OpenCL Course Creation Collaboration: Call for Proposals

Program overview

When designing a course, professors often use programming models that are well established with an existing collection of supporting PowerPoint lectures, case studies, and exercises. This greatly reduces the work required to create and then deliver a course. This tendency, however, has the unintended consequence of reinforcing existing programming models and makes it hard for new models to break into the academic community.

The Khronos Institute for Training and Education (KITE) in partnership with the Khronos OpenCL group wants to change this dynamic and help “boot strap” the emergence of an OpenCL courseware ecosystem. We will do this through a collaborative program. Educators are invited to submit proposals for OpenCL courses to be developed over the summer of 2013. We will select winning proposals and issue a cash stipend to support the development of these materials. The completed courses will be submitted at the end of summer. One will be selected as the best of the summer class of 2013 and will receive an additional small grant to support further development.

Details

OpenCL is an industry standard programming model available on a wide range of platforms from multiple vendors. It is an established technology that has been in use commercially for several years. It is not used in the academic community, however, anywhere near as much as it could be.

To help correct this shortcoming, the creators of OpenCL (the Khronos Open Standards group) is launching a program to fund a number of course development projects. We do not anticipate that the level of funding associated with this program will cover the full cost of course development. Rather, our funds will augment OpenCL courseware projects in place or in the planning stages.

A successful submission to this program can range from a pure lecture-based course supported by PowerPoint, a progression of pedagogically useful programming exercises for self-guided learning, or any other format that supports the teaching of OpenCL. Innovative and creative approaches are particularly encouraged.

We hope to impact a broad range of educational efforts with this program. This includes semester length courses, modules to insert into university courses in applied computing, or tutorials aimed at academic conferences. The key is material that others can adapt and modify to support the emergence of a rich ecosystem of OpenCL educational programs.

The program will be administered by a committee selected from the members of the Khronos OpenCL working group. The overall management of the program will be within the KITE program; an educational outreach program administered by Khronos. Those interested in submitting an entry to this program
are encouraged to contact the chair of the program committee to make sure all questions and any
issues concerning the program are resolved.

Proposal format
Proposals should be simple, concise and follow the following format.

- A 150 word abstract
- A one page description of the proposed course
- A high level outline of the course
- Optional sample content
- A brief CV of the author(s) (no more than one page per author).

Cash Awards
We anticipate issuing up to 3 stipends of $4000 U.S. cash. The submitter of the best course will be
announced in fall 2013 and awarded an additional stipend of $1000.

Timeline
Due to the tight schedule, we will rigidly stick to the following timeline. All dates refer to 2013.

- June 7: Educators submit course proposals
- June 14: Program committee selects up to three winning proposals.
- Aug 2: Each of the course authors submits a draft for review
- Sep 13: Course authors submit completed work
- Oct 18: Courses are published and “best of class, summer 2013” will be announced.
- Nov 19: Course authors will be recognized at the SC13 OpenCL BOF.

Contacts
Chair of the technical program committee: Tim Mattson, timothy.g.mattson@intel.com

Rules
This program is open to anyone preparing university courses, distinct modules for insertion in other
courses, or tutorials for academic conferences based on OpenCL. Employees of companies represented
on the program committee are not allowed to submit a proposal. Submissions will be judged on their
technical merits, quality, and pedagogical innovation.

The output from any accepted submission must be distributed under the “attribution CC BY” creative
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Authors of proposals we accept for this program must agree to provide the materials produced for the course by the September 13 deadline. Even if the course is not complete, we expect the content at whatever stage of readiness by September 13.