



San Diego Joint Chapters of ACerS & IMAPS

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Thursday, June 27th, 2019 at 12:00

DLP 3D Printing for Biomedical Applications

Presented by: Dr. Wei Zhu, Allegro 3D

Abstract:

3D printing has recently emerged as a transformational technology for many industries, including manufacturing, electronics, automotive, education, and healthcare. There are several different forms of 3D printing, such as fused deposition modeling (FDM), stereolithography (SLA), selective laser sintering (SLS), and digital light processing (DLP). This talk will focus on the discussion of the DLP-based 3D printing technology and its biomedical applications. Both synthetic and naturally-derived bioinks will be introduced, including 3D printable polycarbonate, polyurethane, gelatin methacrylate, hyaluronic acid, etc. Functional nanoparticles (e.g. piezoelectric nanoparticles) can be directly installed in the 3D printed structures to build functional devices. Live cells can also be combined with the bioinks to print 3D scaffolds and tissue constructs for drug screening, therapeutics and regenerative medicine.

Biography:

Dr. Wei Zhu is the co-founder and CTO of Allegro 3D, an emerging 3D printing and bioprinting company located in San Diego. He leads the research and development of rapid 3D printing platforms and novel bioinks. Dr. Zhu received his BS in Optical Engineering at Zhejiang University, and his MS and PhD in Nanoengineering from University of California, San Diego (UCSD). In addition, he received his mini MBA training from the UCSD Rady School of Management. Dr. Zhu has extensive experience in 3D printing, biomaterials, micro/nanofabrication, and tissue engineering with publications in top journals such as *Nature Medicine*, *Nature Communications*, *PNAS*, *Advanced Materials*, *Materials Today*, *ACS Nano*, and *Biomaterials*. His work has been covered by numerous mainstream news media including the Wall Street Journal, Washington Post, Forbes, Fortune, etc.

Logistics:

Tuesday June 25th, 2019 at 12:00 PM. Lunch will be provided.

Location: 6450 Lusk Blvd., Suite #E200, San Diego, CA 92121

RSVP required. Space is limited to 30 registrants due to room size; please sign up quickly.

\$20.00 for IMAPS members. \$25.00 for non-members, \$5 for students with an ID. To register please click [HERE](#), for questions please contact Bill Ishii ----- bill@imaps.org

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