

COMPUTER SCIENCE – OUTREACH TO THE COMMUNITY

The Faculty of Engineering, Built Environment and Information Technology (EBIT) at the University of Pretoria (UP) is currently in the process of facilitating a new Faculty-wide module compulsory for all their students, known as a Community-Based Project (CBP). This initiative formally kicked off in 2005.

The main objectives with the CBP module are as follows:

- The execution of a community related project aimed at achieving a beneficial impact on a chosen section of society, preferably but not exclusively, by engagement with a section of society that is different from the student's own social background;
- The development of an awareness of personal, social and cultural values, an attitude to be of service, and an understanding of social issues, for the purpose of being a responsible professional;
- The development of important multidisciplinary and life skills, such as communication, interpersonal and leadership skills.

Assessment in the CBP module includes all or most of the following components: evaluation and approval of the project proposal, assessment of oral and/or written progress reports, peer assessment in the event of team projects, written report-back by those at which the project was aimed at, and final assessment on grounds of the submission of a portfolio and a written report. The Department of Computer Science (CS), which falls under the EBIT Faculty at the UP, is involved in such a CBP. CS, therefore, have committed themselves to reach out to the rural community and historically disadvantaged scholars of South Africa by means of a CBP known as Project PumaScope. Doctor Hein Venter from the Department Computer Science is responsible for the PumaScope community project. The specific purpose of project PumaScope

is to reach out and facilitate knowledge transfer from university students to selected rural schoolteachers and learners in the Mpumalanga province. For this purpose, five rural schools were identified as well as 10 second-year computer science students from UP – two students for each school – to participate in project PumaScope. The project's main objectives and planning are communicated to the selected University students, whereafter all the students are transported to and hosted by the different schools. Project PumaScope is currently sponsored by Microsoft South Africa, but more sponsors are likely to contribute to this project in future. The main objectives of project PumaScope involve the following:

- Evaluate the state of the network at the school and assist in building a sustainable system; monitor and evaluate the setting up and running of the computer lab at each school and come up with ideas and comments for the development and improvement of the labs and Web sites at the various schools.
- Build the capacity of the teachers to maintain and run the computer lab, its computers, network, hardware and software so that the teachers and students will be able to troubleshoot and fix minor problems and do the regular maintenance of the computer lab.
- The team at each school should produce a set of documentation that will serve as a maintenance and support manual for future reference.
- Provide basic training in various Microsoft software packages including Word, Excel and PowerPoint.
- Establish a computer club at the school, plan and support activities for the year (including technical and pedagogical items).

The University students attend a brief training session before departing to the various schools so that their duties and other logistics are made clear. Thereafter, the students depart to the various schools, usually during University recess, where they execute their duties. At the end of the recess, the school learners and teachers evaluate the success of the project. Thereafter the University students return to report back to PumaScope Management and sponsors on their progress.

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