



FACULTY DEVELOPMENT PROGRAMME (FDP)



Organized by C-DAC, Hyderabad in association with NIT, Warangal
Under the scheme of Electronics & ICT Academy

HRD division, Department of Electronics and Information Technology (DeitY),
Govt. of India

Preamble:

"Electronics & ICT Academy" is being set up at NIT Warangal with financial assistance from DeitY, MCIT, GoI. The jurisdiction of this academy is Telangana, Andhra Pradesh, Karnataka States and Pudicherry, Andaman & Nicobar Islands and Lakshadweep UTs. This academy role is to offer faculty development programs in standardized courses and emerging areas of Electronics, Information Communication Technologies; training & consultancy services for Industry; Curriculum development for Industry; CEP for working professionals; Advice and support for technical incubation and entrepreneurial activities.

As part of this initiative, a Faculty Development Programme (FDP) is being conducted to the Faculty members of engineering, MCA and other allied degree colleges.

Name of the FDP	Dates & Course Duration	Last Date
Advanced Web Technologies	18 th – 27 th May 2016 (9 days)	10 th May 2016
Mobile Application Development for Android	23 rd – 27 th May 2016 (5 days)	14 th May 2016
Security Engineering	30 th May - 8 th June 2016 (9 days)	21 st May 2016
ARM Programming	30 th May - 8 th June 2016 (9 days)	21 st May 2016

Course Contents: Advanced Web Technologies

- HTML5, JQuery, CSS3
- Responsive Web Design
- Introduction to NoSQL, MongoDB
- Cloud Computing and building cloud based applications
- Introduction to Mobile platforms and Mobile Programming
- Mobile Web technologies & content adaptation in Mobile Web

Pre-Requisites: HTML, JavaScript and Java Programming

Course Contents: Mobile Application Development for Android

- Introduction to Mobile Apps
- Android Architecture
- Activities, Intents, Android UI, Web View
- Image, Audio and Video Processing
- Data Storage, SQLite, SMS, Calling, Email
- Sensors & Location based Services
- Bluetooth & WiFi
- Client-Server Programming

- Web services in Android
- Case Studies, Mini Project

Pre-Requisites: C, Java Programming, HTML

Course Contents: Security Engineering

- Introduction to Security Engineering
- Overview (Attacks, Mechanisms and Services)
- PCAP programming
- Introduction to Cryptography & Types of Algorithms
- Hash Functions & Digital Signatures
- PKI and Digital Certificates
- e-Mail Security, SET, Web Security using TLS/SSL
- Perimeter Security Solutions (Firewall, IDS and VPN)
- IP Security, Web Application Security
- Malware, Types & Reverse Engineering
- Mobile Device Security
- Security Design Principles
- Security Architectures and Models
- Secure Coding Practices in C & C++
- Security Testing and Evaluation Criteria

Pre-Requisites: Basic Networking concepts, Programming Concepts, Familiarity with Linux and Windows Working environment

Course Contents: ARM Programming

- ARM architecture
- ARM internals: Caches, TCM, Exception handling, Trustzone etc.
- Instruction Set
- Thumb & Exception Handling
- Peripheral Programming with Cortex-M3 based Microcontroller
- Introduction to LinK+ IDE
- Linux Kernel Configuration and Compilation
- Introduction to Module Programming
- Driver Development
- Character Subsystem Development
- Device Model
- Embedded Linux and BSP development on Cortex-A8/A9 based board
- Embedded Linux Development using Build Root
- Porting Embedded Linux on ARM CortexA series processor
- Case Study: External Peripheral Interfacing

Pre-Requisites: Knowledge on Controllers, Basic C Programming, Linux Operating System

Organized by:

The programme will be coordinated and conducted by R&D team of C-DAC, Hyderabad and also invited speakers from IITs/NITs/IIITs. Speakers from industries are also expected to deliver as part of the course.

Eligibility:

The programme is open to the **teachers of engineering colleges, MCA colleges and other allied disciplines** in Telangana, Andhra Pradesh, Karnataka states and Pudicherry, Andaman and Nicobar islands, Lakshdweep UTs. Industry personnel working in the concerned / allied discipline can also attend.

Registration Fee Particulars:

Faculty members: Rs. 2000/- (Two thousand) only
Industry participants: Rs. 6000/- (Six Thousand) only

The participants need to send a crossed demand draft (DD) drawn in favour of "Director, NIT Warangal" and payable at SBH, NIT Warangal branch

Accommodation:

No TA/DA will be paid to the participants. Outstation participants have to make own arrangements towards their accommodation. However working Lunch, Tea and Snacks would be provided during the training.

How to apply:

A filled-in form of application in the prescribed format duly signed and sponsored by appropriate authorities (along with demand draft) should reach the coordinator on or before the last date by post/courier. Participants are requested to write their name and contact number backside of demand draft. It is also mandatory to send scanned application form and demand draft through e-mail to future@cdac.in as selection will be intimated only through e-mail.

Selection Criteria:

Selection will be done based on **first-cum-first-serve basis** and the confirmed candidates will be notified by email. The maximum number of participants will be **50 (fifty)**. Additionally 10 participants from industry are allowed to participate. **The list of selected participants will be intimated through e-mail.** In case a candidate is not selected, the demand draft will be sent back. Candidates will be issued certificates on successful completion of the course along with grade. Reservations of seats are followed for selecting candidates as per GOI norms.

Selection list intimation by email for Advanced Web Technologies course: 11.05.2016

Selection list intimation by email for Mobile Application Development for Android Course: 16.05.2016

Selection list intimation by email for Security Engineering and ARM Programming course: 23.05.2016

About C-DAC, Hyderabad:

Centre for Development of Advanced Computing (C-DAC), a Scientific Society of the Department of Electronics and Information Technology (DeitY), Ministry of Communications and Information Technology is primarily an R&D Institution involved in design, development of Advanced Electronics and Information Technology Solutions, including the celebrated PARAM series of Supercomputers.

C-DAC Hyderabad centre is working in R&D with a focus on Cyber Security, Embedded Systems & Ubiquitous Computing, High Speed Networking Technologies, e-Learning, Mobile Computing, Cloud Computing etc. The centre is working in Cyber Security in the areas of Endpoint Security, Web Application Security, Mobile Device Security, Web Technologies in the domains of e-Learning, Mobile Computing, Cloud Computing, Development of Mobile Apps in Indian languages, Embedded Systems & Ubiquitous Computing in the areas of Wireless Sensor Networks, V2V & V2I Communications, IoT for Smart Cities, IDE for Linux Kernel Programming etc.

The centre has successfully developed and deployed solutions such as USB Pratirodh, AppSamvid, M-Kavach, Malware Resist, WSAFE, e-Sikshak, My-Sikshak, MENTOR, SCOPE, Vikaspedia portal & services and BALSAHARA, IDE for Linux Kernel Programming etc. In line with these R & D Strengths, C-DAC conducts skill based training programs in latest technologies.

Course Venue:

**C-DAC, No.1, Shivabagh,
Satyam Theatre Road,
Ameerpet, Hyderabad – 500016,
Telangana State, India**

Address for Correspondence

Post your application form along with DD to

**Training Coordinator (Electronics and ICT Academy)
C-DAC, No.1, Shivabagh,
Satyam Theatre Road,
Ameerpet, Hyderabad – 500016,
Telangana State, India**

E-mail the scanned copies of filled-in and duly signed application form along with DD to future@cdac.in

For more details about Electronics and ICT academy please visit: <http://nitw.ac.in/eict/>

For any enquiry please contact:
Tel.:+91-040-23737127/28, Fax: +91-040-23738131,
Email: future@cdac.in



APPLICATION FORM
Electronics and ICT Academy
Faculty Development Programme on

Course Name: _____

1. Name :

2. Designation :

3. Institution :

4. email:

Mobile:

5. DD No:

Bank:

Date:

**(Paste your
passport size
photograph
here)**

6. Address for Correspondence

7. Educational Qualifications with specialization:

8. Subjects taught so far:

9. No. of refresher courses/workshops attended:

10. Experience (in years) :
Teaching:

Research:

Industry:

11. Do you belong to reservations SC/ST (YES/NO): If YES, please specify

Declaration

The information provided is true to the best of my knowledge. If selected, I agree to abide by the rules and regulations of the FDP and shall attend the course for the entire duration. I also undertake the responsibility to inform the Coordinator in case, I am unable to attend the course.

Place:

Date:

Signature of the applicant

SPONSORSHIP CERTIFICATE

Dr./Mr./Ms. _____ is an employee of our Institute/Organization and is hereby sponsored to participate in the FDP on _____ sponsored by **Electronics & ICT Academy** from _____ to _____ at C-DAC, No.1, Shivabagh, Satyam Theatre Road, Ameerpet, Hyderabad - 500016

Place:

Date:

Signature of Principal / Head of Institution
(With seal)