

*Simulated for the Experiments*

*Input*

Depth Image (D) and Pose (P) from sensor.

*Classification*

P

*Generate Expected Depth Image (E)*

E

*Classify Depth Image (D):*

Classification is based on the difference between expected (E) and actual (D).

(  $D_n$  ) are novel values in the depth image (D).

$D_n$

*Surface Reconstruction:*

Novel Surface (S) generated from Novel Values (  $D_n$  ).

Any surface reconstruction algorithm can be used.

S

*Add Novel Surface (S) to Global Mesh (M)*

M

