

Division of Land and Water Management

Personal Details



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Research Interest

Land and Water Management

Research Highlights

On farm water management, Solar based fertigation, Water management in integrated farming systems, Application of remote sensing and GIS in water resource management, Hydrological modeling, Watershed management, Impact of climate change on water resources, Use of *Internet of Things* (IoT) in agriculture, Flood hazard risk zoning and management of floodplain area, Use of optimization technique in agriculture, Trend analysis of hydro climatic data.

Memberships / Fellowships

- Life member of Indian association of soil and water Conservation
- Life member of Indian Society of Agricultural Engineers
- Life member of Indian Range Management society of India
- Life member of Society for Upliftment of Rural Economy
- Associate Editor in Society for Upliftment of Rural Economy

Technology Developed

- Design and implementation of *in-situ* soil conservation techniques in various horti and silvipastoral system for the Bundelkhand region
- Developed an information system for integrated farming system

Publication Details

- Deb, S., **Ahmed, A.**, & Datta, D. (2014). An alternative approach for delineating eco-sensitive zones around a wildlife sanctuary applying geospatial techniques. *Environmental monitoring and assessment*, 186(4), 2641-2651.
- Kumar S, Singh AK, Singh R, Ghosh A, Chaudhary M, Shukla AK, Kumar S, Singh HV, **Ahmed A**, Kumar RV. Degraded land restoration ecological way through horti-pasture systems and soil moisture conservation to sustain productive economic viability. *Land Degradation & Development*. 2019 Jul 30;30(12):1516-29.
- Mondal S, Mishra JS, Poonia SP, Kumar R, Dubey R, Kumar S, Verma M, Rao KK, **Ahmed A**, Dwivedi S, Bhatt BP. Can yield, soil C and aggregation be improved under long-term conservation agriculture in the eastern Indo-Gangetic plain of India? *European Journal of Soil Science*. 2021 Feb 18.
- Palsaniya DR, Kumar S, Das MM, Kumar TK, Chaudhary M, Chand K, Rai SK, **Ahmed A**, Sahay CS, Choudhary M. Integrated multi-enterprise agricultural system for sustaining livelihood, energy

use and resource recycling: a case study from semi-arid tropics of central India. *Agroforestry Systems*. 2021 Aug 14:1-6.

Research papers published in national Journals

- **Ahmed, A., & Deb, S.** (2012). Land use/land cover change dynamics of a district with one of the highest population growth rate in India: A geo-spatial approach. *International Journal of Agriculture, Environment and Biotechnology*, 5(3), 271-280.
- **Ahmed, A., Tomar, J. M. S., Mehta, H., Alam, N. M., & Chaturvedi, O. P.** (2015). Influence of canopy architecture on stemflow in agroforestry trees in Western Himalayas. *Current Science*, 109(4), 759.
- **Ahmed, A., Tomar, J. M. S., Mehta, H., Kaushal, R., Deb, D., Chaturvedi, O. P., & Mishra, P. K.** (2017). Throughfall, stemflow and interception loss in *Grewia optiva* and *Morus alba* in north west Himalayas. *Tropical Ecology*, 58(3), 507-514.
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- **Ahmed, A.** (2018). Scaling of hydraulic functions in heterogeneous soil using nonlinear least squares minimization method. *Current Science (00113891)*, 114(5).
- **Kumar, S., Shukla, A. K., Ahmed, A., Rai, A. K., Singh, H. V., & Kumar, R. V.** (2017). Production potential of guava-based hortipastoral system with different In-situ moisture conservation techniques. *Annals of Horticulture*, 10(2), 154-159.
- **Ahmed, A., Prasad, M., Ranjan, R., and Deb, D.**, 2017. Rainfall variability and its effect on rainfed agri culture in Bundelkhand region, India. *Progressive Research – An International Journal*, 12: 2026-2031
- **Pramanik, P., Akram, A., Misra, A. K., Sharma, D. K., Upadhyaya, S. S., & Rawat, R. S.** (2018). Prediction of rainfall, runoff and sediment yield of Dolgad watershed of Himalayan agroecosystem. *Indian Journal of Agricultural Sciences*, 88(9), 1477-1480.
- **Das, M. M., Ram, S. N., & Ahmed, A.** (2019). Nutrient intake, utilization and growth performance of Jalauni lambs and Bundelkhandi kids grazed on *Hardwickia binata* (anjan) based silvipasture. *Range Management and Agroforestry*, 40(1), 131-136.
- **Pal, A. K., Ahmed, A., & Pandey, V. K.** (2019). Soil binding capacity of different forage grasses in terms of root reinforcement ability toward soil slope stabilization. *Indian J. Hill Farming*, 32(1), 137-143.
- **Ahmed, A., Deb, D., & Mondal, S.** (2019). Assessment of rainfall variability and its impact on groundnut yield in Bundelkhand region of India. *Current Science*, 117(5), 794.
- **Kumari, A., Patel, N., & Ahmed, A.** (2019). Standardization of Frequency Domain Reflectometry and Watermark Sensors for Soil Moisture Measurement at Field Level. *Journal of AgriSearch*, 6(4), 175-180.
- **Ashutosh, U., Arti, K., & Ahmed, A.** (2020). Determination of maximum storage and drainage coefficient from consecutive days maximum rainfall at different locations in India. *Journal of AgriSearch*, 7(1), 27-31.
- **Akram, Ahmed, A. K. Pal, V. K. Pandey, Prasad Mahendra, and Upadhyaya Ashutosh.** "Assessment of variability of soil infiltration characteristics under forage cover." *Journal of AgriSearch* 7, no. 3 (2020): 147-153.
- **Ahmed A, Kumar A and Tomar JMS.** 2020. Prioritization of critical soil erosion prone areas in a snow dominated Himalayan basin using Remote Sensing and GIS. *Indian Journal of Soil Conservation*, 48(2): 35-43.

- R. K. Patel, Kuldeep Srivastava, S. D. Pandey, Amrendra Kumar, **Akram Ahmed**, and Vishal Nath. 2021. Productivity Improvement with Rain Water Harvesting and Rechargeable Capacity Study of Stored Runoff Water Collected from Catchment Areas of Litchi Based Production System. *Int. J. Curr. Microbiol. App. Sci* 10(07): 393-404.