

Materials testing researchers choose Kirana

Specialised Imaging

reports that its **Kirana ultra-high speed video camera** has been chosen by researchers at the **University of Dresden** (Germany) following a head-to-head comparison against alternative commercially available cameras.

To choose the best camera

to investigate the behaviour of concrete when subjected to high impact loading – the Dresden researchers compared experimental images on their samples from the Kirana with those taken by two alternative cameras for Digital Image Correlation (DiC) measurement analysis.

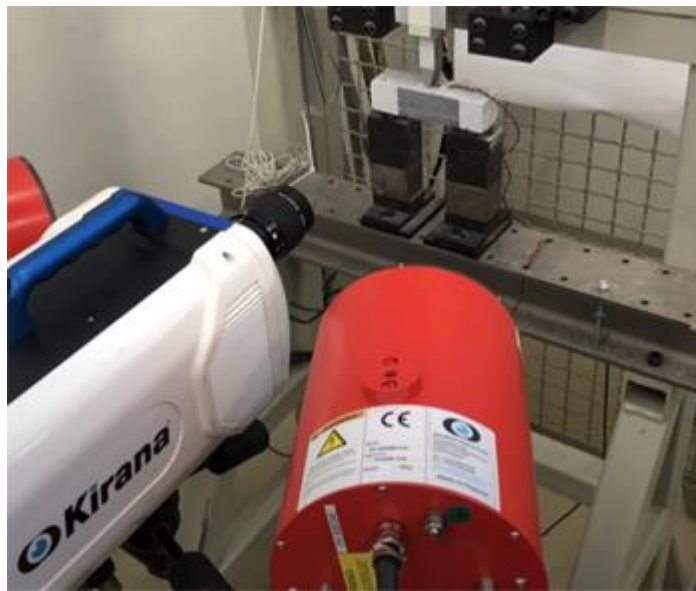


Image caption : A: Kirana ultra-high-speed video camera employed in University of Dresden experimental setup

This comparative evaluation

is subject of a detailed paper published by the University of Dresden – see <https://opg.optica.org/ao/fulltext.cfm?uri=ao-63-2-467&id=545419>.

The researchers

describe how evaluation of high-speed camera image sequence analysis results in concrete material testing under high-impact loading requires careful consideration of the effect of the image quality on the measurement accuracy and on the potential of the geometric measurements derived from the image sequences. To achieve accurate measurements, using Digital Image Correlation, the researchers evaluated the performance of three ultra-high speed cameras (Specialised Imaging Kirana, Shimadzu HPV-X2 and Vision Research TMX 7510) to analyse the deformation of concrete specimens before and after main crack formation in bending and compression tests. The published results from the head-to-head experimental tests and correlation analysis results showed

technology limitations that affected image quality could be mitigated to a level where significantly higher spatial resolution images provided better results overall.



Image caption Kirana ultra-high-speed video camera

The Kirana

is a true ultra-high-speed video camera that combines the flexibility of a video camera with the speed and resolution approaching those only available with framing cameras. The unique custom design sensor employed by the Kirana offers 180 images at capture speeds up to 7 million images/second at full resolution.

To watch a video of Dresden

researchers employing the Kirana ultra-high speed camera for DIC analysis of a 3-point bending test on concrete samples please visit http://www.specialised-imaging.com/products/video-cameras/kirana?utm_source=PR139

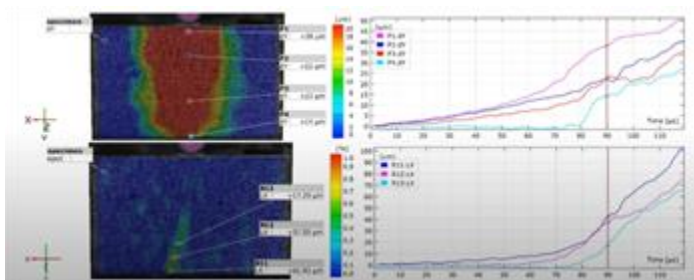


Image caption : Kirana operating at 1.5 million frames per second for DIC analysis of concrete impact testing

For further information

on the Kirana please contact Specialised Imaging on +44-1442-827728 (UK) / +1-951-296-6406 (USA) / +49-8141-666-8950 (Germany) / +86-1068-651-769 (China) / info@specialised-imaging.com



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