Children** Salima (b. 1942)  
Muneeza (b. 1945)

**Relatives** Shoaib Hashmi (Son in Law)

**Signature**



## Faiz Ahmad Faiz

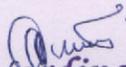


(13 February 1911 – 20 November 1984) was a Pakistani poet, and author in Urdu and Punjabi language. He was one of the most celebrated writers of the Urdu language in Pakistan. Outside literature, he has been described as "a man of wide experience" having been a teacher, an army officer, a journalist, a trade unionist and a broadcaster.<sup>[2]</sup>

Faiz was nominated for the Nobel Prize in Literature and won the Lenin Peace Prize.

Born in Punjab, British India, Faiz went on to study at Government College and Oriental College.<sup>[4]</sup> He went on to serve in the British Indian Army. After Pakistan's independence, Faiz became the editor to *The Pakistan Times* and a leading member of the Communist Party before being arrested in 1951 as an alleged part of conspiracy to overthrow the Liaquat administration and replace it with a left-wing government.<sup>[5]</sup>

Faiz was released after four years in prison and went on to become a notable member of the Progressive Writers' Movement and eventually an aide to the Bhutto administration, before being self-exiled to Beirut.<sup>[6]</sup> Faiz was an avowed Marxist, and he received the Lenin Peace Prize by the Soviet Union in 1962. His work remains influential in Pakistan literature and arts. Faiz's literary work was posthumously publicly honoured when the Pakistan Government conferred upon him the nation's highest civil award, *Nishan-e-Imtiaz*, in 1990.<sup>[8]</sup>

  
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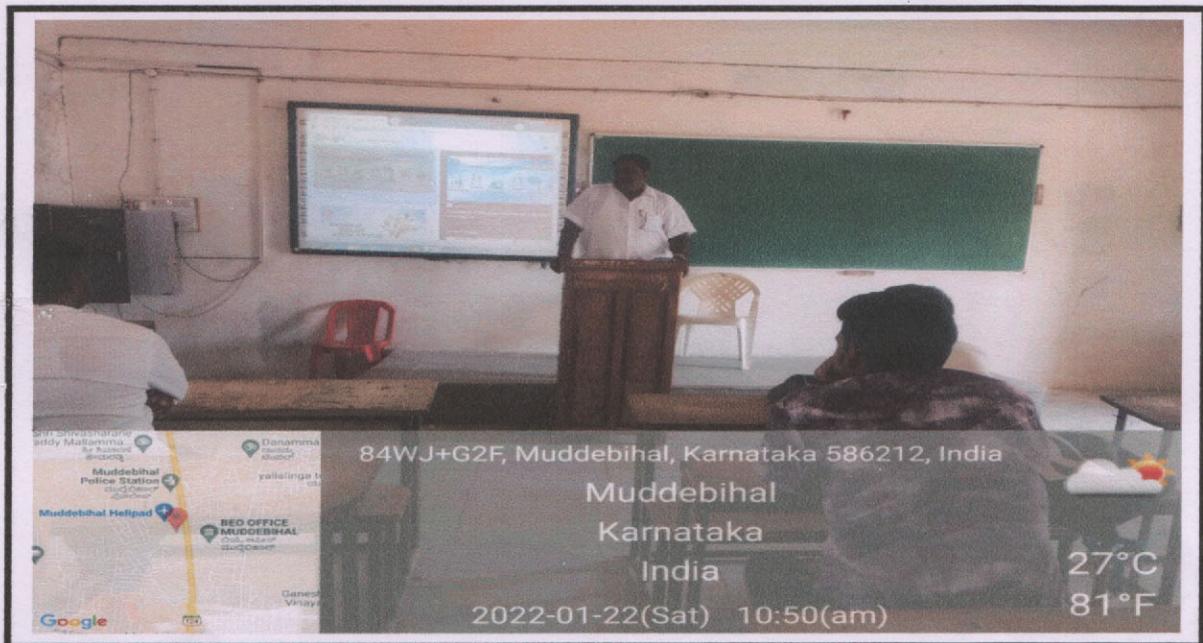
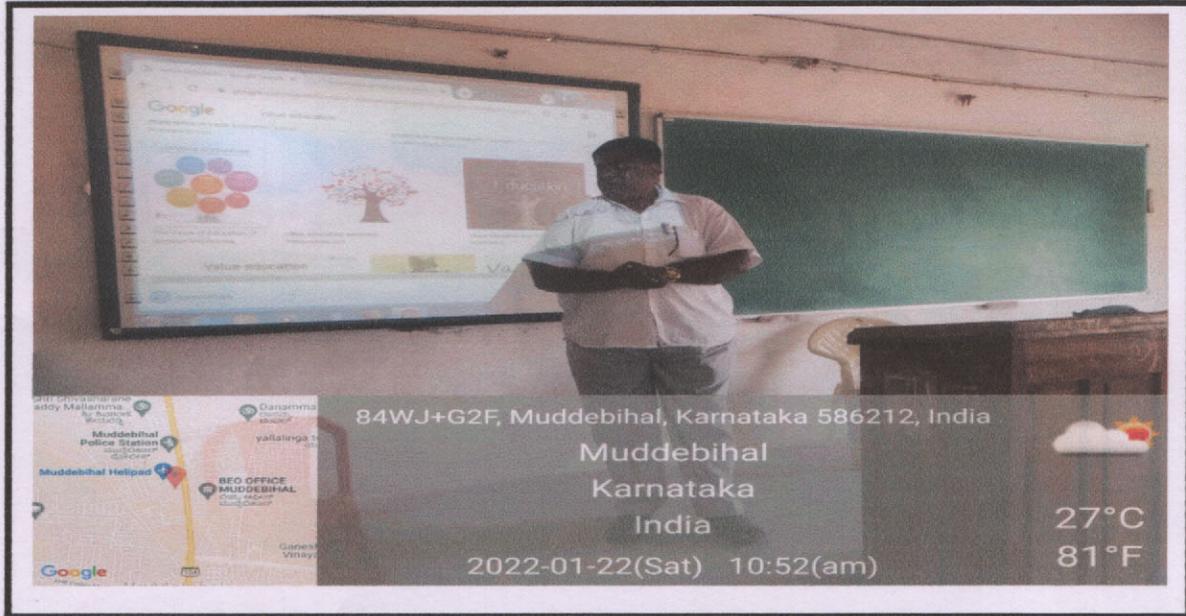
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**Name of the Staff Member: Prof. S S HUGAR**

**Class: B.A V SEM**

**Date: 22.01.2022**

**Time 10.45 -11.45 AM**



*[Signature]*  
**Co-ordinator,**  
**Internal Quality Assurance Cell**  
**M.G.V.C. Arts, Commerce & Science College**  
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*[Signature]*  
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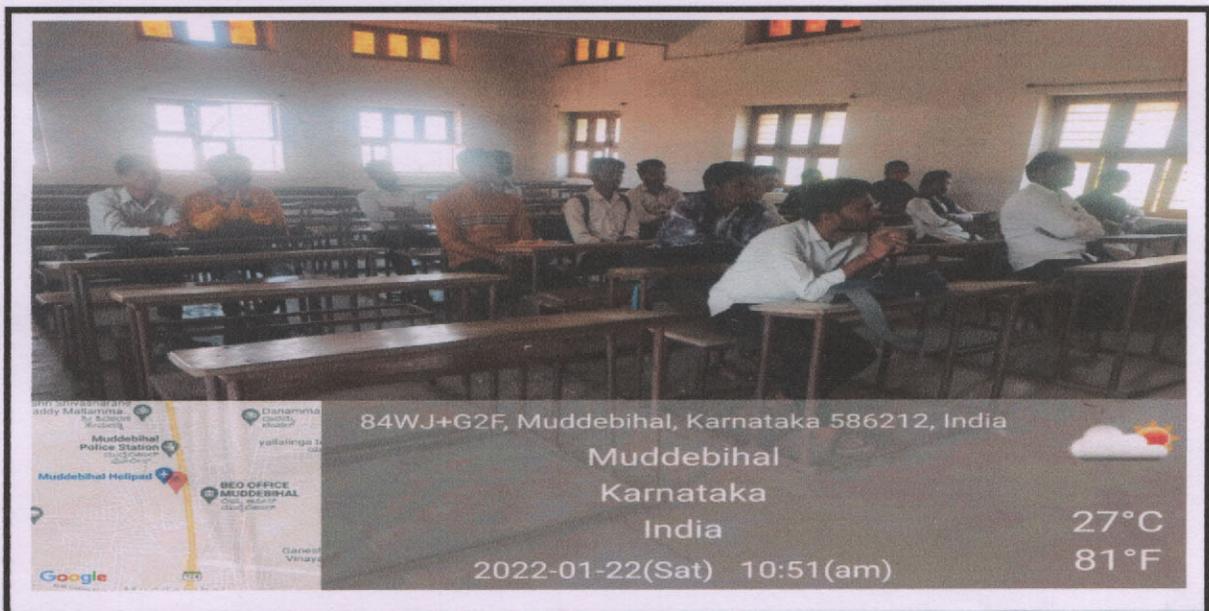
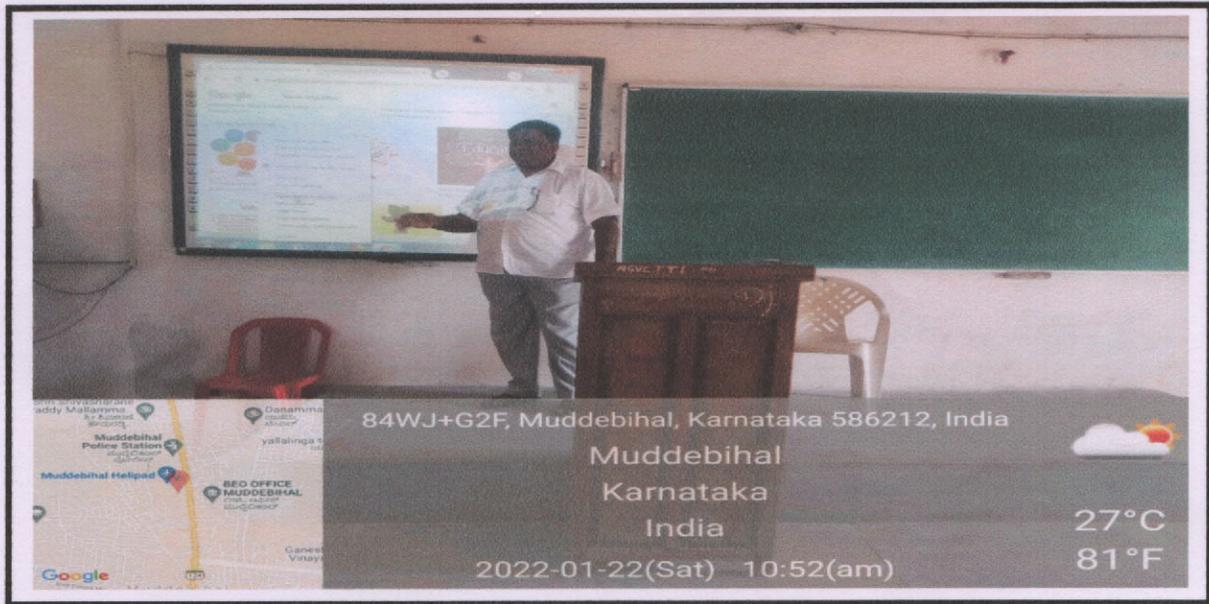
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Name of the Staff Member: Prof. S S HUGAR

Class: B.A V SEM

Date: 22.01.2022

Time 10.45 -11.45 AM



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Internal Quality Assurance Cell  
M.G.V.C. Arts, Commerce & Science College  
MUDDEBIHAL-586212. Dist: Vijayapur.

*Principal,*  
M.G.V.C. Arts, Com. & Science College  
MUDDEBIHAL - 586212.

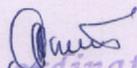


## Values education

**Education value** is the process by which people give moral values to each other. According to Powney et al. It can be an activity that can take place in *any* human organization. during which people are assisted by others, who may be older, in a condition experienced to make explicit our ethics in order to assess the effectiveness of these values and associated behavior for their own and others' long term well-being, and to reflect on and acquire other values and behaviour which they recognise as being more effective for long term well-being of self and others. There is a difference between literacy and education.

There has been very little reliable research on the results of values education classes, but there are some encouraging preliminary results.

One definition refers to it as the process that gives young people an initiation into values, giving knowledge of the rules needed to function in this mode of relating to other people and to seek the development in the student a grasp of certain underlying principles, together with the ability to apply these rules intelligently, and to have the settled disposition to do so, Some researchers use the concept values education as an umbrella of concepts that includes moral education and citizenship education Themes that values education can address to varying degrees are character, moral development, Religious Education, Spiritual development, citizenship education, personal development, social development and cultural development.

  
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MUDDEBIHAL - 586212.

Block No. ....

Room No. ....



S. G. V. C. Vidya Prasarak Trust's,

# MATOSHRI GANGAMMA VEERAPPA CHINIWAR ARTS, COMMERCE & SCIENCE COLLEGE, MUDEBIHAL

Subject : Education Date : 22-01-2022 Time : .....Class : B.A. IV Sem **ATTENDANCE REPORT** Jr. Supervisor : .....

## DEGREE BA IV SEMESTER EXAMINATION 2020-2021

| Roll No. | University Seat No. | Name of the Candidate | Signature     |
|----------|---------------------|-----------------------|---------------|
|          | A1950517            | Nandini. R. Tadawar   | N.R. Tadawar  |
|          | A1950499            | Manjula. J. Waddar    | M. J. Waddar  |
|          | A1950631            | Sunanda. S. Poojeri   | S. S. Poojeri |
|          | A1950405            | Aishata. B. Poojeri   | A. B. Poojeri |
|          | A1950423            | Aswini Chittawadgi    | Aswini        |
|          | A1950545            | Ramekh. Firang        | Ramekh        |
|          | A1950610            | Shivaraj Walikar      | Shivaraj      |
|          | A1950648            | V. Shal. Patil        | V. S. Patil   |
|          | A1950571            | Manjamma Chalawad     | Manjamma      |
|          | A1950586            | Santosh. Mamai        | S. M. Mamai   |
|          | " 549               | Ravi Walikar          | Ravi          |
|          | " 526               | Parasappa. Madu       | Parasappa     |

*Quis*  
Co-ordinator,

Internal Quality Assurance Cell  
M.G.V.C. Arts, Commerce & Science College  
MUDEBIHAL-586212. Dist: Vijayapur.

*Principal*  
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MUDEBIHAL - 586212.





S. G. V. C. Vidya Prasarak Trust

M.G.V.C. Arts, Commerce and Science College Muddebihal

**DEPARTMENT OF SOCIOLOGY**

Teachers Use ICT Enabled tools for Effective teaching learning process

Name of the staff member: Dr. S. B. Jadhav.

**TOPIC : JYOTIBA PHULE**

Class :B.A. III rd Semester

Date: 20/01/2022

Time: 08:30 To 09:30

84WH+GG5, Muddebihal, Karnataka 586212, India  
 Muddebihal  
 Karnataka  
 India  
 2022-01-20(Thu) 09:13(AM)  
 24°C  
 75°F

84WH+GG5, Muddebihal, Karnataka 586212, India  
 Muddebihal  
 Karnataka  
 India  
 2022-01-20(Thu) 09:14(AM)  
 24°C  
 75°F

*Co-ordinator,*  
Internal Quality Assurance Cell  
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MUDDEBIHAL-586212. Dist: Vijayapur.

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M.G.V.C. Arts, Commerce & Science College  
MUDDEBIHAL-586212. Dist: Vijayapur.

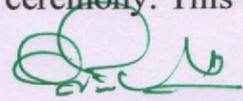


## TOPIC : JYOTIBA PHULE



Jyotirao Govindrao Phule was born in Pune in 1827 to a family that belonged to the Mali caste. The Malis traditionally worked as fruit and vegetable growers: in the four-fold *varna* system of caste hierarchy, they were placed within the *Shudras*, or the lowest-ranking group. Phule was named after God Jyotiba. He was born on the day of Jyotiba's annual festival. Phule's family, previously named *Gorhe*, had its origins in the village of Katgun, near the town of Satara. Phule's great-grandfather, who had worked there as a *chaughula*, or low-ranking village official, moved to Khanwadi in Pune district. There, his only son, Shetiba, brought the family into poverty. The family, including three sons, moved to Poona seeking employment. The boys were taken under the wing of a florist who taught them the secrets of the trade. Their proficiency in growing and arranging became well known and they adopted the name *Phule* (flower-man) in place of *Gorhe*. Their fulfillment of commissions from the Peshwa, Baji Rao II, for flower mattresses and other goods for the rituals and ceremonies of the royal court so impressed him that he granted them 35 acres (14 ha) of land on the basis of the *inam* system, whereby no tax would be payable upon it. The oldest brother machinated to take sole control of the property, leaving the younger two siblings, Jyotirao Phule's father, Govindrao, to continue farming and also flower-selling. Govindrao married Chimnabai and had two sons, of whom Jyotirao was the youngest. Chimnabai died before he was aged one. The Mali community did not make room for much by education, and after attending primary school to learn the basics of reading, writing, and arithmetic, Jyotirao was withdrawn from school. He joined the men folk of his family at work, both in the shop and the farm. However, a man from the same Mali caste as Phule recognized his intelligence and persuaded Phule's father to allow Phule to attend the local Scottish Mission High School. Phule completed his English schooling in 1847. As was customary, he was married young, at the age of 13, to a girl of his own community, chosen by his father. The turning point in his life was in 1848, when he attended the wedding of a Brahmin friend. Phule participated in the customary marriage procession, but was later rebuked and insulted by his friend's parents for doing that. They told him that he being from a Shudra caste should have had the sense to keep away from that ceremony. This incident profoundly affected Phule on the injustice of the caste system.

  
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MUDDEBIHAL-586212. Dist: Vijayapur.

Block No. ....

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Room No. ....

English Lab

**MATOSHRI GANGAMMA VEERAPPA CHINIWAR  
ARTS, COMMERCE & SCIENCE COLLEGE, MUDDABIHAL.**Subject : SociologyDate : 20/01/2021Time : 8:30 To 9:30Class : B.A. 3<sup>rd</sup> Sem.**ATTENDANCE REPORT**Jr. Supervisor P.P.T.

DEGREE \_\_\_\_\_ SEMESTER EXAMINATION 20 - 20

Presentation

| Roll No. | University Seat No. | Name of the Candidate | Signature              |
|----------|---------------------|-----------------------|------------------------|
| 1.       |                     | Supriya. S. Rathod    | S.S. Rathod.           |
| 2.       |                     | Mallikarjun, In Upmal | <u>Mallikarjun</u>     |
| 3        |                     | Laxmi P. Ranbenaren.  | <u>L.P.R.</u>          |
| 4        |                     | Pooja R Nayak         | <u>Pooja R Nayak</u>   |
| 5)       |                     | Laxmi, R. Nalattwad   | <u>Laxmi</u>           |
| 6)       |                     | Pooja. m. Hugar       | <u>Pooja</u>           |
| 7)       |                     | Laxmi, A. Malagond    | <u>Laxmi</u>           |
| 8)       |                     | pushpa. G. Dodamoni   | <u>pushpa</u>          |
| 9)       |                     | Ujashwini. B. meli    | <u>Ujashwini</u>       |
| 10)      |                     | savita S BiraDad      | <u>savita</u>          |
| 11)      |                     | Ashwini. D. Kusi      | <u>Ashwini</u>         |
| 12)      |                     | Ashif. A. madani      | <u>A.A. madani</u>     |
| 13)      |                     | Muttappa. H           | <u>Muttappa</u>        |
| 14)      |                     | Nagaraj B. Hiregoudra | <u>Nagaraj</u>         |
| 15)      |                     | Jashodha. A. Hadapad. | <u>J.A. Hadapad</u>    |
| 16)      |                     | Touship Bagewad       | <u>T.M. Bagewad</u>    |
| 17)      |                     | chitra Hanashyal.     | <u>C.S. Hanashyal.</u> |
| 18)      |                     | Hanamant Chalawad.    | <u>H.chalawadi.</u>    |
| 19)      |                     | Pooleshwi Koppad.     | <u>P.S. Koppad</u>     |
| 20)      |                     | Akshata Mandiyar.     | <u>A.S. Mandiyar.</u>  |
| 21)      |                     | Ameenabi Tamadal      | <u>A. Tamadaly</u>     |
| 22)      |                     | Basavaraj Bhavikatti  | <u>B. Bhavikatti</u>   |

Principal,



PRINCIPAL,

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S. G. V. C. Vidya Prasarak Trust

M.G.V.C. Arts, Commerce and Science College Muddebihal



## DEPARTMENT OF HINDI

Teachers Use ICT Enabled tools for Effective teaching learning process

Name of the staff member: Dr. S.C.Angadi

TOPIC : BAKARI [NATAK]

Class :B.A. Vth Semester

Date: 17/11/2021

Time: 10:30 am



*Dr. S.C. Angadi*  
Co-ordinator,  
Internal Quality Assurance Cell  
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MUDDEBIHAL-586212. Dist: Vijayapur.

*Dr. S.C. Angadi*  
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M.G.V.C. Arts, Commerce and Science College Muddebihal



**DEPARTMENT OF HINDI**

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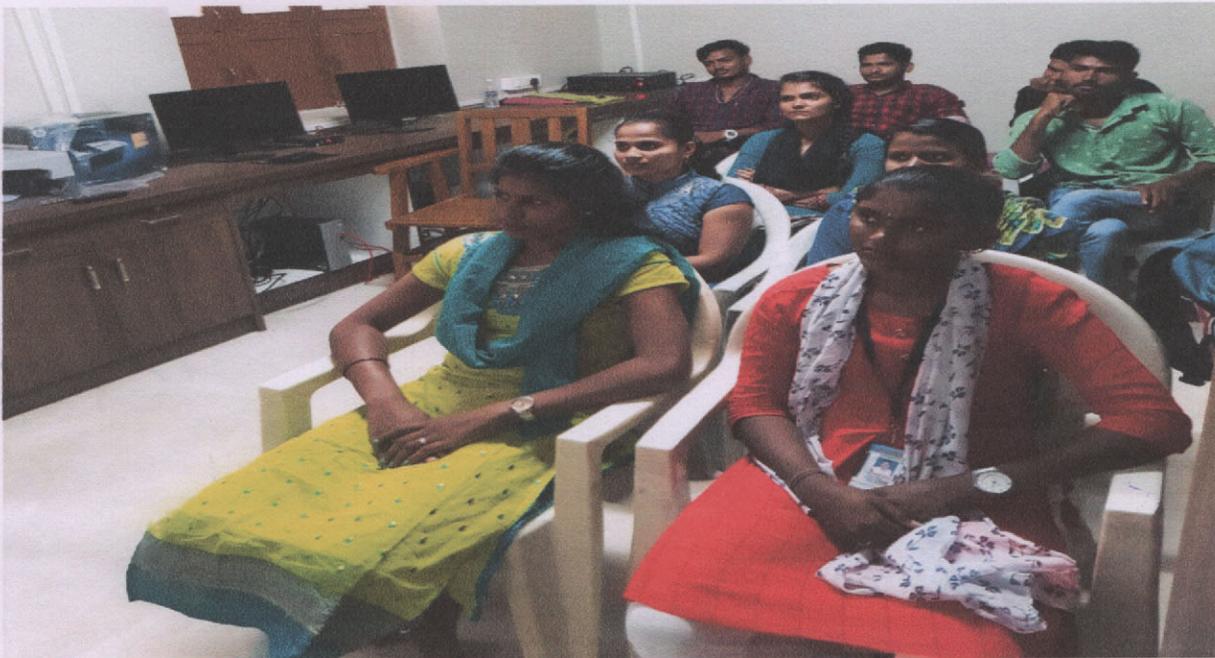
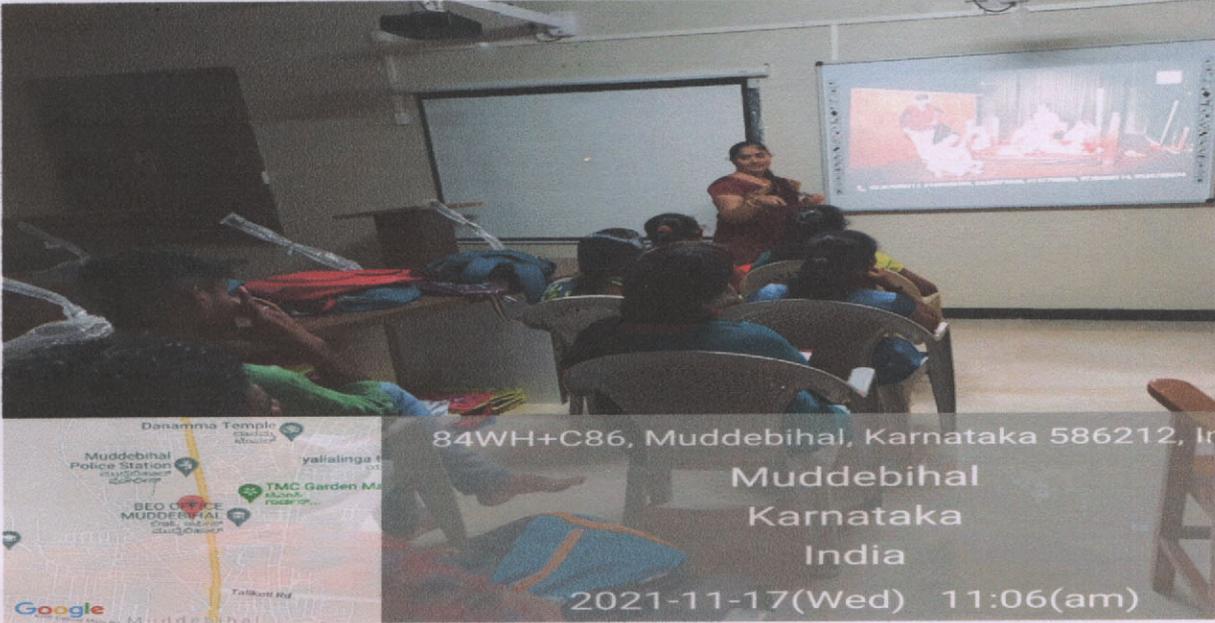
Name of the staff member: Dr. S.C.Angadi

**TOPIC : BAKARI [NATAK]**

Class :B.A. Vth Semester

Date: 17/11/2021

Time: 10:30 am



# बकरी नाटक



## बकरी नाटक का मुख्य बिंदु:

- इस नाटक के संबंध में सर्वेश्वरदयाल सक्सेना के कथन- “यह नाटक हमारी स्वाधीनता की तलछट का चित्र है व तलछट जो समय बीतने के साथ गहरी होती गई है।”
- ‘बकरी’ सर्वेश्वर दयाल सक्सेना जी का लिखा हुआ पहला नाटक है, जबकि प्रकाशन के हिसाब से यह दूसरा नाटक है। प्रकाशन के क्रम में ‘लड़ाई’ इनकी पहली नाटक है।
- ‘बकरी’ नाटक का प्रकाशन वर्ष 1974 है। इस नाटक की पहली प्रस्तुति ‘जन नाट्य मंच’ द्वारा 13 जुलाई, 1974 को त्रिवेणी कला संगम, नई दिल्ली, की उद्यान रंगशाला में हुआ था।
- ‘बकरी’ नाटक 1975 में आपातकाल से एक वर्ष पहले प्रकाशित हुआ था।
- बकरी नाटक में दो अंक है, और प्रत्येक अंक में तीन-तीन दृश्य है।

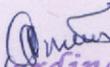
## बकरी नाटक का विषय वस्तु:

नाटक का प्रकाशन 1974 में हुआ था। इसके दो अंक है। दोनों अंक के तीन-तीन दृश्य है।

इस नाटक की रचना उत्तर प्रदेश की नौटंकी शैली में हुई है। इसमें दोहा, चौबोला, बहरेतबील, कहरवा आदि छंदों का प्रयोग किया गया है।

- इस नाटक में जनवादी चेतना, राजनितिक व्यंग्य, आम आदमी की व्यथा, भ्रष्टाचार और विसंगति का चित्रण है। ‘बकरी’ आम आदमी का प्रतीक है।
- गांधी जी के नाम पर सत्ता तो हथिया लेते हैं, लेकिन उनके सिद्धांतों को किस तरह मटियामेट कर देते है उसका वर्णन है।
- इस नाटक में (राजनीति नाटक) में गाँधी जी के नाम एवं सिद्धांतों की आड़ में अपनी स्वार्थ पूर्ति करने वाले नेताओं की पोल खोलने का भरसक प्रयास किया गया है।

यह नाटक ग्रामीणों और आम आदमी के जीवन में जागृति लाने के उद्देश्य से लिखा गया है।

  
Co-ordinator,  
Internal Quality Assurance Cell  
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PRINCIPAL,  
M.G.V.C. Arts, Commerce & Science College  
MUDDEBIHAL-586212. Dist: Vijayapur.

Roll No. ....



University Seat No. ....

S. G. V. C. Vidya Prasarak Trust's,

Room No. ....

**MATOSHRI GANGAMMA VEERAPPA CHINIWAR****ARTS, COMMERCE & SCIENCE COLLEGE, MUDEBIHAL.**Subject : Opt. Hindi Paper-IDate : 7/12/21Time : 8.30-9.30Class : BA<sup>1</sup><sup>st</sup> Sem.**ATTENDANCE REPORT**

Jr. Supervisor : .....

**DEGREE SEMESTER EXAMINATION 202 - 202**

| Roll No. | University Seat No. | Name of the Candidate        | Signature           |
|----------|---------------------|------------------------------|---------------------|
|          | A1854641            | Fayazahmad Muddelihal        | <u>Sueel</u>        |
|          | <del>A1950487</del> | <del>Bharati Choudhary</del> |                     |
|          | 446                 | Chetan Muddelihal            | <u>Chetan</u>       |
|          | 487                 | Laxmi Kadlimati              | <u>Kadlimati</u>    |
|          | 490                 | Madhushalini Ajamani         | <u>Madhus</u>       |
|          | 496                 | Makumbi Awate                | <u>M.H. Awate</u>   |
|          | 498                 | Mamata B Jadhav              | <u>Mamata</u>       |
|          | 531                 | Paornima & Hiremath          | <u>Paornima</u>     |
|          | 534                 | Pradeep Chavan               | <u>Pradeep</u>      |
|          | 553                 | Reshma Pawar                 | <u>Reshma</u>       |
|          | 570                 | Sagar Chavan                 | <u>Sagar</u>        |
|          | 576                 | Sandeep Rathod               | <u>Sandeep</u>      |
|          | 606                 | Shilpa Pawar                 | <u>Shilpa</u>       |
|          | 614                 | Shreshthail Pawar            | <u>Shreshthail</u>  |
|          | 627                 | Sono                         | <u>Sono</u>         |
|          | 629                 | Sudha Rathod                 | <u>S. S. Rathod</u> |

Angadi**Smt. S. C. ANGADI**  
H.O.D.**Department of Hindi**  
**M.G.V.C. Arts, Com. & Science**  
**College, Muddelihal, Dist. Bijapur.**Angadi  
**Co-ordinator,****Internal Quality Assurance Cell**  
**M.G.V.C. Arts, Commerce & Science College**  
**MUDEBIHAL-586212. Dist: Vijayapur.**



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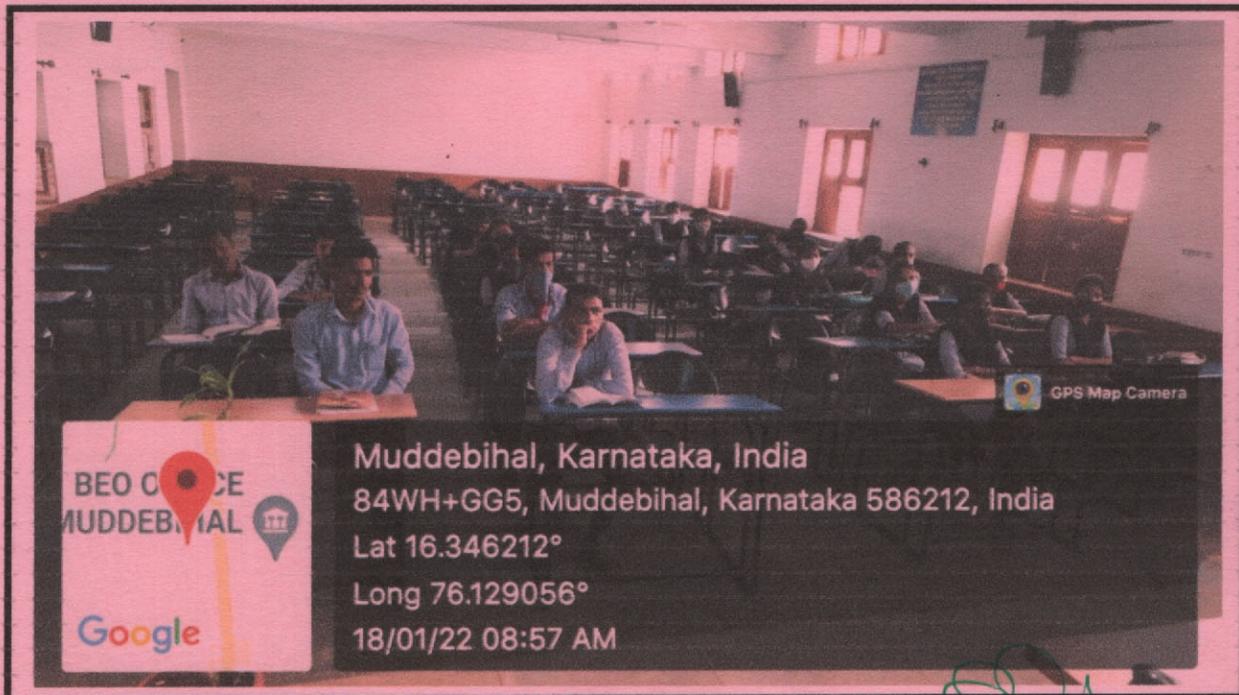
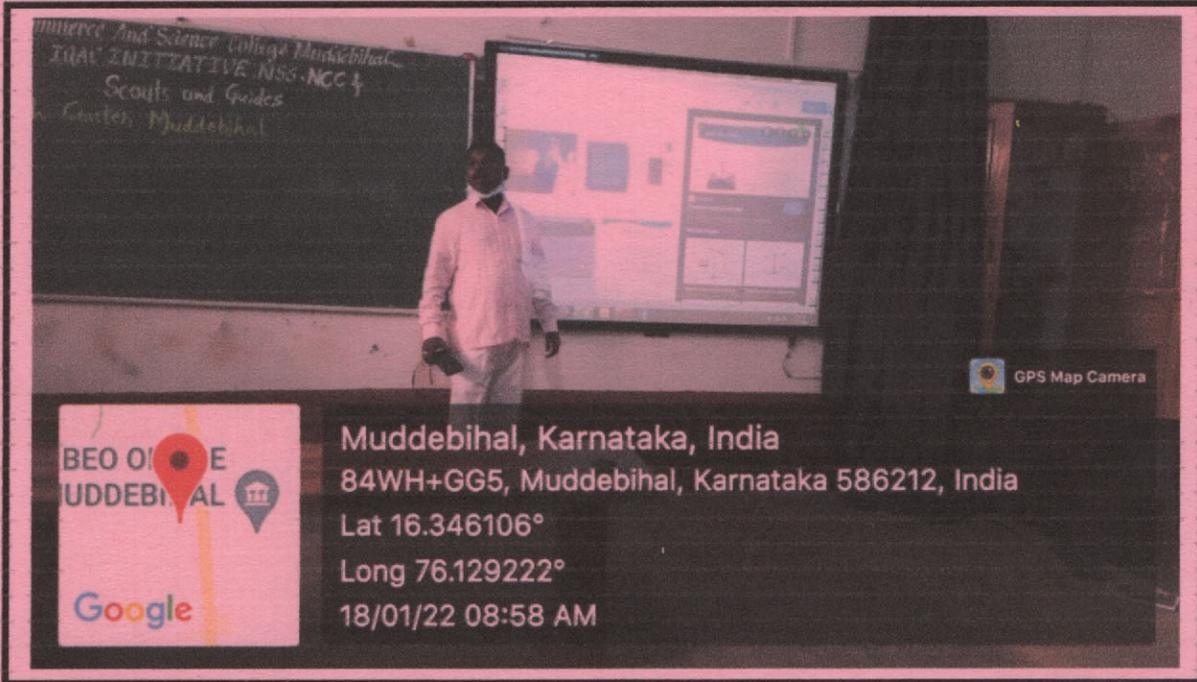
**M.G.V.C ARTS, COMMERCE AND SCIENCE COLLEGE MUDDEBIHAL**

**DEPARTMENT OF POL-SCIENCE**

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Name of the Staff Member: Dr.P.H.Uppaladinni

Class: B.A First Semester      Date: 18.01.2022      Time: 8.30 to 9.30 am



  
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## POWER AND JUSTICE



**Justice**, in its broadest sense, is the principle that people receive that which they deserve, with the interpretation of what then constitutes "deserving" being impacted upon by numerous fields, with many differing viewpoints and perspectives, including the concepts of moral correctness based on ethics, rationality, law, religion, equity and fairness. The state will sometimes endeavour to increase justice by operating courts and enforcing their rulings.

Consequently, the application of justice differs in every culture. Early theories of justice were set out by the Ancient Greek philosophers Plato in his work The Republic, and Aristotle in his Nicomachean Ethics. Throughout history various theories have been established. Advocates of divine command theory have said that justice issues from God. In the 1600s, philosophers such as John Locke said that justice derives from natural law. Social contract theory said that justice is derived from the mutual agreement of everyone. In the 1800s, utilitarian philosophers such as John Stuart Mill said that justice is based on the best outcomes for the greatest number of people. Theories of distributive justice study what is to be distributed, between whom they are to be distributed, and what is the proper distribution. Egalitarians have said that justice can only exist within the coordinates of equality. John Rawls used a social contract theory to say that justice, and especially distributive justice, is a form of fairness. Robert Nozick and others said that property rights, also within the realm of distributive justice and natural law, maximizes the overall wealth of an economic system. Theories of retributive justice say that wrongdoing should be punished to insure justice. The closely related restorative justice (also sometimes called "reparative justice") is an approach to justice that focuses on the needs of victims and offenders.

Advocates of divine command theory say that justice, and indeed the whole of morality, is the authoritative command of God. Murder is wrong and must be punished, for instance, because God says it so. Some versions of the theory assert that God must be obeyed because of the nature of his relationship with humanity, others assert that God must be obeyed because he is goodness itself, and thus doing what he says would be best for everyone.

A meditation on the Divine command theory by Plato can be found in his dialogue, Euthyphro. Called the Euthyphro dilemma, it goes as follows: "Is what is morally good commanded by God because it is morally good, or is it morally good because it is commanded by God?" The implication is that if the latter is true, then justice is beyond mortal understanding; if the former is true, then morality exists independently from God, and is therefore subject to the judgment of mortals. A response, popularized in two contexts by Immanuel Kant and C. S. Lewis, is that it is deductively valid to say that the existence of an objective morality implies the existence of God and vice versa.

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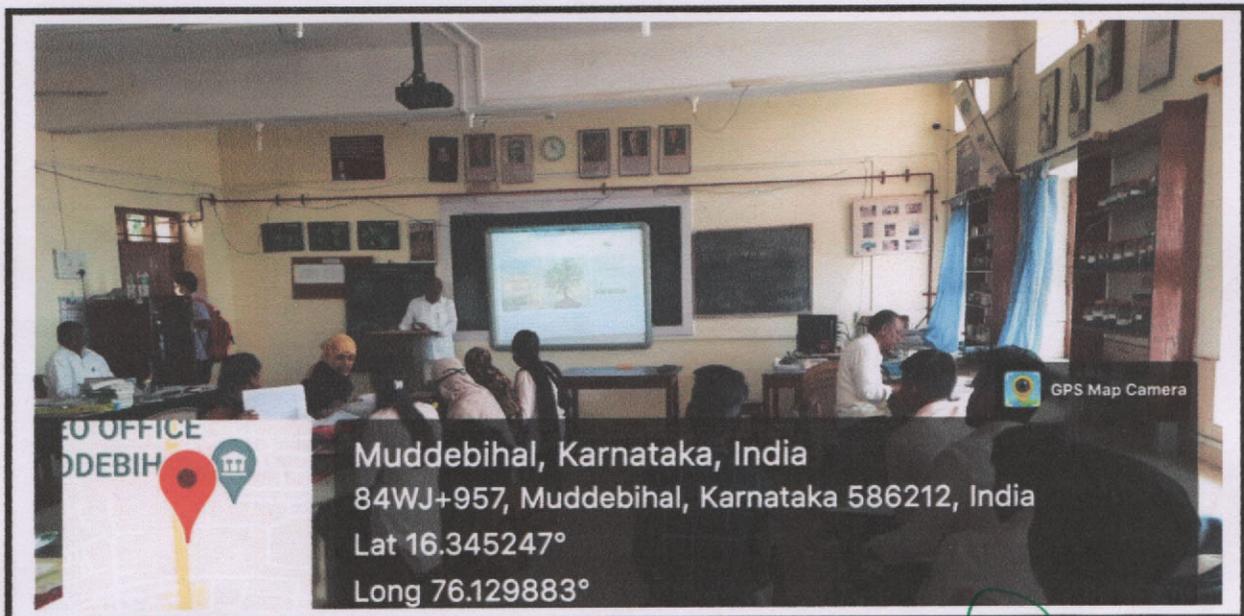
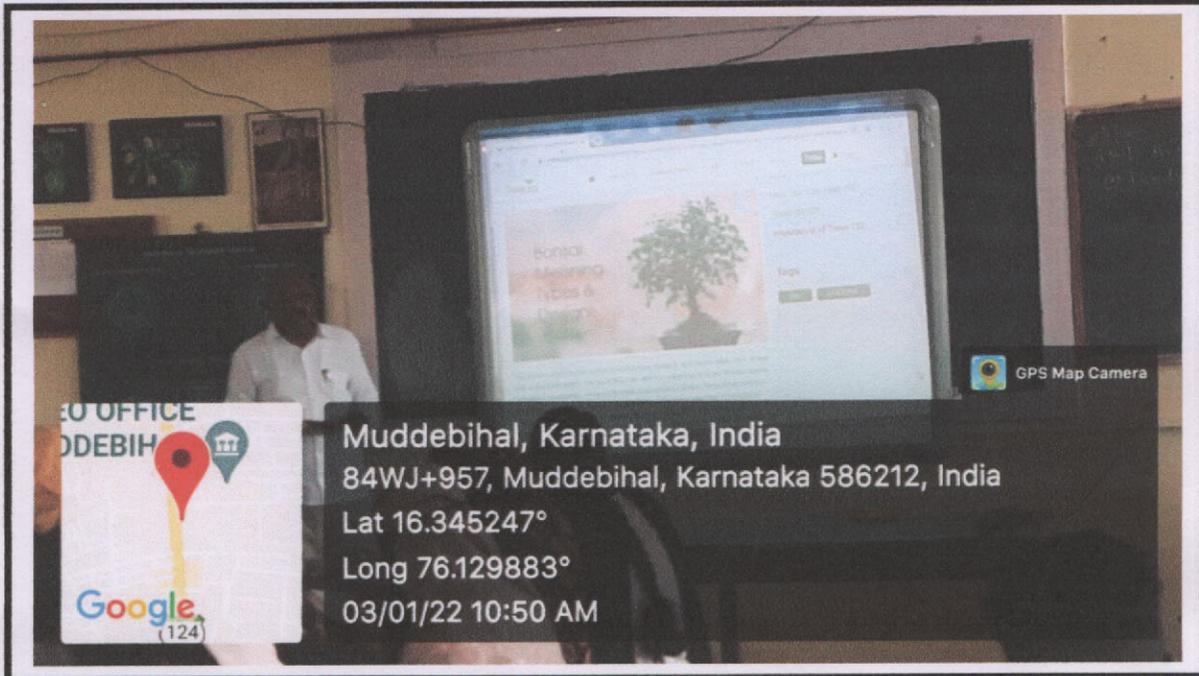
**Teachers Use ICT enabled tools for Effective teaching learning process**

**Name of the Staff Member: Prof-S.V.Gurumath**

**Class: B.Sc Fifth Semester**

**Date: 03.01.2022**

**Time: 10.45 to 11.45 am**



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Internal Quality Assurance Cell  
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*Principal,*  
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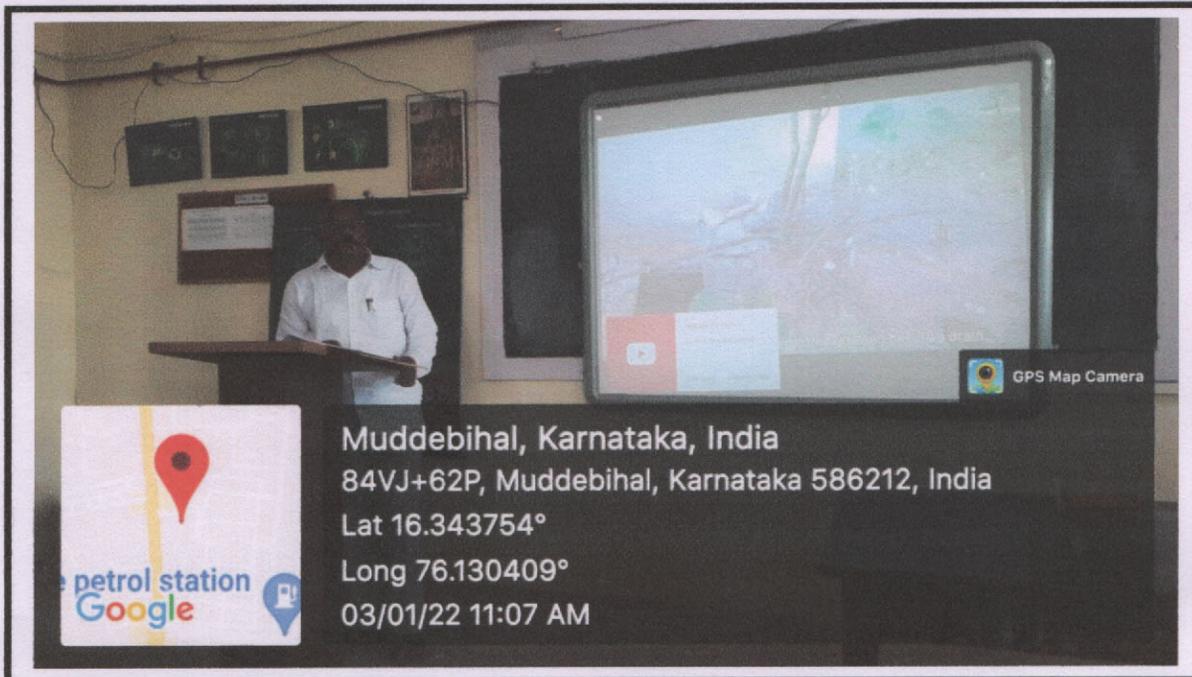
**Teachers Use ICT enabled tools for Effective teaching learning process**

**Name of the Staff Member: Prof-S.V.Gurumath**

**Class: B.Sc Fifth Semester**

**Date: 03.01.2022**

**Time: 10.45 to 11.45 am**



*S.V. Gurumath*  
**Co-ordinator,**

Internal Quality Assurance Cell  
M.G.V.C. Arts, Commerce & Science College  
MUDDEBIHAL-586212.. Dist: Vijayapur.

*S.V. Gurumath*  
**PRINCIPAL,**

**M. G. V. C. Arts, Com. & Science College  
MUDDEBIHAL - 586212.**

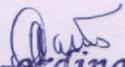
## BONSAI TECHNIQUE



**Bonsai** (Japanese: 盆栽, lit. 'tray planting', pronounced is a Japanese version of the original traditional Chinese art penjing or penzai. Unlike penjing, which utilizes traditional techniques to produce entire natural sceneries in small pots that mimic the grandiose and shape of real life sceneries, the Japanese "bonsai" only attempts to produce small trees that mimic the shape of real life trees. Similar versions of the art exist in other cultures, including the miniature living landscapes of Vietnamese Hòn non bô. It was during the Tang dynasty, when penjing was at its height, that the art was first introduced into Japan.

The loanword "bonsai" (a Japanese pronunciation of the original Chinese term penzai) has become an umbrella term in English, attached to many forms of potted or other plants,<sup>[2]</sup> and also on occasion to other living and non-living things. According to Stephen Orr in The New York Times, "the term should be reserved for plants that are grown in shallow containers following the precise tenets of bonsai pruning and training, resulting in an artful miniature replica of a full-grown tree in nature." In the most restrictive sense, "bonsai" refers to miniaturized, container-grown trees adhering to Japanese tradition and principles.

Purposes of bonsai are primarily contemplation for the viewer, and the pleasant exercise of effort and ingenuity for the grower.<sup>[4]</sup> By contrast with other plant cultivation practices, bonsai is not intended for production of food or for medicine. Instead, bonsai practice focuses on long-term cultivation and shaping of one or more small trees growing in a container.

  
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S. G. V. C. Vidya Prasarak Trust's,  
**MATOSHRI GANGAMMA VEERAPPA CHINIWAR**  
**ARTS, COMMERCE & SCIENCE COLLEGE, MUDDEBIHAL**



**ATTENDANCE REPORT**

Name of the Event : Bonsain Technique .

Class : B.sc V<sup>th</sup> sem

Date : 03.01.2022

Time : 10.45 to 11.45 AM

| SL.NO.   | NAME                     | SIGNATURE |
|----------|--------------------------|-----------|
| S1928098 | Pruthvi. G. Boodi        |           |
| S1928020 | Anasultana. A. Mulla     |           |
| S1928071 | malanbequm. k. Nadaf     |           |
| S1928062 | keerthi. G. Nalawatad    |           |
| S1928057 | Javeriya. H. Baganwan    |           |
| S1928111 | Roopa. S. Teembage       |           |
| S1928029 | Ashok. N. Ammapur        |           |
| S1928080 | Mounesh. K. Pattar       |           |
| S1928133 | Sudeep. B. Tigani bidasi |           |
| S1928053 | Hahamantray walikar      |           |
| S1928131 | shridhar. J. Hugar       |           |
| S1928105 | Ramappa. Ganjihal        |           |

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**MUDDEBIHAL - 586212.**

**Head of the Department of Botany**  
**M.G.V.C. College, MUDDEBIHAL-586212**  
**Dist: Bijapur.**

**Co-ordinator,**  
**Internal Quality Assurance Cell**  
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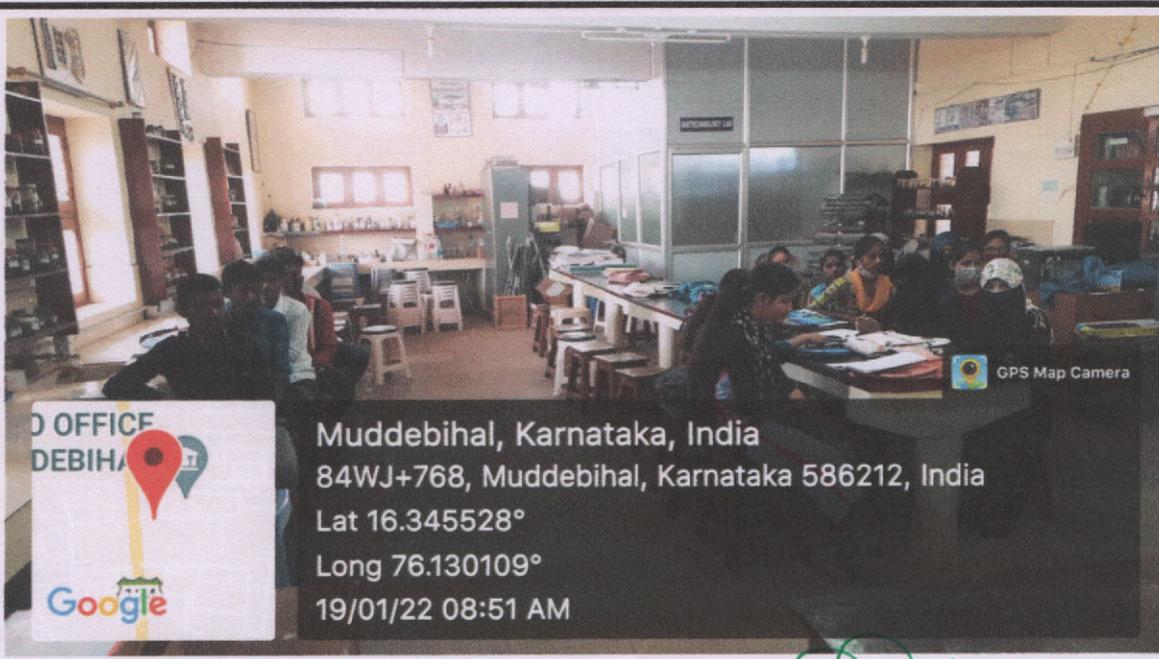
**Name of the Staff Member: Prof-S.V.Gurumath**

**Topic: Dispersal of Seeds and Fruits**

**Class: B.Sc IIIrd Semester**

**Date: 19.01.2022**

**Time: 8.30 to 9.30 am**



*S.V. Gurumath*  
**Co-ordinator,**

Internal Quality Assurance Cell  
M.G.V.C. Arts, Commerce & Science College  
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*S.V. Gurumath*  
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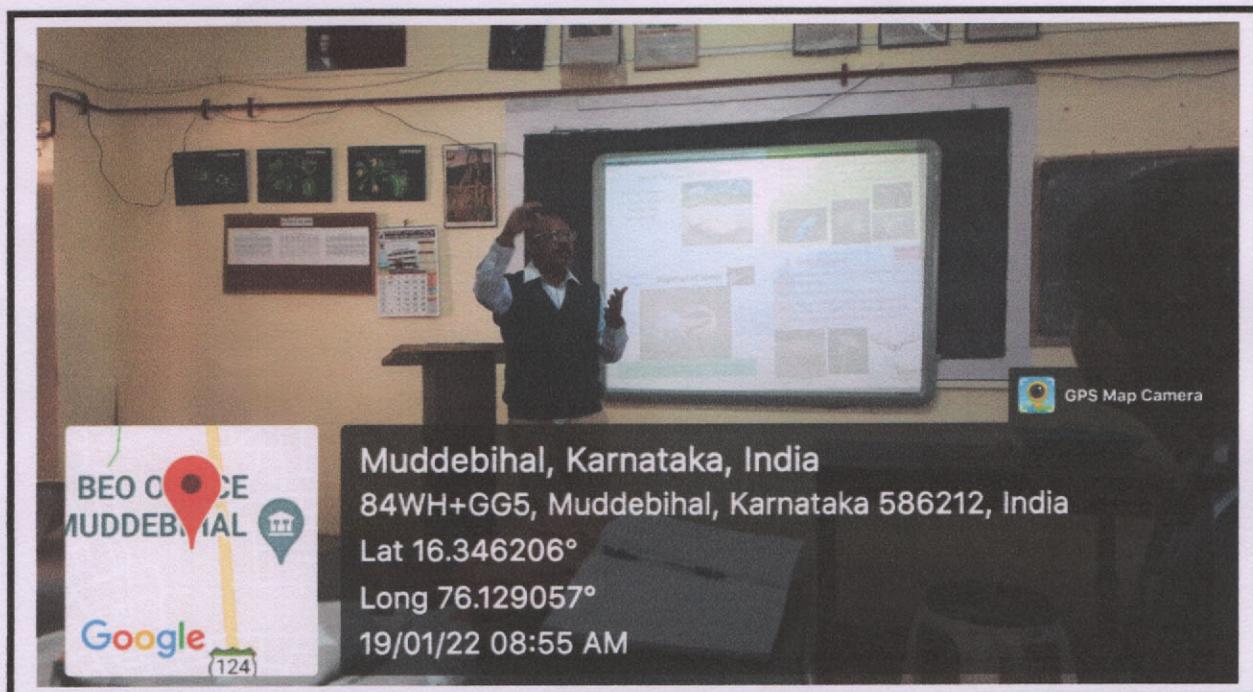
**Name of the Staff Member: Prof-S.V.Gurumath**

**Topic: Dispersal of Seeds and Fruits**

**Class: B.Sc IIIrd Semester**

**Date: 19.01.2022**

**Time: 8.30 to 9.30 am**



*S. V. Gurumath*  
**Co-ordinator,**

Internal Quality Assurance Cell  
M.G.V.C. Arts, Commerce & Science College  
MUDDEBIHAL-586212. Dist: Vijayapur.

*S. V. Gurumath*  
**PRINCIPAL,**

**M. G. V. C. Arts, Com. & Science College  
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## DISPERSAL OF SEEDS AND FRUITS



**Seed dispersal** is the movement, spread or transport of seeds away from the parent plant. Plants have limited mobility and rely upon a variety of dispersal vectors to transport their propagules, including both abiotic vectors such as the wind and living (biotic) vectors like birds. Seeds can be dispersed away from the parent plant individually or collectively, as well as dispersed in both space and time. The patterns of seed dispersal are determined in large part by the dispersal mechanism and this has important implications for the demographic and genetic structure of plant populations, as well as migration patterns and species interactions. There are five main modes of seed dispersal: gravity, wind, ballistic, water, and by animals. Some plants are serotinous and only disperse their seeds in response to an environmental stimulus. Dispersal involves the letting go or detachment of a diaspore from the main parent plant.

Seed dispersal is likely to have several benefits for different plant species. First, seed survival is often higher away from the parent plant. This higher survival may result from the actions of density-dependent seed and seedling predators and pathogens, which often target the high concentrations of seeds beneath adults.<sup>[2]</sup> Competition with adult plants may also be lower when seeds are transported away from their parent.

Seed dispersal also allows plants to reach specific habitats that are favorable for survival, a hypothesis known as directed dispersal. For example, *Ocotea endresiana* (Lauraceae) is a tree species from Latin America which is dispersed by several species of birds, including the three-wattled bellbird. Male bellbirds perch on dead trees in order to attract mates, and often defecate seeds beneath these perches where the seeds have a high chance of survival because of high light conditions and escape from fungal pathogens. In the case of fleshy-fruited plants, seed-dispersal in animal guts (endozoochory) often enhances the amount, the speed, and the asynchrony of germination, which can have important plant benefits.

  
Co-ordinator,  
Internal Quality Assurance Cell  
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PRINCIPAL,  
M. G. V. C. Arts, Com. & Science College  
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S. G. V. C. Vidya Prasarak Trust's,  
**MATOSHRI GANGAMMA VEERAPPA CHINIWAR**  
**ARTS, COMMERCE & SCIENCE COLLEGE, MUDDEBIHAL.**



**ATTENDANCE REPORT**

Name of the Event : Dispersal of seeds and fruits.

Class : B.sc 3<sup>rd</sup> sem

Date : 19.01.2022

Time : 8:30 to 9:30 am

| SL.NO. | NAME                        | SIGNATURE       |
|--------|-----------------------------|-----------------|
| 1)     | Tayyabamuskan. M. Soudagar. | T. M. Soudagar. |
| 2)     | UmmeBazira - N. shabhai     | Ushabhai        |
| 3)     | Ningamma N. Kalari          | N.N. Kalari     |
| 4)     | Misarga. u. patil           | Upatil          |
| 5)     | Kavya. S. Nalatawad         | Kavya           |
| 6)     | Lalita. K. Bedi             | L. K. Bedi      |
| 7)     | Aishwarya. S. patil         | Spatil          |
| 8)     | Sabaalam. N. Dakhani        | S. N. Dakhani   |
| 9)     | Aisha. D. Tumbagi           | Aisha           |
| 10)    | MD. Aarif. K. Haveli        | MD. A. K.       |
| 11)    | Druva. K. mar. D. Nayak     | Druva           |
| 12)    | siddanagouda. m. Bivodkar   | Siddanagouda    |
| 13)    | Ramesh. A. Hampanagoudar    | Ramesh          |
| 14)    | RAMANAGOUDA                 | Ramanagouda     |
| 15)    | Bhagyalakshmi, K. Kashehi   | BK              |
| 16)    | Anusha. B. Radamani         | Anusha          |
| 17)    | Vandana. V. Rathod          | V. Rathod       |

  
**Head of the Department of Botany**  
M.G.V.C. College, MUDDEBIHAL-586212  
Dist: Bijapur.

  
**PRINCIPAL;**  
M.G.V.C. Arts, Com. & Science College  
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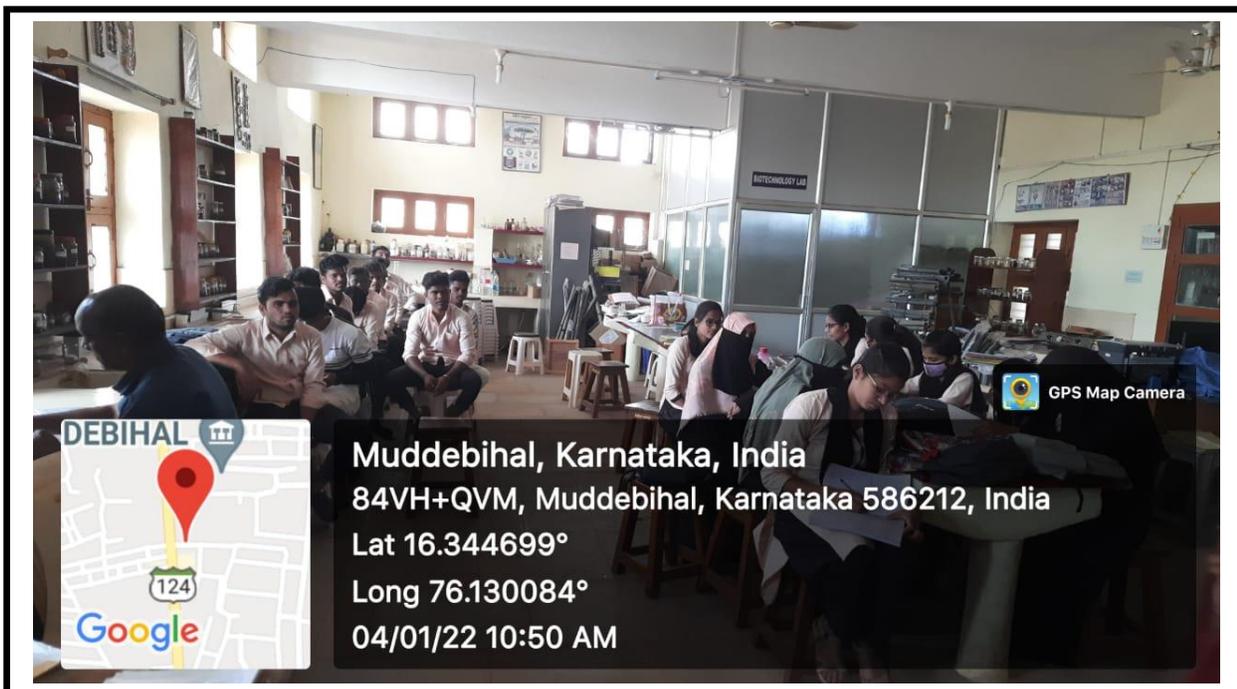
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Name of the Staff Member: Prof-S.S.Chiraladinni

Class: Fifth Semester

Date: 04.01.2022

Time: 10.45 to 11.45 am



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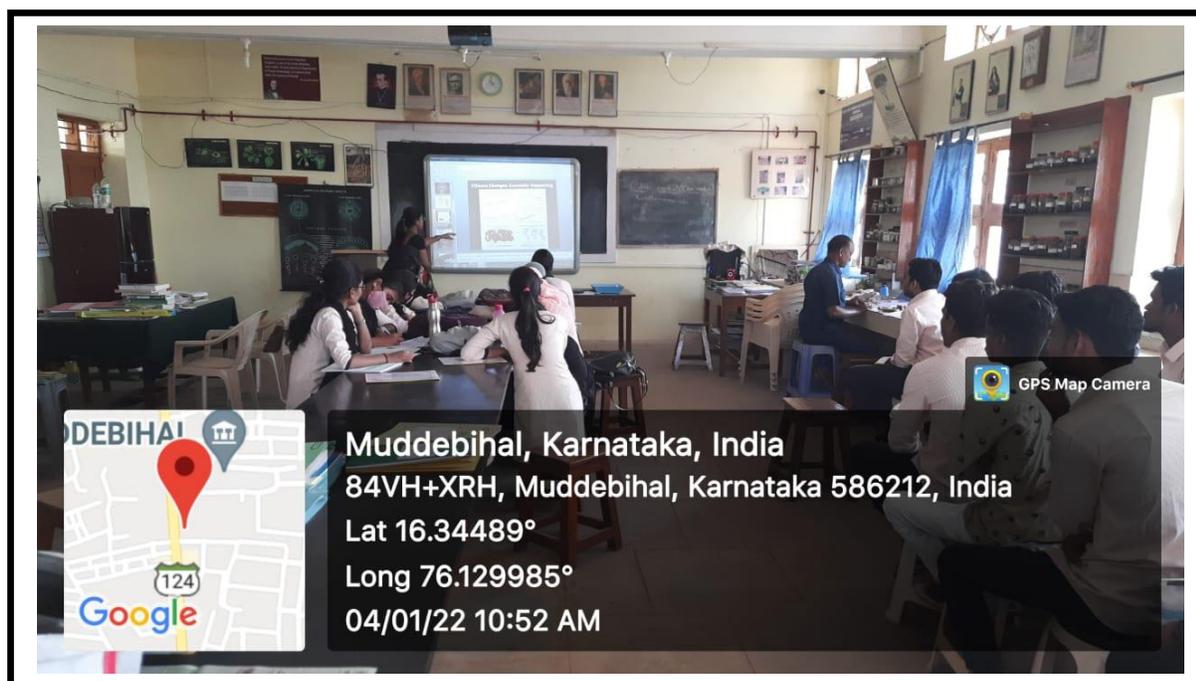
**Teachers Use ICT enabled tools for Effective teaching learning process**

Name of the Staff Member: Prof-S.S.Chiraladinni

Class: Fifth Semester

Date: 04.01.2022

Time: 10.45 to 11.45 am



## GLOBAL WARMING

Global warming is the long-term heating of Earth's climate system observed since the pre-industrial period (between 1850 and 1900) due to human activities, primarily fossil fuel burning, which increases heat-trapping greenhouse gas levels in Earth's atmosphere. The term is frequently used interchangeably with the term climate change, though the latter refers to both human- and naturally produced warming and the effects it has on our planet. It is most commonly measured as the average increase in Earth's global surface temperature.

Since the pre-industrial period, human activities are estimated to have increased Earth's global average temperature by about 1 degree Celsius (1.8 degrees Fahrenheit), a number that is currently increasing by 0.2 degrees Celsius (0.36 degrees Fahrenheit) per decade. It is unequivocal that human influence has warmed the atmosphere, ocean, and land.

Climate change is a long-term change in the average weather patterns that have come to define Earth's local, regional and global climates. These changes have a broad range of observed effects that are synonymous with the term.

Changes observed in Earth's climate since the early 20th century are primarily driven by human activities, particularly fossil fuel burning, which increases heat-trapping greenhouse gas levels in Earth's atmosphere, raising Earth's average surface temperature. These human-produced temperature increases are commonly referred to as global warming. Natural processes can also contribute to climate change, including internal variability (e.g., cyclical ocean patterns like El Niño, La Niña and the Pacific Decadal Oscillation) and external forcings (e.g., volcanic activity, changes in the Sun's energy output, variations in Earth's orbit).

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M.G.V.C ARTS, COMMERCE AND SCIENCE COLLEGE MUDDEBIHAL

## DEPARTMENT OF BOTANY

**Teachers Use ICT enabled tools for Effective teaching learning process**

Name of the Staff Member: Prof-S.S.Chiraladinni

Class: First Semester

Date: 06.01.2022

Time: 9.30 to 10.30 am



S.G.V.C Vidya Prasarak Trust's

M.G.V.C ARTS, COMMERCE AND SCIENCE COLLEGE MUDDEBIHAL

## DEPARTMENT OF BOTANY

**Teachers Use ICT enabled tools for Effective teaching learning process**

Name of the Staff Member: Prof-S.S.Chiraladinni

Class: First Semester

Date: 06.01.2022

Time: 9.30 to 10.30 am



## STURCTURE OF TMV

*Tobacco mosaic virus* (TMV) is a [positive-sense single-stranded RNA virus species](#) in the genus [Tobamovirus](#) that infects a wide range of plants, especially [tobacco](#) and other members of the family [Solanaceae](#). The [infection](#) causes characteristic patterns, such as "[mosaic](#)"-like [mottling](#) and discoloration on the [leaves](#) (hence the name). TMV was the first [virus](#) to be discovered. Although it was known from the late 19th century that a non-bacterial [infectious disease](#) was damaging tobacco crops, it was not until 1930 that the infectious agent was determined to be a virus. It is the first pathogen identified as a virus. Virus was crystallised by W.M.Stanley.

*Tobacco mosaic virus* has a rod-like appearance. Its [capsid](#) is made from 2130 [molecules](#) of coat protein and one molecule of genomic single strand RNA, 6400 bases long. The coat protein self-assembles into the rod-like helical structure (16.3 proteins per helix turn) around the RNA, which forms a hairpin loop structure (see the [electron micrograph](#) above). The protein monomer consists of 158 [amino acids](#) which are assembled into four main alpha-helices, which are joined by a prominent loop proximal to the axis of the virion. Virions are ~300 nm in length and ~18 nm in diameter. Negatively stained electron microphotographs show a distinct inner channel of radius ~2 nm. The RNA is located at a radius of ~4 nm and is protected from the action of cellular enzymes by the coat protein. X-ray [fiber diffraction](#) structure of the intact virus was studied based on an [electron density](#) map at 3.6 Å resolution. Inside the capsid helix, near the core, is the coiled RNA molecule, which is made up of  $6,395 \pm 10$  nucleotides.

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## DEPARTMENT OF BOTANY

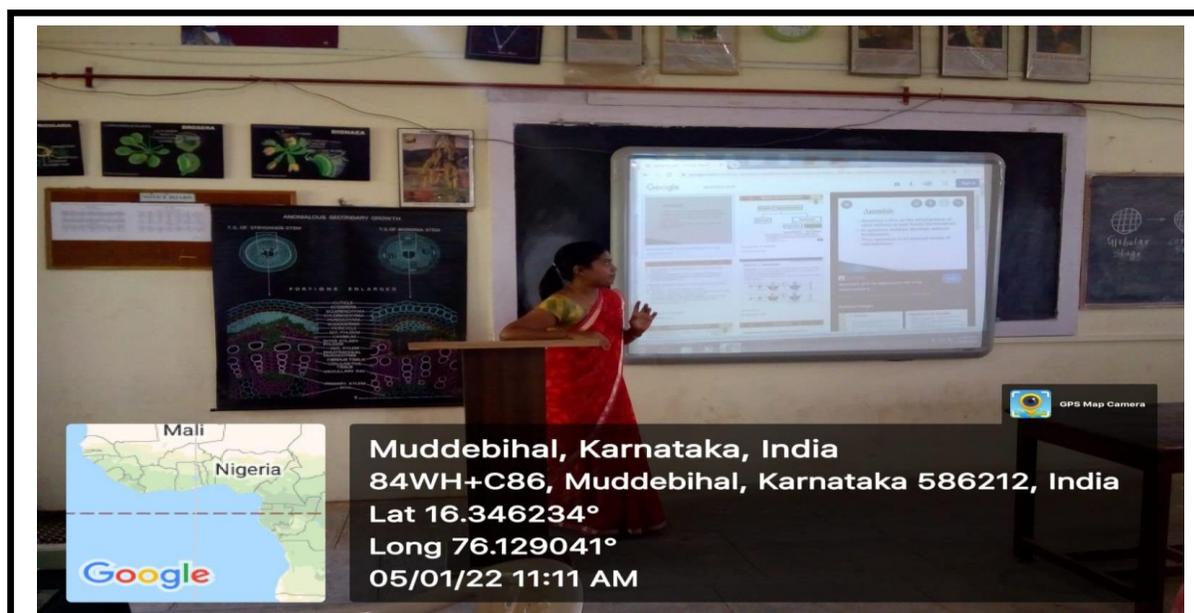
**Teachers Use ICT enabled tools for Effective teaching learning process**

Name of the Staff Member: Prof-S.S.Chiraladinni

Class: Third Semester

Date: 05.01.2022

Time: 10.30 to 11.30 am



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M.G.V.C ARTS, COMMERCE AND SCIENCE COLLEGE MUDDEBIHAL

## DEPARTMENT OF BOTANY

**Teachers Use ICT enabled tools for Effective teaching learning process**

Name of the Staff Member: Prof-S.S.Chiraladinni

Class: Third Semester

Date: 05.01.2022

Time: 10.30 to 11.30 am



## APOMIXIS

In **botany**, **apomixis** is asexual reproduction without fertilization. Its etymology is Greek for "away from" + "mixing". This definition notably does not mention meiosis. Thus "normal asexual reproduction" of plants, such as propagation from cuttings or leaves, has never been considered to be apomixis, but replacement of the seed by a plantlet or replacement of the flower by bulbils were categorized as types of apomixis. Apomictically produced offspring are genetically identical to the parent plant.

Some authors included all forms of asexual reproduction within apomixis, but that generalization of the term has since died out.

In flowering plants, the term "apomixis" is commonly used in a restricted sense to mean **agamospermy**, i.e., clonal reproduction through seeds. Although agamospermy could theoretically occur in gymnosperms, it appears to be absent in that group.<sup>[2]</sup>

**Apogamy** is a related term that has had various meanings over time. In plants with independent gametophytes (notably ferns), the term is still used interchangeably with "apomixis", and both refer to the formation of sporophytes by parthenogenesis of gametophyte cells.

**Male apomixis** (**paternal apomixis**) involves replacement of the genetic material of an egg by the genetic material of the pollen.

### Types of gametophytic apomixis

Gametophytic apomixis in flowering plants develops in several different ways. A megagametophyte develops with an egg cell within it that develops into an embryo through parthenogenesis. The central cell of the megagametophyte may require fertilization to form the endosperm, **pseudogamous gametophytic apomixis**, or in **autonomous gametophytic apomixis** endosperm fertilization is not required.

- In **diplospory** (also called **generative apospory**), the megagametophyte arises from a cell of the archesporium.
- In **apospory** (also called **somatic apospory**), the megagametophyte arises from some other (somatic) cell of the nucellus.

Considerable confusion has resulted because diplospory is often defined to involve the megaspore mother cell only, but a number of plant families have a multicellular archesporium and the megagametophyte could originate from another archesporium cell.



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## **DEPARTMENT OF CHEMISTRAY**

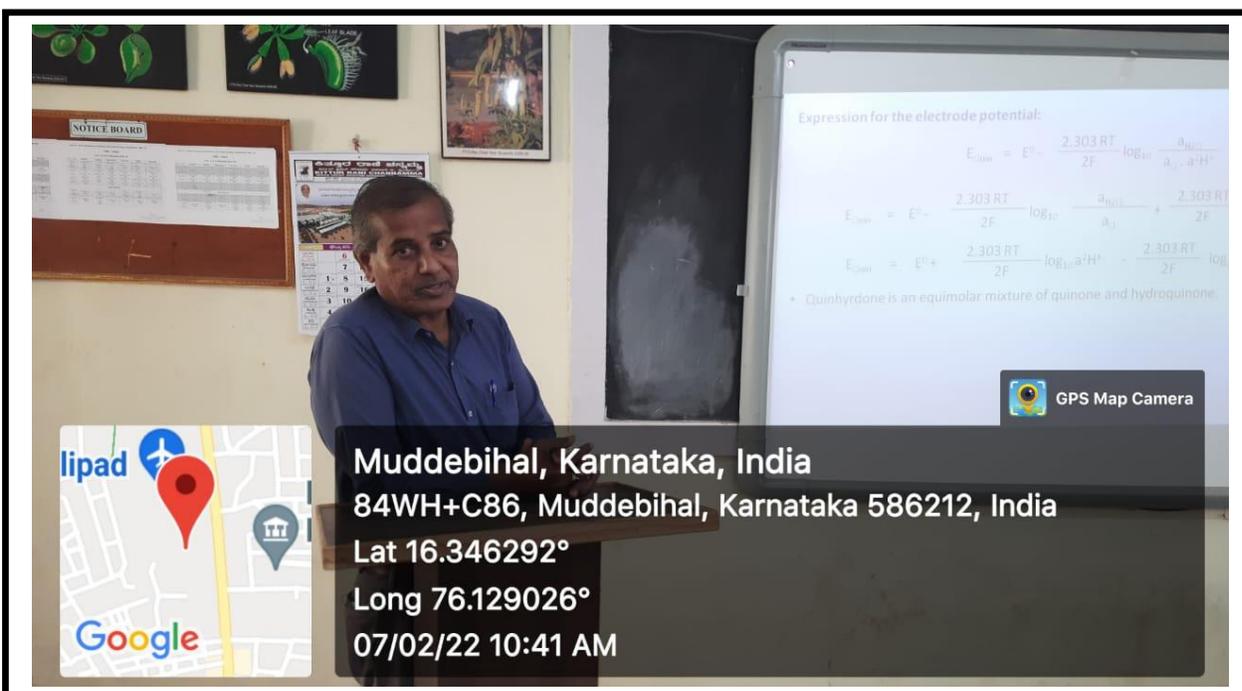
Teachers Use ICT enabled tools for Effective teaching learning process

Name of the Staff Member: Prof-C.S.Katageri

Class: B.Sc Fifth Semester

Date: 7.02.2022

Time: 9.30 to 10.30 am



S.G.V.C Vidya Prasarak Trust's

**M.G.V.C ARTS, COMMERCE AND SCIENCE COLLEGE MUDDEBIHAL**

## **DEPARTMENT OF CHEMISTRAY**

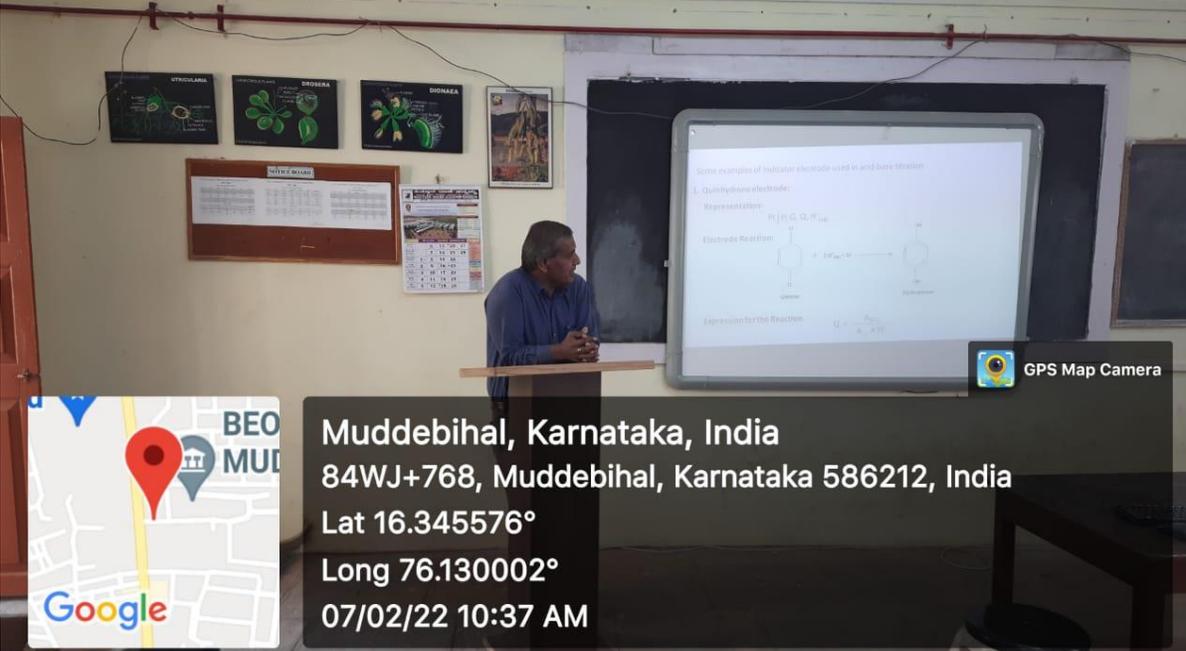
Teachers Use ICT enabled tools for Effective teaching learning process

Name of the Staff Member: Prof-C.S.Katageri

Class: B.Sc Fifth Semester

Date: 7.02.2022

Time: 9.30 to 10.30 am



Muddebihal, Karnataka, India  
84WJ+768, Muddebihal, Karnataka 586212, India  
Lat 16.345576°  
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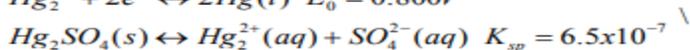
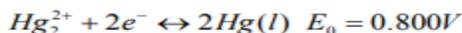
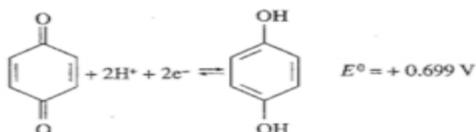


# APPLICATIONS OF EMF MEASUREMENTS

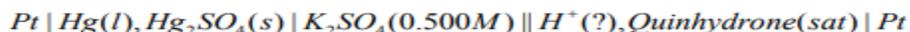
## Determination of PH Using Quinhydrone Electrode

A quinhydrone electrode can be used for the potentiometric determination of pH. The solution that is to be measured is saturated with quinhydrone, which is an equimolar mixture of quinone and hydroquinone. The potential of the solution is measured with a platinum electrode relative to a reference electrode.

The reference electrode, for this measurement, consists of a mixture  $\text{Hg}_2\text{SO}_4(\text{s})$  and  $\text{Hg}(\text{l})$  (elemental mercury). The mixture is in contact with  $\text{K}_2\text{SO}_4$  (0.500 M). The relevant reactions are as follows:

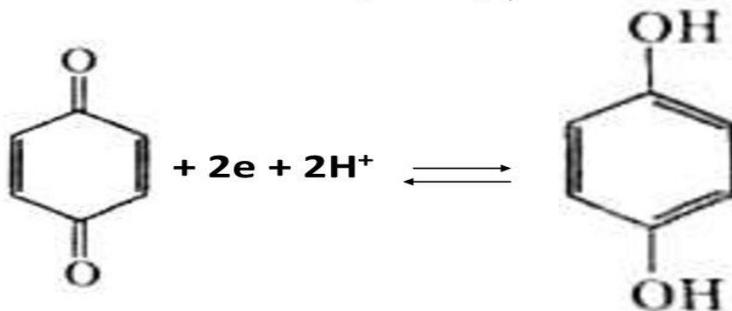


The cell diagram is as follows:



What is the pH of the solution if the potential of the electrode against a saturated calomel electrode is -0.205V?

## Quinhydrone electrode



quinone

hydroquinone

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## DEPARTMENT OF BOTANY

Teachers Use ICT enabled tools for Effective teaching learning process

Name of the Staff Member: Prof-S.V.Gurumath

Class: B.Sc IIIrd Semester

Date: 31.01.2022

Time: 9.30 to 10.30 am



S.G.V.C Vidya Prasarak Trust's

M.G.V.C ARTS, COMMERCE AND SCIENCE COLLEGE MUDDEBIHAL

## DEPARTMENT OF BOTANY

Teachers Use ICT enabled tools for Effective teaching learning process

Name of the Staff Member: Prof-S.V.Gurumath

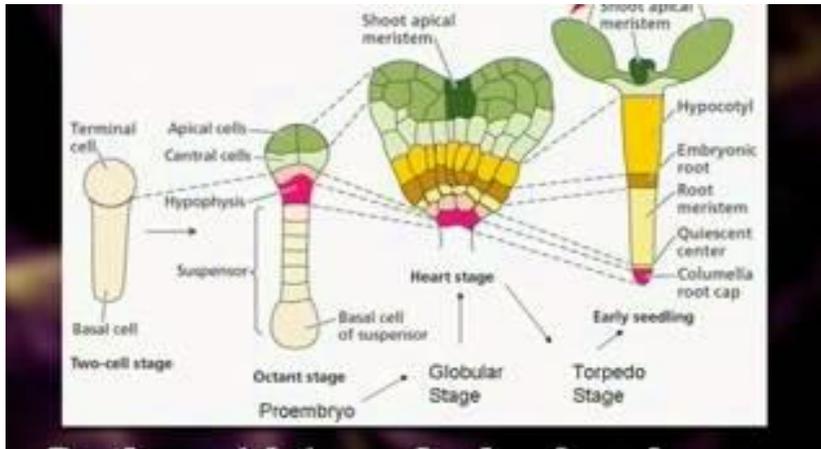
Class: B.Sc III rd Semester

Date: 31.01.2022

Time: 9.30 to 10.30 am



## STRUCTURE AND DEVELOPMENT OF DICT, MONOCO EMBRYO



Dicots (left) have two cotyledons. Monocots, such as corn (right), have one cotyledon, called the scutellum; it channels nutrition to the growing embryo. Both monocot and dicot embryos have a **plumule that forms the leaves, a hypocotyl that forms the stem, and a radicle that forms the root.**

The main difference between monocot and dicot embryo is that **monocot contains a single cotyledon in its embryo whereas dicot contains two cotyledons in its embryo.** ... Monocots and dicots differ in their structure as well. They have different types of stem, roots, leaves, flowers, and seeds.

**Monocotyledons** (*/ˌmɒnəˈkɒtəˈliːdənz/*), commonly referred to as **monocots**, (*Lilianaesensu* Chase & Reveal) are grass and grass-like flowering plants (angiosperms), the seeds of which typically contain only one embryonic leaf, or cotyledon. They constitute one of the major groups into which the flowering plants have traditionally been divided, the rest of the flowering plants that have two cotyledons are classified as dicotyledons, or dicots.

Monocotyledons have almost always been recognized as a group, but with various taxonomic ranks and under several different names. The APG III system of 2009 recognises a clade called "monocots" but does not assign it to a taxonomic rank.

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## DEPARTMENT OF BOTANY

STUDENTS USED ICT TOOLS

Name of the Student: Kumari. Bhygya.K

Topic: Apomixes

Class: B.Sc IIIrd Semester

Date: 4.02.2022

Time: 10.30 to 11.30 am



S.G.V.C Vidya Prasarak Trust's

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## DEPARTMENT OF BOTANY

STUDENTS USED ICT TOOLS

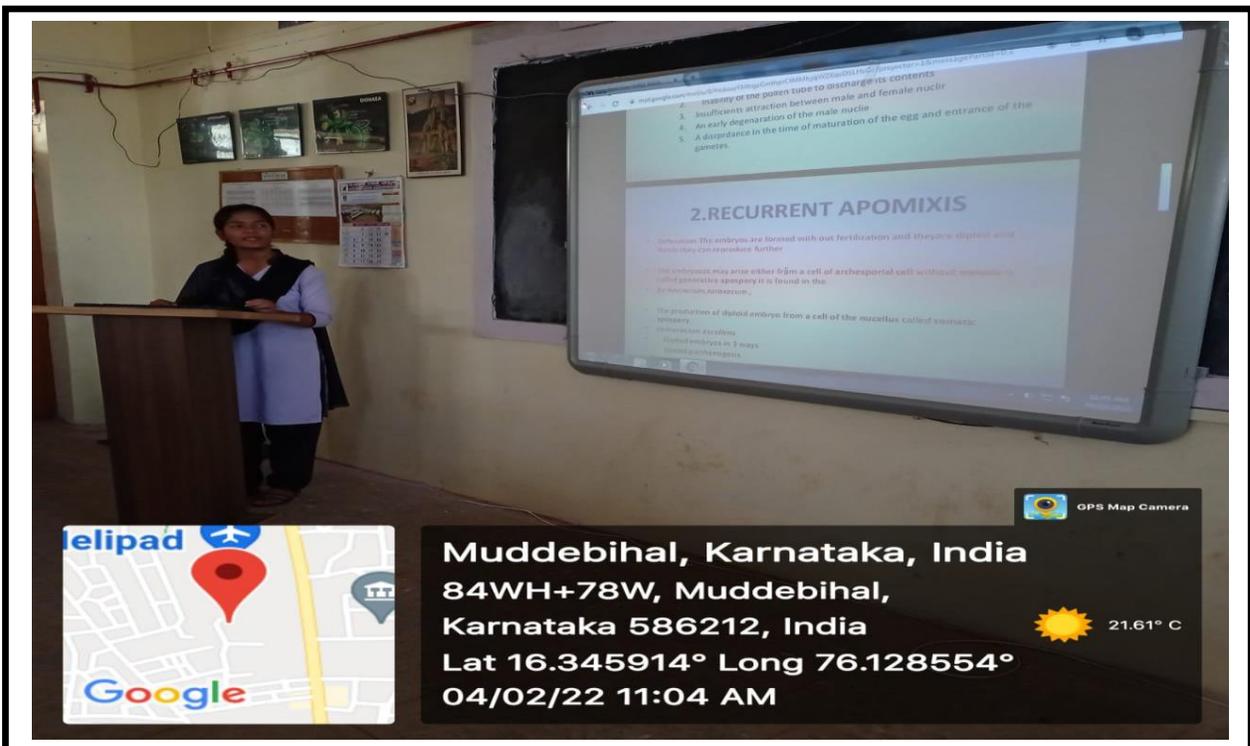
Name of the Student: Kumari. Bhygya.K

Topic: Apomixes

Class: B.Sc IIIrd Semester

Date: 4.02.2022

Time: 10.30 to 11.30 am



S.G.V.C Vidya Prasarak Trust's

M.G.V.C ARTS, COMMERCE AND SCIENCE COLLEGE MUDDEBIHAL

## DEPARTMENT OF BOTANY

STUDENTS USED ICT TOOLS

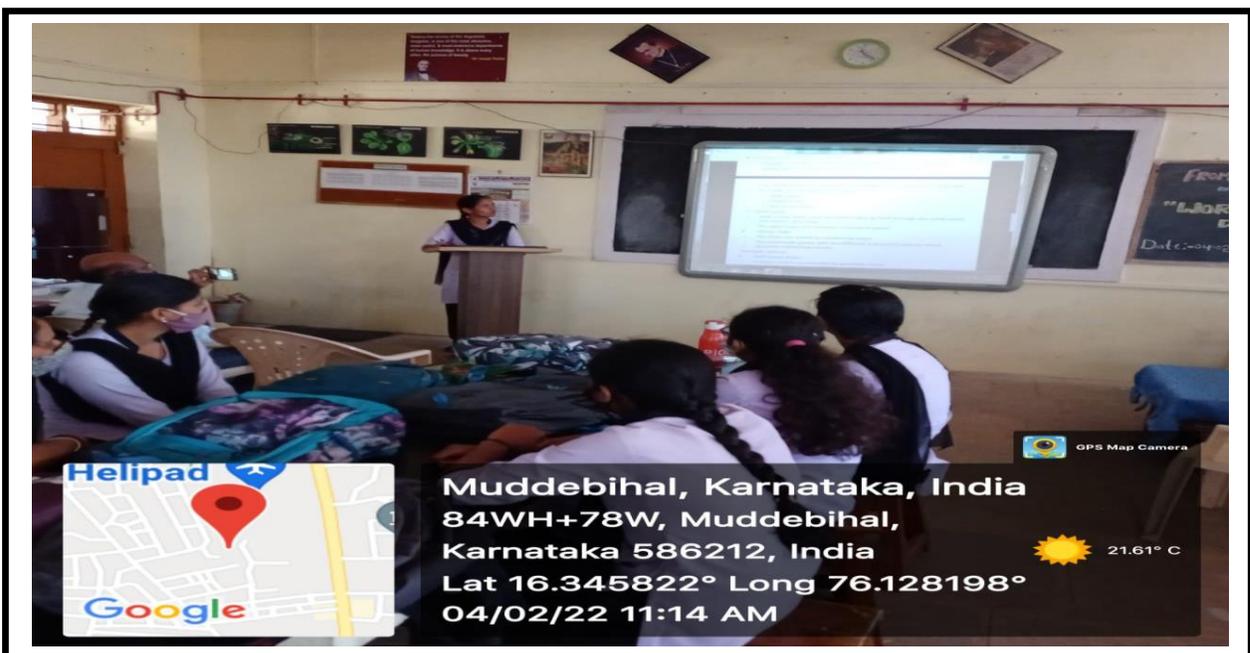
Name of the Student: Kumari. Danamma.Hiremath

Topic: Double Fertilization and Triple Fusion

Class: B.Sc IIIrd Semester

Date: 4.02.2022

Time: 10.30 to 11.30 am



S.G.V.C Vidya Prasarak Trust's

M.G.V.C ARTS, COMMERCE AND SCIENCE COLLEGE MUDDEBIHAL

## DEPARTMENT OF BOTANY

STUDENTS USED ICT TOOLS

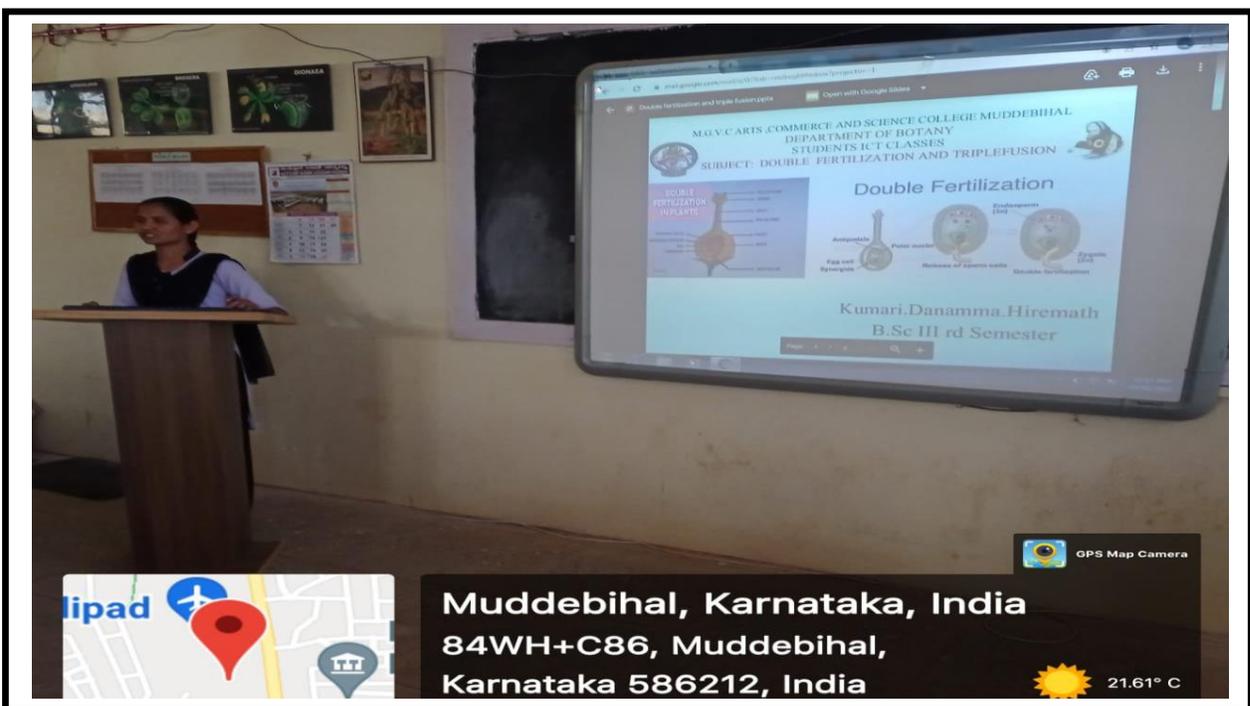
Name of the Student: Kumari. Danamma.Hiremath

Topic: Double Fertilization and Triple Fusion

Class: B.Sc IIIrd Semester

Date: 4.02.2022

Time: 10.30 to 11.30 am





S.G.V.C Vidya Prasarak Trust's

M.G.V.C ARTS, COMMERCE AND SCIENCE COLLEGE MUDDEBIHAL

## DEPARTMENT OF BOTANY

Teachers Use ICT enabled tools for Effective teaching learning process

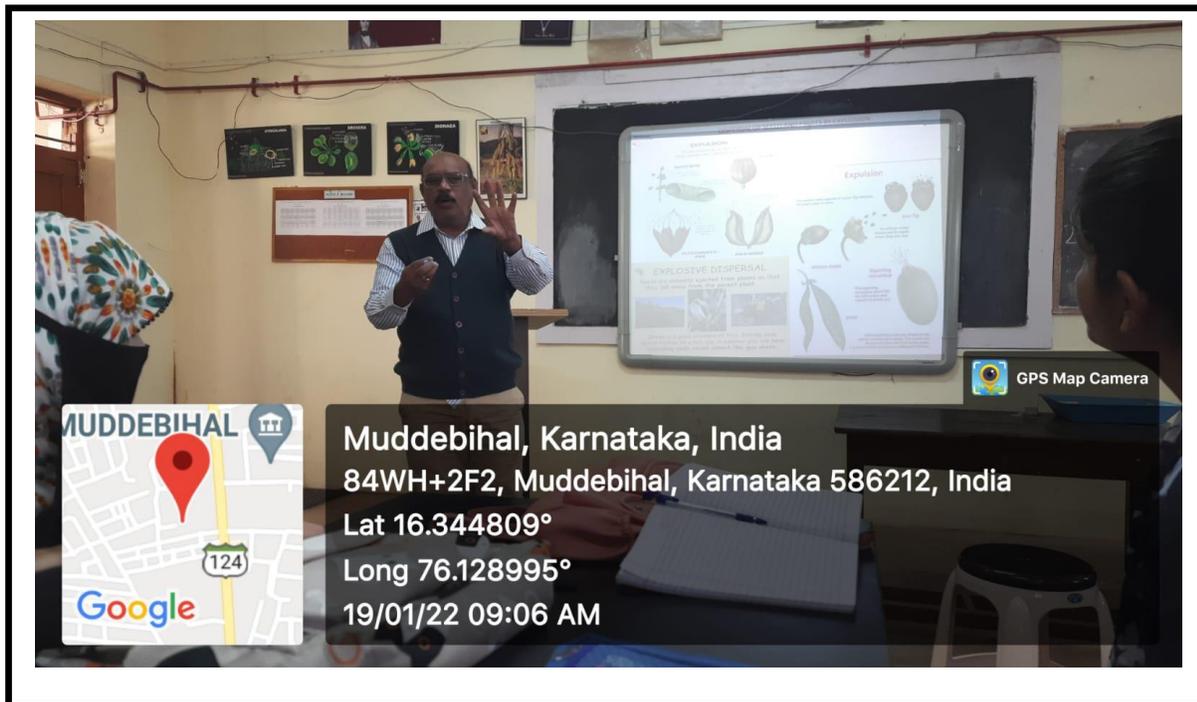
Name of the Staff Member: Prof-S.V.Gurumath

Topic: Dispersal of Seeds and Fruits

Class: B.Sc IIIrd Semester

Date: 19.01.2022

Time: 8.30 to 9.30 am



S.G.V.C Vidya Prasarak Trust's

M.G.V.C ARTS, COMMERCE AND SCIENCE COLLEGE MUDDEBIHAL

## DEPARTMENT OF BOTANY

Teachers Use ICT enabled tools for Effective teaching learning process

Name of the Staff Member: Prof-S.V.Gurumath

Topic: Dispersal of Seeds and Fruits

Class: B.Sc IIIrd Semester

Date: 19.01.2022

Time: 8.30 to 9.30 am



## DISPERSAL OF SEEDS AND FRUITS



**Seed dispersal** is the movement, spread or transport of seeds away from the parent plant. Plants have limited mobility and rely upon a variety of dispersal vectors to transport their propagules, including both abiotic vectors such as the wind and living (biotic) vectors like birds. Seeds can be dispersed away from the parent plant individually or collectively, as well as dispersed in both space and time. The patterns of seed dispersal are determined in large part by the dispersal mechanism and this has important implications for the demographic and genetic structure of plant populations, as well as migration patterns and species interactions. There are five main modes of seed dispersal: gravity, wind, ballistic, water, and by animals. Some plants are serotinous and only disperse their seeds in response to an environmental stimulus. Dispersal involves the letting go or detachment of a diaspore from the main parent plant.

Seed dispersal is likely to have several benefits for different plant species. First, seed survival is often higher away from the parent plant. This higher survival may result from the actions of density-dependent seed and seedling predators and pathogens, which often target the high concentrations of seeds beneath adults.<sup>[2]</sup> Competition with adult plants may also be lower when seeds are transported away from their parent.

Seed dispersal also allows plants to reach specific habitats that are favorable for survival, a hypothesis known as directed dispersal. For example, *Ocotea endresiana* (Lauraceae) is a tree species from Latin America which is dispersed by several species of birds, including the three-wattled bellbird. Male bellbirds perch on dead trees in order to attract mates, and often defecate seeds beneath these perches where the seeds have a high chance of survival because of high light conditions and escape from fungal pathogens. In the case of fleshy-fruited plants, seed-dispersal in animal guts (endozoochory) often enhances the amount, the speed, and the asynchrony of germination, which can have important plant benefits.



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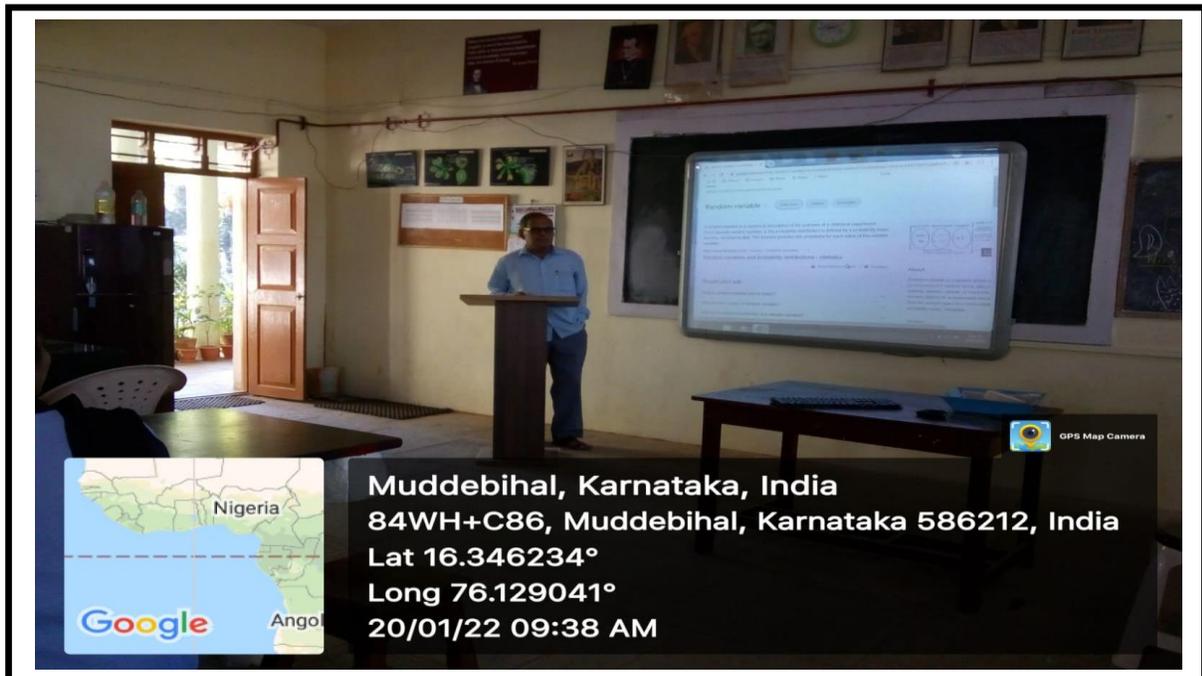
M.G.V.C ARTS, COMMERCE AND SCIENCE COLLEGE MUDDEBIHAL

## DEPARTMENT OF STATISTICS

Teachers Use ICT enabled tools for Effective teaching learning process

Name of the Staff Member: Prof-.N.S.Patil

Class: B.A III rd Semester      Date: 20.01.2022      Time: 9.30 to 10.30 am



S.G.V.C Vidya Prasarak Trust's

M.G.V.C ARTS, COMMERCE AND SCIENCE COLLEGE MUDDEBIHAL

## DEPARTMENT OF STATISTICS

Teachers Use ICT enabled tools for Effective teaching learning process

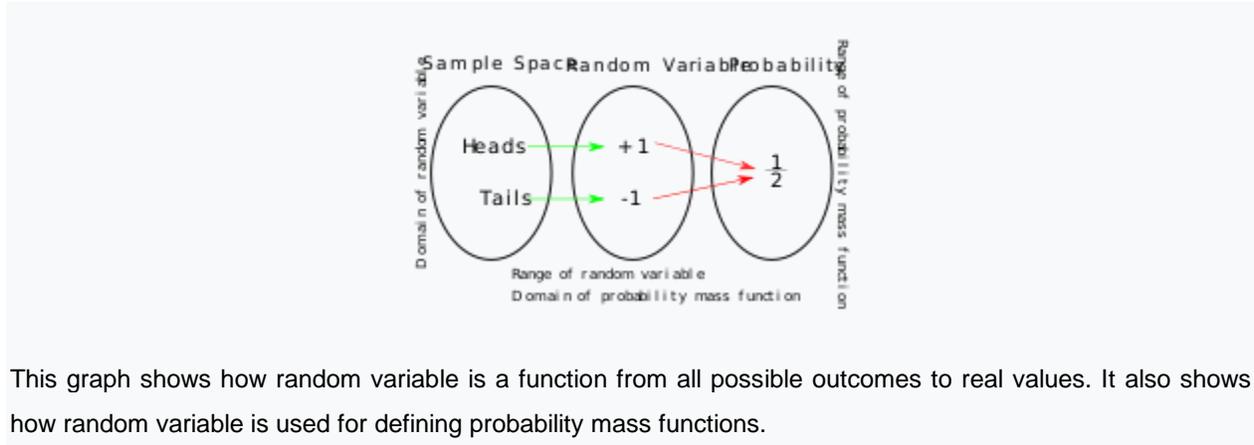
Name of the Staff Member: Prof-N.S.Patil

Class: B.A III rd Semester      Date: 20.01.2022      Time: 9.30 to 10.30 am



# RANDOM VARIABLE IN PROBABILITY

A **random variable** is a variable whose values depend on outcomes of a random event.<sup>[1]</sup> Also called **random quantity**, **aleatory variable**, or **stochastic variable**. It is formally defined as a measurable function. It maps from the sample space to a measurable space on the probability space.



This graph shows how random variable is a function from all possible outcomes to real values. It also shows how random variable is used for defining probability mass functions. A random variable's possible values might represent the possible outcomes of a yet-to-be-performed experiment, or the possible outcomes of a past experiment whose already-existing value is uncertain (for example, because of imprecise measurements or quantum uncertainty).<sup>[1]</sup> They may also conceptually represent either the results of an "objectively" random process (such as rolling a die) or the "subjective" randomness that results from incomplete knowledge of a quantity. The meaning of the probabilities assigned to the potential values of a random variable is not part of probability theory itself, but is instead related to philosophical arguments over the interpretation of probability. The mathematics works the same regardless of the particular interpretation in use.

As a function, a random variable is required to be measurable, which allows for probabilities to be assigned to sets of its potential values. It is common that the outcomes depend on some physical variables that are not predictable. For example, when tossing a fair coin, the final outcome of heads or tails depends on the uncertain physical conditions, so the outcome being observed is uncertain. The coin could get caught in a crack in the floor, but such a possibility is excluded from consideration.

The domain of a random variable is called a *sample space*, defined as the set of possible outcomes of a non-deterministic event. For example, in the event of a coin toss, only two possible outcomes are possible: heads or tails.

A random variable has a probability distribution, which specifies the probability of Borel subsets of its range. Random variables can be discrete, that is, taking any of a specified finite or countable list of values (having a countable range), endowed with a probability mass function that is characteristic of the random variable's probability distribution; or continuous, taking any numerical value in an interval or collection of intervals (having an uncountable range), via a probability density function that is characteristic of the random variable's probability distribution; or a mixture of both.

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M.G.V.C ARTS, COMMERCE AND SCIENCE COLLEGE MUDDEBIHAL

## DEPARTMENT OF BOTANY

Teachers Use ICT enabled tools for Effective teaching learning process

Name of the Staff Member: Prof-S.V.Gurumath

Class: B.Sc Third Semester

Date: 01.01.2022

Time: 9.30 -10.30 am



S.G.V.C Vidya Prasarak Trust's

M.G.V.C ARTS, COMMERCE AND SCIENCE COLLEGE MUDDEBIHAL

## DEPARTMENT OF BOTANY

Teachers Use ICT enabled tools for Effective teaching learning process

Name of the Staff Member: Prof-S.V.Gurumath

Class: B.Sc Third Semester

Date: 01.01.2022

Time: 9.30 -10.30 am



# EMBRYOLOGY

## Topic: Double Fertilization and Triple Fusion

### Double fertilization

- is the fusion of the embryo sac with two male gametes. It occurs in angiosperms.
- Pollination is the deposition of pollen grains from anthers on the stigma of a flower, facilitating the fertilization, which is one of the major events of sexual reproduction of plants.
- Pollen contains two cells, a tube cell, which produces the pollen tube, and a generative cell, which produces two sperm cells.
- Pollen grains are germinated on the stigma, producing the pollen tube, which goes down the style until it reaches the micropyle in the ovule.
- Once it meets the micropyle, pollen tube bursts, releasing the two sperm cells which are carried through the pollen tube.
- One of the haploid sperm cells is fertilized with the haploid egg cell in the embryo sac, while the other haploid sperm cell fertilizes the central cell, which is also found in the embryo sac of the female gametophyte.

### • Significance of double fertilization is as follows:

1. It gives stimulus to the plant due to which ovary develops into fruit and ovules develop into seeds.
2. It restores the diploid condition by fusion of haploid male and female gametes.
3. It results in the formation of diploid zygote, which develops into an embryo and gives rise to a new plant.
4. It results in the formation of triploid primary endosperm nucleus (PEN) which develops into endosperm in the seed. It provides nourishment to the developing embryo.
5. It brings about recombination of characters resulting in variation among the offsprings.

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## DEPARTMENT OF BOTANY

Teachers Use ICT enabled tools for Effective teaching learning process

Name of the Staff Member: Prof-S.V.Gurumath

Class: B.Sc First Semester

Date: 31.12.2021

Time: 9.30 to 10.30 am



S.G.V.C Vidya Prasarak Trust's

M.G.V.C ARTS, COMMERCE AND SCIENCE COLLEGE MUDDEBIHAL

## DEPARTMENT OF BOTANY

Teachers Use ICT enabled tools for Effective teaching learning process

Name of the Staff Member: Prof-S.V.Gurumath

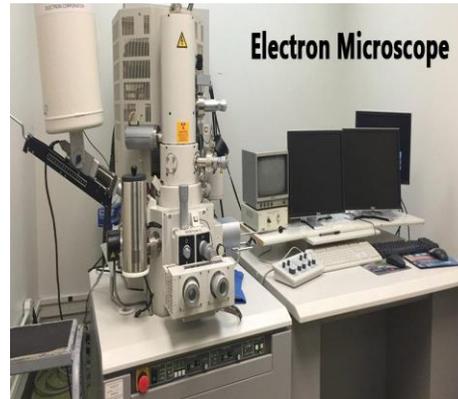
Class: B.Sc First Semester

Date: 31.12.2021

Time: 9.30 to 10.30 am



# MICROSCOPES



## 1. BINOCULAR MICROSCOPE:

A binocular microscope is any optical microscope with two eyepieces to significantly ease viewing and cut down on eye strain. Most microscopes sold today are binocular microscopes though the interplay between the two lenses can differ depending on the microscope type. For example, a compound microscope consists of a single optical path through which a 2D image is seen, a stereo microscope has two optical paths that display a separate image to the left and right eyes and overlay them to create a single 2D or 3D image, and a comparison microscope shows different images to each eye allowing comparison between two samples. Other differences to consider when purchasing a binocular microscope include the light source used, the maximum and minimum magnification available and whether a method for saving images is available.

**2. ELECTRON MICROSCOPE:** An **electron microscope** is a microscope that uses a beam of accelerated electrons as a source of illumination. As the wavelength of an electron can be up to 100,000 times shorter than that of visible light photons, electron microscopes have a higher resolving power than light microscopes and can reveal the structure of smaller objects. A scanning transmission electron microscope has achieved better than 50 pm resolution in annular dark-field imaging mode<sup>[1]</sup> and magnifications of up to about 10,000,000× whereas most light microscopes are limited by diffraction to about 200 nm resolution and useful magnifications below 2000×.

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## DEPARTMENT OF BOTANY

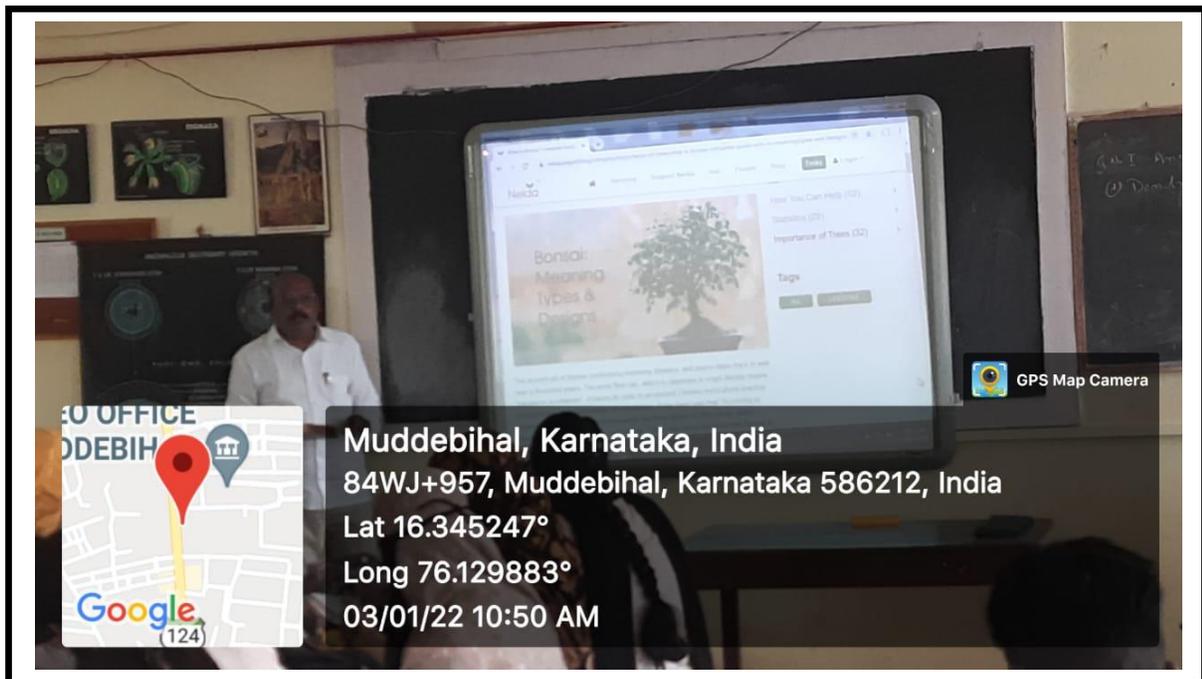
Teachers Use ICT enabled tools for Effective teaching learning process

Name of the Staff Member: Prof-S.V.Gurumath

Class: B.Sc Fifth Semester

Date: 03.01.2022

Time: 10.45 to 11.45 am



S.G.V.C Vidya Prasarak Trust's

M.G.V.C ARTS, COMMERCE AND SCIENCE COLLEGE MUDDEBIHAL

## DEPARTMENT OF BOTANY

Teachers Use ICT enabled tools for Effective teaching learning process

Name of the Staff Member: Prof-S.V.Gurumath

Class: B.Sc Fifth Semester

Date: 03.01.2022

Time: 10.45 to 11.45 am



## BONSAI TECHNIQUE



**Bonsai** ([Japanese](#): 盆栽, [lit.](#) 'tray planting', pronounced is a Japanese version of the original traditional Chinese art [penjing](#) or *penzai*. Unlike *penjing*, which utilizes traditional techniques to produce entire natural sceneries in small pots that mimic the grandiose and shape of real life sceneries, the Japanese "bonsai" only attempts to produce small trees that mimic the shape of real life trees. Similar versions of the art exist in other cultures, including the miniature living landscapes of Vietnamese [Hòn non bộ](#). It was during the [Tang dynasty](#), when *penjing* was at its height, that the art was first introduced into Japan.

The [loanword](#) "bonsai" (a Japanese pronunciation of the original Chinese term *penzai*) has become an [umbrella term](#) in English, attached to many forms of potted or other plants,<sup>[2]</sup> and also on occasion to other living and non-living things. According to Stephen Orr in [The New York Times](#), "the term should be reserved for plants that are grown in shallow containers following the precise tenets of bonsai pruning and training, resulting in an artful miniature replica of a full-grown tree in nature." In the most restrictive sense, "bonsai" refers to miniaturized, container-grown trees adhering to Japanese tradition and principles.

Purposes of bonsai are primarily contemplation for the viewer, and the pleasant exercise of effort and ingenuity for the grower.<sup>[4]</sup> By contrast with other plant cultivation practices, bonsai is not intended for production of food or for medicine. Instead, bonsai practice focuses on long-term cultivation and shaping of one or more small trees growing in a container.