

**4<sup>th</sup> Summer Training Program on “Mobile Architecture and Programming  
using Windows Phone 7/8, J2ME (Series 40)**

Organized by Indira Gandhi Institute of Technology (IGIT)

in collaboration with Nokia University Relations and Microsoft

[An optional complementary Embedded Systems Design Course for Interfacing with Mobile Devices during project break]

(From 21-06-2013 to 31-07-2013)

Please visit [www.mobileeducationkit.net](http://www.mobileeducationkit.net) & [www.igit.ac.in](http://www.igit.ac.in) for further updates and correspondence

Date	Topics				
	9-11AM	11-15 to 1-15 PM	2PM to 3-30 PM	3-45 to 4-45PM	4-45 to 5-45
Day 1	Inauguration and Introduction to MAP and 4 <sup>th</sup> STP	Introduction to Mobile Architecture	Demo of the Mobile Components	Lab	Practice
Day2	On Chip Components of the Mobile and their access-I	On Chip Components of the Mobile and their access-II	Software Components of the Mobile and its role	Demo and the case study	Practice
Day 3	Introduction to OMAP / Snapdragon Architecture	Demo	OMAP Application	Demo	Practice
Day 4	ARM Architecture/ Windows Architecture and Programming	Lab	Mobile Architecture Vs Computer Architecture ( Booting, File System, OS, Memory, Processor etc)	Case Study ( Nokia Mobile, WP, PC, Laptop )	Presentation of the case study
Day 5	Tool Chain for Mobile Development (WP)	Demo	Installation of OS, formatting of Mobile, Language files, Flashing etc Demo with Nokia Phone	Demo	<b>Test/ Quiz 1</b>
Day 6	Introduction to WP 7/8	Demo	New Features added to WP 8	Demo and Practice	Practice
Day 7	WP UI controls and Data Binding -I	Lab	WP UI controls and Data Binding –II	Demo	Practice
Day 8	WP programming for Multimedia(Audio, Video, Images)	Demo and Exercises	WP programming for Camera Access	Demo and Lab	Practice
Day 9	WP programming IPC Scheduling	Demo and Exercises	WP programming for Networking(Bluetooth, NFC etc)	Demo and Exercises	Practice

Day 10	Mobile Database -I	Mobile Database -II	Telephone Module (SMS, Calling, Email)	Demo and Exercise	<b>Test/ Quiz2</b>
Day 11	Memory Management in WP ( Isolated Storage)	WP programming for in-built Sensor -I	WP programming for in-built Sensor - II	Demo and Exercises	Practice
Day 12	Communication Services (REST services, Soap Ria services, TCP, WCF and many more)	Demo and Exercise	File Streaming and File Handling with real life examples	Demo and Exercise	Practice
Day 13	Introduction to Nokia OS S40 Asha series.	Theory	Nokia SDK 2.0 Installation and Demo	Lab	Practice
Day 14	Enhanced APIs for Touch (S40)/ LWUIT for richer UIs (S40)	Lab with the devices	Integrated Maps API for Java ME (S40).	Lab with the devices	Practice
Day 15	Enhanced Location Feature/Sensor Emulation (S40)/ Multiple Touch Simulation for (S40)	Lab with the devices	Programming through J2ME	Introduction to other Mobile development platforms.	<b>Test/ Quiz3</b>
Day 16 to 23	<b>Starts Mini project including Abstract, SRS and Technical Paper writing project implementation and document generation.</b> <b># Those students who are interested in building reprogrammable Embedded Systems (based on 8051) from the components can join during the project break.</b> <b>Embedded Systems Design Course [These systems may be interfaces with the Mobile devices to monitor and control remote systems.]</b>				
Day 24	Problem/Doubts clear sessions of project and review				
Day 25 to 29	<b>Project presentation ( Apps development based on S40 and WP platform, Reviews, Documentations, expert lectures, deployment, demos, presentations, Technical Paper Writing and best project selection</b>				
Day 30	Future Directions and R&D	Further project Assignment ( To continue with practice and for their final year project )	Feed Back and Discussion	Valedictory ( Award and Certificate Distribution, formation of “Indian Mobile Architecture and Programming Chapter”)	

- Some Special Lectures from Industry.
- All Practicals are performed on the real mobile devices.
- Tea Break: 11 AM to 11-15 AM and 3-30 to 3-45 PM.
- Lunch Break: 1-15 to 2 PM.
- Refreshments will not be provided during the training.
- Saturdays, Sundays and Public Holidays are off.

**# Those students who are interested in building Reprogrammable Embedded Systems (based on 8051) from the components can join the Embedded Systems Design course during the project break as a complementary.**

**# Every student will publish the APP in windows market place at the end of the training**

**# The best student project will be awarded with Nokia Mobile Devices and there will be best students contributor award.**