

6-Months

Track Covered	Class	Content
Design Thinking	Class 1	Introduction & DT process
	Class 2	DT Examples & Activity
Product Design	Class 3	Affordance
	Class 4	Signifiers
	Class 5	Conceptual Model
English Class	Class 6	Listening strategies
Product Design	Class 7	System Image
	Class 8	System Image
	Class 9	Gulfs of Evaluation
	Class 10	Gulfs of Execution
	Class 11	Apply affordance and signifiers in design Use low-fidelity paper-based prototyping Explore multiple solutions to a problem Evolve your design by evaluating with users
English Class	Class 12	Reading
Arduino	Class 13	Getting started with Arduino
	Class 14	Connect and Interface Arduino
	Class 15	Practical session - "Hello World" your first example, basic examples
	Class 16	Using Logics and Decision Making
	Class 17	Getting started with Arduino Programming Kit
	Class 17	Practical session - if statement , While loop , switch cases and Using maths and Creating Functions
English Class	Class 18	Speaking
Arduino	Class 19	Interfacing Peripherals & Interfacing Shield
	Class 20	Practical session - "Switch" cases
	Class 21	Practical session - Using Maths and Creating Functions
	Project	Gulfs of Evaluation & Execution
Python	Class 22	Indentation Keywords
	Class 23	Identifiers Variables Constants Literals
	Class 24	Data Types
	Class 25	Control Flow - If, elif, else
	Class 26	Control Flow - for, while
English Class	Class 27	Reading
Python	Class 28	Functions
	Class 29	Object oriented programming - Class, Objects, Methods
	Class 30	Object oriented programming - Encapsulation, Polymorphism, Inheritance
Raspberry PI	Class 31	Getting started with Raspberry Pi
	Class 32	Connect and Interface Raspberry Pi
	Class 33	Practical session - "Hello World" your first example, basic examples
	Class 34	Using Logics and Decision Making
	Class 35	Getting started with Raspberry Pi Programming kit
	Class 36	Practical session - if statement , While loop , switch cases and Using maths and Creating Functions
	Class 37	Interfacing sensors
	Class 38	Interfacing sensors - IR sensor, LDR, Flame sensor
	Class 39	Interfacing sensors - Moisture sensor, LM35 Temperature sensor, Pressure sensor
	Class 40	Rain detector, PIR sensor, Ultrasonic sensor
	Class 41	Raspberry pi projects in ThingWorx Platform.
	Class 42	
	Class 43	Project Title Choosing & Presentation - Should submit your own Ideas and Titles for Product Track
	Class 44	Presentaion
IOT	Class 45	Introduction to IoT
	Class 46	The Arduino Platform and C Programming
	Class 47	Introduction to Particle
	Class 48	Introduction to particle cloud
	Class 49	Desktop Applications & TkInter
	Class 50	Particle Pi and IFTTT
	Class 51	interfacing sensor
	Class 52	Pi to Pi Communication
	Class 53	IoT Examples: Smart Homes
	Class 54	Project using particle photon
	Class 55	Introduction to IOT RULE Engine and NODE-RED
Robotics	Class 56	Rotation matrices
	Class 57	Displacements Vectors
	Class 58	Exercise on Rotation matrices and Displacements Vectors
	Class 59	Homogeneous Transformation matrices
	Class 60	Exercise - Homogeneous Transformation matrices
	Class 61	Inverse Kinematics for Position
	Class 62	Project on Robotic ARM - using Inverse kinematics - part 1

Robotics	Class 63	Project on Robotic ARM - using Inverse kinematics - part 2
English Class	Class 64	Writing
Robots & Drones	Class 65	Intro to Robots and Drones
	Class 66	Rigid Body Dynamics
	Class 67	Dynamics of Robot Arms
	Class 68	Intro to Linear and Non-Linear control
	Class 69	Stability Theory
	Class 70	Quadrotor Control
	Class 71	Trajectory Generation
Project Presentation	Class 72	Exercise - Planning and Control of a Quadrotor
	Class 74	Project Title Choosing & Presentation - Should submit your own Ideas and Titles for Product Track - Presentaion
	Class 75	