

## Groundwater Level Modelling by ARMA and PARMA Models (Case Study: Qorveh Aquifer)

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**Abstract :** Regarding annual statistics of groundwater level resources about current piezometers at Qorveh plains, both ARMA & PARMA modeling methods were applied in this study by the using of SAMS software. Upon performing required tests, a model was used with minimum amount of Akaike information criteria and suitable model was selected for piezometers. Then it was possible to make necessary estimations by using these models for future fluctuations in each piezometer. According to the results, ARMA model had more facilities for modeling of aquifer. Also it was cleared that eastern parts of aquifer had more failures than other parts. Therefore it is necessary to prohibit critical parts along with more supervision on taking rates of wells.

**Keywords :** qorveh plain, groundwater level, ARMA, PARMA

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