Project Progress Report under Seed Money Grant

Title of the project: Enhancement of flame retardancy and dielectric strength of thermoplastic materials using thermosetting material as reinforcement.

Seed money sanctioned: Rs. 2,00,000/- (details given below) under letter no. PE-471 dated 11/02/2021

S. No.	Requirement	Tentative Cost (INR)
1	Consumable polymer (PVDF, ABS, PLA)	40,000/-
2	Reinforcements (Melamine, Epoxy resin powder, bakellite)	20,000/-
3	Flammability tester	80,000
4	Thermal testing consumable pans	15,000/-
5	Contingency	30,000/-
6	Voltage – current analyzer	15,000
Total cost		**2,00,000/-**

Amount Availed: Rs. 27,671/- (for consumables)

Progress of Project:

For the study of enhancement of flame retardancy and dielectric strength of 3D printed samples of ABS-Epoxy resin composite, examination on MFI (Melt flow index) is required to filament preparation. MFI for the composite has been checked and it is observed that the composite with up to 10% epoxy by weight can be used for filament preparation.

In further experimentation, filament will be prepared which will then be test for its mechanical, surface and porosity analysis to finalize the composition of the composite for filament preparation which will then be used for 3D printing for the completion of project.

HoD (PE)

Dr. Jasmaninder Singh Grewal

Faculty under project:

Er. Gulraj Singh

31/5/2021