

Intern Requirement

Preferred Discipline	<ul style="list-style-type: none">Electrical & Electronic / Computer Engineering
Prerequisites/ Skills Required:	<ul style="list-style-type: none">Programming skills, preferably C, C++
No. of students required	1

Project Details

Title	Study and Explore Programming using Graphic Processing Unit (GPU)
Overview/Background	<ul style="list-style-type: none">Graphic Processing Unit (GPU) is a dedicated on-board graphic card processor which assists general purpose CPU in rendering computer graphics.GPU has an architecture that is highly parallel and is very efficient in handling computational intensive and complex operations.
Aims/Objectives/Deliverables	<ul style="list-style-type: none">To explore programming using Compute Unified Driver Architecture (CUDA) SDK, a GPU SDK developed by NVIDIA.To compare the processing performance between general purpose CPU and GPU, and devise a set of best practises in GPU programming
Scope	<p><u>Explore Programming using CUDA SDK</u></p> <ul style="list-style-type: none">The intern is required to use CUDA SDK to develop a generic program to solve a computational intensive software problem. This will allow him to understand the basic requirement to setup and program using NVIDIA GPU. <p><u>Evaluate processing performance</u></p> <ul style="list-style-type: none">The intern will use the program he developed and benchmark it when running in CPU and GPU. He is required to present the result and propose a set of best practises in GPU programming using CUDA SDK.
Project Duration	<ul style="list-style-type: none">2-3 months