



## **SEARCC INTERNATIONAL SCHOOLS SOFTWARE COMPETITION 2017 (ISSC 2017)**

**COLOMBO, SRI LANKA**

**10<sup>th</sup> September – 16<sup>th</sup> September 2017**

**HOSTED BY: COMPUTER SOCIETY OF SRI LANKA (CSSL)**

### **INTRODUCTION:**

To foster the development of computer competence among young people in the region, SEARCC instituted a regional schools software competition in 1989. The competition, which is run under international competition rules, is open to students not more than 18 years of age. The competition also provides opportunities for the young people of the region to acquire a better awareness of the culture, life-style and aspirations of each other's country, thereby contributing to better understanding in relationships for future generations. The International Schools Software Competition 2017 (ISSC 2017) will be held at University of Colombo School of Computing, Colombo, Sri Lanka. The Computer Society of Sri Lanka (CSSL) will be the host Society this year.

### **SCHEDULE:**

The activities of the event are spread over five to seven days as indicated below.

Last Date for Registration	- 10 <sup>th</sup> July 2017
Arrival of Participants at Colombo	- 10 <sup>th</sup> September 2017
Trial Competition	- 11 <sup>th</sup> September 2017
Main Competition	- 12 <sup>th</sup> September 2017
Awards Ceremony	- 13 <sup>th</sup> September 2017
Departure of Participants	- 14 <sup>th</sup> September 2017 OR - 16 <sup>th</sup> September 2017
Participation of NITC/SEARCC Conference	- 14 <sup>th</sup> to 15 <sup>th</sup> September 2017

### **ARRIVAL, DEPARTURE AND LOCAL ARRANGEMENTS:**

Participating Team members from different countries will be provided transport for transfer from/to the airport on arrival/departure day. During the competition accommodation will be provided to the teams on sharing basis. The local transportation from and to the venues during the ISSC will be arranged by the organizers to the participants and chaperons.

**HOST SOCIETY INFORMATION:**

Computer Society of Sri Lanka (CSSL)

275/75, Prof. Stanley Wijesundara Mawatha, Colombo 00700, Sri Lanka.

E-mail: admin.exec@cssl.lk

Phone: +94-114-713 290 / +94-114-713 336

All correspondence and communication shall be addressed to Computer Society of Sri Lanka (CSSL), who will co-ordinate all activities and arrangements related to the event.

**REGISTRATION:**

Registration of all participants as well as the Chaperons may be done using the prescribed form. The completed Registration Forms shall be sent to the Computer Society of Sri Lanka (CSSL). The host Society will inform the Chaperons about the successful registration of the team.

**VISA ASSISTANCE:**

Valid visa for the visiting teams is the responsibility of the participant countries. Computer Society of Sri Lanka will extend invitation letter on request, to facilitate the issue of visa to the participants and chaperons.

**COMPETITION VENUE & LAYOUT:**

The Competition will be held at **University of Colombo School of Computing (UCSC)**. The Organizing Committee of ISSC 2017 will ensure that there is sufficient desk and working space. The competition area will provide adequate lighting and ventilation, and is air-conditioned. Under no circumstance will anyone without a specific role in the competition be allowed into the competition area. Live results will be visible from vantage points around the competition area.

**TRIAL COMPETITION:**

The trial competition will be conducted on the same pattern as the main competition. However, the scores obtained at the trial competition will have no official validity

**CERTIFICATES:**

A Certificate will be given to each participating team member. A certificate will be awarded to the first three winning teams with the position.

**THE EVENT:**

The ISSC 2017 will be organized by the Computer Society of Sri Lanka (CSSL), in accordance with the rules, regulation and practices described in this document.

## SEARCC INTERNATIONAL SCHOOLS SOFTWARE COMPETITION (ISSC) RULES & REGULATIONS

### PRELUDE

These rules are derived and practiced for the ISSCs. However, due to eventualities, it may become necessary to make deviations, particularly when forced by the variations of the equipment and software in use or due to other reasons. Such deviations will be communicated to the participating SEARCC members as soon as they are decided, and the information will be published on the official SEARCC web site.

### PARTICIPANTS & CHAPERON

Each member country is allowed to send a maximum of **two** teams and **one** accompanying Chaperon. Each **team** shall consist of a maximum of **three** school students.

The team members must be **full-time school students** under **eighteen years of age** on **1<sup>st</sup> January of the year of the competition**. As example, a contestant in the 2017 event shall be a person born on 1<sup>st</sup> January 1999, or later.

### REGISTRATION

The teams of participants must register before the stipulated date, in the prescribed format through the **Computer Society of the respective country**, and the information conveyed to the Computer Society hosting the ISSC. After successful registration, the organizers will inform the Chaperon directly.

If there happens to be any need to limit the total number of participating teams, only the first team of each country will be selected.

### THE STRUCTURE OF THE COMPETITION

The competition will be **two** (2) hours in duration, consisting of **four** (4) programming problems. Problems will be set in **English**. For a solution to be judged as correct, it must display the correct results as prescribed in the problem description when a set of competition data is processed by the judging program. In addition, the results must be displayed on the monitor according to the specifications in the problem description. Final results are evaluated by the scoring system described in this Brochure.

### PROGRAMMING LANGUAGE

The programming languages **C or C++ or Java** can be used in the competition.

### APPEALS

Challenges or appeals regarding the statement or solution of problems, configuration or operation of workstation, or any other matter, may be submitted **in writing** through the Chaperon to the **Chief Judge**, but not after expiration of the **first thirty minutes** after the end of the competition.

### WORKSTATION AND RESOURCES

Each team will be allotted a workstation consisting of an IBM compatible microcomputer running with hard disk drives, keyboard, mouse and network connection. All workstations will be configured identically. There will be printed document of the rules and regulations, together with paper for rough work near each system.

The **teams are responsible** for maintaining backup copies of their solutions and save the work regularly in the working directory to avoid loss due to power failure and other unforeseen circumstances. The use of USB drives or any other external devices **will not be permitted**.

Solutions (programs) may be submitted online to the specified Directory/software for assessment and use by the Judges.

No other material is permitted to be taken in or used inside the competition area **without the explicit permission** of the Judges. Drinks/Snacks are not permitted inside the competition area, but are provided in the reception area or lobby near the competition area.

Teams should use only the resources of the workstations and the standard software provided. Additional help, any form of machine-readable material, Internet, or other resources **are not permitted**. Printouts of programming problems will be available during the competition.

#### **CLARIFICATIONS**

During the first **one** hour of the competition, teams may ask for clarification of problem descriptions (and are encouraged to do so) only from the **official judges**. Such request should be submitted in **writing**. Answers will be limited to '**Yes**', '**No**' or '**No Comment**'. Please phrase the questions accordingly. Judges responding to questions will not compromise any part of the solution or clarify beyond the written description without providing the same information to all teams as close to simultaneously as possible.

#### **ANNOUNCEMENTS**

Participants shall not touch the computer or keyboard until the **"START"** announcement is made.

If necessary during the course of the competition, any changes or corrections to the problems may be announced, and such corrections will be made in written form.

At the end of the 2 hour period a judge will announce **"STOP"**. Participants shall stop the work instantly. The only exception to this is when additional time has been awarded to compensate for machine failure which has happened during the contest.

At the end of the competition, the four program submission sheets will be collected/submitted online.

#### **SELECTION OF PROGRAMMING LANGUAGE**

Teams may choose to write their programs in any of the programming languages offered in this competition.

The input and output operations will be kept simple, allowing the participants to concentrate on the problem solving aspects. No special features of the programming packages are needed, nor should they be used. In particular, the following features will NOT play a role in the programming tasks, and are strongly discouraged:

- Graphical output
- Mouse input
- Advanced file manipulation
- Advanced numeric processing
- OS calls

Teams should be fully familiar with the programming package of their choice, including the use of libraries.

#### **INPUT AND OUTPUT DATA**

The Input will be from simple text files; Output will be to a file.

## **SUBMISSION OF SOLUTIONS**

Programs submitted to the judging software must contain the correct label as allotted to each Team.

Each program submitted for judging must be accompanied with a completed Program Submission for each problem in the prescribed format.

Feedback for a bad run/submission will also be given on the Program Submission. For each problem, a **maximum** of only **5 submissions** will be permitted.

Each problem has a short name. The source files should be named as allotted to the teams.

The output should be formatted according to the instructions given in the problem. The output will be verified thoroughly with reference to the instructions. Clarifications, if necessary, may be sought from the judges before submitting the programs for judging; however, clarifications may be requested as indicated separately in this rule.

The judges will retain the Program Submission when a problem is solved correctly, and the team will be notified that their submission has been successful.

Teams must adhere strictly to specific instructions regarding:

- Filename of programs
- Output of results
- The other instructions which make the programs uniformly compatible with the needs of judging software

## **JUDGING**

Team members (or any unauthorized personnel) **are not allowed** in the judging area. Failure to comply with this ruling could result in the team being **disqualified** from the competition.

For each problem, several sets of confidential judging data will be used by the judges. Any correct solution is expected to process all test data sets and produce the correct output. The same sets of test data will be used to test the solutions from all teams submitting each problem.

For a solution to be judged as correct, it must produce the correct result as described in the problem description when any set of judging data is processed by the judges.

## **SCORING SYSTEM AND RANKING**

A team's score will be calculated as the sum of points awarded to each problem, either solved or attempted by the team.

The point system of scoring for the competition is described below:

- **One hundred** (100) points will be awarded to the team for each solution judged as **correct**.
- No points are awarded for solutions that are incomplete or inaccurate.
- Teams will be awarded a **bonus** of **one** (1) point for each **five** (5) minute period, or part of such period remaining when the solution is submitted to the judges/judging software (i.e. a problem submitted within the first five minutes and judged as correct earns a maximum time bonus of 24 bonus points). A problem submitted in the last five minutes and judged as correct earns 1 bonus point).

- Each submission that is judged **incorrect** for any reason, specified in the Program Submission software, will incur a **penalty of ten (10)** points (i.e. minus 10 points) regardless of whether the problem is eventually solved or not.

The **ranking** of the teams is determined by the scores obtained. Should there be any **tie** in the scores; the ranking is determined by applying following criteria in sequence:

- Number of problems solved
- The time when the solution was submitted

**The decision of the Judges will be final in any matter.**

Any changes to these rules will be notified to all registered teams before the competition.

#### **PRIZES**

Mementoes and certificates presented to the **first three winning teams**. Participation Certificates will be given to each member of other participating teams.

#### **LOCAL HOSPITALITY AND ARRANGEMENTS**

The host Computer Society shall assist the participants, by arranging the pick-up and drop on arrival and departure, local transportation, accommodation on sharing basis, and other basic amenities. These facilities shall be provided to the participating teams.

#### **TRAVEL**

Flight arrangements for travel from the respective country to the venue in the host country will have to be done and borne by the participant countries. The travel information shall be conveyed to the host Computer Society.

#### **POSTLUDE**

The host Society shall strive to conduct the ISSC event most effectively, with the total co-operation of the member nations. The host Society shall ensure appropriate co-ordination and clarity in all activities of the event. The ISSC may be organized in a way benefitting the lofty goals and ideals envisioned by SEARCC for the development and promotion of technology in the region.

#### **ANNEXURE**

Registration Form (2 Pages)