

'Active Learning – Creating Excitement in the Classroom'-

Report of workshop on Pedagogy Sessions of “Computer Programming” at Diploma Engineering

Date: 24-26 July, 2012

Time: 11:00 am onwards

Venue: NITTTR Extension Centre, Ahmedabad

1. Rationale:

Diploma students seem to struggle with learning to program. Introductory programming subjects in IT courses appear to be a stumbling block for many students. The students feel difficulties in comprehending the Computer programming subject and developing logic and writing computer programs. The previous years' examination result statistics clearly indicate that this weakness of students' is also affecting their final examination results badly.

Although programming in fact is bit complex and difficult to learn, particularly for diploma first year students. Unlike other subjects the new comers in diploma course mostly do not have any idea about the concept of programming since they do not have any background of programming subject in previous classes.

Issues that have a detrimental effect on students' learning outcomes include more than simply the cognitive. There are also cultural and social background of students' having influences on students learning and his performance to introductory computer science courses. Teachers have to keep in mind this important factor while teaching the programming language subject. Keeping in mind this fact, how do teacher best engage students in the learning of a programming language? How can our current teaching and learning methods be improved to provide a better experience for them? What are different ways to maximize the students' learning and improve the examination result in “Computer Programming” subject? To address these issues and to find practical solutions to make learning of programming easy and enchanting for students, a 3 days Faculty Development Programme was organized by NITTTR, Bhopal for the polytechnic teachers of Gujarat state at Ahmedabad from 24/7/2012 to 26/7/2012.

Cause: To make “Computer Programming” more interesting.

2. Total Participation & Institute wise participation-

Total 18 participants from various institutes affiliated to Gujarat Technological University attended the programme. The details of the participants are given in following table:



GUJARAT TECHNOLOGICAL UNIVERSITY

Sr No.	Name of the Faculty	Name of the Institute
1.	Mrs Vaishaliben J Patel	Excel Institute of Diploma Studies, Kalol
2.	Ms Pinakini C Patel	Excel Institute of Diploma Studies, Kalol
3.	Mr. Zubin C Bhaidasna	Parul Poly. Instt, Waghodia, Vadodara, Limda
4.	Mr. Mitesh H Patel	Parul Polytechnic Institute, Waghodia, Vadodara, Limda
5.	Mr. Hardik B Patel	Parul Polytechnic Institute, Waghodia, Vadodara, Limda
6.	Mr. Gunjan B Belani	Parul Polytechnic Institute, Waghodia, Vadodara, Limda
7.	Mr. Dhruvil M Shah	Parul Polytechnic Institute, Waghodia, Vadodara, Limda
8.	Mr. Nirav A Baldha	Parul Polytechnic Institute, Waghodia, Vadodara, Limda
9.	Mr. Mihir H Rajyaguru	Parul Instt. of Engg. & Tech,(Diploma Studies)Waghodia, Limda
10.	Ms. Shivali C Shah	Vedvyas Polytechnic, Himatnagar
11.	Ms. Urvashi I Desai	Vedvyas Polytechnic, Himatnagar
12.	Mr. Ankit K Mehta	M. L. Institute of Diploma Studies, Bhandu, Mehsana
13.	Mr. Hardik N Patel	Image Engg & Tech Instt, Kheda
14.	Mr. Tushar A Shah	B & B Institute of Technology, Vallabh Vidyanagar
15.	Ms. Hiral B Chauhan	B & B Institute of Technology, Vallabh Vidyanagar
16.	Mr. Chirag A Prajapati	R.M.S Polytechnic, Bakrol, Baroda
17.	Ms. Bhumika C Chauhan	Sarvoday Polytechnic Institute, Limbdi
18.	Mr. Piyush I Mesiya	Sarvoday Polytechnic Institute, Limbdi

3. Profile of the Mentors & Experts-

The course was coordinated from GTU side by Prof Y.P. Joshi of BBI, Anand and conducted by 2 senior faculty members of NITTTR, Bhopal- Prof. Sanjay Agrawal (Programme coordinator) and Professor R. K. Kapoor. Both the faculty members are having experience of conducting more than 200 Faculty development programmes for Polytechnic and Engineering college teachers and staff over last 20 years.



4. Area of Training imparted and Covered subtopics

Following were the objectives of the Programme:

- To identify problems teachers are facing to teach Computer Programming Subjects and its solutions.

- To identify major weakness/limitation of students to learn Computer Programming and how to overcome them.
- Adapt suitable strategies to improve students' learning in Computer Programming subject like multimedia techniques- Power Point Slides, Preparing Videos, small animations, nuggets etc
- To improve students' performance in final Examination.



To achieve these objectives, comprehensive inputs cum discussion sessions were conducted. Participants were also engaged in learning by way of assignments and presentations.

5. Feedback of participants

All the participants appreciated the programme well. They were of the opinion that the programme was quite useful to understand the ways of teaching to maximize students' learning. Many of the participants expressed view that the programme has changed their thinking to deal with the subject and the students. The participants were motivated to adopt innovative teaching strategies and to change the way of their teaching to make it more student oriented.