



Build Your Own Smart Device

(Based upon target software platforms- Android/Linux/Windows & Hardware Platforms- Raspberry Pi, Intel Galileo Gen2, Intel Edison, Qualcomm Snapdragon)

Organized by Department of CSE, Indira Gandhi Delhi Technical University for Women (Formerly IGIT), Kashmere Gate Delhi-110006) in collaboration with Microsoft, Finland

From 05-06-17 to 14-07-17

ABOUT US

There has been tremendous growth in the field of mobile and handheld device technologies due to availability of various open source software tools and easy availability of hardware that drives these systems. It has been observed that most of the users are now accessing the mobile devices than desktop systems for their day to day activities that includes communication, game playing, sending mails, web browsing, social networking, m-commerce, entertainment and computing to name a few. These smart devices are becoming a vibrant and a very exciting platform for teaching, learning and application development for any individual student and develop end user project to meet the changelings of the present generation. However, the complete know how of such devices in terms of software or hardware usage is not very common.

The training will empower and enable the students, programmers and researchers to use the mobile device as an instrument for diversified applications like Agriculture, E-learning, Health Care, Games, Defence and Navigation to name a few. Especially the student community gets the familiarity in programming the on-device peripherals and thereby ended up with development of various applications for mobile and hand held devices more efficiently.

OBJECTIVES

Device Development and Programming for various application domains:-

- Entertainment
- Travel/Tour
- Emergency Needs
- Information Retrieval
- Social Media
- Education
- Product Development

Programming of on-device peripherals e.g. Camera, Audio/Video, GPS, GSM, Bluetooth, Accelerometer, Gyroscope, Microphone etc. based on

- Intel Galileo Gen-2
- Intel Edison
- Raspberry Pi
- Qualcomm Snapdragon
- ARM base Freedom Board.
- Customization and optimization of kernel.
- Interfacing the external embedded peripherals to the smart device for Remote Control.
- Programming the smart device to experiment the concepts of Database Management System and system Architecture
- Publishing the research papers and apps in various journals, conferences and different market places and building the real time projects.

- Take-Home Project: Design and development of Re-programmable embedded computing system and interfacing with any mobile device.

DEVICES:

- a) Real Mobile devices (Lumia 800/820 and Asha 305/311 and Nokia X Android) will be used for Application development purposes.
- b) Various SoC boards like Intel Edison, Intel Galileo Gen2, Raspberry Pi, Intel Atom Board, MBED and Panda Board etc. for practical and on-device testing in real environment for Application development.

TRAINING MATERIAL:

Training material and the software's required for developing the mobile applications and embedded system will be provided.

RESOURCE PERSONS:

Internal Staff from IGDTUW, external experts from IIT Delhi, SNU, NSIT and experts from industries like Microsoft, Intel, TI, ARM, ATMEL etc.

COURSE CONTENT: Topic wise detailed schedule is attached.

CERTIFICATE: All successfully completed participants will get the certificate **jointly from Indira Gandhi Delhi Technical University for Women and Microsoft University Relations.**

REGISTRATION & SELECTION PROCESS: Those candidates (Male or female candidates from any university or college are also eligible) who are willing to attend the program needs to apply through Registration form by paying a DD of Rs. 6,500/- on or before 31-05-2017. Only 50 seats are available. The selection will be based on first come first serve. 30 % of the seats are reserved for IGDTUW students. All selected

participants will be informed on or before 03-06-2017 through E-mail.

WHO CAN ATTEND THE PROGRAM:

Students studying or completed B.Techpreferably those who have completed three semesters)/ M.Tech (CSE, ECE, IT)/ MCA. Faculty members who are teaching (or planning to teach) Embedded Systems/ Device development and interfacing peripherals etc. can be benefited by this training.

CONTACT PERSON:

For any enquires you can contact course coordinator in the following address:

Dr. S. Ramanarayana Reddy

Head of Department, CSE

Electrical Block, Room No.E-107, IGDTUW,

Kashmere Gate, Delhi – 110 006

Tele: +91 9810101742, 011-23869784,

011-23900253

Email: rammallik@yahoo.com

Please visit www.mobileeducationkit.net or www.igdtuw.ac.in for further updates and correspondence.