**MCD 411: B.Tech. Project (First Semester 2019-20)**

Weekly Progress Report (From: 21/09/2019 To: 1/10/2019)

I undertake that the following work has been accomplished during the above-mentioned period of one week:

* Our supervisor advised us to introduce deformable force fields. Until now, we used static force fields assuming that one deformable bodies center was fixed and the other deformable body (the instrument) was moving towards it. However most organs in the human body move when force is applied.
* Thus to mimic this better, we implemented the concept of floating nodes. Here the center of the field is defined by a deformable beam. The beam experiences the same amount of force as experienced by the instrument and thus deforms.
* We further incorporated force due to friction and damping in this model.

**Submitted by (student’s name with signature) Endorsed by:**

Group member 1: Kshitij Gupta Supervisor 1: Prof JP Khatait

Group member 2: Shantnav Agarwal