

## Development of 3D Bioactive Glass Bone Scaffolds for Bone Tissue Engineering

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The goal of this research project is to develop a three-dimensional designed bioactive glass bone scaffold that can positively assist with bone regeneration. Current development and research emphasized on bone tissue engineering, is a big contribution towards many fields in science and engineering. In this project, a new bone scaffold that will help further studies in bone tissue engineering and bone regeneration will be developed using state-of-the art 3Dprinting technique. The bioglass material that will be used in this project is considered to be a promising material for bone scaffolds due to their ability to assist with tissue regeneration. The significance of this project is to provide a new methodical approach in order to precisely design the microstructure and thus build bone scaffolds that can effectively stimulate bone regeneration. The methods used in this research include the incorporation of computer-assisted design in order to build a model scaffold that will be 3d printed and evaluated.

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