

Half-day Tutorial on Mobile Graphics

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The hardware for mobile devices, from smartphones and tablets to mobile cameras, continues to be one of the fastest-growing areas of the technology market. Not only mobile CPUs and GPUs are rapidly increasing in power, but a variety of high-quality visual and motion sensors are being embedded in mobile solutions. This, together with the increased availability of high-speed networks at lower prices, has opened the door to a variety of novel VR, AR, vision, and graphics applications. This half-day tutorial provides a technical introduction to the mobile graphics world spanning the hardware-software spectrum, and explores the state-of-the-art

and key advances in specific application domains. The five key areas that will be presented are: 1) the evolution of mobile graphics capabilities; 2) the current trends in GPU hardware for mobile devices; 3) the main software development systems; 4) the scalable visualization of large scenes on mobile platforms; and, finally, 5) the use of mobile capture and data fusion for 3D acquisition and reconstruction.