



Dear Educator,

Get hands-on with Mobile Graphics!

The [Imagination University Programme](#) is pleased to host two one-day workshops specifically for teachers, providing an overview of our “Introduction to Mobile Graphics” teaching materials.

In universities, graphics technologies are generally taught as part of game development or the computer science curriculum, and are based on standard console or PC graphics. Since consumers increasingly interact with graphics on their mobile devices via games and user interfaces (UIs), it is important that developers understand the specific constraints of mobile devices where power-efficient rendering is a must.

This workshop will present a course designed to introduce real-time rendering on mobile devices to students who have little or no prior experience with 3D graphics programming. The course materials were developed by Darren McKie, undergraduate/MSc games and graphics programme leader and selector fellow of the Higher Education Academy, Department of Computer Science, at the University of Hull.

The course consists of lecture slides, practical exercises and example exam questions, giving you the flexibility to choose between a practical and an exam based structure for the course at your faculty.

The lectures introduce the specifics of mobile graphics, GPU architectures and 3D rendering with OpenGL ES and GLSL ES shaders. The [PowerVR SDK](#) is used throughout the material to provide OS-agnostic API setup, shutdown and render loop entry points so students can easily develop on Windows, OS X or Linux using Imagination’s OpenGL ES emulator, then deploy to a number of mobile operating systems, including iOS and Android, without having to worry about OS specific behaviour. Additionally, Imagination’s [PowerVR Tools](#) are used in many of the exercises to demonstrate how industry leading development tools can help students quickly implement robust and efficient 3D graphics applications.

An Introduction to Mobile Graphics

DATES: One Day Workshops – 23rd OR 24th September, 2015

TRAINERS:

- Jan Robert Menzel, [RWTH Aachen](#), Germany
- Joe Davis, Developer Support Lead, [Imagination Technologies](#)
- Carlos Sarria, Senior DevTech Manager, Imagination Technologies
- Tish Chungoora, DevTech Engineer, Imagination Technologies

WORKSHOP AGENDA:

- Welcome & Introduction to the Imagination University Programme (“IUP”)
- Lecture: Basics of the PowerVR Framework, and simple Object Orientated Design
- Lab: PowerVR Framework
- Lecture: OpenGL ES 2.0 basics
- Lab: Using PVRTrace to identify issues
- Wrap-up / Q&A
- A visit to Imagination’s Demo Room to see the latest technologies will also be included

After your day of training you will have a good understanding of the specific requirements of mobile graphics and an appreciation of how these teaching materials could be integrated into your computer graphics curriculum.

All delegates will be given access to the lecture slides and course notes, programming exercises and solutions, as well as example exam questions and answers.

COURSE MATERIALS

After registration for the University Programme [here](#)

The course materials can be downloaded [here](#).

The hands-on exercises in the Workshop will use Imagination’s [CI20 Creator Board](#)

FIND OUT ABOUT THE IMAGINATION UNIVERSITY PROGRAMME

[Robert Owen](#) and colleagues from will be on-hand to discuss your interests.

BOOKINGS

The workshops are free of charge for members of academia but places are limited and demand will be strong, so please apply for your place quickly.

ELIGIBILITY

- These workshops are open to academic faculty members, with a priority for those involved directly in teaching
- We reserve the right to accept or refuse registrations based on our desire to enable the broadest spectrum of Universities and Colleges to participate

LOCATION: Kings Langley, Hertfordshire. [Imagination Technologies World HQ](#)

PREPARATION: To participate in these hands-on exercises, attendees will need to bring a laptop, ideally running Windows. Installing the PowerVR SDK in advance will save time on the day.

TO BOOK YOUR PLACE: Please apply online [here](#)

KEEPING IN TOUCH: Please register for the Imagination University Programme [here](#)

You are invited to please *circulate* this e-mail to academic friends and colleagues...

Thanks for your interest – we look forward to meeting you!

Best Regards,



Manager: Worldwide University Programme

Imagination Technologies

e-mail: Robert.Owen@imgtec.com

Web: <http://community.imgtec.com/university/>

