**Capacity Building Division Yearly Report**

* Capacity Building Division (here forth mentioned as CPD) is a CSEC division whose job is to
* The CBD division consists of 4 subdivisions, which are as follows:
  + - Tutorial
    - Seminar
    - Multimedia (Video Editing)
    - Community Service
* Even though work has not been put into Community Service division, all of the other divisions have been worked on satisfactorily.
* All works done by the Tutorial subdivision in this year:
  + Every week, a two-hour lasting tutorial session has been given to first year students (Python on the first semester and C++ on the second semester)
  + Every fortnight, a two-hour lasting Data Structure and Algorithm tutorial session has been given to SoEEC students in the first semester.
  + Every week, tutorials lasting two hours have been given to Competitive Programming Division’s (here forth mentioned as CPD) first and second division once a week each. Problem solving sessions has also been conducted for two hours each week collectively for both divisions.
  + Tutorial have also been given to the development division once.
  + On the second semester, both Java and Digital Logic Design tutorials have been given one time.
  + On the approach of exams, Tutorials have been provided to club members to support their academic performance. Tutorials have been provided on different courses such as Applied Mathematics I and Applied Mathematics II
* The Seminar Division has presented seminars every week which lasted for 30 – 60 minutes. So far, invited teachers, club members, and non-club members have attended the sessions.
* The Video Editing Subdivision has made Python tutorial video series on the first semester. Every week, 4 or 5 tutorial videos were released for 6 weeks. The videos lasted about 5 – 20 minutes and 10 minutes on average. On the second semester, C++ tutorial videos are being made and so far, 3 weeks of the tutorial series has been released.

**Conduct\Operation**

* **Tutorial**
  + The tutorial given to 1st year Pre-engineering students, was given from 2 PM to 4 PM on Saturdays except on exam weeks. Due to the number of students attending, the tutorials which were first give in B507 was switched to B513. The teaching process was conducted by Duguma Yeshitla, Kamil Muktar, Mukerem Ali, and Abinet Tassew.
  + The tutorial given to 2nd year SoEEC students taking Data Structure & Algorithm was given on Saturdays from 9:00 AM to 11:00 AM in B513. This tutorial was given every fortnight by Amir Kheiru.
  + Tutorial and problem-solving session have been given at 8:30 AM to 10:30 AM in association with CPD. Division 1 Tutorials were given on Mondays, Division 2 tutorials were given on Tuesdays, and on Fridays both the divisions were given problem-solving sessions. This tutorials and problem-solving sessions were conducted by Mukerem Ali.
* **Seminar**
  + One week before the seminar session the presenter presents his/her title to the coordinator. The coordinating job has been conducted by Leul Dereje. On the first Monday, the seminar documentation is presented to the coordinator. On Wednesday, the seminar is undertaken starting from 5:00 PM in the ICPC lab (B508 R9). On some exceptional occasions, the seminar day has been moved to Friday.
* **Video Editing**
  + For 1st year students, tutorial videos have been prepared after every tutorial sessions that took place on Saturdays until the first Friday. In the first weeks, the videos were edited and released on YouTube, but since there was lack of editing staff the raw videos were posted on the club Telegram channel.

**Materials**

* **Tutorial**
  + Markers
  + Board Erasers
  + Projector
* **Seminar**
  + Projector
  + Markers
  + Board Erasers
* **Tutorial video editing**
  + Computer

**Failures**

* **Tutorial**
  + Lack of Markers for the tutorial sessions.
  + Teaching classes were overpopulated (specially for 1st year students)
  + The sessions were provided by only 5 students. There is a lack of tutorial providing members.
  + The tutorials were not given according to the curriculum.
  + Information would not reach students on time.
* **Seminar**
  + The number of audiences were lower than expectations.
  + Only club members were presenting seminars. Additional presenters could not be found. No teacher or non-member has presented a seminar.
* **Video Editing**
  + Only 2 course videos have been made (C++ and Python). The ICPC tutorials and problem-solving videos have not been made.
  + Lack of video recorders/makers (only 1 person).
  + Since camera could not be provided at the required time, all tutorials including ICPC tutorials have not been recorded.

**Recommendations**

* **Tutorials**
  + Solving all problems listed under the Failures section of this report, such as:
    - Preparing a curriculum for the tutorials provided.
    - Giving the tutorial teaching staff teacher’s training.
    - Solving the lack of tutorial teaching staff.
    - Since it doesn’t have its own members, it needs an organized member structure of its own whether it is from the club members or non-members.
* **Seminars**
  + Creating a suitable environment for club non-members and teachers to present
  + Involving the audience by preparing debates
* **Video Editing**
  + Develop \ harbor students with video editing skills.
  + Develop \ harbor students with skills on Adobe Photoshop.
  + Recording Tutorial and problem-solving sessions using a camera.
  + Using the ICT center to make amazing videos, since modern studio exists there.

**Seminars Presented**

1. **Title:** Crypto Currency

**Presenter:** Kamil Muktar

**Date:** March 13, 2019

1. **Title:** Opensource what, why & how …

**Presenter:** Kibru Demeke

**Date**: March 20, 2019

1. **Title:** Webapp security, your whole system vs. one small bug

**Presenter:** Elias Amha

**Date:**

1. **Title:** Esoteric programming languages

**Presenter:** Kamil Muktar

**Date:**

1. **Title:** Computer Vision

**Presenter:** Elias Amha

**Date:**

1. **Title:** Esoteric programming languages

**Presenter:** Kamil Muktar

**Date:**

1. **Title:** Video Game Development

**Presenter:** Bemnet Nikodimos

**Date:**

**Tutorials Provided**

1. **Course:** Python

**Date:** March 23, 2019

**Attendant:** 1st year pre-engineering students

1. **Course:** Data Structure & Algorithm

**Date:** March 23, 2019

**Attendant:** 2nd year SoEEC students

1. **Course:** Python

**Date:** March 30, 2019

**Attendant:** 1st year pre-engineering students

1. **Course:** Data Structure & Algorithm

**Date:** March 30, 2019

**Attendant:** 2nd year SoEEC students

1. **Course:** C++

**Date:** May 18, 2019

**Attendant:** 1st year pre-engineering students

1. **Course:** C++

**Date:** May 25, 2019

**Attendant:** 1st year pre-engineering students

1. **Course:** Java

**Date:** May 28, 2019

**Attendant:** 2nd year CSE students

1. **Course:** Digital Logic Design (here forth mentioned as DLD)

**Date:** May 28, 2019

**Attendant:** 2nd year CSE students

1. **Course:** DLD

**Date:** June 7, 2019

**Attendant**: 2nd year CSE students

1. **Course:** C++

**Date:** June 22, 2019

**Attendant:** 1st year pre-engineering students

1. **Course:** Django

**Date:**

**Attendant:** Development division members & non-member students

1. **Title:** About domjudge & computative programming, Array, String, basics of C++, …

**Date:** December 5, 2018

**Attendant:** ICPC division 2

1. **Title:** Problem solving

**Date:** December 4, 2018

**Attendant:** ICPC division 2

1. **Title:** Problem solving

**Date:** November 29, 2018

**Attendant:** ICPC division 1

1. **Title:** Problem solving

**Date:** December 6, 2018

**Attendant:** ICPC division 1

1. **Title:** Vector, map, set

**Date:** December 12, 2018

**Attendant:** ICPC division 2

1. **Title:** Problem solving

**Date:** December 11, 2018

**Attendant:** ICPC division 2

1. **Title:** Problem solving

**Date:** December 18, 2018

**Attendant:** ICPC division 2

1. **Title:** Recursive function, searching, and some simple mathematical algorithms

**Date:** December 19, 2018

**Attendant:** ICPC division 2

1. **Title:** Problem solving

**Date**: December 20, 2018

**Attendant:** ICPC division 1

1. **Title:** Problem solving

**Date:** December 25, 2018

**Attendant:** ICPC division 2

1. **Title:** Queue (deque & priority-queue)

**Date:** December 26, 2018

**Attendant:** ICPC division 1

1. **Title:** Problem solving

**Date**: December 27, 2018

**Attendant:** ICPC division 1

1. **Title:** Problem solving

**Date:** February 19, 2019

**Attendant:** ICPC division 2

1. **Title:** Basic number theory

**Date:** March 11, 2019

**Attendant:** ICPC division 1

1. **Title:** Applications of binary search

**Date:** March 12, 2019

**Attendant:** ICPC division 2

1. **Title:** Problem solving

**Date:** March 15, 2019

**Attendant:** ICPC division 1 & 2

1. **Title:** Recursive

**Date:** March 18, 2019

**Attendant:** ICPC division 1

1. **Title:** Basic number theory

**Date:** March 19, 2019

**Attendant:** ICPC division 2

1. **Title:** Problem solving

**Date:** March 22, 2019

**Attendant:** ICPC division 1 & 2

1. **Title:** Some calculus and numerical analysis

**Date:** March 25, 2019

**Attendant:** ICPC division 1

1. **Title:** Recursive

**Date:** March 26, 2019

**Attendant:** ICPC division 2

1. **Title:** Graph

**Date:** June 18, 2019

**Attendant:** ICPC division 1 & 2

1. **Title:** Problem solving

**Date:** June 21, 2019

**Attendant:** ICPC division 1 & 2