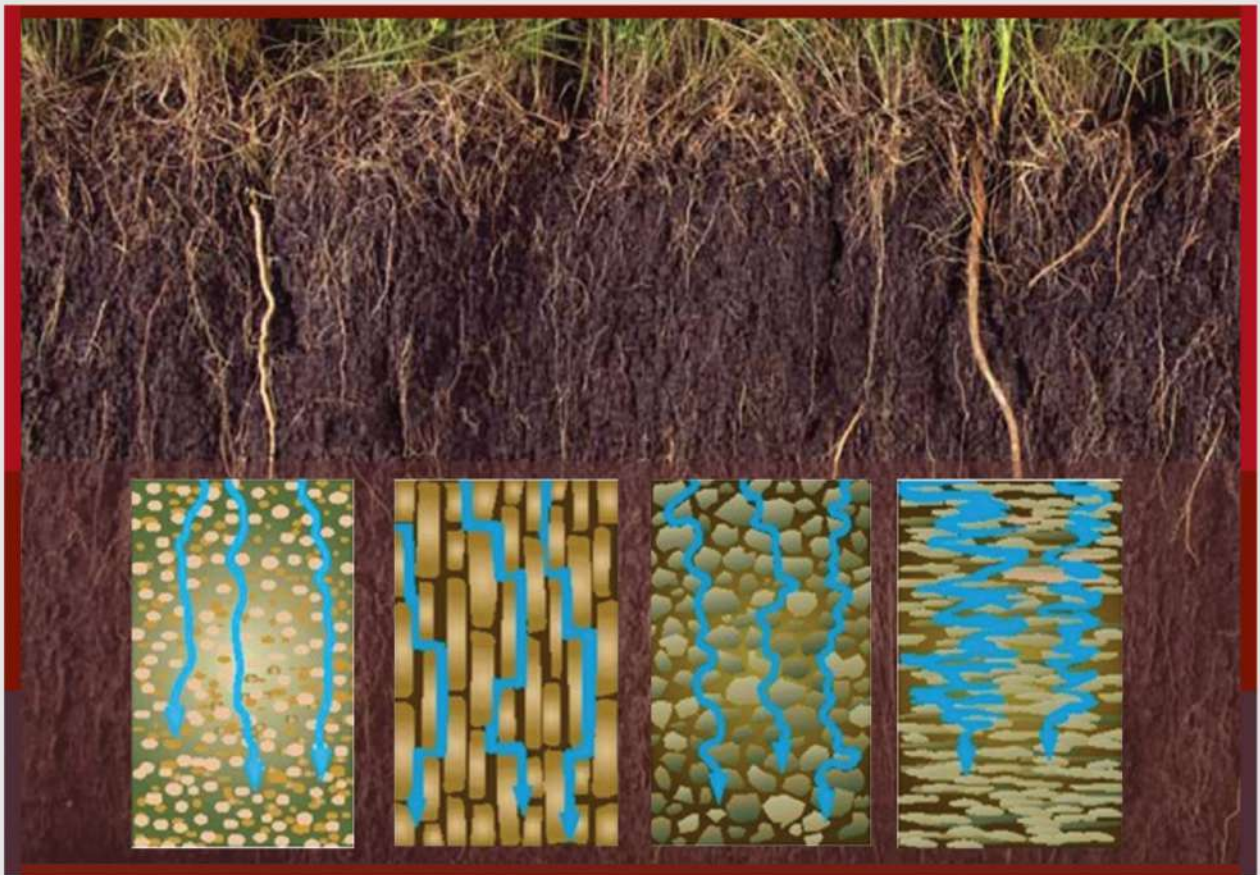


# Modeling Soil Water Flow in Python and Excel



Christopher Teh Boon Sung



## **Modeling soil water flow in Python and Excel**

### **ABSTRACT**

Build a complete and working soil water model in either Python or Microsoft Excel. With this book, you will: understand how and why water flows in the soil and what factors affect its flow; how the soil water flow can be described as a set of mathematical equations; and how these equations can be implemented into a computer program in Python language and in Excel to simulate the vertical soil water flow. Fair knowledge in either Python or Excel is required to build the model (but knowledge in Visual Basic for Applications is not needed). Several scenarios are presented to describe how the model can be applied, and the simulation results for each scenario are discussed.

**Keyword:** Soil water model; Python; Microsoft excel; Mathematical models