

List of Publications

Journal Publications

Pathania T. and Eldho, T. I. (2020). A moving least squares based meshless element-free Galerkin method for the coupled simulation of groundwater flow and contaminant transport in an aquifer. *Water Resources Management*, 34: 4773–4794.

Pathania, T., Eldho, T. I. and Bottacin-Busolin, A. (2020). Coupled simulation of groundwater flow and multispecies reactive transport in an unconfined aquifer using the element-free Galerkin method. *Engineering Analysis with Boundary Elements*, 121:31–49.

Pathania, T., Eldho, T. I. and Bottacin-Busolin, A. (2020). Optimal design of in-situ bioremediation system using the meshless element-free Galerkin method and particle swarm optimization. *Advances in Water Resources*, 144:103707.

Pathania T., Bottacin-Busolin A., Rastogi, A.K. and Eldho, T. I. (2019). Simulation of groundwater flow in an unconfined sloping aquifer using the element-free Galerkin method. *Water Resources Management*, 33: 2827-2845.

Conference Papers

Pathania, T., Eldho, T. I., and Bottacin-Busolin, A.(2021). Effect of soil heterogeneity on the optimal design of in-situ groundwater bioremediation systems, *EGU General Assembly 2021*, online, 19–30 April 2021.

Pathania T. and Eldho, T. I. (2020). Optimal in-situ bioremediation system design for contaminated groundwater using meshless EFGM simulation and PSO. *World Environmental and Water Resources Congress, ASCE*.

Pathania T. and Eldho, T. I. (2019). Simulation of aerobic biodegradation of a hydrocarbon contaminant in the groundwater using the element-free Galerkin method. *ISH - HYDRO 2019 International Conference*. Osmania University, Hyderabad, India, 18-20 December, 2019.

Pathania T. and Eldho, T. I. (2019). Meshless simulation of multispecies reactive transport in a porous medium using the element-free Galerkin method. *International Groundwater Conference (IGWC-2019)*. IIT Roorkee, Roorkee, India, 21-24 October, 2019..

Pathania T., Bottacin-Busolin A. and Rastogi, A.K. (2018). Simulation of coupled groundwater flow and contaminant transport in a confined aquifer using the meshless element free Galerkin method. *EGU General Assembly*. Vienna, Austria, Vienna, 8-13 April, 2018..

Pathania T. and Rastogi, A. K. (2017). Groundwater flow simulation in confined aquifer by meshless element free Galerkin method. *10th World Congress of EWRA on Water Resources and Management*. Athens, Greece, 5-9 July, 2017.

Pathania T. (2016). Simulation of advective-dispersive transport in a porous medium using the operator splitting technique. *Sixth International Congress on Computational Mechanics and Simulation (ICCMS 2016)*. IIT Bombay, Mumbai, India, 27 June-1 July, 2016.