

SEMINAR

Thursday, 14.5.2026, 13:00, Kolar's Lecture Hall

Preclinical and Clinical Materials Characterization of Additively Manufactured Materials in Dentistry

Dr. Ing. Franziska Schmidt
(Charité - Universitätsmedizin Berlin)

Additive manufacturing is increasingly used in dentistry to produce accurate and patient-specific restorations and appliances. This presentation summarizes preclinical and clinical findings on additively manufactured dental materials, with emphasis on how printing parameters and post-processing influence accuracy, mechanical properties, and color stability. Layer thickness, build orientation, exposure settings, and post-curing conditions were shown to affect dimensional precision and material performance. In general, optimized processing improve fit, strength, and optical stability, which may influence clinical outcomes. These findings highlight that clinical success depends not only on the material itself, but also on the full manufacturing workflow. Standardized printing and post-processing protocols are therefore essential to ensure reliable and reproducible results in daily dental practice.

Kindly invited.