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NIIST, IIT start-up develop new casting software

Our Bureau
Thiruvananthapuram, Sept 25:

Scientists at the National Institute for Interdisciplinary Science and Technology (NIIST), Thiruvananthapuram, has joined hands with 3D Foundry Tech (3DFT), a company incubated in the Indian Institute of Technology-Bombay, to develop an advanced software for the metal casting industry.

NIIST is an affiliate laboratory of the Council of Scientific and Industrial Research (CSIR).

CASTING SOFTWARE

A new module named 'FLOW+' will incorporate the 'solver' of the virtual casting software developed at NIIST, an official spokesman said here.

The solver can perform coupled simulation of metal flow and solidification, enabling visualisation of mould filling sequence, changes in casting temperature and solidification rate. This helps in predicting casting defects such as 'cold shut' and shrinkage porosity without shop-floor trials, saving valuable time, energy and other costs.

FLOW+ will be a new module provided by AutoCAST-X, currently the most popular casting software in India with about 60 licensed users in academia and industry.

GEOMETRIC REASONING

AutoCAST-X is based on a geometric reasoning engine developed at IIT-Bombay, allowing semi-automatic design, 3D modelling and analysis of casting elements like cores, feeders, and gating channels. The software is currently maintained and marketed by 3DFT.

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