

## CS5245 Graphics & Vision for Special Effects Project Progress Update 2

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### Project Updates and Changes

1. **Title:** *The Impossible Magician*
2. **The Effect:** Human creates new flow of waterfall

#### Approach:

This idea was inspired by Bhat's work that presents a novel algorithm for synthesizing and editing the flow of natural phenomena with continuous flow patterns such as waterfall, fire and smoke.

To achieve the above effect, we need to take the following steps:

1. Take a video sequence of a high waterfall with a human acting like a magician to create new flow of waterfall to the real existing waterfall. The targeted waterfall is Lata Kijang (Figure 1), which is approximately 350 feet high, and it is the tallest single drop fall in Malaysia



Figure 1: Lata Kijang

2. Implement Bhat's algorithm to add new flow of waterfall to the high waterfall. Water texture of the new waterfall flow is taken from another waterfall video sequence
3. Creates twinkle visual effects using Adobe After Effects, to be added to the video sequence as the magician lifted his hands to create the new waterfall flow
4. Composite the effect to the video sequence

### 3. The Input

- i. A video sequence of a high water fall with human acting like magician
- ii. Twinkle effect (blinking stars) using particles modeling effect.

### 4. The Output

A composite video with the final effect of a magician creating new flow of waterfall

### 5. The Schedule

Week	Milestone
Week 5	Proposal approval and consultation
Week 6-7	Shooting & Implementation of Bhat's algorithm
Week 8	Progress update
Week 8-10	Editing & Compositing Application of Bhat's algorithm
Week 9-11	Model twinkle effect and video compositing
Week 11	Progress update
Week 12	Finalizing & Presentation preparation
Week 13	Presentation

### 6. Project Progress

The team is completing the main effect and supplementary effect on the 1-minute production video, at the same time editing as well as final touch-up. The team is also preparing the materials for the presentation day. The main effect will be the synthesis of new waterfall flow, which is not available initially until the person performs his so-called magic skill. The new waterfall flow is based on the flow line of the existing flow. The supplementary effect is the twinkle visual effect (blinking stars) for the magician, seen mostly when magician performs his trick in cartoons. Everything is going well according to the proposed schedule.

### 7. Problems encountered and solutions

Problems encountered during the beginning of the project have been resolved. The team managed to shoot the waterfall video for the main effect generation with correct angle. The team managed to implement the algorithm and created the visual effect. The team also worked together and elaborated to overcome the difficulties in using Matlab and After Effects, and finally familiarized ourselves with them. After some time, the team was able to effectively and efficiently use the applications.