

ST. XAVIER'S COLLEGE, MAPUSA GOA
College with Potential for Excellence
Re accredited by NAAC with A Grade
Awarded DBT STAR College Scheme

Nature of Event (Workshop, Guest Lecture, Addon Course, Seminar, etc.)	Certificate Course
Name of Department	Electronics
Faculty In-Charge	Mr. Daryl Gonsalves
Stratum of Event (College, State, Regional, National)	College
Title of Event	"Artificial Intelligence, Robotics, Internet of Things"
Date of Event	<b>12 weeks (36 hours session)</b> 19 <sup>th</sup> March 2022, 9 <sup>th</sup> April 2022, 16 <sup>th</sup> April, 2022, 23 <sup>rd</sup> April, 2022, 30 <sup>th</sup> April, 2022, 7 <sup>th</sup> of May 2022, 8 <sup>th</sup> July 2022, 9 <sup>th</sup> July 2022 and 12 <sup>th</sup> July 2022.
Venue	Classroom 206/Electronics Lab. St. Xavier's College, Mapusa
Resource Person details	Asier Solutions (OPC) Pvt. Ltd., Margao, Fatorda, Goa.
Objective/ Scope of Event	Hands on Training on IOT, Robotics, Artificial Intelligence and Machine Learning.
Particulars of Event	<ul> <li>(i) Introduction to IOT technology, Introduction to ESP8266 Module as Microcontroller and Hands on practical's on the use of ESP8266 Wi-Fi Module.</li> <li>(ii) Introduction to the "BLYNK Legacy" App(Version 1), Understanding the program written for the integration, Hands-on practical's on integrating the BLYNK Legacy App and Controlling the output device using the BLYNK Legacy App.</li> <li>(iii) Introduction to the "BLYNK 2.0" Cloud platform, Hands-on Setting up the Web dashboard in Blynk 2.0 cloud platform and how to use it, Hands-on Setting up the Mobile dashboard in Blynk 2.0 cloud platform and</li> </ul>
	how to use it, Hands-on Controlling the output device using Mobile dashboard and Web dashboard and How to add the Wi-Fi credentials Over The Air (OTA).  (iv) Introduction to the Cloud service platform Adafruit cloud services, Hands-on writing the program to control the ac Appliances as an output device by creating a virtual switch on Adafruit Cloud Service,

Hands-on Using Google Assistant to control the ousing voice commands.  (v) Introduction to Robotics, Different components to build robots, Understanding the concept of motors and Motor driver and Hands-on buildin Wi-Fi controlled robot.  (vi) Introduction to App development, Understanding use of Cloud based App development tool, Buildin App for Wi-Fi controlled Robot and Using the address technique to make the robot work.  (vii) Introduction to Raspberry Pi 3B, Understanding setting up of the Pi, connecting periph downloading the OS, understanding the Pi 3B is and its GPIO pins, Understanding the use of the technique to use the Pi without monitor and Handbasics of Python Programming.  (viii) Understanding different types of AI, Applications		
App for Wi-Fi controlled Robot and Using to address technique to make the robot work.  (vii) Introduction to Raspberry Pi 3B, Understanding setting up of the Pi, connecting periph downloading the OS, understanding the Pi 3B to and its GPIO pins, Understanding the use of the technique to use the Pi without monitor and Handbasics of Python Programming.  (viii) Understanding different types of AI, Applications		<ul> <li>Introduction to Robotics, Different components used to build robots, Understanding the concept of the motors and Motor driver and Hands-on building the Wi-Fi controlled robot.</li> <li>Introduction to App development, Understanding the</li> </ul>
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		setting up of the Pi, connecting peripherals, downloading the OS, understanding the Pi 3B board and its GPIO pins, Understanding the use of the VNC technique to use the Pi without monitor and Hands-on
		Understanding Different Machine Learning Algorithms (Eg:- KNN, Linear Regression, Decision Tree, Naïve
Model, Creating your own DataSet And trainin		Model, Creating your own DataSet And training the dataset into machine, Hands on practical on IBM
learning, Performing KNN Algorithm and checking output, Performing Linear Regression Algorithm checking the output, Performing Decision Algorithm and checking the output, Performing Bayes Algorithm and checking the output		learning, Performing KNN Algorithm and checking the output, Performing Linear Regression Algorithm and checking the output, Performing Decision Tree Algorithm and checking the output, Performing Navie Bayes Algorithm and checking the output, Understanding the difference in quality of output at
Outcome of Event  Participants understood concepts of IOT, Cloud Computi Robotics, Artificial Intelligence and Machine learning. Hands on experience on the above topics.		
Feedback Good. Course was very interactive and students gained g	eedback	Good. Course was very interactive and students gained good knowledge on hands on experience on the technologies such

Total No. of Participants	25
Photographs	04







