SICSA Research Theme Activity Report

Please complete all sections of this reporting template and submit within 3 months of your event or activity taking place. This report will allow the SICSA Directors to provide detailed information about the progress of SICSA Education to the Pool funders, SFC, and your cooperation is appreciated.

Name of event organiser: Hans-Wolfgang Loidl

Email address: H.W.Loidl@hw.ac.uk

Institution: Heriot-Watt University, Edinburgh

Title of event: SICSA Programming Challenge

Location of the event: Online

Date of event: 21.10.2020

Total funds claimed for event: 300 GBP

Please outline in brief what took place at the event, providing details of speakers and titles of talks:

The series of SICSA Programming Challenges, started during lock-down in June 2020, is continuing and featured a Scotland-wide, SICSA-funded challenge, called "dynamic Denning", on Wed 21st of October.
As before, a sequence of programming tasks was posted on the OpenKattis platform (https://open.kattis.com/) which provides a huge repository of online problems, and performs automatic scoring of challenges submitted by students. As many of these platforms, it markets itself as a tool for preparing for technical interviews and honing programming skills, thus it is highly relevant for computer science students, who will be entering the job market soon.

The event attracted about 50 students and about 40 of these students submitted at least one correct solution to the challenge tasks posed. Four students in total managed to solve all six problems in the time available. Remarkably the top student only needed 102 minutes to complete all tasks, during
the five hour duration of the challenge. The highest scoring student was a student from the University of Edinburgh. The second highest score was achieved by a student from the University of Glasgow. This makes it a 2-0 for Edinburgh vs Glasgow in the series of SICSA Programming Challenges. Students from at least six Scottish universities participated in this challenge.

Overall, the event was a great success, judging from the feedback the students have been giving in post-event surveys: 100% of the students answered Yes to the survey question
  "Would you be interested in participating in a similar challenge again?"

After running two SICSA-wide challenges, we now have an organising team from six different Scottish universities in place: Dr Hans-Wolfgang Loidl, Dr Rob Stewart (Heriot-Watt University), Dr Vesselin Velichkov (University of Edinburgh), Dr Chris Brown (University of St Andrews), Dr Jeremy Singer (University of Glasgow), Dr Carron Shankland (University of Stirling), Dr Paul Keir <Paul.Keir@uws.ac.uk> (University of the West of Scotland), and Dr Adam Sampson <a.sampson@abertay.ac.uk> (Abertay University).

We encourage other academics to get in touch in order to grow the effort and expand the base of potential participants. We plan to build on the success of this challenge and run more SICSA-wide instances of this programming competition during this academic year, and in face of an ongoing lock-down situation to possibly grow this into a UK-wide event. Our thanks go to SICSA for funding the prize money for the winners of the event and for promoting this event.

More information on the programming challenge is available on this web site:
  http://www.macs.hw.ac.uk/~hwloidl/Events/SICSA_ProgrammingChallenge/

Please provide details of how many attended and if possible, information about which institutions were represented:

The online challenge was attended by about 50 students, and about 40 of these submitted at least one successful solution to one of the six programming tasks (see details above).

Outcomes:

Please provide details of any further outcomes that have come as a result of this activity:

This event served as a community building and engagement activity for CS students across Scotland. Overall, the event was a great success, judging from the feedback the students have been giving in post-event surveys: 100% of the students answered Yes to the survey question
  "Would you be interested in participating in a similar challenge again?"

Informally we learned that a group of students at Heriot-Watt university have form a "Competitive Programming Club", inspired by this challenge, with the plan to participate in more, and also in international programming competition. We believe this is an excellent development coming out of this series of events.

Do you have any plans to bid for further SICSA Education in the future?

Based on the success of this event, and the positive feedback from the students, we plan to run another SICSA wide event this academic year, most likely in January 2021. We are considering broadening the base to run it UK-wide and would appreciate input on possible networks in England, Wales and Northern Ireland to link up with to get more institutions on board. Considering the challenges in teaching and building a learning community this academic year, we hope that these events will help to form a learning community across univerisities.