**Naudé Conradie**

**19673418**

**Meeting Minutes 10:00 & 12:00 2020/09/07**

**CPPNs**

* Fully implemented
  + Model number control
  + Functions applied per layer
  + Percentage of elements kept
  + Solved symmetry problem
* Implement
  + Rounding threshold

**Genetic Algorithms**

* Implemented
  + Crossover
  + Random mutation
  + Biased mutation
  + Ordinal ranking
    - May lose distribution
* Parameters per method
  + Random = 2
  + L-System = 5
  + CPPN = 7
* Consider
  + Simulated annealing – slowly increase mutation rate over time
  + Variational auto-encoders
  + Alternative shape generators
  + Style transference
* Performance criteria
  + Change in shape
    - Comparison to ideal shape
    - Haussdorf distance
    - Partial curve mapping
    - CJ’s work
* Penalties
  + Poor behaviour
* Optimise pressure as well

**Monte-Carlo Simulation**

* Run large simulation
  + 10000
  + L-Systems
  + Cover range of parameter values
  + Compare performance of parameter values
  + Insert multiple grids next to each other
    - Apply internal pressure to all

**Code**

* Scale invariance
  + Show same system at larger resolutions and dimensions performs similarly

**Admin**

* Journal
  + Journal Of Soft Robotics
  + Advanced Functional Materials
  + Artificial Life
  + Cover the entire project