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Drinking Water
Engineering and Science
Discussions

Interactive comment on "Towards Cyber Physical Era: Soft Computing framework based Multi-Sensor Array for Water Quality Monitoring" *by* Jyotirmoy Bhardwaj et al.

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For benefit of readers, the authors would like to incorporate additional figures and supplementary file.

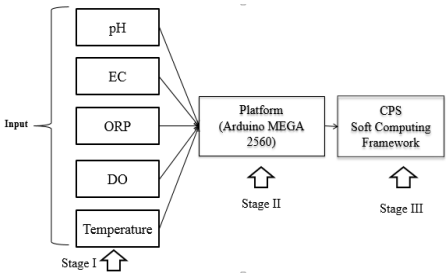
Fig 1. Represents System Layout and Prototype, Fig 2. Representation of Fuzzy Rule, Fig 3 Represents Steps of Measurement Cycle and Fig 4 Represents Mean Average Percentage Error chart of SA with respect to YSI V2 and analytical results. The supplementary file presents application of Fuzzy inference through Python.

Please also note the supplement to this comment:

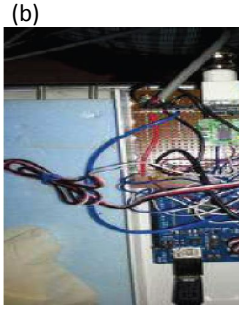
https://www.drink-water-eng-sci-discuss.net/dwes-2017-25/dwes-2017-25-AC1-supplement.pdf

Interactive comment on Drink. Water Eng. Sci. Discuss., https://doi.org/10.5194/dwes-2017-25, 2017.

(a)

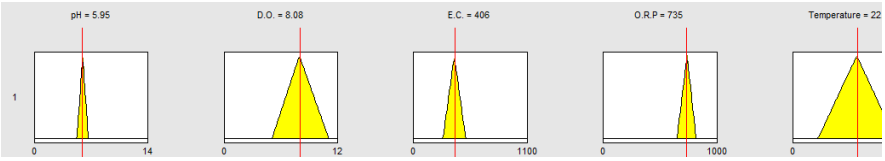


(b)



5 Fig1. (a) Design stages for proposed system (b) System Prototype

C3



5 Figure 3. Representation of Fuzzy Rule

Figure 3 is the representation of the rule
"If (pH is ADE) OR (D.O. is HACC) OR (E.C. is ADE) OR (O.R.P is HACC) OR (Temperatur
10 Quality is ADE)".

C4

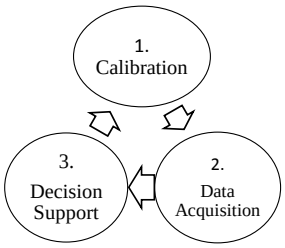


Fig 4. Steps of Measurement Cycle

C5

(a) (b)

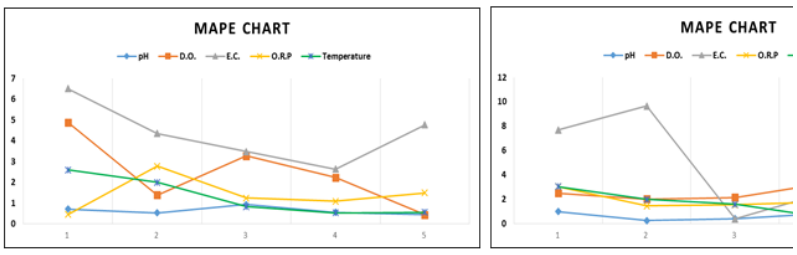


Fig 6: MAPE Chart (in %) (a) SA against Laboratory Results (b) SA against YSI Sonde 6820 V2 re

Table 4 MAPE (in %) Table

	pH		D.O. (mg/lit)		E.C. (uS/cm)		O.R.P. (mV)	
	YSI	Lab	YSI	Lab	YSI	Lab	YSI	Lab
1	**0.702**	**0.986**	**4.878**	**2.500**	**6.494**	**7.692**	**0.443**	**3.030**
2	**0.522**	**0.263**	**1.389**	**2.013**	**4.348**	**9.651**	**2.778**	**1.449**
3	**0.933**	**0.405**	**3.261**	**2.151**	**3.469**	**0.396**	**1.235**	**1.551**
4	**0.554**	**0.833**	**2.222**	**3.297**	**2.632**	**2.500**	**1.078**	**1.764**
5	**0.433**	**0.000**	**0.433**	**0.000**	**4.762**	**2.857**	**1.493**	**2.941**

C6