

Intern Requirement

Preferred Discipline	Computer/Electrical Engineering, or Computer Science
Prerequisites/ Skills Required:	Programming skills Using and integrating open source libraries Debugging and testing software Understanding digital image processing
No. of students required	Individual or team of 2

Project Details

Title	Image Processing on Mobile Devices
Overview/Background	Although most mobile phones and PDAs today are equipped with high megapixel cameras, the quality of pictures taken is still poor compared to conventional cameras. With increasing processing power on mobile phones, it may be possible to use image processing techniques to improve on the quality of the pictures. Image compression techniques may also reduce the file size to make it easier to transmit the pictures through the phone.
Aims/Objectives/Deliverables	<ol style="list-style-type: none">1. Comparison study of images taken with various cameras and phones2. Develop or modify open source code for various image processing algorithms, to detect blurred shots, improve uneven illumination, improve readability for pictures of documents, automatic cropping, resize and rotation, etc.3. Develop or modify open source code for modern lossy and lossless image compression algorithms4. Implement software to run on mobile phones or PDAs
Scope	<ul style="list-style-type: none">• Image processing• Image compression• Mobile computing
Project Duration	<ul style="list-style-type: none">• 2-3 months for two persons, 6 months for 1 person