iJRASET
International Journal For Research in Applied Science and Engineering Technology



INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Volume: 11 **Issue:** III **Month of publication:** March 2023

DOI: https://doi.org/10.22214/ijraset.2023.49404

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International Journal for Research in Applied Science & Engineering Technology (IJRASET)
ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor: 7.538
Volume 11 Issue III Mar 2023- Available at www.ijraset.com

Review Paper on Characteristic Study of Water Sample for Public Schools and Colleges in Yavatmal

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Abstract: ***This is a project of public interest and the child's immune system is particularly fragile following the corona phase. Water testing is so crucial, and this is the most crucial truth. why did we select this topic? We believe that the majority of the disease-causing bacteria are present in the water, which is the only reason we are testing the water sample. It is an environmentally friendly and crucial project for Yavatmal City because it is located in a hilly area and that most schoolchildren are no longer attending because of health concerns. Water is a valuable resource, and life on earth is impossible without it. Due to excessive and negligent use, water is becoming more and more polluted, and as a result, less and less of it is available for human use. Water pollution can be caused in a variety of ways, and both living things and non-living things are negatively impacted. In current situation water is a more contaminated that's why it is verry essential to check the quality of water. The causes of water pollution include sewage systems, industrial waste, acid rain, the oil industry, aquatic plants, and household garbage. We studied environmental engineering in the previous section, when we looked at the water quality found in nature. It is well known; the quality of the water is not verified after a corona. As a result, we are undertaking this endeavour for public benefit.***

Index Terms: Water pollution, Valuable resource, Earth, Water, Public interest, Resource, School, Collage,

I. INTRODUCTION

Drinking water can come from different sources depending on wherewe live in the world. When considering drinking water quality, microbiological contamination is the main concern in most cases sinceit is responsible for the majority of illnesses and deaths related todrinking unsafe water. Having safe drinking water is a human need and right for everyone. People need clean water to maintain their health and dignity. Having better water is essential in breaking the cycle of poverty since it improves people's health, strength to work, and ability to go to school.

Water quality testing is a tool that can be used to help identify safedrinking water. Water testing plays an important role in monitoring thecorrect operation of water supplies, verifying the safety of drinking water, investigating disease outbreaks, and validating processes and preventative measures.The purpose of this Water Sample Testing Civil Project is to find out, how the water sample can test. The report starts with introduction and ends with conclusion with experiment report. The report defines the detailed information about water testing with various examples. The report also explains about the quantity of the samples and types of the samples. The Sampling Methods consists of Manual sampling, Automatic sampling and Sorbent sampling, which explain the details of water testing.The physical and chemical properties of drinking water vary from top to bottom of the depth of the earth, and the time from morning to night. It is therefore difficult to obtain a truly representative sample. We need water for different purposes; we need water for drinking, industry, irrigation, swimming, fishing, etc. Water for various purposes requirements for the composition and purity, and each body of water must be tested regularly to onfirm the suitability.

The types of analysis could change from simple field testing for a single analytic to laboratory based multi component instrumental analysis. The analytical process demands sampling and sample storage since changes in composition of water do not stop once the sampling has been taken. Screening is done to ensure that water reaches the laboratory, the same composition as it has occurred during sampling.

II. OBJECTIVES

1) Survey and selection of sites for ground water samples Open well and bore well (OW and BW) which mainly includes in Dhule city and Deopur region.

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2) Investigation of physico-chemical aspects of collected samples. To find pH, Electrical Conductivity, Chlorides, Total Dissolved Solids (TDS), Total hardness, Dissolved Oxygen (DO), Calcium, Magnesium, Sodium, Potassium and Alkalinity.
3) Comparative data between OW and BW in relation with water quality standard.
4) To study the water sample analysis in two rainy seasons (June 2010 to Sept. 2010, June 2011 to Sept. 2011) and one summer season (Feb. 2011 to May 2011).
5) Survey and selection of sites for ground water samples Open well and bore well (OW and BW) which mainly includes in Dhule city and Deopur region.
6) Investigation of physico-chemical aspects of collected samples. To find pH, Electrical Conductivity, Chlorides, Total Dissolved Solids (TDS), Total hardness, Dissolved Oxygen (DO), Calcium, Magnesium, Sodium, Potassium and Alkalinity.
7) Comparative data between OW and BW in relation with water quality standard.
8) To study the water sample analysis in two rainy seasons (June 2010 to Sept. 2010, June 2011 to Sept. 2011) and one summer season (Feb. 2011 to May 2011).
9) Volumes in Saskatchewan, Saskatchewan Water Corporation**.**

III. NEED TO CHECK/EXAMINE WATER QUALITY OF SCHOOL / COLLAGE

1) Drinking water quality varies from place to place, depending onhe condition of the source water from which it is drawn and the treatment it receives.
2) The need of this study was to identify the prevalence of school water quality, availability, and education-related practices, and determine whether there were differences in those practices by school characteristics.

IV. COLLECTION OF WATER SAMPLE

1) Before testing the sample are collected from the source ofwater. These sample should be collected from such places that they represent the body of the water from which they are collected.
2) Following points should be kept in view while collecting the sample If water is to be collected from the Tap, sufficient quantity of water should be allowed to pass through the Tap, before collecting sample from it. Because it will eliminate the stagnant water.
3) If water is to be collected from the surface stream or rers, it should becollected above 30-50 cm below, thE surface, to avail the collection ofsurface impurities, oils, tree leaves etc. Which are also remove by stainerwhile collecting the water through intake
4) In case of water in being collected from the ground source i.e throughwell or tube well, sufficient quantity of water should be pump out beforecollecting the samples.

V. METHODOLOGY

Parameter	Method Use
pH	Digital pH Meter
Electrical Conductivity	Digital Conductivity Meter
Alkalinity	Titration Method Used HCL
Total Hardness, Ca, Mg	EDTA Complexometric Method
Total Dissolved Solid	Gravimetric Method
Dissolved Oxygen	Titrimetric Method
Sodium, Pottasium	Flame Photometer
Chloride Content	Titrimetric Method Using Stand AgNO3 Sollution

VI. SCOPE

1) Having read and seen so many problems and reports on the local news papers and the local media channels on unfit ground water. The research was thought of addressing this problem.
2) The second important factor for selecting this problem is the acute shortage of water due to limitations of stored water reservoirs like lake, ponds or rivers around Dhule city as a resource.

3) The literature search and compliance consist of: (a) Field data, (b) Research Papers and Journals, (c) The World Wide Web (WWW), (d) WHO, UNO, APHA and EPA.

4) The present work of water analysis based on the following physic_x0002_chemical parameters: Odour, Taste, pH, Electrical Conductivity, Chlorides, Total Dissolved Solids, Total Hardness, Dissolved Oxygen, Calcium, Magnesium, Sodium, Potassium, and Alkalinity.

5) Hence measured parameters will be compared with the guidelines suggested by BIS (Bureau of Indian Standards) for drinking water (IS 10-500, Bureau of Indian Standards, New Delhi, 2003).

VII. CONCLUSION

1) Amaravati university in Yavatmal represents an increase of water pollution activities for the development. Based on the results obtained for physicochemical analysis of ground water samples collected from different locations of tirupati, it can be concluded that in some samples water quality parameters (Total alkalinity, pH, hardness, TDS, sulphate, chloride, phosphorus, silica).

2) Hence, drinking water pollution should be controlled by the proper environment management plan. Water of this area should be pre-treated to make suitable for drinking and to maintain proper health conditions of people living in this area.

REFERENCES

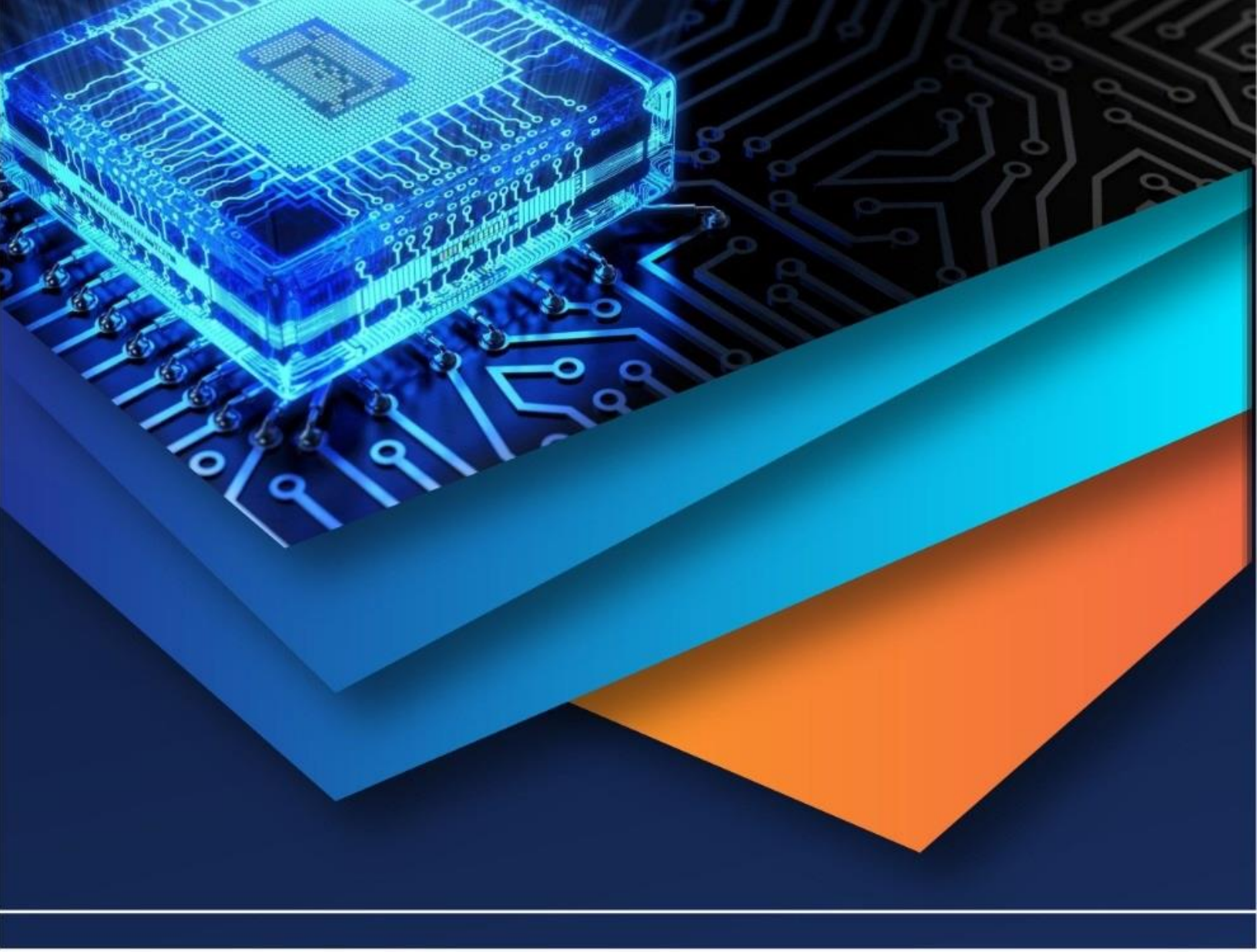
[1] Kaushik A, Mullee MA, Bryant TN, Hill CM. A study of the association between children's access to drinking water in primary schools and their fluid intake: can water be 'cool' in school? Child: Care, Health & Development. 2007; 33:409–15.

[2] Muckelbauer R, Libode L, Clausen K, Toschke AM, Reinehr T, Kersting M. Promotion and provision of drinking water in schools for overweight prevention: randomized, controlled cluster trial. Pediatrics. 2009;123: e661–e667.

[3] Wang Y C, Ludwig DS, Sonneville K, Gortmaker SL. Impact of change in sweetened caloric beverage consumption on energy intake among children and adolescents. Achieves of Pediatric & Adolescent Medicine. 2009;163(4):336–343.

[4] Popkin BM, D'Anci KE, Rosenberg IH. Water, hydration, and health. Nutrition Reviews. 2010;68(8):439–458.

[5] Kempton MJ, Ettinger U, Foster R, Williams SCR, Calvert GA, Hampshire A, et al. Dehydration affects brain structure and function in healthy adolescents. Human Brain Mapping. 2011; 32:71–79.



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