

## DEPARTMENT OF COMPUTER SCIENCE

### **BEST PRACTICE**

#### **Physical Models:**

Faculty members of computer science use components like RAM, Hard Disk Drives, Network cables, motherboards, and other components of a computer system in the classroom as physical models. The use of these models helps the teachers to create a clear-cut understanding among the students about the working of various components of a computer system.



Sri. Ashok Huded Department of Computer Science explaining the physical model of the CPU to BCA I<sup>st</sup> sem Students



Sri. Ashok Huded Department of Computer Science explaining the physical model of the CPU to B.Sc. II<sup>nd</sup> sem Students



Sri. Ashok Huded Department of Computer Science explaining the physical model of the CPU to BCA IV<sup>th</sup> sem Students

## Demonstration of Projects:

While teaching subjects like web technologies, Java programming, and mobile application development the projects developed by the senior students guided by the faculty members are demonstrated in the classroom. The objective of demonstrating these projects is to provide a live experience to the students of how an application works. This method also acts as a motivation to the students to take up challenging tasks as projects. Demonstrating the syntax and runtime errors that might occur while executing the project will help students get a comprehensive idea of developing a project



Mr Mahesh Kanajiker, Director Matrix Software Solution, Bidar giving training for BCA final year students on project development



Mr Mahesh Kanajiker, Director Matrix Software Solution, Bidar giving hands on training for BCA final year students on project development

## **Animations and Presentations:**

To explain difficult concepts like Memory management and Process scheduling in Operating systems, construction of trees in data structure, etc. Animations are used by the faculty. Students understand what they see. Moreover, animations create interest in the respective subjects and make the students excel in them. For example, while teaching sorting techniques in Data Structures simple Flash animations are used. This helps students to comprehend the process beyond any doubt and would do better to understand the concept behind it.

PowerPoint presentations are used to explain critical components that may take much time to draw on the board. The presentations are prepared in such a way that the total content of the chapter is covered in the slides along with the diagrams and is shared with the students so that they can use them as reference.

Sl.No	Subject	Title	Web Links
1	Data Structures	Linked list	<a href="https://www.youtube.com/watch?v=R9PTBwOzceo">https://www.youtube.com/watch?v=R9PTBwOzceo</a>
		Graph Traversals	<a href="https://www.youtube.com/watch?v=ymlzHmRN4To">https://www.youtube.com/watch?v=ymlzHmRN4To</a>
2	Java	Operator in Java	<a href="https://www.youtube.com/watch?v=NbzZAdGFXWY">https://www.youtube.com/watch?v=NbzZAdGFXWY</a>
		Class and object concept	<a href="https://www.youtube.com/watch?v=OtNV1xzMvS4&amp;list=PLrKBFf87Cy9CHAYhX910rhktvg3pCG5R5&amp;index=18">https://www.youtube.com/watch?v=OtNV1xzMvS4&amp;list=PLrKBFf87Cy9CHAYhX910rhktvg3pCG5R5&amp;index=18</a>
3	DBMS	Basics of DBMS	<a href="https://www.youtube.com/watch?v=t48TGntrX4s">https://www.youtube.com/watch?v=t48TGntrX4s</a>
		Relationship Model	<a href="https://www.youtube.com/watch?v=4sUGoX6IXqM">https://www.youtube.com/watch?v=4sUGoX6IXqM</a>
4	Operating System	Dead Locks	<a href="https://www.youtube.com/watch?v=T9cM8WuJNZ8">https://www.youtube.com/watch?v=T9cM8WuJNZ8</a>
		Semaphores	<a href="https://www.youtube.com/watch?v=LIZTbA3cAWY">https://www.youtube.com/watch?v=LIZTbA3cAWY</a>
5	Python	Basic Details of Python	<a href="https://www.youtube.com/watch?v=YoHLbpjIByE">https://www.youtube.com/watch?v=YoHLbpjIByE</a>
6	C++	For Beginners	<a href="https://www.youtube.com/watch?v=zl203Xj26AI&amp;list=PLrKBFf87Cy9BVBAZ1Y-6Olzz0KTU4Qw6L&amp;index=1">https://www.youtube.com/watch?v=zl203Xj26AI&amp;list=PLrKBFf87Cy9BVBAZ1Y-6Olzz0KTU4Qw6L&amp;index=1</a>

## Peer teaching, Mentoring and Lecturette:

### Peer Teaching:

Peer-to-peer teaching is an effective teaching method used in the classroom/lab to enhance This will enable the students to revise their learning and be able to consolidate it by teaching it to fellow students. These also improve their subject knowledge as well as increase their confidence. The faculty plays the role of a facilitator in the classroom. There are many benefits to peer teaching.



Pawankumar MSc II<sup>nd</sup> Year student conducting seminar class on Digital Image Processing to BCA Final year students

## Reinforce Learning:

By teaching to a peer, students review their own learning, which allows them to reinforce their own knowledge and skills.



Mr. Rajshekhar Uppin, Senior Consultant, Capgemini India Private Limited, Bengaluru conducting the remedial class with an inspirational speech on achievements



## Increase Confidence:

This type of learning activity enhances the levels of self-confidence among students because they realize that the classroom teacher perceives them as experts and trusts them enough to share their expertise with a peer.



Dr. Bhadrappa Head, Department of MBA, Lingaraj Appa Engineering College, Bidar  
delivered a speech on Personality development on 07-02-2022

## Develop Communication Skills:

Students must use good communication skills to be able to provide clear directions, listen to feedback, and then adjust the next set of instructions accordingly so that their peer is successful.



Shruti (U04AE21S0019) BCA IV<sup>th</sup> sem student giving a speech on pick and speech

## Assess Learning:

The teacher will be able to assess students' understanding of the material based on their ability to share their knowledge and skills with a fellow peer, which could not be accomplished using a paper and pencil test.



Smt. Anita M and Smt. Anuradha P Department of Computer Science are evaluating the internal booklets

## Mentoring:

A mentor guides a group of twenty the objective of mentoring is to improve the academic performance of the students. The mentors interact with students and identify if they have any learning barriers. Mentors work with students individually to help students to work through difficult issues so that they can stay focused in the classroom and get the most out of college.



Sri Ashok Huded mentor Department of Computer Science, problem solving of students

## Lecturette:

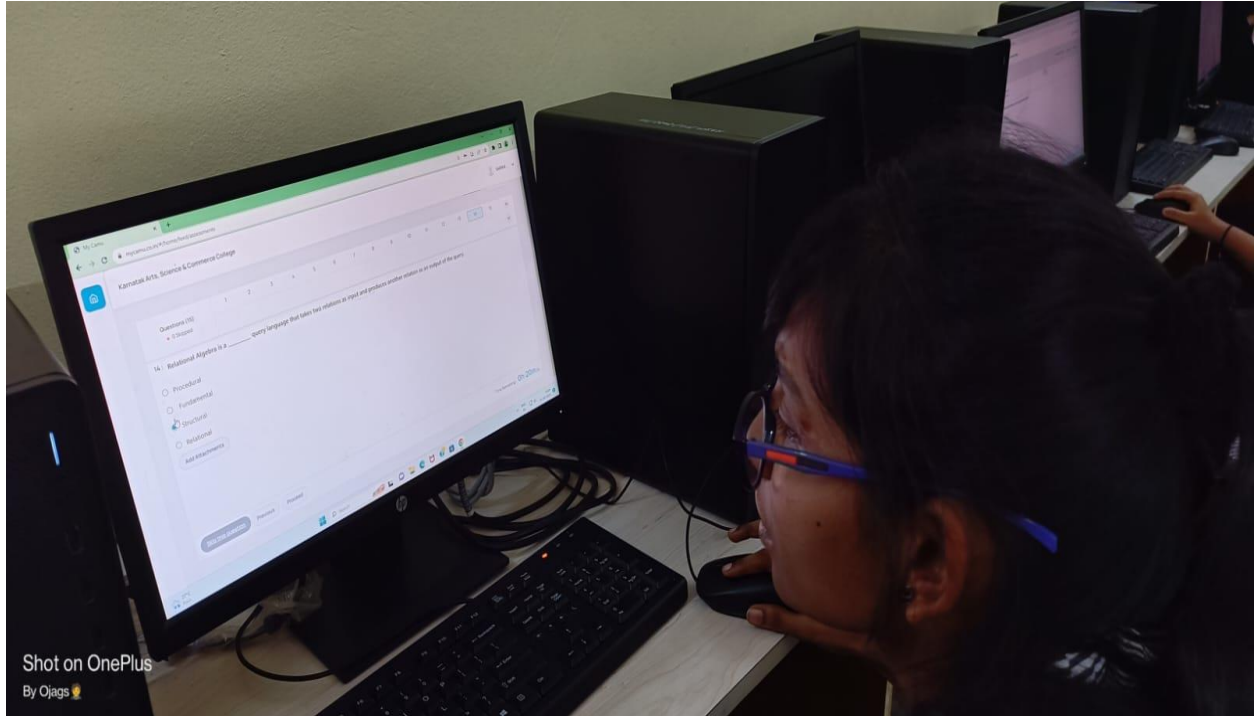
Every student in the classroom is allowed to deliver a lecture on a This activity will encourage students to gather information, prepare notes, participate in discussion with peers and teachers, and present his or her views in a gathering.



Group Discussion conducted to BCA IVth sem students

## Quiz:

Moodle an open-source learning management system is used to conduct quizzes. Moodle simplified the process of conducting quizzes and analyzing student performance. A quick analysis and feedback to the students about their performance after every quiz promotes active learning.



Kum. Savita B.Sc. IVth sem Computer Science student giving Online Quiz computation on DBMS in B.Sc. Lab



B.Sc. IVth sem students giving online quiz computation on DBMS test in B.Sc. Lab

## Guest lectures:

Guest speakers from industry/academics are invited to deliver lectures on emerging technologies. These lectures give students exposure to industry-oriented technologies and perspective of the guest speaker's field of work or expertise. One important benefit that is derived from having a guest speaker is the enhancement of the student's educational experience.



Mr. Sebastain Gomes, Senior Consultant, HCL Technologies Melbourne, Australia  
delivering guest lecture on **Cloud Solution Architecture** on 09-01-2020