LaunchPad

LaunchPad Post Event Report

IEEE Student Branch | SLIIT

IEEE Women in Engineering WIE SLIIT

INTRODUCTION

When new technology as programming microcontrollers is being grasped, IEEE Women in Engineering (WIE) student branch affinity group of the Sri Lankan Institute of Information Technology (SLIIT) has organized **LaunchPad** on behalf of the unexpected predicament of students.

Throughout actual implementation of such duties in their academic careers, beginners have challenges. To solve this problem, WIE offered an Arduino-based beginning workshop series. The series was based on the basis of the wider elements of such programming principles. It targets undergraduates in the first and second years of their IT and engineering studies.

OBJECTIVES

- To improve and give a beginner knowledge for 1st year and 2nd year undergraduates under IT and engineering about Arduino.
- To give enhance experience on Arduino based programming language and to give best experience on practical application.
- To build the students' confidence and further motivate them to engage in practical projects and to achieve academic excellence in projects.

EVENT DETAILS

Date: 26th to 28th of January 2021

Time: 6.00 pm

Duration: 3 hours

Platform: Zoom

Workshop series

- 4 practical – oriented workshops to be covered within the first semester.
- Duration – 3 hours
- The workshops will be covered by qualified instructors in the Department of Electrical and Electronic Engineering.
- Laboratories will be used as venues and the equipment including Arduino boards will be provided

Workshop 1

- Introduction into the digital computer world; basics to what embedded systems are
- Brief introduction to MCU
- Where Arduino fits in (using both IOT and robotics)

Workshop 2

- Setting up software
- Setup: loop explanation
- Basically, how to type code for the Arduino
- Let them try some basic examples

Workshop 3

- ADC
- Timers
- PWM

Workshop 4

- I2C
- SPI
- Reading the data sheet, what to look for?
- Extra sessions can be organized upon the request of participants.

Competition

- At the end of the workshop series, participants may form teams of 3 and come up with an Arduino project on their own.
- The competition will take place during the second semester.
- Each team will be appointed a mentor; preferably a senior undergraduate for further support on their project.
- Depending on the no. of teams, a preliminary round will be held and the winner will be chosen from top 5 finalists.
- The projects at the competition will be evaluated by a qualified panel of judges.
- Prizes worth 10,000 LKR will be awarded to the winners.

Mr. Anjana De Silva

- BSc. (Hons) in Electrical and Electronic Engineering, Sri Lanka Institute of Information Technology, Malabe, Sri Lanka (2016-2020)
- MSc in Electronic Automation - University of Moratuwa (Reading)

Mr. Rajitha de Silva

- BSc. (Hons) in Electrical and Electronic Engineering (SLIIT)

Mr. Praveen Kehellala

- BSc. (Hons) in Electronic and Electrical Engineering
- MPhil in Robotics and intelligent systems (Reading)

GUEST INVITEES

- Dr. Windhya Rankothge – WIE Affinity group advisor, IEEE Student Branch of SLIIT/ Chairperson IEEE WIE Sri Lanka Section.

- Dr. Pradeepa Abeygunawardena.

EVENT PROCEEDINGS

LAUNCHPAD which was held on the **26th to 28th of January 2021** was organized by the Women in Engineering (WIE) Affinity group of the IEEE Student Branch of Sri Lanka Institute of Information Technology (SLIIT).

The Chairperson of the WIE Student Branch Pawani Kalegana, warmly welcomed everyone who gathered at the event for the day 1. Mr. Anjana De Silva was the 1st day specker and addressed the gathering with the basics of Arduino. The session was about 3 hours and participants were well interested with the content at that day. After the session was concluded, a token of appreciation was given to Mr. Anjana De silva.

The second day was covered by Mr. Rajitha De Silva who specialized in teaching subjects related to the electronic engineering and robotics domains. He was covered the rest of day 1 content as well as introduced and gave the idea about Arduino competition to the participants. Following the closing of the session for the day 2, Mr. Anjana De Silva was presented a token of appreciation.

Mr. Praveen Kehellala was the 3rd day speaker and covered the sections including Logic levels, Arduino Programming, Decision making methods in Arduino, ADC & PWM applications, Arduino Libraries and came up with the conclusion of the content of Arduino for beginner's series.

At the end there was a Kahoot session, and a token of appreciation was given to the winners of the Kahoot by the WIE chairperson. Feedback forms were given for those who were present in the event in order to get their ideas to improve WIE events.

Afterwards, the Arduino competition was started and continued for 2 weeks of time to cheer up the participants and compete among them. Then after withing next week we selected the winners and finally, they were published and awarded with relevant cash prices as well.

The feedback from the participants showed that the overall objectives has achieved. This opportunity was able to decorate undergraduates with their fashion on Arduino with the beginning as well as to took support for their academic modules with the time. This event was a success under the guidance of seniors. And the WIE committee of WIE in SLIIT recommends events like LAUNCHPAD that makes the undergraduate's mind to think be think in a different way with fascinating future trends.

EXECUTIVE COMMITTEE

- Chairperson: Pawani Kalegana
- Secretary: Rashmi Kankanamge
- Vice Chairperson: Safni Mariyam
- Vice Secretary: Thamali Munasinghe
- Treasurer: Najini Ishalika

CONCLUSION

The WIE Affinity Group of IEEE Student Branch of SLIIT held LaunchPad in order to enhance the knowledge of the participants on Arduino Programming and the practical implementation of coding.

The feedback from the participants were shown that the overall objectives of this workshop were achieved successfully. Many Students appreciated the unique experience of being able to work on Arduino based projects along with the competition.