



香港城市大學  
City University of Hong Kong

## The Development of an Automatic Judging System for Collegiate Programming Contests

**Project Number:** 6000353

**Principal Investigator:** Dr Duncan Shek WONG

**Grant Type:** TDG

### **Abstract:**

The International Collegiate Programming Contest is one of the most important events in computer programming. Universities worldwide send their best student teams each year to compete in the inter-university programming contests. The events not only bring reputation to universities but also develop the problem solving skills and advanced programming techniques of students who are among the most talented ones in their universities. To facilitate the training and development of CityU's programming teams, we propose to develop an automatic computer program judging system which can perform automatic evaluation for the computer programs written by students and manage programming problems and test cases for both teachers and students to access. Many of the top universities have their own judging systems developed for suiting their own needs and requirements. Evidence shows that the learning experience of students can be enhanced significantly as they can access archived programming problems and test cases from the systems and have their programs evaluated automatically and instantly. Evidence also shows that teachers benefit greatly from using the systems as they can easily review the students' learning progress and build up valuable experience gained from years' of teaching and development. Based on our initial development of the judge system started three years ago and the experience gained, we strongly believe that developing a full-fledged automatic judging system for collegiate programming contests is the utmost important investment to the learning and teaching of advanced computer programming at CityU.