

IITG Mid Year Project Report : Entry # 190

Name of Principle Investigator:

Anurag Purwar

IITG Project Title (truncated)

2014-Stony Brook-Purwar-Freshman Design Innovation

1) Please consider the original timeline and deliverable targets. How is your project progressing compared with the original estimates?

The project is progressing well and all delivery estimates are on time. This is what has been accomplished so far:

1. Specication and Feature set determination for a mechanism design iOS and Android app
2. Develop an interface for interactive input of task positions, constraint specication, and for simulation of synthesized linkages
3. Develop four-bar linkage synthesis algorithm for the app
4. Implemented core four-bar algorithm in the app for 5 position synthesis, 4 position synthesis, and 3 position synthesis
5. The Freshman Design Innovation class has been formally approved within the department and its first launch will be in the Fall 2015.

2) How is spending progressing when compared with the original budget estimates? (You may also choose to detail issues regarding access to funds in the next three questions).

The grant is supporting two graduate and one undergraduate students with almost 60% of the total grant money spent so far in mainly students' and PIs salary. The spent money is consistent with the project outcomes and is on budget so far.

3) Please provide feedback regarding your experience with the project execution, in particular any issues or roadblocks you've encountered that may have been unexpected.

The project administration from SUNY and coordinated by Dr. Lisa Stephens has been outstanding.

4) What are your positive observations or pleasant surprises about your team's interaction or project process that might would be helpful to other PI's?

I encourage PIs to talk about their work on an IITG grant. I have received positive feedback from many different sources.

We organized a panel on Freshman Design Innovation at the 2014 ASME International Design Engineering and Technical Conferences, Buffalo, NY. The PI Purwar recently gave a TEDx talk on Machine Design Innovation through Technology and Education (available at <http://youtu.be/B4VfrtHNJtY?t=44s>), which focused on enabling democratization of design capabilities, much needed for invention and innovation of machines by uniting the teaching of scientific and engineering principles with the new tools of technology.

5) Please describe any challenges you've encountered working with your project team that you've found solutions for that might be helpful to other PI's.

none

