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## Spatial technology: Hydrological perspectives

**Imran Ahmad**

Debre Tabor University, Ethiopia

State-of-the-art geospatial technologies for imaging the earth and its subsurface are invaluable tools; especially when direct measurements are sparse or even impossible. Geospatial technology with their advantages of spatial, spectral and temporal availability and manipulation of data covering large and inaccessible areas within a short time have become very handy tools in accessing, monitoring and conserving groundwater resources. In hard rock terrain such as the Palar basin (South India), interpretation of satellite data for delineation of lithological units, weathered zones, mapping of lineament density and their trends as well as intensity, are discriminatory features and form a valuable aid for the location of groundwater areas. This paper mainly deals with the approach of geospatial technology to delineate groundwater potential zones in Palar basin, South India. Digitized vector maps pertaining to chosen parameters, viz. geomorphology, geology, land use/land cover, lineament, relief, and drainage, were converted to raster data using  $23\text{ m} \times 23\text{ m}$  grid cell size. The raster maps of these parameters were assigned to their respective theme weight and class weights. The individual theme weight was multiplied by its respective class weight and then all the raster thematic layers were aggregated in a linear combination equation in Arc Map GIS Raster Calculator module.

## Biography

Imran Ahmad has completed his Ph.D. in Environmental sciences from Tamil University, India in 2013. He received his B.Sc. degree from the University of Kashmir, India, in January 2004, followed by a M.Sc. degree in Environmental sciences from the University of Kashmir, India, in January 2008. He is an excellent researcher in the field of earth and environmental sciences. His research work has been published in various international journals such as Journal of Hydrology (Elsevier) and Environmental Monitoring and Assessment (Springer). Imran Ahmad is an editorial board member in several international journals, also acting as a scientific reviewer in many others. He is listed in the committee of the International Association of Management Science and Engineering Technology, Hong Kong, and he is the founding editor of a journal International Journal of Water Sciences, InTech (Croatia).

[wonder\\_env@yahoo.com](mailto:wonder_env@yahoo.com)**Notes:**