

## **Guest Lecture on the subject “Embedded System Design”**

### **on 15/02/2020(Saturday)**

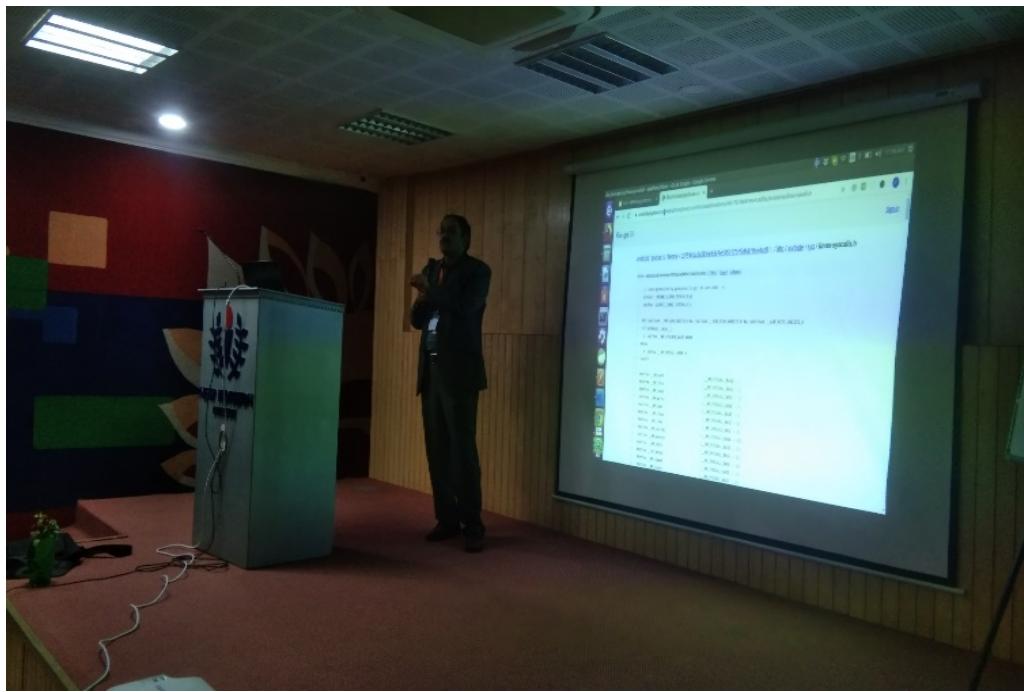
#### **Topic : ARM programming on Android Devices**

**Speaker: Mr.Praveen Kumar,**

Founder & CEO,Ekagga Technology & Services Pvt.Ltd..

Mr. Praveen Kumar is an accomplished technical leader with 14 years of experience in the IoT/Mobile/Telecom/eCommerce industry - with over 7 years of leadership experience in R&D and software development management. Proven track record with end to end life cycle experience in leading and execution of parallel, complex projects, delivering high quality deliverables on time, especially leading & building teams which involved learning new technologies and co-operation with other teams. He has lead the development of Micromax Custom ROM from scratch with setting up complete new team. Also lead the design and development of Nokia X Software platform SDK, the first Android compatible platform from Nokia.

Currently formed a new team at Ekagga Technology upto 25+ team members.Working on IoT / Mobile OS / Application Development.Trying to improve the life of individual by IoT implementation.Delivered Automotive IoT product from scratch using NVIDIA tx1 board for analysing the driver behaviour on Edge.





**Contents Delivered on the Topic ARM Programming:** Processor Arch , Development Environment for Android , Android Tools adb , Android NDK for Native Development Writing Android Hello World App , Writing Native Hello World App , Assembly program for ARM : Assembling Linking Executing

Assembly Programming on Android Device What is Assembly? Assembly is low level language to provide basic instruction to processor . It give direct access to system resources . High level languages are translated into assembly for execution . It allows setting up register, accessing memory location, hardware interface. ARM processor is one of most widespread CPU core in this world . We have more no of ARM devices in our home than x86 like Phone, router, IoT Devices etc. As it is wide spreaded there are changes of security breach. Assembly help you make robust solution. ARM is RISC( Reduced Instruction Set Computing) processor and very less no of instruction around 100

