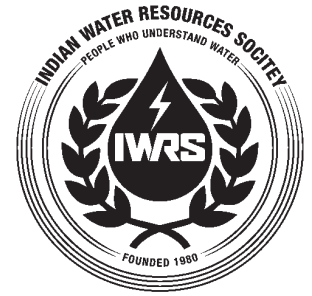


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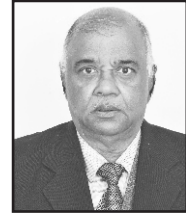
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MESSAGE FROM EDITOR'S DESK

It is apparent that climate, water and weather-related concerns are mounting. Societies are becoming increasingly aware that impacts of extreme hydro-meteorological events expected to occur in, say, the 2050s are starting to appear decades earlier. These extreme events-related to climate change-are likely to increase in frequency, intensity and severity. Related extremes-droughts, floods, flash floods, tropical cyclones and others-will not only appear in the currently identified vulnerable regions, but will also occur in unsuspected new regions. Water quality and water demand are examples of creeping socio-environmental problems. The issues outlined above are being addressed globally, and many ideas have been proposed on how to prepare for the foreseeable scarcity of freshwater resources in many countries, as climate change continues unabated.



In the present Volume 42, Number 1, January 2022, the journal broadly covers R&D studies on environmental impact assessment, extreme value analysis, topography derived lineaments, temporal changes in land use land cover, groundwater sustainability, and drought management. The first paper carries out environmental impact assessment over the Ohar watershed in the Aurangabad district (Maharashtra), using Battelle environmental evaluation system (EES). In the EES system, the authors consider ecology, esthetics, environmental quality aspects and human interest dimensions, and report that the overall impact of the project is 183.5 units, which is on the positive side. In the second work, the authors determine the performance of a set of probability distributions in quantifying annual maximum daily streamflow at various gauging sites of the Godavari basin. The authors find that lognormal and gamma distributions with conventional moments fitted the maximum daily streamflow data at most of the gauging sites of Godavari sub-basins. In the third study, the authors explore the relation of lineaments (e.g. lineament density, lineament length, cross dot density, distance of nearest lineament from spring) to the groundwater prospect of the mountains located in the Birun catchment of Udampur district, Jammu and Kashmir. The authors conclude that lineament density, lineament length density, and lineament cross dot density have strong positive correlations with occurrence of springs. The study inspires the identification of areas having potential of occurrences of springs for developing the conservation plan for their protection and preservation. In the fourth study, the authors analyze the land use/land cover changes in the Arkavathy river basin using Remote Sensing and Geographic Information System (RS and GIS) techniques and its impact on the water availability in the past 25-30 years. Among various realizations, the authors find that the land use/land cover changes during 1987-2014 depict the rapid expansion of urban areas, particularly, the Bengaluru metropolitan area and cities such as Doddaballapur, Nelamangala, and Kanakapuraetc. The authors recommend that water management should be coordinated with land management in accordance with the temporal study of land use/land cover patterns. In the fifth study, an integrated model of rainwater harvesting and wastewater treatment is presented. The novel model is capable of reducing the total groundwater consumption and daily wastewater consumption by about 85%, and 75%, respectively. In the sixth work, the authors carry drought and non-drought analyses over various districts of Chhattisgarh State, India by using the Standardized Precipitation Index (SPI). The findings reveal that most of the years (about 70%) had followed the near normal condition for all stations.

Raj Deva Singh

(R.D. Singh)

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Rao, S.S., 1979. "Flood Control Regulation of Reservoirs", Journal of Indian Water Resources Society, 11(2), 19-26

Chapter in Book or Paper in a Proceedings:

Singhal, S.P. and Kasliwal, R., 1991. Calibration of Conceptual Catchment Models, in Applied Water Resourcing Planning, P.V. Narasimha (Editor). Tata Mc Graw Hill Publishing Co. New Delhi.

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