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# Birla Institute of Technology & Science, Pilani

## Pilani Campus

Prashant Bhakar, M.Tech., Research Scholar, Civil Engineering Department

Dear Sir/Madam,

I am Prashant Bhakar pursuing my doctoral thesis in the area of “Groundwater Resource Management” at Birla Institute of Technology and Science Pilani, Pilani Campus under the supervision of Prof. A P Singh and Prof. R. K. Mittal. It gives me immense pleasure to interact with working professionals/experts like you.

During my research work, I’m working on groundwater suitability for irrigation and drinking purposes. Groundwater quality for irrigation and drinking purposes depends upon various chemical as well as physical parameters. In order to generate various groundwater suitability maps I’m utilizing the “Weighted Overlay Technique” with the help of ArcGIS software. In this technique, a rating and weighing system is used for various parameters considered for the analysis. Depending upon the nature of parameter to be considered, I want that those parameters should be weighed and rated with such a diligence so that our results are more profound without false perception.

In order to achieve non-erronious results, I feel that an expert opinion should be taken from the professionals working in the field of groundwater management and related discipline.

This can be done only with your help. Kindly take some time out of your busy schedule to fill the attached questionnaire. It will take approximately 10 minutes to complete this questionnaire.

I fully understand the sacredness of the topic in India and therefore assure you that the views expressed in this survey will be kept strictly confidential and will be used only for academic research.

Thanking you.

Yours truly

Prashant Bhakar



**Birla Institute of Technology & Science, Pilani**  
Pilani Campus, Vidya Vihar  
Pilani 333031, Rajasthan, India

**Email:** bhakarprashant@gmail.com  
**Tel:** +919461398786  
**Web:** www.pilani.bits-pilani.ac.in

**PART – 1|General information of responding person**

Name of the responding : \_\_\_\_\_  
person (optional)

Designation (optional) : \_\_\_\_\_

Department (optional) : \_\_\_\_\_

Experience (years) : \_\_\_\_\_

E-mail (optional) : \_\_\_\_\_

Ph. No. / Mobile No. : \_\_\_\_\_  
(optional)

Would you like to be contacted for any further information?

YES/ NO

APPENDIX - A

**PART – 2 | Feedback Questionnaire**

Please indicate the extent to which you perceive that how important are these parameters for groundwater suitability and groundwater potential zone mapping. Field values for each of the parameters is given and you have to provide input on scale value for the respective field values (between 1 to 5). Kindly also provide your percent influence opinion in multiple of 5 (or a closer value in round figure), in order to achieve the ease of doing calculations, if possible. Kindly keep in mind that commulative percent influence values should be equal to 100 percent in total for each of the respective tables. Scale values should be given depending upon the relative importance of field values on a scale of 1-5 where 1 corresponds to least important or worst value for that parameter and 5 represents the most beneficial or best value for the parameter value depending upon the field value.

Kindly provide your opinion on weighted overlay for **Irrigation Groundwater Suitability**

S. No.	Raster Layer	Percent Influence ( <i>Please choose a percentage value close to or multiple of 5 for each of the factor given below, as you percieve the share of it among other factors, for irrigation groundwater suitability</i> )	Field Value	Scale Value ( <i>where, 1 = Least important; 2 = some but important; 3 = slightly important; 4 = important; and 5 = highly important</i> )
1	SAR		0 - 5	
			5 - 10	
			10 - 20	
			20 - 27	
2	Na %		0 - 25	
			25 - 50	
			50 - 80	
			80 - 100	
3	TDS (Irrigation)		0 – 500	
			500 - 1500	
			1500 - 3000	
			3000 - 7500	
4	EC		0 - 1000	
			1000 - 2000	
			2000 - 3000	