

IIT-M develops new-generation super-abrasive tools for dental surgery

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The prototypes of various tools have been developed in the laboratory and are being experimentally test-simulated under industrial conditions



A newly developed technology can now produce new-generation multi-point/single-layer superabrasive tools for advanced grinding applications to meet high productivity and energy-efficient material removal requirements. The tools produced also have enhanced tool life.

A research team at the Indian Institute of Technology Madras (IIT-M) has used advanced chemical bonding technology with an application-specific novel formulation of filler material and controlled spacing of grits on the tools by an indigenously developed semi-automatic grit-printing device.

This indigenous tool supported by the Core Research Grant (CRG) of the Science and Engineering Research Board (SERB), a statutory body of the Department of Science and Technology (DST), offers a competitive cost with a superior quality tool, which is also tailor-made as per the needs of industries like aerospace, automobile, mining, and dental surgery.

This technology which fits the requirements of Make-in-India National Mission is under lab validation and is near-ready to be taken up by a startup or any industry for a full-scale launch.