



Wrocław
University
of Science
and Technology

Soil Mechanics-Lecture V: Soil testing.



HR EXCELLENCE IN RESEARCH



European
Funds
Knowledge Education Development



Wrocław University
of Science and Technology

European Union
European Social Fund



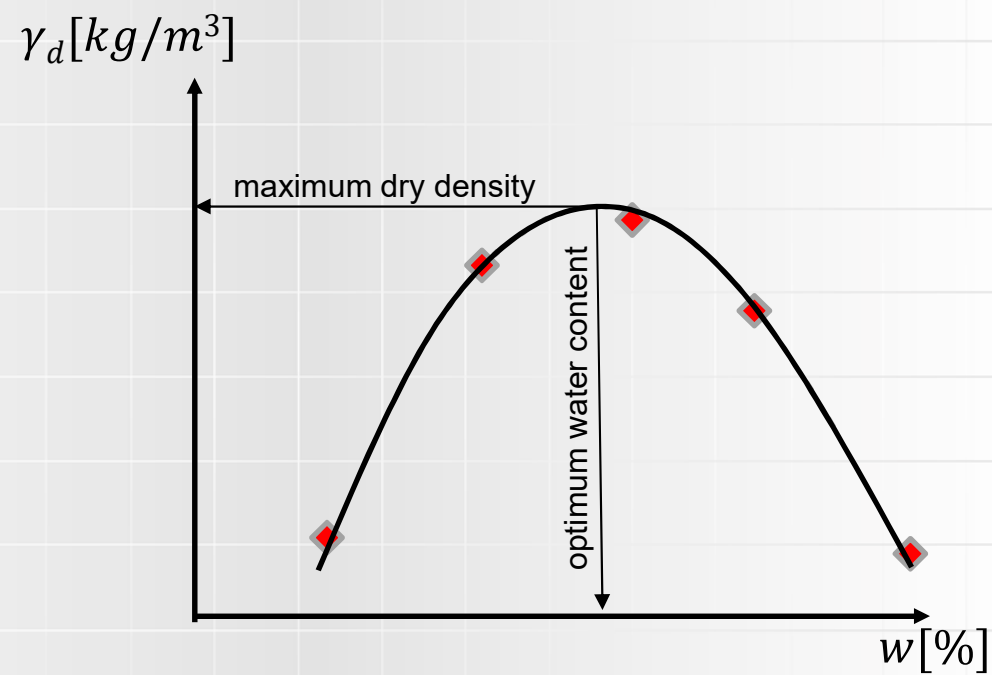
Hand drilling and taking samples



Dynamic sounding



Proctor compaction test



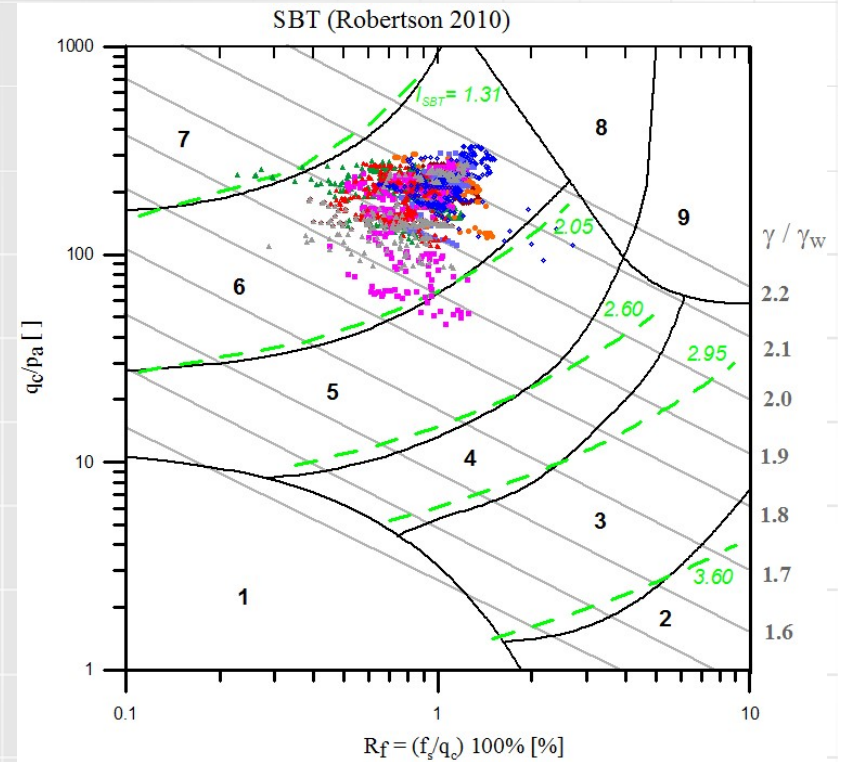
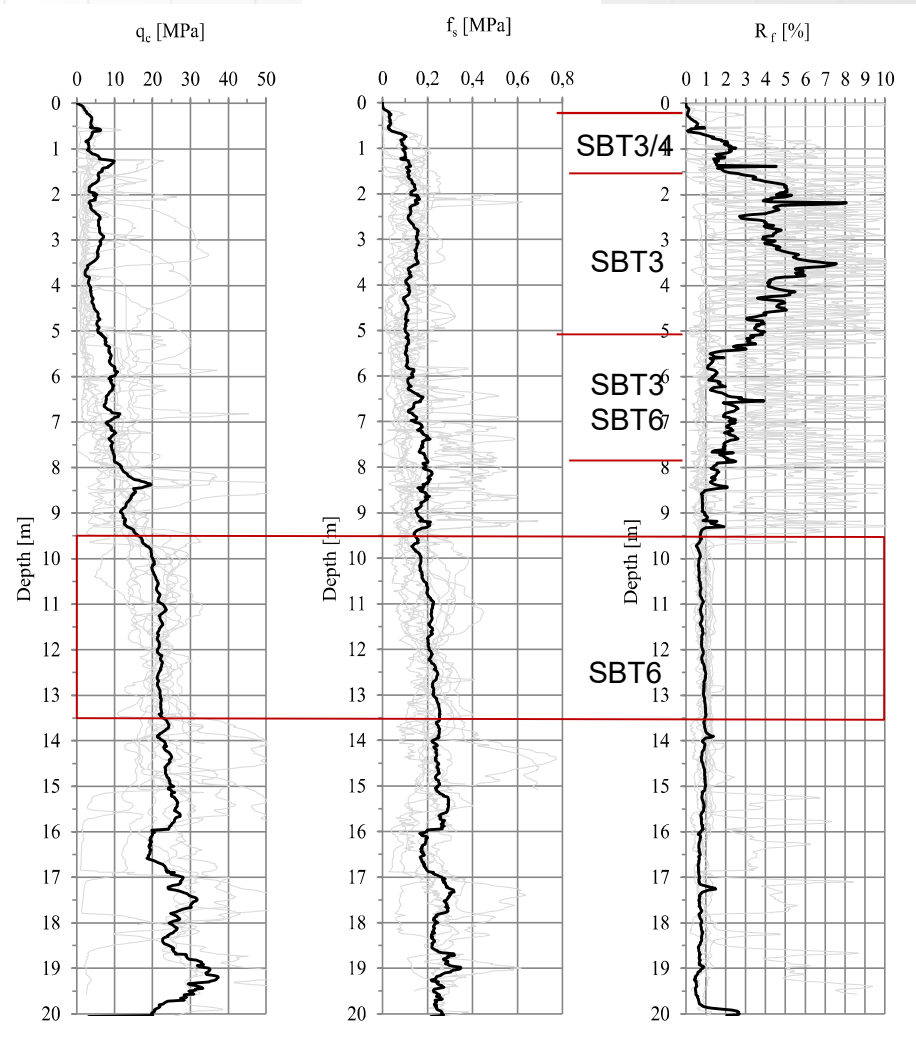
CPTu



Constant
velocity 2cm/s



CPTu interpretation



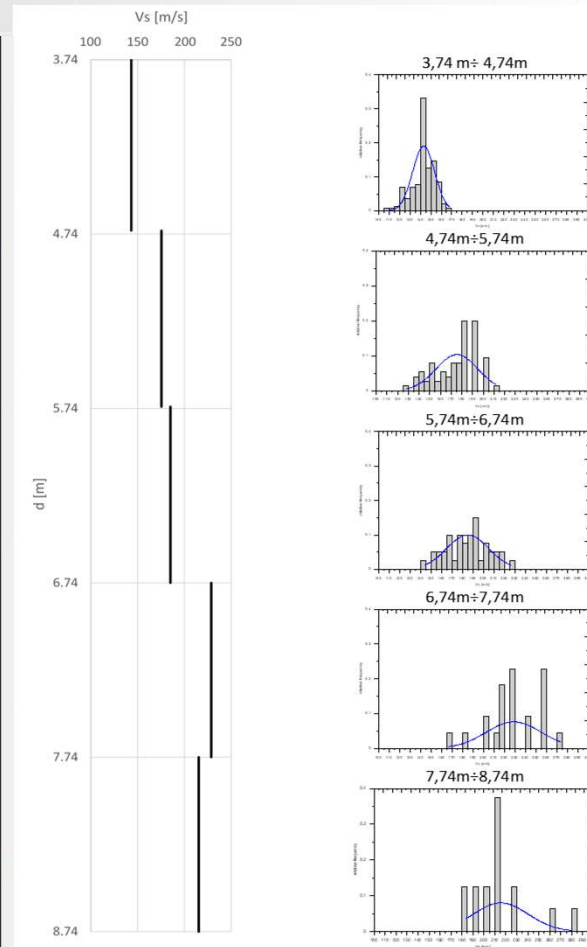
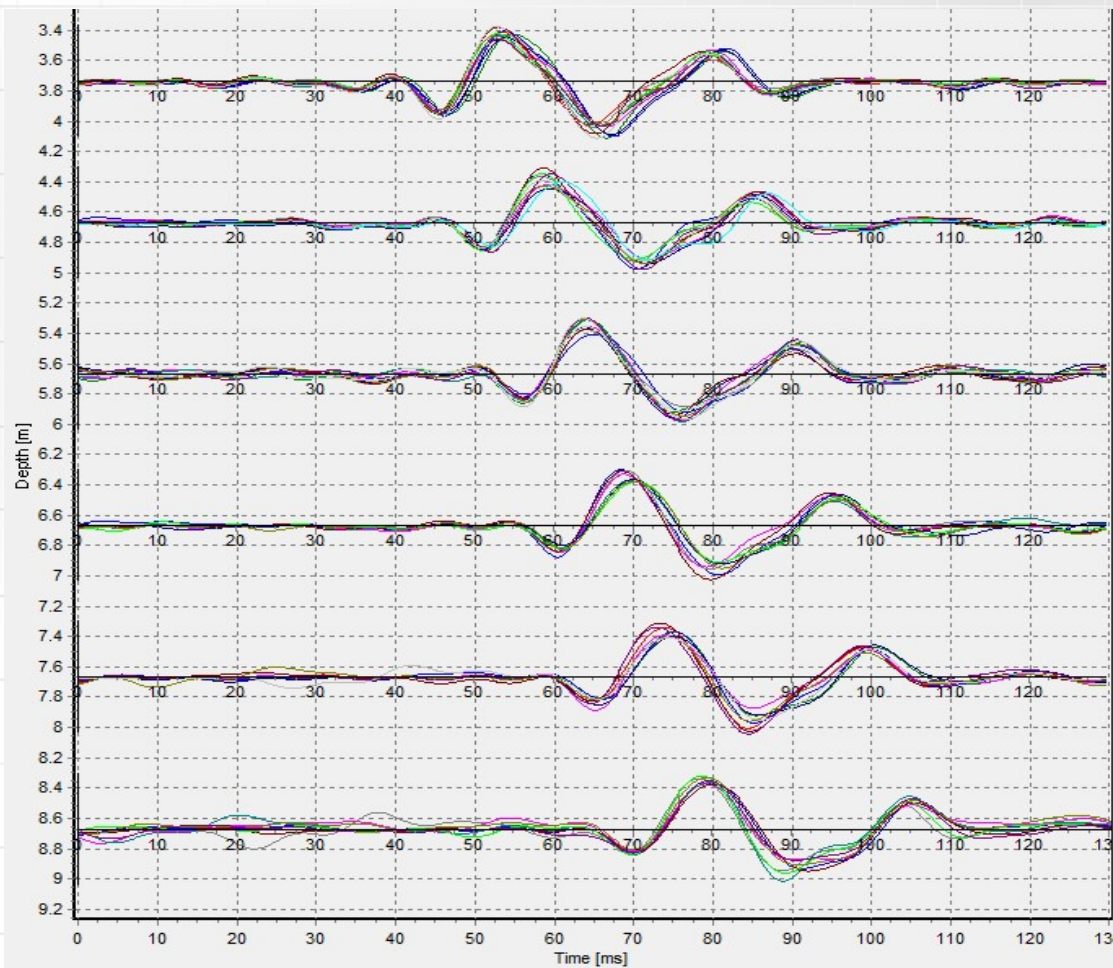
$$I_{SBT} = \sqrt{\left[3,47 - \log\left(\frac{q_c}{p_a}\right)\right]^2 + (\log R_f + 1,22)^2}$$

$$\frac{\gamma}{\gamma_w} = 0,27[\log R_f] + 0,36 \left[\log\left(\frac{q_c}{p_a}\right) \right] + 1,236$$

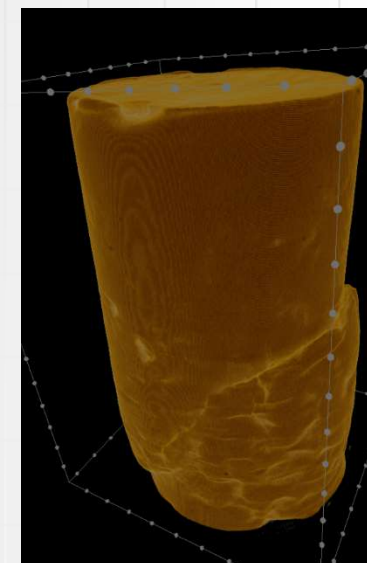
$$\phi' = \arctan \left[0,1 + 0,38 \cdot \log\left(\frac{q_c}{\sigma'_{vo}}\right) \right]$$



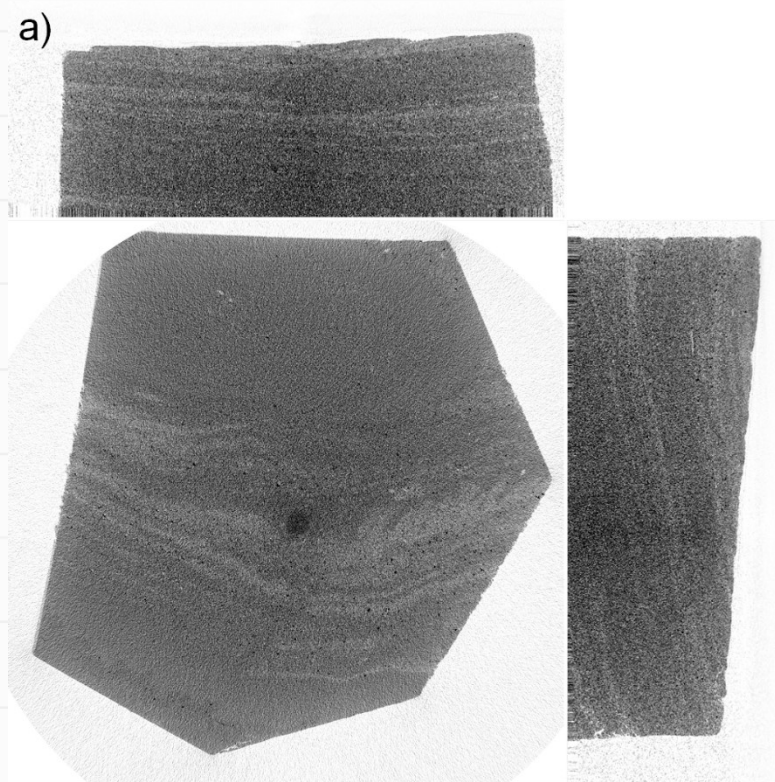
SCPT



MicroCT



a)



b)

