

3D Printing Technology and Innovations

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Editorial

3D Printing also known as Additive manufacturing. It turns digital 3D models into solid objects by building them up in layers. The technology was first invented in the 1980s, and since that time has been used for Rapid Prototyping (RP). However, in the last few years, 3D printing has additionally started to evolve into a next-generation manufacturing technology that has the potential to allow the local, on-demand production of final products or parts thereof. This technology is used in the fields of jewellery, footwear, industrial design, Architecture, Engineering and Construction (AEC), automotive, aerospace, dental and medical industries, education, geographic information systems, civil engineering, and many others [1].

Who should attend 3D printing conference 2022?

Conferences and meetings is the only platform we can learn and exchange the knowledge. Scientists, Engineers, Directors of companies, Researches from different parts of the world come and meet at one place to share views, exchange knowledge and establish research collaborations and networking in the field of 3D Printing Technology and Innovations. 3D Printing Conference 2022 brings an Opportunity to attend the presentations delivered by eminent scientists, researchers, experts from all over the world and Participation in sessions on specific topics on which the conference is expected to achieve progress [2]. It brings Global networking in transferring and exchanging Ideas. Share your excitement in promoting new ideas, developments and innovations in the field of 3D Printing Technology and Innovations.

- 3D Printing 2022, you'll have the opportunity to engage with the most prominent professionals in 3D Printing Technology & Innovations from across the world
- Full spectrum of 3D printing processes and materials.
- 3D Printing 2022 is the leading B2B trade show for the 3D printing industry. As an attendee, you'll explore the business applications of 3D printing through our conference sessions, hear keynote presentations from industry influencers, add valuable contacts to your network, and watch the latest 3D printers and services in action.

Applications of 3D printing in health care and medicine: 3D Printing has been applied in medicine since 2000s. For

manufacturing of custom pros-thetics and dental implants it was first used and then onwards the medical applications for 3D Printing has evolved significantly. By the use of 3D printing we can produce exoskeletons, windpipes, jaw bone, bones, ears, blood vessels, vascular networks, tissues, eye-glasses, cell cultures, stem cells and organs. The current medical applications of 3D Printing can be categorized into a number of categories that are creating in plants, tissue and organ fabrication, prosthetics and pharmaceutical research concerning drug discovery and anatomical models [3].

Innovations in 3D printing: 3D Printing technology is constantly evolving and definitely has a considerable measure in its pocket for the future. The level of customization that the technology offers opens up the door for its application in numerous enterprises, permitting it to take care of a considerable measure of issues. This review will abandon you with a look at work in advance in the 3D Printing Industry.

3D printing materials

Benefits of 3D printing and technology: 3D Printing, whether at an Industrial, local or individual level, brings a large group of advantages that conventional strategies for fabricate (or prototyping) simply can't. 3D Printing forms take into account mass customization the capacity to customize items as per individual needs and prerequisites. When you utilize a 3D printer over more conventional manufacturing Processes, the list of coming about advantages is entirely long. From significant cost investment funds and quicker generation times to more imaginative opportunity and a diminished carbon impression, there is no deficiency of focal points with these manufacturing methods [4]. A 3D printer diminishes your overhead expenses altogether, and in more ways than one. Initially, it eliminates material expenses. Rather than utilizing a major square of plastic, metal or other material and removing the product out of it we can utilize just the materials totally essential for the construct (added substance producing). This not just cuts your forthright expenses for materials, it also reduces the funds you'd typically spend on transporting and discarding that waste.

A wide range of materials can be utilized for 3D printing, for example, ABS plastic, PLA, polyamide (nylon), glass filled polyamide, stereo lithography materials (epoxy gums), silver, titanium, steel, wax, photopolymers and polycarbonate. The materials accessible for 3D printing have progressed significantly since the beginning of the

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innovation. There is presently a wide assortment of various material types, which are provided in various states. Particular materials are now generally produced for particular stages performing dedicated applications with material properties that more precisely suit the application. The energy around the promise of 3D printing has opened the floodgates. New printers are being created each day to print a wide range of materials from plastics, metals, composites, and cement, to organic materials, paper, and food.

Nano 3D printing: Nanotechnology is the manipulation of material with at least one dimension sized from 1 to 100 nanometers. Nanotechnology has a lot in common with the additive manufacturing technology. At least, these two technologies are starting to revolutionize a lot of different sectors, from the medical industry, to chemistry or consumer products. The nanotechnology and 3D microprinting can totally be combined to create new impressive projects. That is where we can talk about nano 3D printing [5].

Challenge of 3D printing in radiation oncology: Enduring the physical and mental results of having a cancer diagnosis is only the beginning of the battle. Cancer patients then need to manage difficult treatment cycles and related side effects. The high measurements of radiation used to destroy tumour cells can likewise harm neighbouring healthy tissues. Although major improvements in radiation technology, for example, intensity modulated radiation therapy have led to reduced toxicity, these techniques have a tendency to be complex requiring a few arranging steps and security checks before the patient can begin treatment. 3D printing is

promising to take care of some of these issues and help in providing personalized cancer treatment.

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