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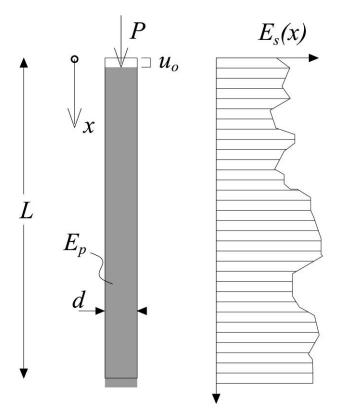


Fig 1. Model of single pile embedded in an inhomogeneous soil

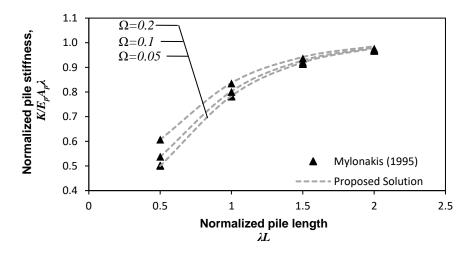


Fig 2. Model of single pile embedded in a homogeneous soil

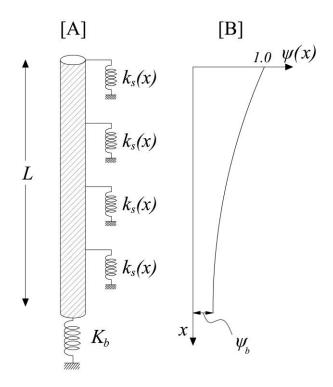


Fig 3. [A] Pile model with springs along the side surface and at the base of the pile,

[B] Shape function of pile settlement,  $\psi(x)$ 

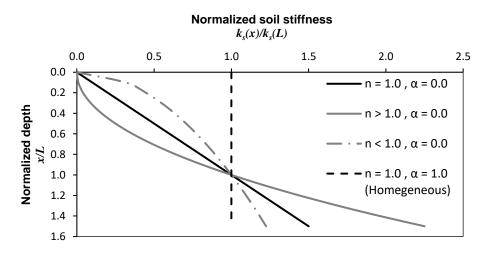
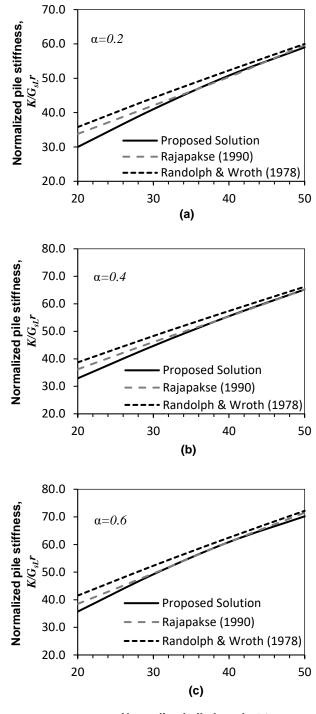


Fig 4. Increase of soil stiffness with depth



Normalized pile length, L/r

Fig 5. Comparison of stiffness at the pile head for inhomogeneous soil profiles

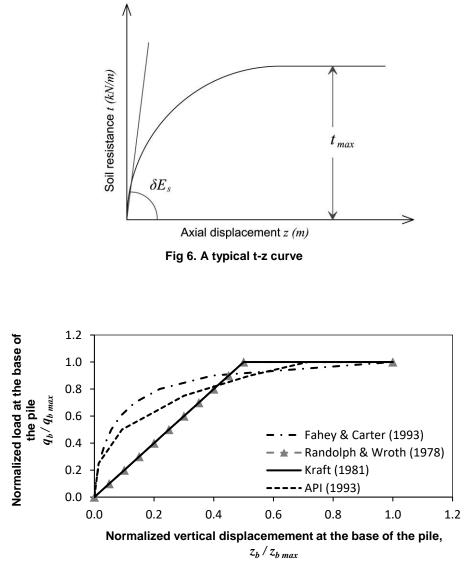


Fig 7. Normalized curve q-z at the tip of the pile

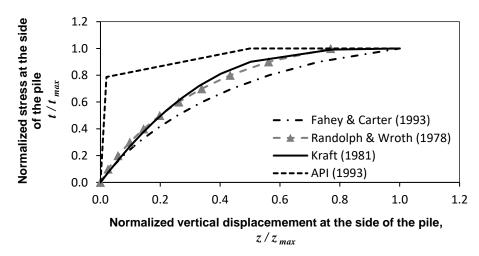


Fig 8. Normalized curve *t*-*z* at the side of the pile

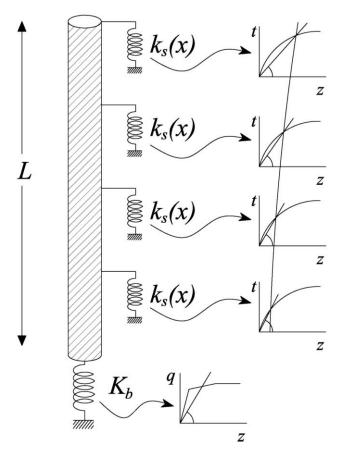


Fig 9. Normalized curves t-z alongside the pile and q-z at the tip

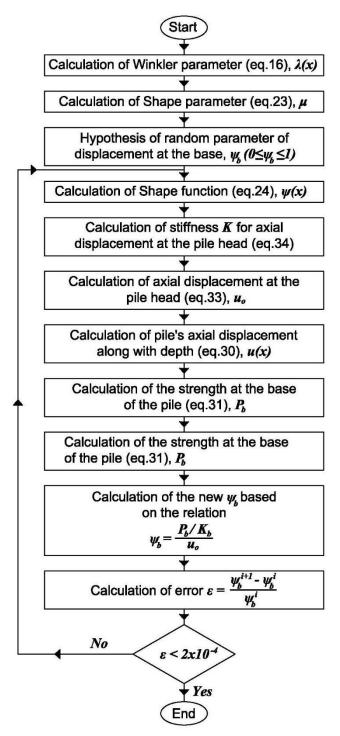


Fig 10. Flowchart of iterative process

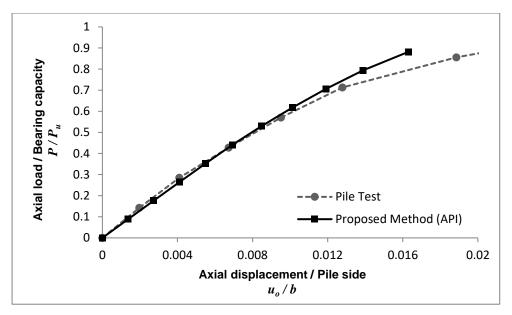


Fig 10. Comparison of theoretical results of the proposed method (API tz curves) to measured data from in-situ pile test

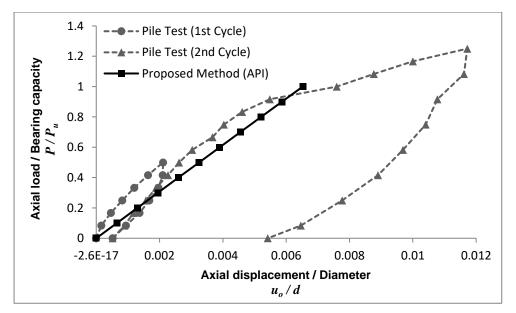


Fig 11. Comparison of theoretical results of the proposed method (API t-z curves) to measured data from in-situ pile test