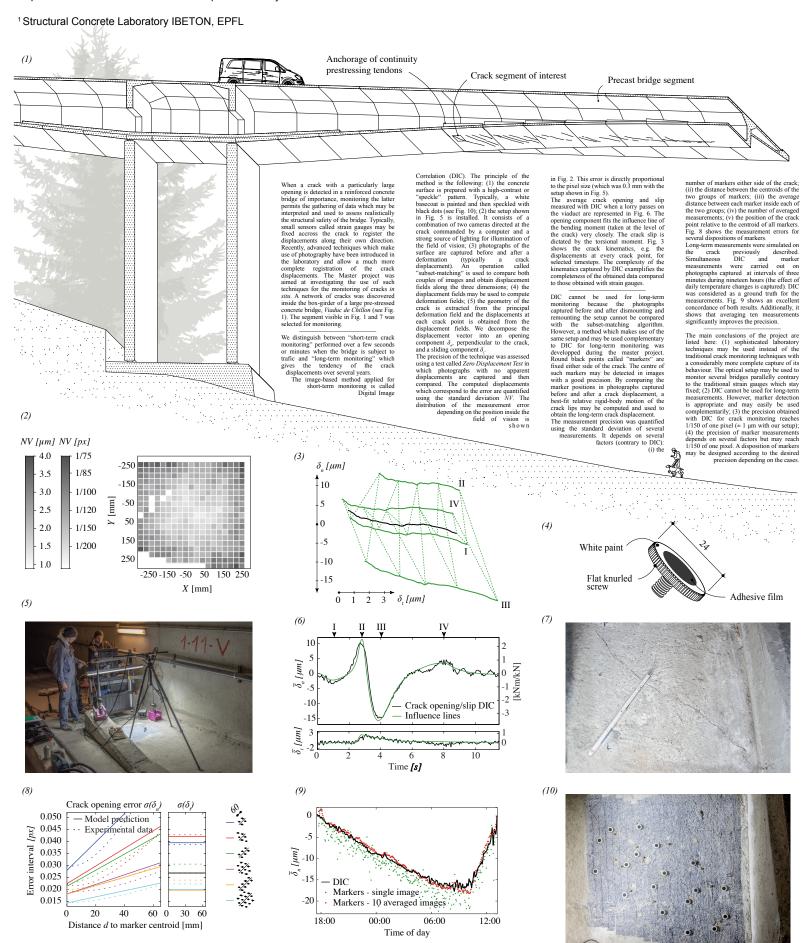
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EPFL

Image-based techniques for the monitoring of cracks in reinforced concrete structures

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(1) Cut-out axonometric of *Viaduc de Chillon* with observed cracks; (2) Spatial distribution of the Digital Image Correlation (DIC) measurement error NV; (3) Crack kinematics at selected time-steps obtained with DIC during passage of a lorry; (4) Detail of a marker; (5) Photography of the setup inside the box-girder of the bridge; (6) Average crack opening and slip obtained with DIC during passage of a lorry; (7) Photography of the investigated crack segment; (8) Error interval for crack kinematics obtained through marker measurements for several marker dispositions; (9) Average crack opening obtained by both DIC and marker measurements over nineteen hours (thermal effects are captured); (10) Photography of the crack equipped with speckle pattern (for DIC measurements) and markers.