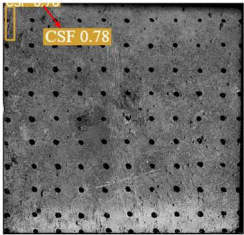
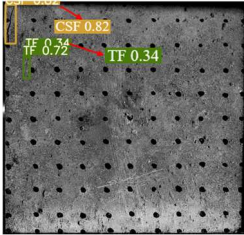
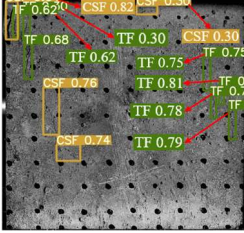
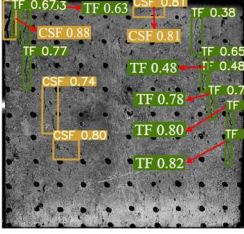


Table S1. Dynamic crack test results of back-filling concrete samples

| Pattern | Number of cracks | | F-Meature | mAp@0.5 | GIoU loss |
|---|------------------|-----|-----------|---------|-----------|
| | TF | CSF | | | |
|  | 0 | 1 | 75% | 71% | 0.038 |
|  | 2 | 1 | | | |
|  | 7 | 4 | | | |
|  | 9 | 4 | | | |

Note: Two colors of the prediction box: green and yellow correspond to two different types of cracks: TF and CSF; The value in the prediction box is confidence.