



International Journal of Fisheries and Aquatic Studies

E-ISSN: 2347-5129

P-ISSN: 2394-0506

(ICV-Poland) Impact Value: 5.62

(GIF) Impact Factor: 0.549

IJFAS 2022; 10(3): 133-140

© 2022 IJFAS

www.fisheriesjournal.com

Received: 17-03-2022

Accepted: 19-04-2022

Debabrata Das

FRAI Division, ICAR-CIFRI,
Barrackpore, Kolkata, West
Bengal, India

Prakriti Das

Department of Biotechnology,
Amity University, New Town,
Kolkata, West Bengal, India

Aranya Das

Department of CSE, Chandigarh
University, Mohali, Chandigarh,
India

Santa Ana Das

AIMA Academy in Modern
Ayurvedics, North Ghugia,
Chakdaha, Nadia, West Bengal,
India

Corresponding Author:

Debabrata Das

FRAI Division, ICAR-CIFRI,
Barrackpore, Kolkata, West
Bengal, India

The machine learning techniques of controlling and preventing viruses, microbes with digital parameters and hydro-carbon, Isoprene, Inhibiting microbial genomic-replications, ecotechnologically

Debabrata Das, Prakriti Das, Aranya Das and Santa Ana Das

Abstract

The well known ground-truth microbial counts and digital parameters of ecology can find relations viz. machine learning techniques, of departing hydrophilic viruses, microbes with hydrophobicity of hydrocarbons or else reactive Isoprene. In earlier studies author found that hydrocarbon Isoprene the smallest unit of essential Fats, can be a non-protein enzyme can take extra engineering on inhibiting genomic-replications of microbes by reversibly forming Isoprene-phosphate. GC-MS detection of Isoprene or hydrocarbon derivatives can be possible and detection of turbidity, pH can be a controlling measure of microbes, quite ecotechnologically. Authors are running *Ayurveda* gardens with fascinating plant specieses namely *Justasia* spp and *Citrus* plants those are releasing Isoprene can protect and prevent any viruses with Isoprene instant proofs. May be gene editing of of all evil viruses with Isoprene remains be pre historic and established since Ayurvedic era Modern digital-research of Chromatography, Distillations or digital electronics can find that Isoprene and few others when emitted by plants or algae can prevent viruses and with a fact that oldest prescription of *Ayurveda* may be the worthiest to the mankind. May all naturally gene-editing possible with *Ayurveda* science since pre-historic era and re-invented. Today *Ayurveda* science may be as advanced and authentic with perspective to gene editing or gene-therapy. In recent years we find whole world is full panicked with every word-goes starting with viruses, their all kind of mutants etc. However once we take very worthy Isoprene to Terpenoids from plants and Fatty bio-molecules etc. this may be God gifted bio-molecules that prevent and cure virus attack or even its mutants by damaging their genetic traits. Modern Ayurveda says any anomaly in mankind caused by viruses or its mutants can be cured with natural gene-editing plants i.e. *Justicia* spp, with stated Ayurveda science containing Isoprene, acting gene-editing enzyme, non-conventional and non-protein bio-molecule by forming isoprene phosphate reversibly, along with all the precursors of desiring genetic-base materials such as Purine and Pyrimidine obtainable from very popular alkaloid biomolecules namely Vasicine, Vascineone and Quinazoline, respectively sourced from *Justacia* spp, or else simply fed them with *Citrus* spp or *Swietenia mahagoni* leaves all this containing Isoprene and hence animals fed gets escaped from any kind of virus diseases. All this Ayurvedic plants since pre-historic era and proven true Ultra natural all the mentioned biomolecules also obtainable at their respective temperature of vapour point (vp) from individual plant extracts. Whereas examples are given with aquatic data of fisheries environments.

Keywords: Ecotechnology, machine learning techniques, digital parameters in controlling virus and microbes

Introduction

In recent days ecotechnology and research studies (Das *et al.* 2020-22 of relevance's) are applied to find suitable growth specific to either plants or animals. All individual species biology remains confined certain specific range of pH. Either internally or external cellular and ecological environment. This research communication also finds that aquatic microbes remain non-existence beyond the range of pH 6.5 to 8.5. Accordingly microbial measures can be possible either any cell to grow or to make any evils become vanish. Modern ecotechnology says lets be digital to minimise errors. In recent days demand of digital ecology may rising high to higher. Measurable ecological parameters that relates to animal or cell biology. Ecotechnology here we find machine learning Techniques in obtaining relations among the ecological parterres of non living to living perspective to environmental approaches.

Ecotechnology in mankind may be a perpetual applied science in obtaining relations among the different parameters or objects in any Ecology. Detectable or measurable either digitally or computerised or satellite-based research studies. This may be a Holistic environmental editing process as well. Authors often found that if disease-less then growth and fecundity are negatively correlated with TDS and CEC and controlled rationally with mentioned Digital environments and when non-diseases. As ecological microbes can be relates with digital parameters. Isoprene may be smallest non-conventional non protein enzyme that may beyond the central dogma, can correct environments and evil helix of viruses ecotechnology a never-ending science for mankind found with modern Ayurveda science. Author has communicated a simple science in the domain of Biochemistry with Ecotechnology may be for esteem mankind. Digital model of *Ayurveda* with Citrus, Oranges, Switenia etc. can correct Environments with Isoprene that can spoil Evil Helix of Viruses even defined jointly by James Watson and Francis Crick s double helix Stranded Model. May all happy, replication, transcription and translation since then invention of Central Dogma. However there may be any foul helix that can be prevented or foul proteins i.e. Virions derived from RNA/ DNA genetic materials can be prevented simply by Fatty holly Biomolecule mere Isoprene. Since then we escaped from COVIDs here are learning inside on evils of Helix of Genetic materials of Viruses and found prevention and control can be possible by inducted holly Isoprene biomolecule similar to Hydrocarbon inhibiting virus and bacteria. Ayurveda plants can act Isoprene as Non-Protein and simplest non-conventional may be termed a new generation

enzyme, when defused into microbial cells and able to destroy helical genetic Materials of any virus or unicellular microbes, and whether their nucleic-acid by biochemically forming Isoprene-phosphate and hence virus genetic materials get restricted, prevented and simply cured by holly Isoprene has three roles firstly hydrophobic repulsions, secondly very active and gets hydrogenated by genetic material once diffused in, thirdly forms Isoprene phosphate with virus genetic material and destroyed. This is applicable in Fisheries and Mankind. All we may know Isoprene is the simplest nano-particle or a smallest unit of Fatty-biomolecule can defeat all the evils virus pathogens or cellular pathogens when diffused in the pathogenic cell and destroy evil helix of Virus forming Isoprene-phosphate and hence Virus genetic material may get spoiled.

Material and Method

Ecotechnology to find relations with Machine learning techniques, since we know there are digital parameters in controlling virus and microbes recent days data science is used for interpretations and predication and decision making. A long-term data for five years period of lower stretches of Ganges river as an example is analysed with modelling software SPSS (Table 1 to Table 6) Data comprising aquatic microbes which is linalr negatively correlated water pH in the environments in certain range (6.5 to 8.5) Beyond the mentioned range there are non-existence of aquatic microbes found in environments to prove the earlier hypothesis. Study found pH is negatively correlated with all aquatic Microbes again simple Hydrocarbon derivatives and Isoprene also negatively correlated with aquatic Microbes.

Table 1: Aquatic microbial relations with pH with Machine learning techniques found in lower stretches of river Ganges.

Correlations						
Control Variables		TOTAL_CO	FECAL_CO	ENTERO	PH	
WATERTEM	TOTAL_CO	Correlation	1.000	.948	.849	-.100
		Significance (1-tailed)	.	.000	.000	.026
		df	0	380	380	380
	FECAL_CO	Correlation	.948	1.000	.841	-.096
		Significance (1-tailed)	.000	.	.000	.030
		df	380	0	380	380
	ENTERO	Correlation	.849	.841	1.000	-.068
		Significance (1-tailed)	.000	.000	.	.094
		df	380	380	0	380
	PH	Correlation	-.100	-.096	-.068	1.000
		Significance (1-tailed)	.026	.030	.094	.
		df	380	380	380	0

Table 2: Aquatic microbial relations with pH with Machine learning techniques found in lower stretches of river Ganges just an example.

Correlations						
Control Variables		TOTAL_CO	FECAL_CO	ENTERO	PH	
WATERTEM	TOTAL_CO	Correlation	1.000	.948	.849	-.100
		Significance (2-tailed)	.	.000	.000	.051
		df	0	380	380	380
	FECAL_CO	Correlation	.948	1.000	.841	-.096
		Significance (2-tailed)	.000	.	.000	.060
		df	380	0	380	380
	ENTERO	Correlation	.849	.841	1.000	-.068
		Significance (2-tailed)	.000	.000	.	.187
		df	380	380	0	380
	PH	Correlation	-.100	-.096	-.068	1.000
		Significance (2-tailed)	.051	.060	.187	.
		df	380	380	380	0

Table 3: Hydrocarbon derivatives in Aquatic Environments as well negatively controlling aquatic microbes found in lower stretches of river Ganges just an example.

		Correlations					
Control Variables		TOTAL_CO	FECAL_CO	ENTERO	HCH1	HCH2	
WATERTEM	TOTAL_CO	Correlation	1.000	.948	.849	-.015	-.053
		Significance (1-tailed)	.	.000	.000	.382	.152
		df	0	380	380	380	380
	FECAL_CO	Correlation	.948	1.000	.841	-.038	-.028
		Significance (1-tailed)	.000	.	.000	.228	.296
		df	380	0	380	380	380
	ENTERO	Correlation	.849	.841	1.000	-.014	-.099
		Significance (1-tailed)	.000	.000	.	.391	.026
		df	380	380	0	380	380
	HCH1	Correlation	-.015	-.038	-.014	1.000	-.056
		Significance (1-tailed)	.382	.228	.391	.	.139
		df	380	380	380	0	380
HCH2	Correlation	-.053	-.028	-.099	-.056	1.000	
	Significance (1-tailed)	.152	.296	.026	.139	.	
	df	380	380	380	380	0	

Table 4: Hydrocarbon derivatives in Aquatic Environments negatively controlling aquatic Microbes found in lower stretches of river Ganges just an example

		Correlations					
Control Variables		TOTAL_CO	FECAL_CO	ENTERO	HCH1	HCH2	
PH	TOTAL_CO	Correlation	1.000	.957	.881	-.004	-.036
		Significance (2-tailed)	.	.000	.000	.938	.481
		df	0	380	380	380	380
	FECAL_CO	Correlation	.957	1.000	.872	-.025	-.014
		Significance (2-tailed)	.000	.	.000	.625	.783
		df	380	0	380	380	380
	ENTERO	Correlation	.881	.872	1.000	-.002	-.064
		Significance (2-tailed)	.000	.000	.	.969	.212
		df	380	380	0	380	380
	HCH1	Correlation	-.004	-.025	-.002	1.000	-.050
		Significance (2-tailed)	.938	.625	.969	.	.326
		df	380	380	380	0	380
	HCH2	Correlation	-.036	-.014	-.064	-.050	1.000
		Significance (2-tailed)	.481	.783	.212	.326	.
		df	380	380	380	380	0

Table 5: Aquatic microbes Coliform with pH in Ecotechnological relations of parameters

ANOVA					
	Sum of Squares	df	Mean Square	F	Sig.
Regression	1.166E11	1	1.166E11	15.023	.000
Residual	2.958E12	381	7.764E9		
Total	3.075E12	382			

The independent variable is PH.

Table 6: Aquatic microbes Coliform with pH in Ecotechnological relations of coefficient

Coefficients						
	Unstandardized Coefficients		Standardized Coefficients		t	Sig.
	B	Std. Error	Beta			
PH	-60786.472	15682.915	-.195		-3.876	.000
(Constant)	582791.275	123426.843			4.722	.000

Table 7: Aquatic microbes Fecal coliform with pH in Ecotechnological relations of parameters

ANOVA					
	Sum of Squares	df	Mean Square	F	Sig.
Regression	5.156E10	1	5.156E10	14.038	.000
Residual	1.399E12	381	3.673E9		
Total	1.451E12	382			

The independent variable is PH.

Table 8: Aquatic microbes Fecal coliform with pH in Ecotechnological relations of coefficient.

Coefficients					
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
PH	-40413.507	10786.224	-.189	-3.747	.000
(Constant)	382657.415	84889.164		4.508	.000

Table 9: Aquatic microbes Entero bacteria with pH in Ecotechnological relations of parameters

ANOVA					
	Sum of Squares	df	Mean Square	F	Sig.
Regression	3.088E7	1	3.088E7	12.724	.000
Residual	9.246E8	381	2426743.716		
Total	9.555E8	382			

The independent variable is PH.

Table 10: Aquatic microbes Entero bacteria with pH in Ecotechnological relations of coefficients.

Coefficients					
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
PH	-988.997	277.258	-.180	-3.567	.000
(Constant)	10257.744	2182.063		4.701	.000

Results and Discussion

Ecotechnology relations with Machine learning techniques found with digital parameters in controlling virus and microbes This staed scientific communication dealt microbial phenomenons with machine learning techniques (Table 1 to Table 6) described inhibition of microbes can be applied to

Virusses as well both in terrestrial and aquatic environments. With given example of aquatic data of aquatic environments related to Isoprene. Isoprene. And simple hydrocarbon inibit Coliform, Fecal coliform, Enteroand Platy Bacteria are all found visible only within the range of pH 6.5 to 8.5 and all their trends are negatively correlated with aquatic pH.

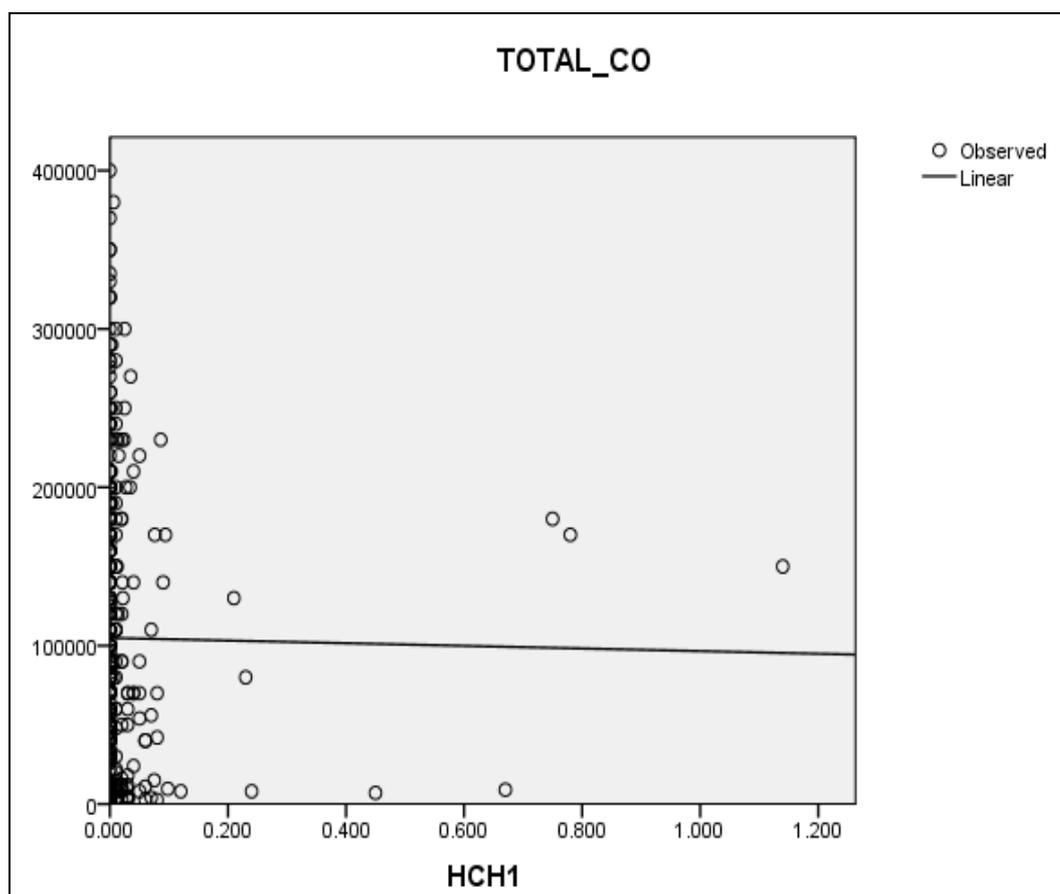


Fig 1: Aquatic microbial Coliform inhibitions with Hydrocarbon derivatives with machine learning techniques found in lower stretches of river Ganges.

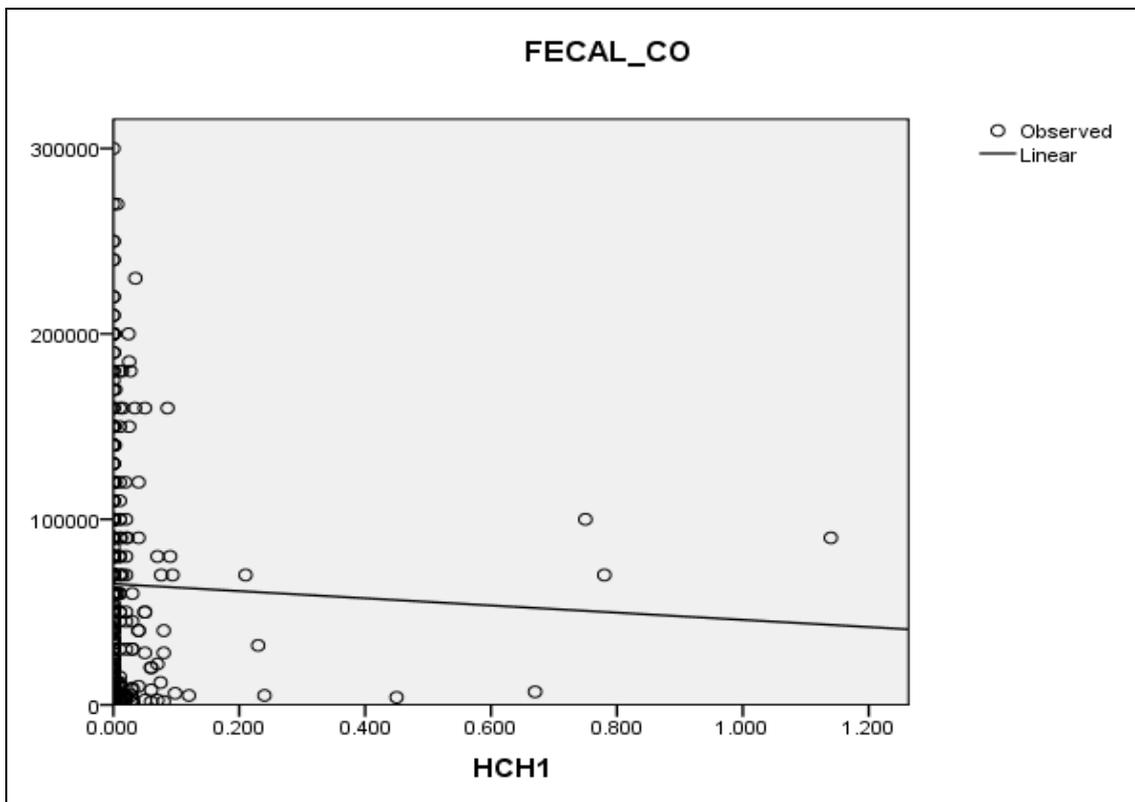


Fig 2: Aquatic microbial Fecal Coliform inhibition relations with Hydrocarbon derivatives with machine learning techniques found in lower stretches of river Ganges.

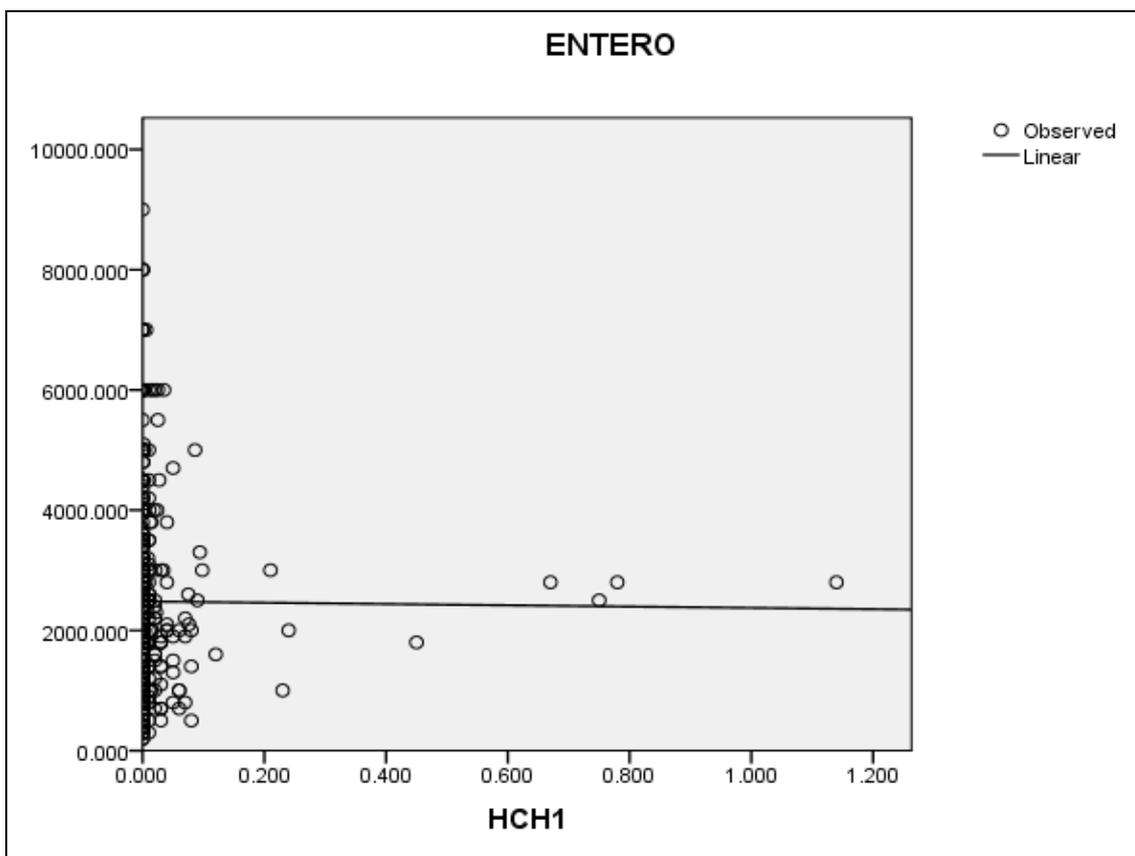


Fig 3: Aquatic microbial Entero Bacteris inhibitory relations with Hydrocarbon derivatives with machine learning techniques found in lower stretches of river Ganges.

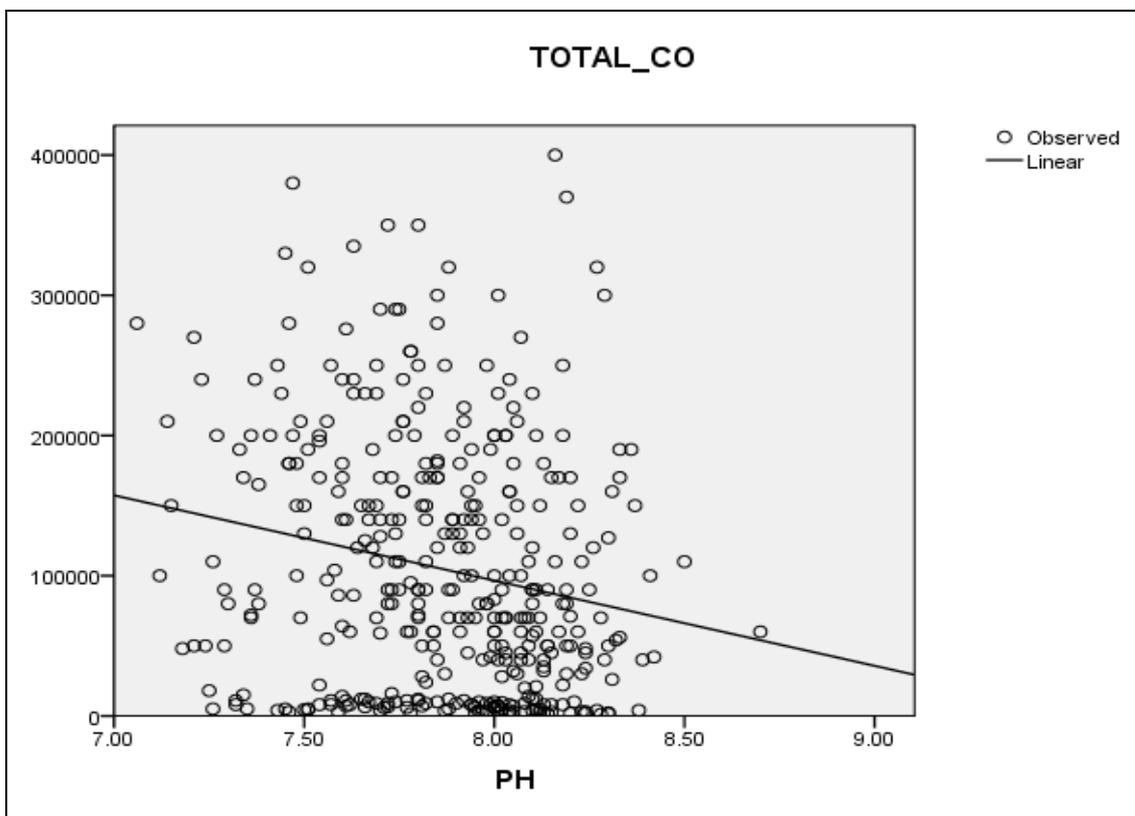


Fig 4: Aquatic microbial Coliform relations negatively correlated with pH with machine learning techniques found in lower stretches of river Ganges.

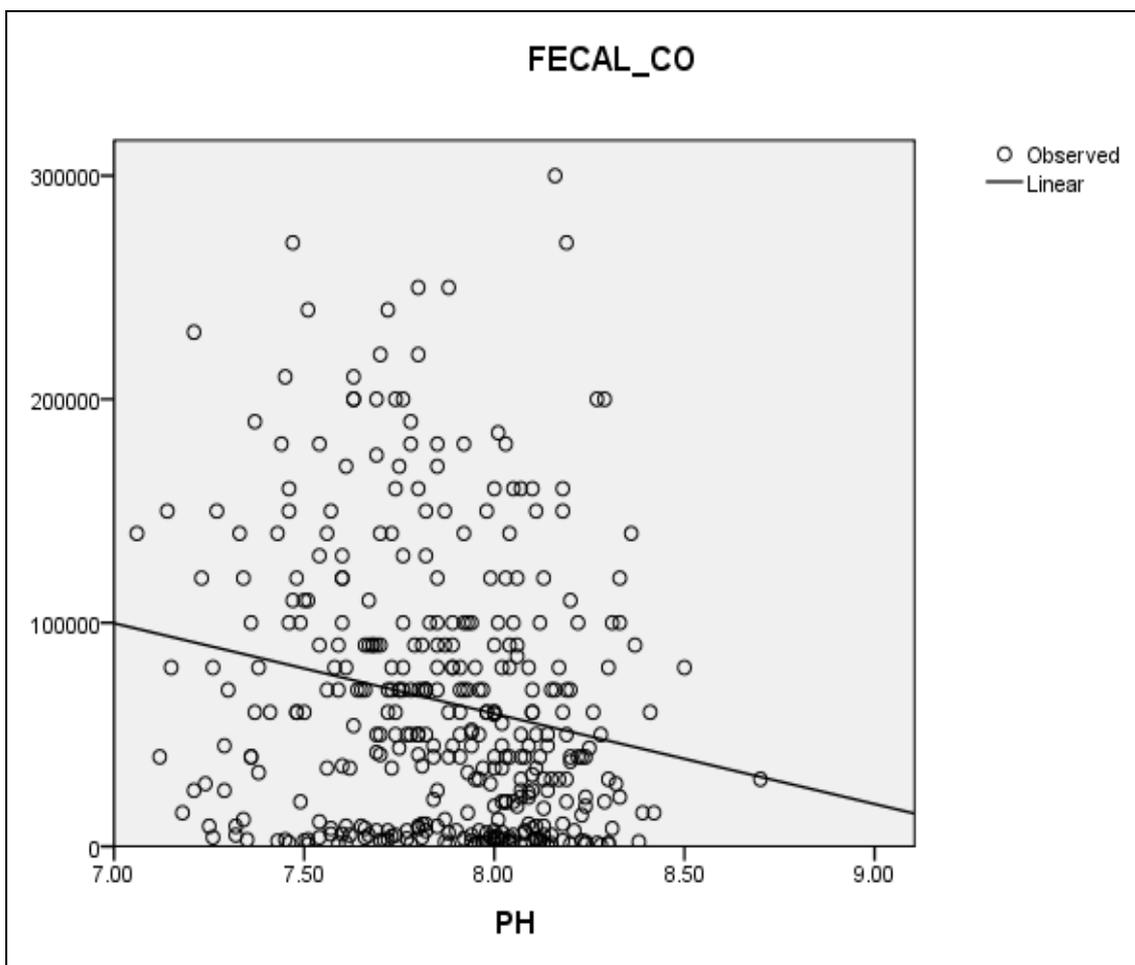


Fig 5: Aquatic microbial Fecal coli-form Bacteria relations negatively correlated with pH with machine learning techniques found in lower stretches of river Ganges.

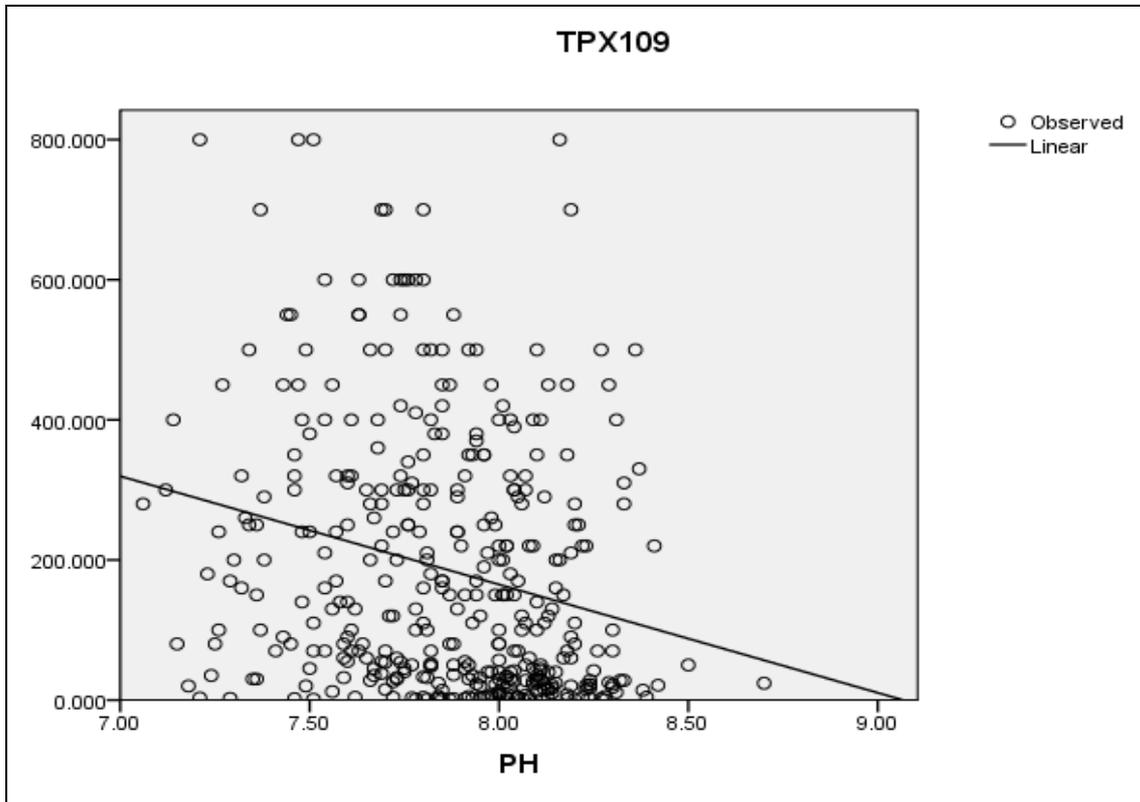


Fig 6: Aquatic microbial Entero-Bacteria relations negatively correlated with pH with machine learning techniques found in lower stretches of river Ganges.

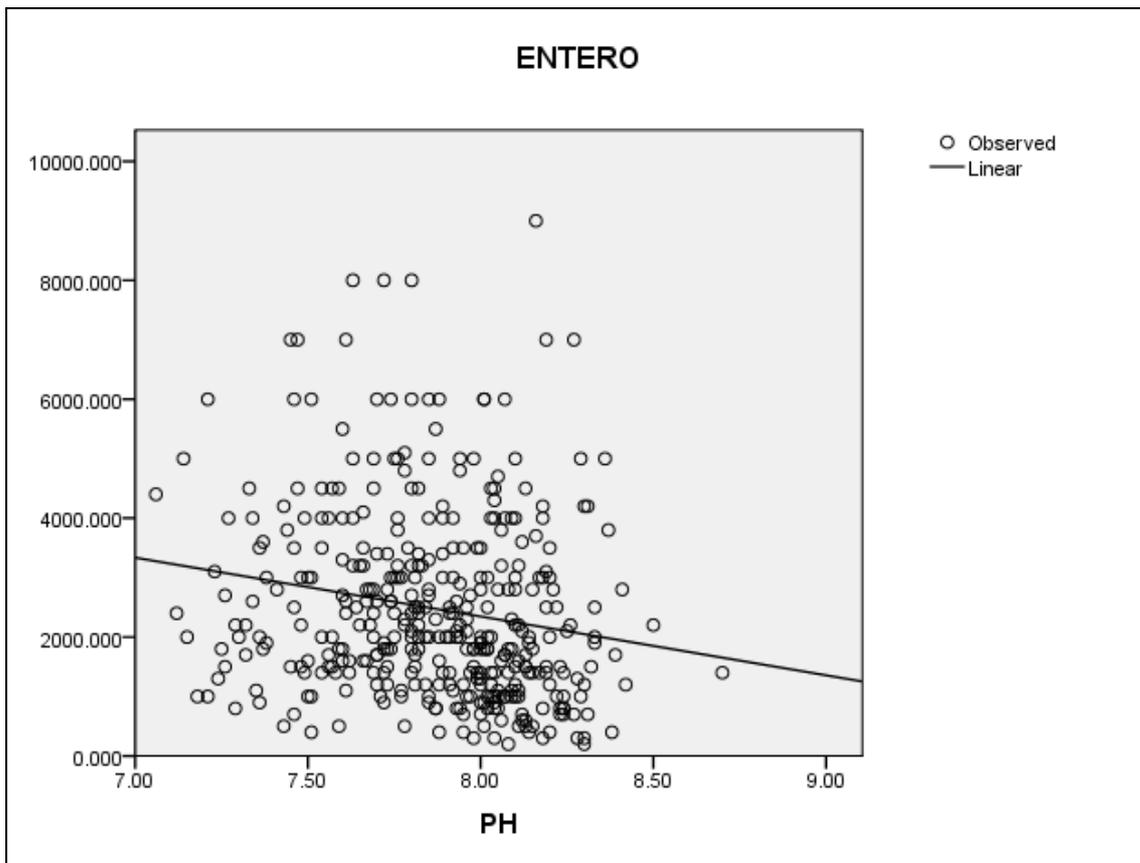


Fig 7: Aquatic microbial Platty Bacteria relations negatively correlated with pH with machine learning techniques found in lower stretches of river Ganges.

Conclusion

This research communication exemplified with (Fig 1 to Fig. 7) shows that microbe’s occurrence are pH sensitive. In realities

to fish diseases author found that fisheries may remains diseases free in many herbal ecology where there is plenty of organic acids existed. Also humic acid and Fulvic acids

causing a lowering in pH found fisheries diseases free. A higher pH in marine environment fisheries often remain diseases free. Ecotechnology are derived Machine learning techniques with digital parameters in controlling virus and microbes other digital parameters like CEC and TDS often controls growth and fecundity in fisheries and mankind may also be regulated with aquatic pH. Study also found that only Isoprene nano particle synthesised by aquatic plankton biomass can take preventive and controlling measure by cellular diffusion and environmental purification in such range of pH and beyond if any. We also concluded recently that Turbidity may be a very important environmental parameter out of many water-quality parameters, and can be studied digitally while on ground-truth collection or can be measured with satellite remote sensing data by their grey-values. Turbidity may be controlled by other environmental parameters namely, temperature, Cation Exchange Capacity of colloids CEC, Total dissolved Solids TDS, aeration and a few others. Recently AI and Machine learning Techniques can be an error-less approach than old aged manual processes. Recent studies a few Digital rules as follows that in Isoprene Biochemistry in preventing, curing diseases caused by unicellular pathogens in Agriculture of resource conservation and ecology stability also The digital theories of isoprene nano-particle and other related in curing, preventing diseases caused by unicellular pathogens even in fisheries and allied sciences. Digital-rules also said that Growth & Fecundity of any Fish are negatively correlated with TDS and CEC. Fecundity of any Fish may environmentally controlled and values are negatively correlated with the TDS and CEC. May the rules in Digital fisheries *viz.* growth and fecundity are negatively correlated with TDS and CEC and approximated Linier Models. Preventing and curing diseases with Hydrocarbon, Isoprene, and Chlorine nano-particles destroy unicellular pathogens of inland, marine environments and mankind Modern ecotechnology may benefit to every mankind.

Acknowledgements

First Author is grateful to due acceptances in ADCIS 2022 and to the scientific communities. First author are immensely thankful to the HODs of Fisheries Research Assessment and Informatics Division and the Director of ICAR-CIFRI, Barrackpore, Kolkata 700120, West Bengal, India for accomplishments. Necessary data supports are due to the Research-scholars of the Institute.

References

1. Debabrata Das, Prakriti Das. The Digital rules of Isoprene Biochemistry in preventing, curing diseases caused by unicellular pathogens. In 2nd International Web Conference on smart Agriculture for resource conservation and ecology stability, 2021.
2. Debabrata Das, Aranya Das, Prakriti Das, Santa Ana Das. The digital theories of isoprene nano-particle and other related in curing, preventing diseases caused by unicellular pathogens even in fisheries and allied sciences during and after the Covid era. Int J Fisheries and Aquatic Studies. 2021;9(6):227-229.
3. Debabrata Das. Digital Rules say Growth & Fecundity of any Fish are negatively correlated with TDS and CEC. Proc. E-Book Abstract of SCSi India National Web Conference. Sustainable Soil and Water management for Biodiversity Conservation, food security & Climate

Resilience 29-30 Dec 2020.

4. Debabrata Das. Fecundity of any Fish may environmentally controlled and values are negatively correlated with the TDS and CEC. ISCA Webinar Book of Abstract. International Symposium on Coastal Agriculture: Transforming Coastal Zone for Sustainable Food become security 16-19th March 2021 Organized by ISCAR, Canning Town, West Bengal India, 2021.
5. Debabrata Das, Rajendranath Das. May the rules in Digital fisheries *viz.* growth and fecundity are negatively correlated with TDS and CEC and approximated Linier Models. ISCA Webinar Book of Abstract International Symposium on Coastal Agriculture: Transforming Coastal Zone for sustainable food and become security 16-19th March 2021 Organized by ISCAR, Canning Town, West Bengal. India, 2021.
6. Debabrata Das, Aranya Das, Prakriti Das, Santa Ana Das. Preventing and curing diseases with Hydrocarbon, Isoprene, and Chlorine nano particles destroy unicellular pathogens of inland, marine environments and mankind. Int. J. of Fisheries and Aquatic Studies. 2022;10(3):26-33.
7. Debabrata Das, Aranya Das. Ecotechnological relations between aquatic microbes & turbidity with machine learning techniques. International Journal of Fisheries and Aquatic Studies. 2022;10(3):101-105.