

# IEEE CONSUMER ELECTRONICS SOCIETY, BANGALORE CHAPTER

Website: http://ewh.ieee.org/r10/bangalore/ces

### Report on GFX 2014 - Advanced Graphics Workshop, March 8, 2014



IEEE Consumer Electronics Society, Bangalore Chapter

#### **Background**

The Advanced Graphics Workshop was conceptualized by the IEEE Consumer Electronics Society, Bangalore chapter in 2011, as a result of discussions with key partner companies working in the field of Consumer Electronics in Bangalore. OpenGL, Graphics, and Consumer Electronics are becoming closely linked, with the emergence of integration of high quality graphics into mobile devices like the iPhone/ iPad and the myriad Android tablets in the CE market. The most important feedback was to provide a hands-on experience to participants rather than just theory, thus a great emphasis on setting up a scalable lab experience was required. The first workshop was held in Dec 2011, the second and third workshops in May 2012 and May 2013. The previous workshop reports are linked below:

- 1. <a href="http://ewh.ieee.org/r10/Bangalore/ces/CE">http://ewh.ieee.org/r10/Bangalore/ces/CE</a> Bangalore Report GFX2011.pdf
- 2. http://ewh.ieee.org/r10/bangalore/ces/ieee ce gfx2012 report v1.pdf
- 3. http://ewh.ieee.org/r10/bangalore/ces/gfx2013 report.docx

This report summarises the Fourth workshop in this series, GFX 2014.

#### Workshop summary

A new logo for the workshop was created this year. The entire event was coordinated with the IEEE via online setups. All event information, pre-registration, and feedback forms, were available to participants at the below link.

http://ewh.ieee.org/r10/bangalore/ces/gfx2014.html

The workshop was conducted on March 8, 2014, at Hotel Spree.

#### Labs and Workshop

The lab setup for the workshop was done in a completely online, scalable way – by using the facilities at <a href="http://www.gpupowered.org">http://www.gpupowered.org</a>

The workshop covered Graphics theory and implementations, and specification aspects, apart from hands-on labs which were implemented in the online labs, by all the participants. The participants were able to immediately appreciate the API implementation, the parameters, and the syntax of the various APIs, by actually implementing and debugging various problems. Overall 7 labs (L1-L7) were implemented, debugged and completed by the participants, and more than 8 pre-built labs were referred to. A new addition was made in the form of introduction to Three.js framework, and a complete quiz for the Khronos OpenGL ES API and usage. The workshop was coordinated and conducted by Prabindh Sundareson, IEEE CE Chapter.

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#### **Photos**

A photo stream of the event is available online at, <a href="http://www.flickr.com/photos/71344617@N02/13022347055/in/photostream/">http://www.flickr.com/photos/71344617@N02/13022347055/in/photostream/</a>

#### Feedback From Participants

More than 90% of the participants rated the session as Good/Excellent. Selected feedback below:

What excited you today in this workshop? / What could have been better / Feedback

- It was nicely organized
- The Pace of the Lecture post lunch :(
- visual demo, speed of delivery, depth of each topic can be toned down
- Keeping a logical flow among the lab exercises.
- The hands on examples should increase in gradual complexity rather than dive in to debugging code examples. Show a working code FIRST to gain confidence and then have examples that require debugging.

### **Summary:**

Overall, the second Advanced Graphics Workshop was successfully held, and a lot of insight has been generated into the requirements of the CE technical community. Thanks to the IEEE CE chapter execom, the IEEE execom, and Sudeendra (Chairman, CE Chapter) and Arun Naik (Treasurer, CE Chapter) who attended and participated actively in the workshop, for spending significant time on this and supporting this activity.

- Prabindh Sundareson, on behalf of the IEEE CE Bangalore Chapter, Coordinator, GFX2014