



## Best Practice -1

### Social and Technical activities through Centre for Water Research and Education

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Sl.No	Particulars	Relevant documents
1	Handbook	Front cover
2	On the spot water quality testing at Client site on their request	Post analysis result
3	MOU	Agreement with friends of Bharathapuzha
4	Evidence of success	
	4.1 Water quality analysis	Relevant document
	4.2 Project	Relevant document



# Jyothi Engineering College

NAAC Accredited College with NBA Accredited Programmes\*

Approved by AICTE & affiliated to APJ Abdul Kalam Technological University

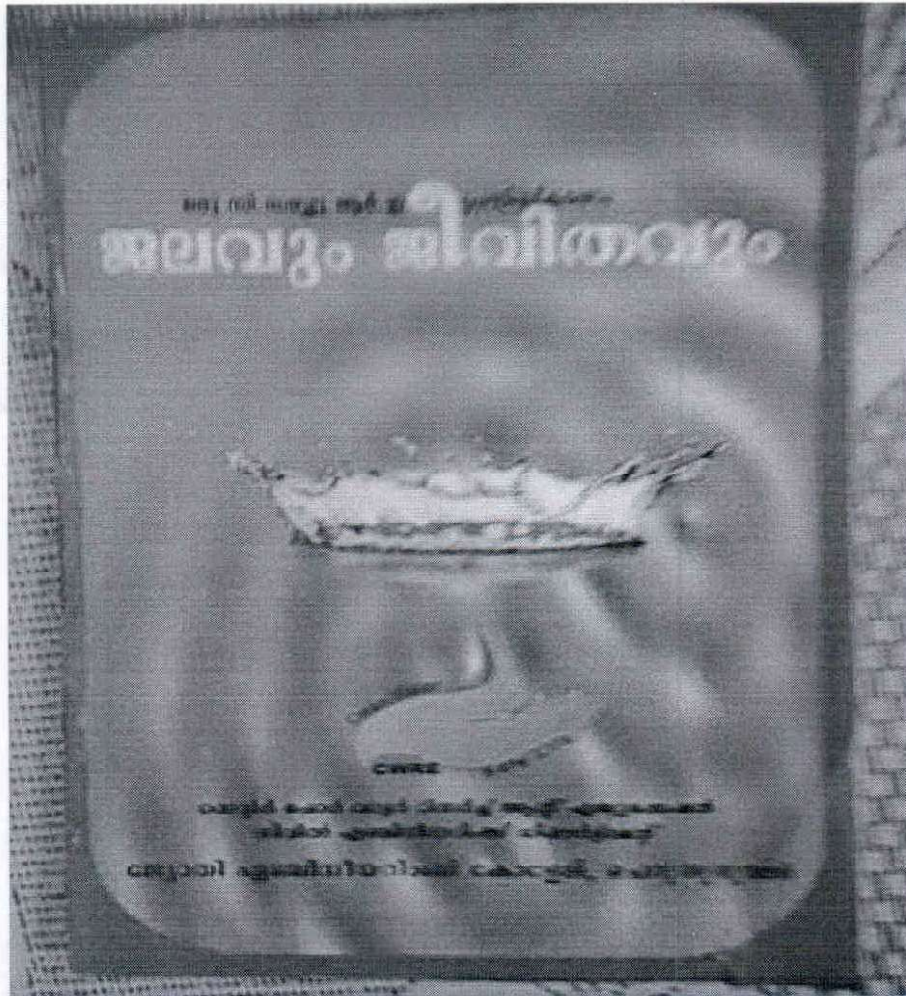
A CENTRE OF EXCELLENCE IN SCIENCE & TECHNOLOGY BY THE CATHOLIC ARCHDIOCESE OF TRICHUR

JYOTHI HILLS, VETIKATTIRI P.O. CHERUTHURUTHY, THRISSUR. PIN-679531 PH: +91- 4884-259000, 274423 FAX : 04884-274777



NBA accredited B.Tech Programmes in Computer Science & Engineering, Electronics & Communication Engineering, Electrical & Electronics Engineering and Mechanical Engineering valid for the academic years 2016-2022. NBA accredited B.Tech Programme in Civil Engineering valid for the academic years 2019-2022.

## Cover Page of Handbook



True Copy Attested

*Sunny Joseph Kalayathankal*

Dr. SUNNY JOSEPH KALAYATHANKAL  
M.Tech, MCA, M.Sc, M.Phil, B.Ed  
Ph.D (Computer Science), Ph.D (Maths)  
PRINCIPAL  
Jyothi Engineering College  
Cheruthuruthy P.O.- 679 531



# Jyothi Engineering College

BAAC Accredited College with ISO Accredited Programmes

Approved by AICTE & affiliated to APJ Abdul Kalam Technological University

Approved by Kerala State Pollution Control Board as a commercial laboratory vide order no: PCB/Lab approval 85/2019/valid upto 29.10.2021

## DEPARTMENT OF CIVIL ENGINEERING

### CENTRE FOR WATER RESEARCH & EDUCATION

Approved by Kerala State Pollution Control Board as a commercial laboratory vide order no: PCB/Lab approval 85/2019/valid upto 29.10.2021

### Water Quality Test Data

Name of Customer : *Shazaid Shamsi, 401/13, Vallaathal Nagar, Changanassery*

Type of Source : *Bore well*

Date of Collection : *24.07.21*

Date of Testing : *24.07.21 - 28.07.21*

Standard Followed : *IS 10500 - 2012*

Sino	Parameter	Unit	Acceptable limit	Permissible limit	Content in the sample
1	Turbidity	NTU	1	5	0.1
2	pH	No unit	6.5 - 8.5	No relaxation	7.0
3	TDS	Mg/Litre	500	2000	260
4	Alkalinity	Mg/Litre	200	600	59
5	Total Hardness	Mg/Litre	200	600	153
6	Chloride	Mg/Litre	250	1000	55-157
7	Fluoride	Mg/Litre	1	1.5	Nil
8	Nitrate	Mg/Litre	45	No relaxation	---
9	Iron	Mg/Litre	0.3	No relaxation	0.26
10	Manganese	Mg/Litre	0.1	0.3	Nil
11	Sulphate	Mg/Litre	200	400	---
12	Sulphide	Mg/Litre	0.05	No relaxation	---
13	Dissolved Oxygen	Mg/Litre			---
14	COD	Mg/Litre			---
15	BOD	Mg/Litre			Nil
16	Coliform/100 ml	Number	Nil	Nil	---
17	E. coli/100 ml	Number	Nil	Nil	Nil

Remarks and Recommendations : All the tested parameters are within the limit

*Amal S*

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KERALA STATE POLLUTION CONTROL BOARD  
Engineering College  
Changanassery



# Jyothi Engineering College

BAEI Accredited College with BBI Accredited Programmes

Approved by AICTE & affiliated to APJ Abdul Kalam Technological University

APJ Abdul Kalam Technological University, Kozhikode



APJ Abdul Kalam Technological University, Kozhikode  
Department of Civil Engineering, Jyothi Engineering College, Kozhikode  
Approved by the Government of Kerala, 2011. The Government of Kerala, Kozhikode  
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## DEPARTMENT OF CIVIL ENGINEERING

### CENTRE FOR WATER RESEARCH & EDUCATION

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vide order no : PCB/Lab approval 85/2019/valid upto 29.10.2021

### Water Quality Test Data

Name of Customer : *Arrose Callery, Chelabara, Bonnor, Kozhikode*

Type of Source : *Openwell*

Date of Collection : *26.12.21*

Date of Testing : *26.12.21 - 27.12.21*

Standard Followed : IS 10500 - 2012

S/no	Parameter	Unit	Acceptable limit	Permissible limit	Content in the sample
1	Turbidity	NTU	1	5	1.1
2	pH	No unit	6.5-8.5	No relaxation	6.2
3	TDS	Mg/Litre	500	2000	180
4	Alkalinity	Mg/Litre	200	600	60
5	Total Hardness	Mg/Litre	200	600	120
6	Chloride	Mg/Litre	250	1000	19.05
7	Fluoride	Mg/Litre	1	1.5	Nil
8	Nitrate	Mg/Litre	45	No relaxation	—
9	Iron	Mg/Litre	0.3	No relaxation	0.26
10	Manganese	Mg/Litre	0.1	0.3	Nil
11	Sulphate	Mg/Litre	200	400	3.2
12	Sulphide	Mg/Litre	0.05	No relaxation	—
13	Dissolved Oxygen	Mg/Litre	—	—	—
14	COD	Mg/Litre	—	—	Nil
15	BOD	Mg/Litre	—	—	—
16	Coliform/100 ml	Number	Nil	Nil	Nil
17	E. coli/100 ml	Number	Nil	Nil	—

Remarks and Recommendations : *All the tested parameters are within limit.*

**True Copy Attested**

Jyothi Engineering College  
Kozhikode  
0492-273501



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CV 521087

## MEMORANDUM OF UNDERSTANDING

This Memorandum of Understanding (MoU) is entered into on 17<sup>th</sup> October 2020 between the

*Department of Civil Engineering*



**Jyothi Engineering College**

True Copy Attested

*Sunny*

&

**Friends of Bharathapuzha**

Dr. SUNNY JOSEPH KALAYATHANKAL  
M.Tech, MCA, M.Sc, M.Phil, B.Ed  
Ph.D (Computer Science), Ph.D (Maths)  
Principal  
Jyothi Engineering College  
Cheruthuruthy P.O. - 679 531

1) **Parties:** This Memorandum of Understanding (MoU) is made and entered into by and between the Friends of Bharathapuzha (FoB) and Jyothi Engineering College, Cheruthuruthy (Jyothi Engineering College).

*[Signature]*

Ms. Vincy Verghese  
HOD-in-charge, CE Dept  
Jyothi Engineering College

*[Signature]*

Dr. Sunny Joseph  
Principal -in-charge  
Jyothi Engineering College

*[Signature]*

Mr. Vinod M. Nambiar  
Secretary  
Friends of Bharathapuzha

ms 9899/4.11.2020  
ms  
ENGINEERING

C.K. KOCHUMARY





കേരളം കേരल KERALA

CV 521088

- 2) **Purpose:** The purpose of this Memorandum of Understanding ('MoU') is formally to record the mutual interest of the Friends of Bharathapuzha (FoB) and Jyothi Engineering college, Cheruthruthy (JECC) to collaborate and set up a task force for the rejuvenation and conservation of Bharathapuzha.
- 3) **Term of MoU:** This MOU is effective upon the day and date last signed and executed by the duly authorized representatives of the parties to this MOU. The parties hereby agree to work jointly on the following activities for 2 years w.e.f 17th October 2020. This MOU can be extended, modified or terminated at any time as per mutual agreement.

Ms. Vincy Verghese  
HOD-in-charge, CE Dept  
Jyothi Engineering College

Dr. Sunny Joseph  
Principal -in-charge  
Jyothi Engineering College

Mr. Vinod M Nambiar  
Secretary  
Friends of Bharathapuzha

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MUN  
JYOTHI ENGINEERING  
CHERUTHRUTHY

C.K. KOCHUMARY

SUN VERGHESE  
06 NOV 2020

4) **Responsibilities and Action Plan:**

- a. A joint action committee of FOB and JECC is to be formed and all activities should be based on a joint decision.
- b. FOB and JECC will jointly chart out feasible time bound programs for attaining the goal in a systematic way.
- c. Programs for student and faculty involvement in the rejuvenation activities of Bharathapuzha will be charted out by the Management of JECC.
- d. JECC will provide its technical expertise for resolving the issues through students' projects and similar programs.
- e. Department of Civil Engineering, JECC will take the lead role in joint activities with FOB; and HOD of Civil Engineering, will be communication officer from JECC side and Secretary of FoB, will be the communication officer, from the FOB side.
- f. The facilities at the Govt. approved water testing laboratory under the Department of Civil Engineering, JECC, will involve in analysis of water sample of Bharathapuzha at a price as per the discretion of JECC management.
- g. FOB will be responsible for the collection of field data, interaction with the Municipalities, Panchayaths and the conduct of awareness creating programs & IEC (Information, Education and Communication) activities.
- h. The survey analysis and report will be shared to the Shornur Municipality and Cheruthuruthy Panchayath for the follow-up actions as per mutual agreement between JECC and FOB.
- i. The timing and remuneration for the above programs and tests will be based on mutual agreement, acceptance and confirmation.



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HOD-in-charge, CE Dept  
Jyothi Engineering College



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Jyothi Engineering College



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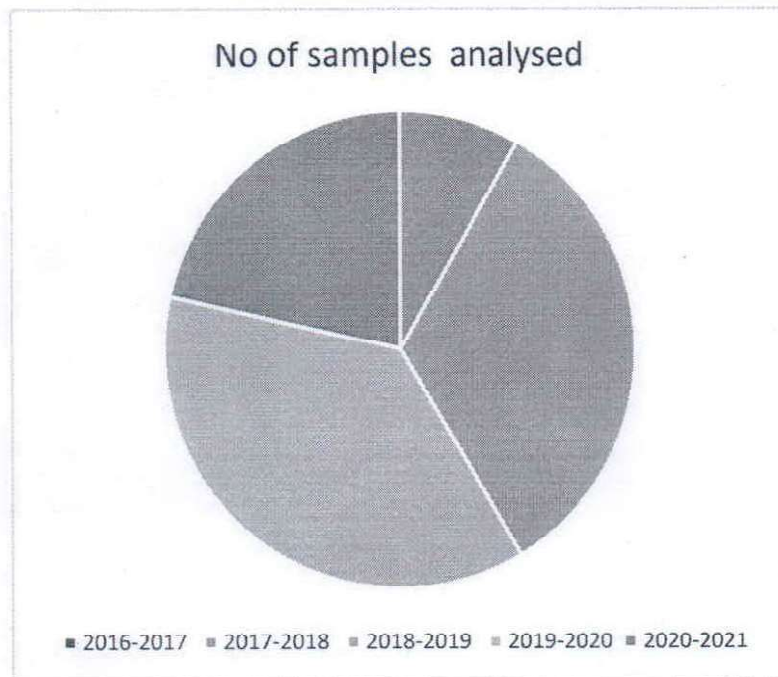
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## Water Quality Analysis

### Private water quality Analysis

Private water quality analysis is taken up based on a demand driven approach. The people approach the laboratory for various purposes' like remediation of water quality issues, obtaining license from government organizations etc .

The number of private analysis in each financial year are furnished below



Sl no	Year	No of samples analyse
1	2016-2017	10
2	2017-2018	17
3	2018-2019	68
4	2019-2020	76
5	2020-2021	44
	Total	215

### Analysis of water samples under the save Thrissur program

The programme was initiated by the diocese of Thrissur to help the people on account of water pollution caused by the flood of 2018 . the programme includes analysis of water samples from various places in the district

Under this programme we analysed 964 water samples and details of which are furnished as below

Analysis data under the save Thrissur program

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*[Signature]*

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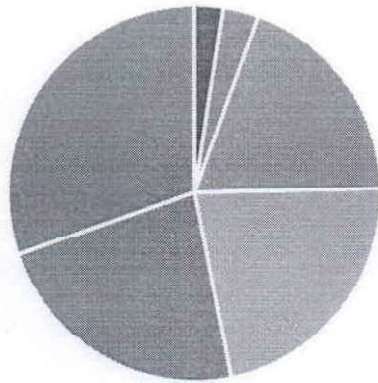
Sl no	Place	No of samples
1	Veluthur	67
2	Chittissery	83
3	Nedupuzha	457
4	Manalaur	355
	Total	964

The work was carried out free of cost as per instruction from the management

## Analysis of water samples of the college

The laboratory also undertake analysis of water samples pertaining to the college water supply scheme . It includes testing of water samples of sources, open well and bore well. based on the testing results are recorded and issued for interpretation. The effectiveness of the chlorinating unit is also assessed by CWRE officials periodically

### Analysis details of college water supply scheme



- 2015-2017 ■ 2016-2017 ■ 2017-2018
- 2018-2019 ■ 2019-2020 ■ 2020-2021

Sl no	Period	No of samp
1	June 2015-march 2016	4
2	2016-2017	5
3	2017-2018	31
4	2018-2019	36
5	2019-2020	37
6	2020-2021	49
	Total	162

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*(Signature)*

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## Training Under CWRE- Student Project

Year	Topic
2021	Bharathapuzha myths, Sociology and conservation
2020	Study of water quality in Peechi Dam



**Jyothi** Engineering College

Approved by AICTE affiliated to JSSM Group of Institutions, Technological University



# BIHARATHIAPUZHA

Myths, Sociology and Conservation

Department of Civil Engineering

Jyothi Engineering College

Cheruthuruthy, Thrissur

December 2021

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*Emmanu*

LIBRARY MALAYATHIAPUZHA  
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# Jyothi Engineering College

Approved by AICTE, Affiliated to VIT Vellore, Tamil Nadu



Fr Roy Joseph Vadakkan

Campus Head and Chief Executive Officer  
Jyothi Engineering College


I am happy that department of Civil Engineering has taken effort to prepare a report namely, **Bharathpuzha, Myths, Sociology and Conservation**, highlighting the need and measures to protect Bharathpuzha. Degradation of Rivers and concomitant protective measures are burning issues of the present era and hence our contribution is invariably laudable. The report covers mythological and sociological aspects of river protection and the proposal for conservation is based on these prime considerations as well

It is learned that the report is prepared after long study on various aspects, carried out by a team consisting of faculties and students of Civil Department. The faculties include Prof Cyriac.M.G, MrsVineyVerghese and Dr Agnes Anto.C Student group comprises of Antoraffy, Irene francy, Nimmy rose Anto and VarshaVinod. I appreciate all those who have involved in this effort including the complete Civil Engineering department for their co-operation and encouragement in this endeavor. With these few words I bestow this report to the general community of the country, with the hope that it is useful elsewhere, in similarly placed situations

  
Fr Roy Joseph Vadakkan

Jyothi Hills  
20.12.2021

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