



Host: AASTU Monthly Seminar (Center of Excellence in Construction Quality & Technology and College of Architecture & Civil Engineering)  
 Organizer: SATREPS-JST MNGD Project

## International Student Workshop

29<sup>TH</sup> JUNE, 2022

20:00-22:00 (JAPAN TIME) / 14:00-16:00 (ETHIOPIA TIME)

ONLINE(ZOOM)

### Program

\* 20 minutes presentation and 15 minutes discussion.

- 20:00 (JST) Opening Remarks
- 20:05-20:40 *Simulation of Pseudo-expansive Black Cotton Soil by Using Combination of Bentonite and Kasaoka Clay Soils*  
**Frehaileab Admasu Gidebo** (Ehime University, AASTU)
- 20:40-21:15 *Effect of Diatomaceous Earth on Desiccation Cracking of Expansive Soils*  
**Alemshet Bekele Tadesse** (University of Miyazaki, AASTU)
- 21:15-21:50 *Mechanical Properties of Soils Treated with Fine Shredded Paper (FSP) and Hydrated Lime*  
**Teshome Birhanu** (Kyoto University, AASTU)
- 21:50 Closing Remarks
- 22:00 Close

\*AASTU: Addis Ababa Science and Technology University, Ethiopia

### Abstract



*Simulation of Pseudo-expansive Black Cotton Soil by Using Combination of Bentonite and Kasaoka Clay Soils*

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Expansive black cotton soil is mainly made from clay mineral groups such as the smectite, kaolinite, and some types of illite group of minerals. These clay minerals are known for a high degree of expansiveness/swell-shrinkage, a large volume of surface area, and small particle size. This behavior of the clay soils results in damage to civil infrastructure, loss of economic benefits, and disruption of social