



“Make sure you don't miss an opportunity to see what the foundries of the near future are going to look like.”

President's Communiqué

Dear Fellow Foundrymen,

As we complete the festive season and move into the second half of the year, I wish everyone in our IIF family Shubha Bijoya, Happy Dussehra and Vijayadashmi Shubhakanshalu. May the victorious light dispel the darkness and bring joy to your heart.

The purpose of IIF is also to bring the light of knowledge into foundries to dispel the demons of low productivity, poor quality and unfriendly work environments. These demons are now being slayed by two new concepts that have the promise to change the way we do business.

The first of these game changer technologies is 3D printing, which has moved in the last few years from an emerging technology into an emerged and commonly used process that tremendously augments the power of smaller foundries to become more agile. By “printing” (i.e. creating layer upon superimposed layer) cores directly from CAD drawings with special “high resolution” 300-micrometre sand as the print medium, 3D printing allows complex geometries, eliminates tooling for core production, reduces core making time from a few weeks to a few days or hours, and creates high-fidelity cores which almost identically resemble the CAD drawing. This technology has evolved from one-off special prototyping applications to small batch sizes and now finally even to medium-size production runs.

Before you dismiss this as beyond the capability or budget of most foundries, you may be amazed to know that numerous small foundries across India have already adopted small 3D printers in their operations to provide quick-turnaround custom jobbing solutions for specialised applications. The cost of the technology has dropped to where an oven-sized 3D printer can be purchased for less than a few lakh rupees. These new agile foundries are blazing a new path in customer responsiveness.

The other technology which is gaining currency is the “smart foundry” concept, where the entire perception of a foundry as we know it is turned on its head. Imagine a clean sunlit factory with green plants growing near each pillar, with clean air and spotless floors, with sensors and automation everywhere, with sand running overhead through pneumatic pipes or closed conveyors, automated pattern retrieval systems, state-of-the-art testing laboratory, real-time sand control systems which fine-tune properties of each mixing batch, automated moulding and pouring, plant-wide SCADA systems which capture volumes of electronic data on each process, casting simulation software for minimal rejections and optimal gating design, IP cameras through which each area of the plant can be monitored on your smartphone, energy-efficient machinery, rainwater harvesting and rooftop solar cells. Truly a factory of the future, you may think. But many foundries in India have already adopted this approach and are thriving as a result.

IIF will be showcasing both these technologies at the upcoming 65th Indian Foundry Congress and IFEX 2017 in Kolkata. Make sure you don't miss an opportunity to see what the foundries of the near future are going to look like ... and what your foundry could transform into within a few years.

Anil Vaswani
President, 2016-17
The Institute of Indian Foundrymen