

# PORTING OPENCV INTO ANDROID

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**Abstract:** Today, Android is becoming a popular Operation System (OS) for mobile devices. Specially, it is free and open source code OS. Multimedia applications are one of the main Android applications. If Android can use OpenCV, which is computer vision library, developed by Intel, Android application developers will save much time and get easier to write the multimedia applications. But, OpenCV is written in C/C++ language meanwhile Android applications are written in Java language. Therefore, Android cannot use it directly. The aims of this thesis are to study a solution to resolve this problem and validate this solution is good by writing Android applications using OpenCV functions from the ported OpenCV library in Android. To achieve these aims, this thesis studies about library, how to build library and how to use Java Native Interface to call native method (written in C/C++) in Java program (Android application). Also, Android development environment will be put into research. Finally, an Android application that uses OpenCV functions will be emulated. However, before these themes are studied, OpenCV and Android platform will be concerned.

**Keywords:** OpenCV, Android