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AI for Environmental Innovation and Stewardship

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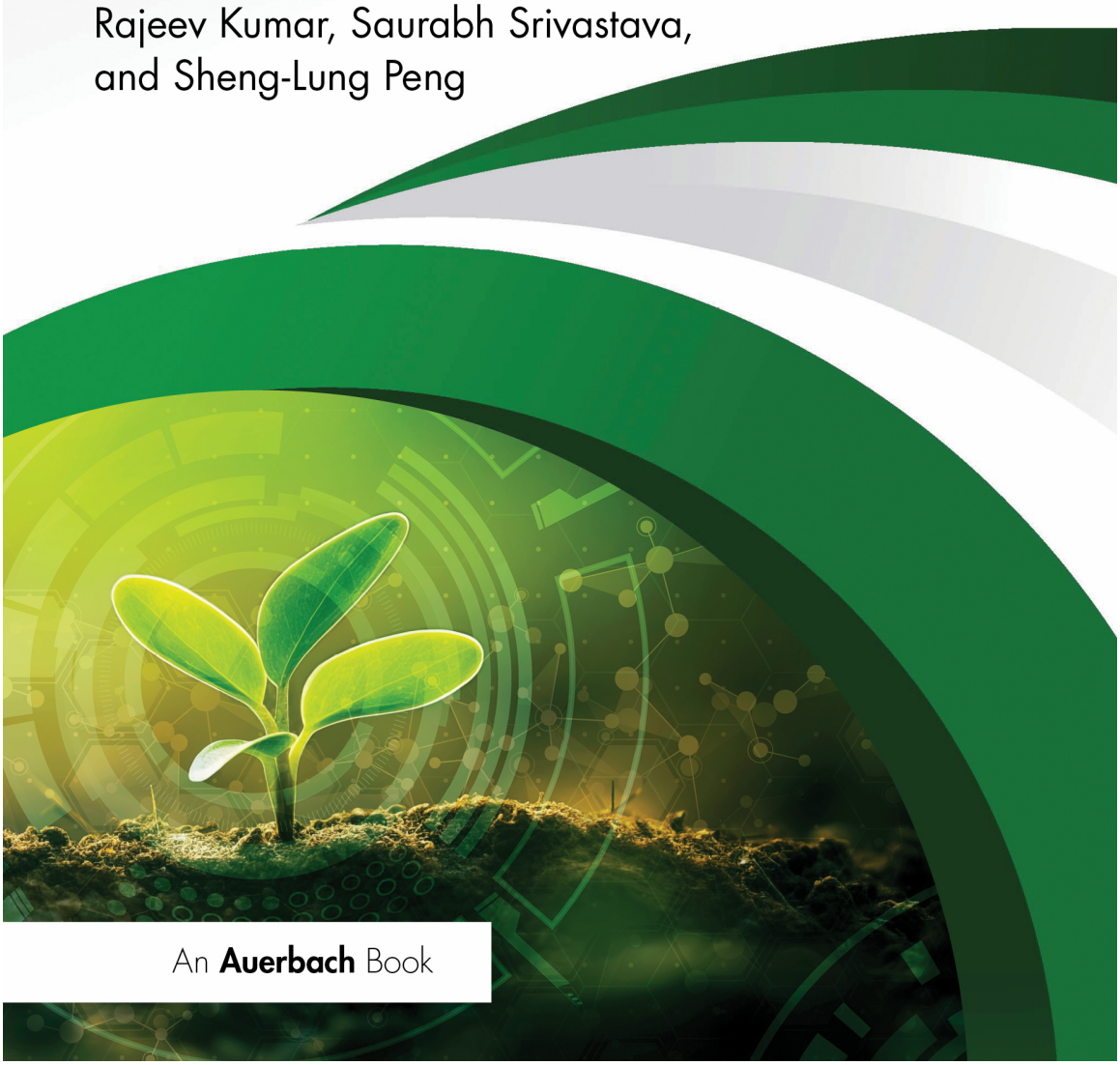

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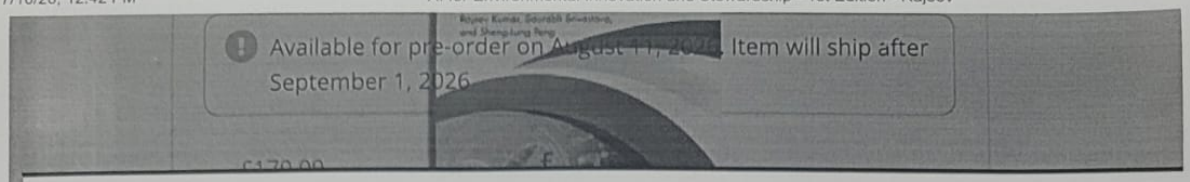

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By Aliya Firdaus, Syed Khalida Izhar, Shazia Qamar, Uzma Afaq

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ABSTRACT

The use of chemicals for the management of weeds is widespread among farmers because cleaning by hand is a laborious and error-prone process. Unfortunately, the use of chemicals causes substantial pollution and the degradation of farmland. Identification of weeds is of prime importance for their management; hence, there is an urgent need for accurate crop and weed identification. To combat this, research institutions and agricultural groups are working together to enhance the precision of weed detection. They are now incorporating artificial intelligence (AI) principles into their daily operations with the help of a number of advanced technological tools. Weed Scan in Australia, which uses AI, is known for quick identification of weeds and their management suggestions. Predicting plant invasions based on historical data and present environmental conditions is an area where AI has proven effective. Through the prediction of weed