

Topics of Final Year Project in 2018-19

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| 1 | 3D Printing of Growth Factor-containing Tissue Engineering Scaffolds Using Gelatin-based UV Crosslinkable Inks |
| 2 | A smart wearable device for pulse-sensing at the wrist |
| 3 | Cell sheet engineering for eye transplants |
| 4 | Characterisation of actin protrusion of human MSC transmigrated through collagen barrier |
| 5 | Computational Studies of Blood Flow in the Carotid Artery in the Presence of Stenosis |
| 6 | Deep Learning of Human Brain MRI Datasets |
| 7 | Development of microfluidic spinning-disk cellular imaging bioassay |
| 8 | Development of quantitative phase and high-speed fluorescence microscopy for neuronal imaging |
| 9 | Development of quantitative phase imaging for label-free studies of bacterial cells |
| 10 | Droplet-Based Microfluidics for Screening Catalytic DNA Aptamer |
| 11 | Evaluating CRISPR-induced out-of-frame mutation through in silico comparative analysis between design tools |
| 12 | Evaluating indel prediction tools for editing the mouse genome using CRISPR |
| 13 | Fabricating Cell Fibers by Cell Electrospinning and Characteristics of Cell Fibers |
| 14 | Hydrogel Based Localized Controlled Release Platforms with Multifunctionalities for Bone Regeneration |
| 15 | Injury-induced fragmentation of axons |
| 16 | Lung-mimicking phantoms for endoscopic-ultrasound-guided surgery |
| 17 | Mortality and Recurrence Predictions on Clostridium Difficile Infection using Machine Learning Algorithms |
| 18 | MRI Deep Learning of Brain Age and Aging |
| 19 | Novel scanning technique for multiphoton microscopy |
| 20 | Preclinical assessment of genipin-treated chitosan nanofibers as a novel scaffold for nerve guidance channel in rat models of nerve injury |
| 21 | Research & Development of automatic 3D medical imaging segmentation system in hard tissue imaging analysis software |
| 22 | Segmentation and tracking of laryngeal tissues during swallowing by ultrasound imaging |
| 23 | Single cell traction force measurement assay with multiphoton-based protein micropatterns |
