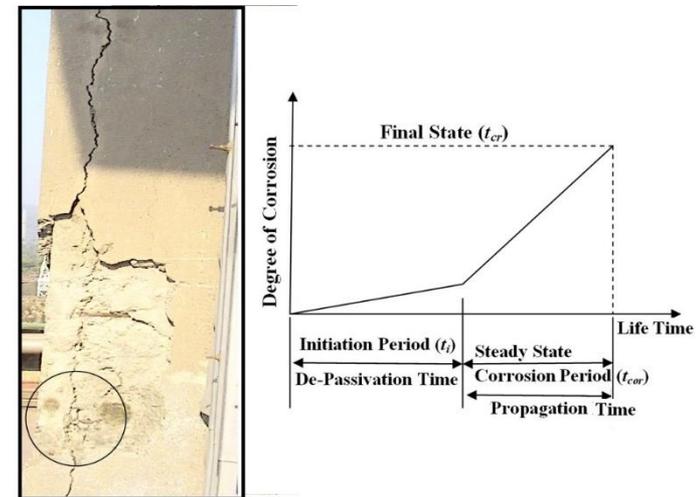
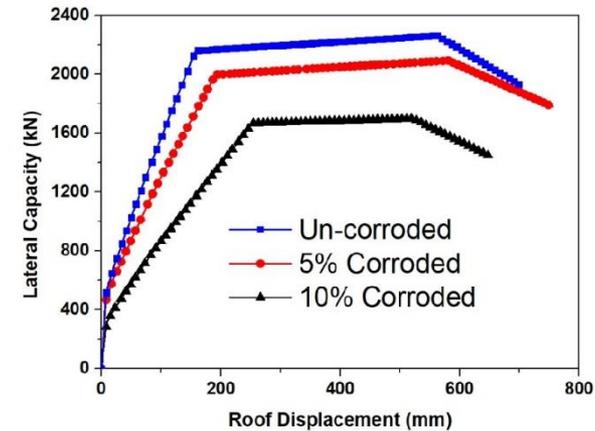


Development of beam model for corroded RC structures for Capacity Evaluation and Service life Prediction.

- A simplified beam macro-model is developed by using modified hinge properties taking into account the reduction in bond strength, loss of rebar diameter and reduction in mechanical properties of steel due to corrosion effect
- This model is validated with beam bending tests. The proposed beam model is used for capacity evaluation of 21year old corroded RC structure and 60year old corroded RC jetty structure.
- Finally, the service life is predicted for the RC structures from capacity evaluation and NDT tests conducted on the structures.



Effect of corrosion on capacity of RC structures and service life prediction