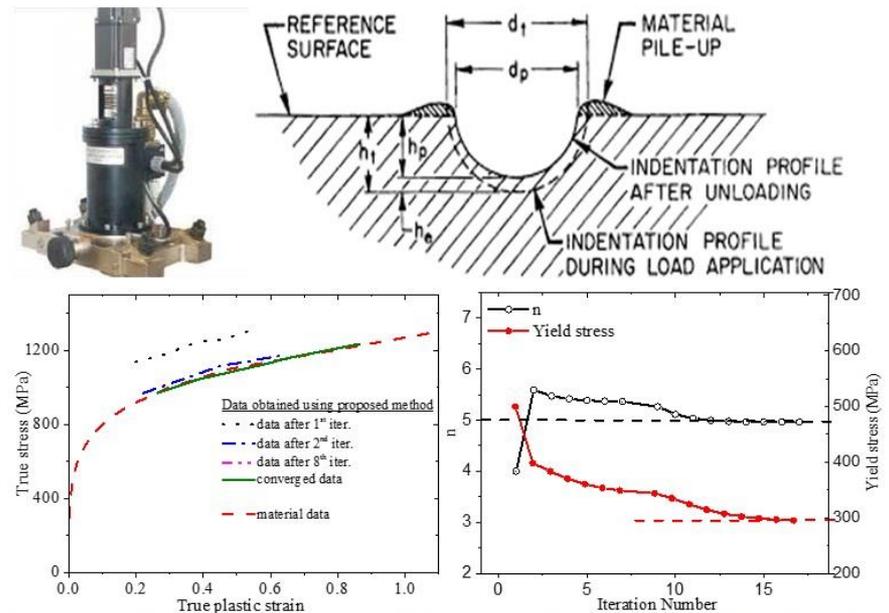


A new procedure for evaluation of material stress-strain curve through ball indentation technique

- Ball indentation technique has been widely applied to determine mechanical properties of different materials because of simplicity and minimal requirement of material for the tests.
- In this work, a new procedure for estimation of equivalent stress and plastic strain during the process of indentation in the most stressed location beneath the ball has been developed.
- This method can be applied to determine the material stress-strain curve for a wide range of equivalent plastic strain, yield stress as well as plastic strain hardening exponent without the need for conducting unloading.



New procedure to evaluate material stress-strain data using Ball Indentation