AI and Data Analysis for Environmental Digital System:

Data analytics and Artificial intelligence (AI) make a good integration that lead to change in digital environmental monitoring systems, exploring new horizons for real-time monitoring of the environment and predictive crisis management.

In the begging, by providing more precise forecasts, realtime monitoring, and the analysis of enormous datasets that make the conventional techniques are unable to Proficiently manage , these technologies offer powerful tools for dealing with  significant environmental challenges. AI algorithms are able to process big amounts of data from different sources including internet of things sensors, satellite imaging, and historical databases, providing already unreachable perspectives.

Since Artificial intelligent powered systems provide important and usable information, they have improved environmental hazard detection and management systems.(Alotaibi & Nassif, 2024)

Machine learning and deep learning algorithms allow us to use large, comlex datasets to develop systems that can forecast disasters, facilitate response and recovery plans that is following These cases, and provide useful decision-support tools. These methods make use of the ability to change different data forms that is came from many sources and identify patterns that can uncover intelligence that would be impossible to reveal in other way.(Linardos et al., 2022)

In conclusion, AI tools by all its branches ANN, ML and DL is reshaping digital environmental systems and producing essential instruments for sustainable environmental monitoring and disaster prediction system.