

Engineered for Tomorrow

# Software Development Club Event

The **Software Development Club (SDC)** conducted training sessions on Application Development using Python, Game-Making using Game-Maker Studio, Azure Machine Learning Studio and Poster Design using Photoshop, on 17-02-2018, 24-02-2018, 03-03-2018 and 17-03-2018 (Saturday Afternoons). The first two sessions were conducted on 17<sup>th</sup> Feb 2018 and 24<sup>th</sup> Feb 2018. The details of the sessions are as follows.

## SESSION ON APPLICATION DEVELOPMENT USING PYTHON

The session was handled by Mrs. Deepa Acharya (AP, CSE). The first session was intended to provide a basic idea about python programming, usage of python interpreter and developing simple GUIs using python. In the first part of the session, students were made to install Python 3.6 and an IDE (NetBeans/ Java Eclipse) with python plugin for executing python scripts. Once the installation was done, the session continued with designing a simple GUI using Tkinter module of Python. Use of various types of widgets provided by Tkinter such as buttons, labels and text boxes was discussed. A simple GUI was designed, which prompts for a name, and then displays a greeting message for the name entered.

In the second session, a GUI was designed using label, button, and message box, entry widgets. A script with a function for button click event was discussed. After the GUI design, participants were asked to design one more GUI for simple arithmetic calculations on two numbers.



Ms. Deepa Acharya (AP, CSE) handling the session on APPLICATION DEVELOPMENT USING PYTHON at the Software Development Club (SDC) training session on 17<sup>th</sup> February 2018. Date: 17<sup>th</sup> February 2018, 24<sup>th</sup> February 2018, 3<sup>rd</sup> March 2018 and 17<sup>th</sup> March 2018 (Saturday Afternoon)

# SESSION ON GML USING GAME MAKER STUDIO

The session was handled by Mr..Saurav Mishra (IV Semester, CSE). The session was on making games using GameMaker Studio 1.4.1567. The origin of the software (The creator and the company who acquired the software), languages used in making the Game Engine itself and platforms supported, Android SDK and NDK, and co-ordinate system in GMS – All these were discussed in the introduction to the session. Then the first session started with the methods of making a game in GMS: Drag and Drop and Game Maker Language. The features of Drag and Drop such as Sprites, Objects, Events, Rooms, Sounds, Backgrounds and the essential "Resources" required to make a game were discussed.

Then there was a hands-on session, with a demonstration on making a game similar to Flappy Bird. Firstly, the process of importing all the pictures (or sprites such as bird or pipes) and objects was taught. Then using drag and drop, adding physics (gravity) and jump (using space key) actions to the bird was covered, followed by adding a vertical speed to the pipes. The second session had a continuation of the same game, along with the introduction to Game Maker Language where basics of GML such as declaration and inbuilt variables was discussed.



Mr.Saurav Mishra (IV SEM, CSE) handling the session on GML USING GAME MAKER STUDIO at the Software Development Club (SDC) training session on 17<sup>th</sup> February 2018. Date: 17<sup>th</sup> February 2018, 24<sup>th</sup> February 2018, 3<sup>rd</sup> March 2018 and 17<sup>th</sup> March 2018 (Saturday Afternoon)

## SESSION ON AZURE MACHINE LEARNING STUDIO

The session was handled by Mr. Miran Jyoti (VI Semester, CSE) and Mrs. Sindhuja K (AP, CSE). The first part of this session aimed to provide a basic idea about Machine Learning, Azure ML Studio and the current developments in this field. The session started with a discussion on the various ways in which Machine Learning can improve the life of mankind, by making predictions based on patterns in data from the past, and evaluating the current scenario. The Machine Learning algorithms and their broad classification, and the learning algorithms used in Azure ML Studio were also touched upon, briefly. The hands-on session that followed had demonstrations on Microsoft Azure ML Studio which is an excellent collaborative, drag-and-drop tool that can be uses to build, test, and deploy predictive analytics solutions on any data. Emphasis was laid on the importance of analysing the dataset and understanding the data to create an efficient and accurate model.

The participants created a model based on dataset from Azure ML Studio – A model that can be used to predict whether a flight will be delayed or not by 15 minutes - using Two Class Boosted Decision Tree learning algorithm which provides an Ensemble approach to finding patterns in Data. The dataset used was Flight-On-Time Performance. A brief analysis was also done on the visualization results of the Evaluation Model and understanding True Positive, True Negative, False Positive and False Negative values and plotting a graph whose curve determines the efficiency of the model.



Mr. Miran Jyoti Kashyap (VI SEM, CSE) and Ms. Sindhuja K(AP,CSE) handling the session on AZURE MACHINE LEARNING STUDIO at the Software Development Club (SDC) training session on 17<sup>th</sup> February 2018.

Date: 17<sup>th</sup> February 2018, 24<sup>th</sup> February 2018, 3<sup>rd</sup> March 2018 and 17<sup>th</sup> March 2018 (Saturday Afternoon)

## SESSION ON POSTER DESIGN, USING PHOTOSHOP

The session was handled by Mr.Rohith (IV semester, CSE). The introductory part of the session provided a basic idea about Photoshop and its tools. The history of the Photoshop, when the software was developed, the developer, the license owner and the fields it is used in – all these were discussed in the introduction. Subsequently, the user interface design and the bright prospect for the UI/UX design in future were also discussed. The basic settings required for using the software were taught, after which the participants did the settings. In the Hands-on session, the use of basic tools and basic shapes in the Photoshop and how they are used in the user interface design were covered. In the second session the use of layers and layer masking was demonstrated and the participants created a poster.



Mr.Rohith (IV SEM, CSE) handling the session on POSTER DESIGN USING PHOTOSHOP at the Software Development Club (SDC) training session on 17<sup>th</sup> February 2018. Date: 17<sup>th</sup> February 2018, 24<sup>th</sup> February 2018, 3<sup>rd</sup> March 2018 and 17<sup>th</sup> March 2018 (Saturday Afternoon)