Solid Waste Management Planning using GIS and Remote Sensing Technologies

August 5 to 9,2019   Venue: AITCC, Asian Institute of Technology, Bangkok, Thailand
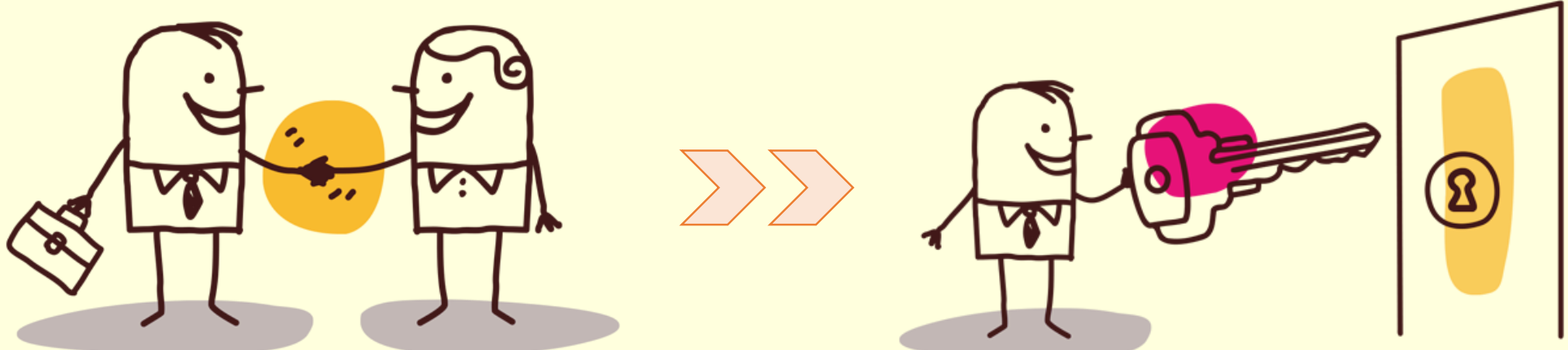**Context: Environmental Engineering and Management**

Definition of the problem

In 2016, the world's cities generated **2.01 billion tons** of solid waste

Annual waste generation is expected to increase by 70% to **3.4 billion tones** in 2050

Target Group

20 undergraduate environmental students who have knowledge in GIS and Remote sensing from developing countries

Learning Outcomes

- Enhance knowledge and understand key principles of solid waste management and sustainable development goals
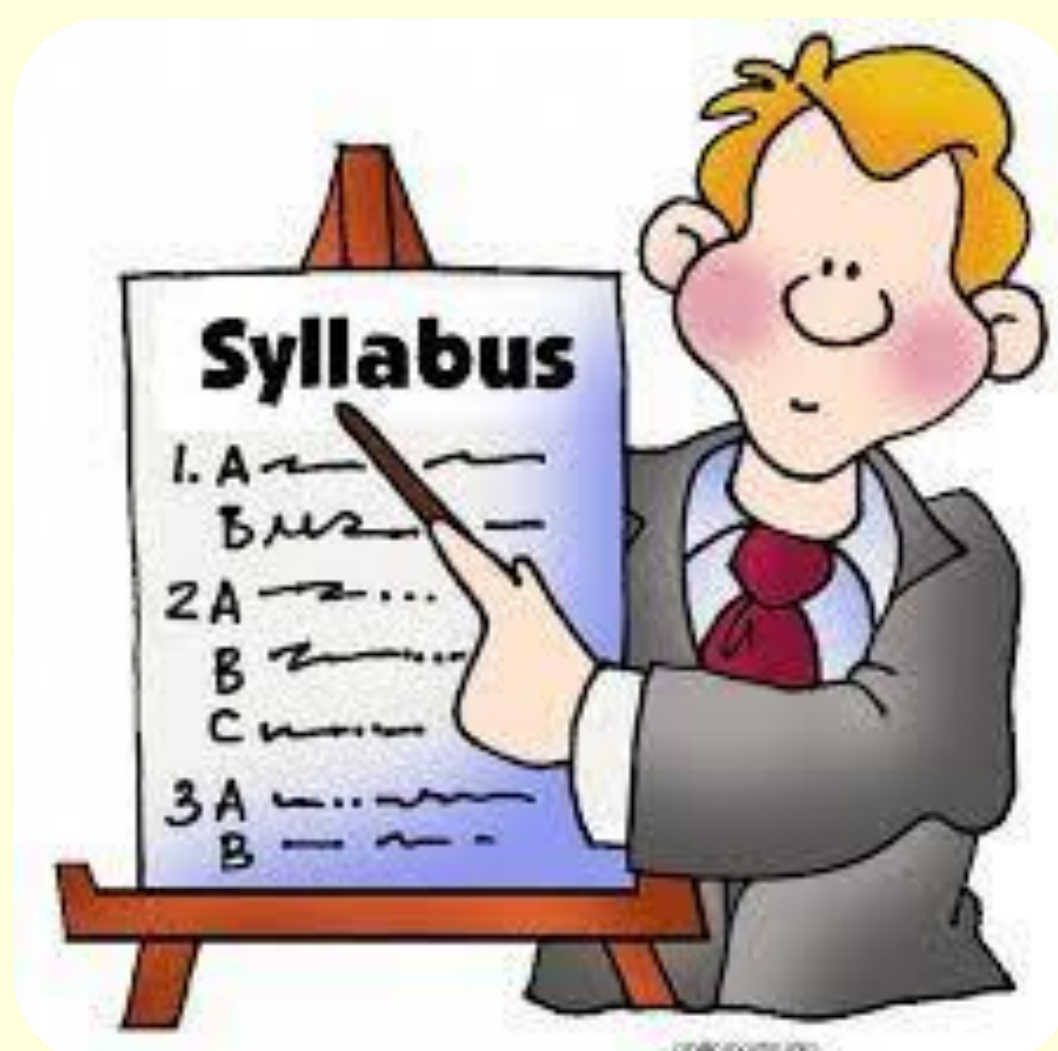
- Implement GIS and Remote sensing technologies for solid waste management

- Plan a solid waste management system for decision makers

Educational concern

This course will be helpful in understanding the role of GIS and Remote Sensing Technologies in the management of solid waste.

Course content

- Principles and knowledge of solid waste management

- Solid waste dumping sites analysis using GIS and Remote sensing

- Geo Spatial Technologies and their usage in solid waste monitoring and management

- Solid waste management policies and legal frameworks

Learning Environment

- Reading Materials (Books, Research papers)

- Programming language R, QGIS, Story maps

- Problem based learning (PBL)

- Student Centered learning

- Lectures, Group work, Discussion, Presentation, Poster

Reference

H Hannan, et al. 2015. A review on technologies and their usage in solid waste monitoring and management systems.

Ebistu, T.A., Minale, A.S. 2013. Solid waste dumping site suitability analysis using geographic information system (GIS) and remote sensing for Bahir Dar Town, North Western Ethiopia.

Authors

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