SREE AYYAPPA COLLEGE ERAMALLIKKARA

CHENGANNUR, ALAPPUZHA

Department of Computer Science

Bridge Course

for BSc Computer Science 2022 Admn

REPORT

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Department of Computer Science
Bridge Course for BSc Computer Science 2022 Admn
Report

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Objective

The main objective of the course is to bridge the gap between subjects studied at higher secondary level and subjects they would be studying in Graduation. The syllabus for the course is framed in such a way that they get basic knowledge on Computer Science and Mathematics which they would be learning at graduation level.

Syllabus

A Curriculum is framed separately in each of the subjects, for Bridge Course. After the completion of admission process, the bridge course curriculum is delivered to the students in various disciplines. A post bridge course test was conducted after the completion of bridge course syllabus to assess the reachability of the course among students. The test was conducted in online mode using ClassMarker software. Feedback also had been collected from students to improve the outcome of the course. The feedback was analysed and included in this report for future reference.

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Part A Mathematics

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- Introduction to Sets and set theory, Applications in computer science
- Introduction to Functions- Basic functions used in Mathematics, exponential, sine, cosine etc and its visualization through geogebra or any other tools.
- Matrix Algebra: Representation and operations on matrices, Applications in Computer Science
- Differential Equations and applications in Computer Science
- Integration and its Applications in computer science
- Different series like Fibonacci series, Harmonic Sequence, Geometric Sequence, arithmetic sequence, Euclid's Algorithm - GCD of 2 natural numbers, Divisors of a given natural number, Highest power of a prime

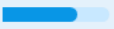<div align="center">

Part B Computer Science

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- Introduction to Algorithm, Syntax of writing algorithms, Algorithms and pseudo code and its difference , Exercises on sample algorithms
- Introduction to Flowcharts: Syntax, Exercises on Sample Flowcharts
- Introduction to Programming: Logic and Syntax of Programming Languages, Compilation, Interpretation
- Introduction to C language: Syntax, Simple programs, compilation in both Windows and Linux
- Hands on session in programming : Simple programs to demonstrate the use of variables, expressions, Operators, Loops, Functions
- Introduction to Operating Systems: Familiarization with DOS, Linux, Windows and Basic Commands
- Introduction to Internet basics and HTML : email, Browsing, HTML Tags

- Introduction to Data and DBMS: Representation of data in Computers, Data Files, Basics of DBMS

Schedule

Date	Time	Topic	Faculty
04.11.2022	9.30 AM	Inaugural Address	Prof.(Dr.) Suresh S Principal
04.11.2022	10.00 AM	Keynote Address	Ms Sobha P K (Programme Coordinator)
Mathematics			
23.11.22	9.30 am	Set Theory	Ms Susmitha Surendran
23.11.22	9.30 am	Functions	Ms Susmitha Surendran
23.11.22	11.30 am	Differentiation	Ms Susmitha Surendran
23.11.22	11.30 am	Integration	Ms Susmitha Surendran
Computer Science			
23.11.22	10.30 am	Introduction to Algorithms	Ms Nithya Mohan
28.11.22	9.30 am	Introduction to Flowcharts	Ms Swathy Viswam
15.12.23	10.30 am	Introduction to Programming	Dr Sreeraj M
15.12.22	9.30-10.30 11.30-12.30	Introduction to C language	Ms Jisha Nair B J
19.12.22	1.15-3.15	Hands on session in C Programming	Ms Jisha Nair B J
23.11.22	11 am	Introduction to Operating Systems	Ms Sajisha P S
28.11.22	11.30 am	Introduction to Internet Basics and HTML	Ms Sarany P M
04.11.2022	10.30 AM- 11.30 AM	Introduction to Data and DBMS	Ms Sreelekshmi A N
13.01.23	1.15-2.15 pm	Examination	Ms Sobha P K
13.01.23	2.15-3.15 pm	Feedback Collection & Analysis	Ms Sobha P K

Results of Evaluation conducted in online mode using ClassMarker

Name	Percentage	Score	Duration	Date	Statistics
Average	69.5%	20.8 / 30	00:18:11		
ANSHUARYA .	90%	27 / 30	00:28:15	Fri 13 Jan '23 1:27pm	
GOPIKRISHNAN .	-	-			
ARYASREE . A	53.3%	16 / 30	00:27:58	Fri 13 Jan '23 1:25pm	
PAVITHRA .A.RUDHAN	93.3%	28 / 30	00:24:25	Fri 13 Jan '23 1:29pm	
ABIN B	70%	21 / 30	00:21:03	Fri 13 Jan '23 1:25pm	
ASHITH DEV K.A	80%	24 / 30	00:21:18	Fri 13 Jan '23 1:35pm	
GOPIKA G R	86.7%	26 / 30	00:07:57	Fri 13 Jan '23 1:25pm	
ANANDHANARAYAN K	46.7%	14 / 30	00:17:26	Fri 13 Jan '23 1:31pm	
SANGEETH K	70%	21 / 30	00:26:45	Fri 13 Jan '23 1:25pm	
MIDHU K M	73.3%	22 / 30	00:09:43	Fri 13 Jan '23 1:26pm	
Goutham Krishna	60%	18 / 30	00:13:30	Fri 13 Jan '23 1:31pm	
NAVANEETH KRISHNA C	46.7%	14 / 30	00:20:40	Fri 13 Jan '23 1:27pm	
AMRUTHA KRISHNA KJ	53.3%	16 / 30	00:08:51	Fri 13 Jan '23 1:26pm	
APARNA KRISHNA KR	56.7%	17 / 30	00:12:41	Fri 13 Jan '23 1:26pm	
ARJUN KRISHNA S	50%	15 / 30	00:15:09	Fri 13 Jan '23 1:29pm	
ANOOP KRISHNA VA	83.3%	25 / 30	00:17:28	Fri 13 Jan '23 1:26pm	
Sajin M.L	86.7%	26 / 30	00:22:48	Fri 13 Jan '23 1:29pm	
ARUNIMA MURALI	56.7%	17 / 30	00:11:21	Fri 13 Jan '23 1:26pm	
ADITHYA R	-	-			
KARTHIK R	-	-			
ANNA ROJESH	70%	21 / 30	00:12:01	Fri 13 Jan '23 1:26pm	
SUHAIL S	-	-			
AISHWARYA S NAIR	-	-			
SURYA SUNIL	93.3%	28 / 30	00:26:12	Fri 13 Jan '23 1:26pm	

Feedback Analysis

Google form was circulated among the students to evaluate the relevance and effectiveness of the programme. The analysis chart is included below. Strength, weakness and suggestions for improvement was also collected form the students. Students suggested that the programme should fit into a proper timetable. Few suggestions for including more practical sessions, more topics, more hours were also received. Some students suggested that some sessions should be made more interesting.
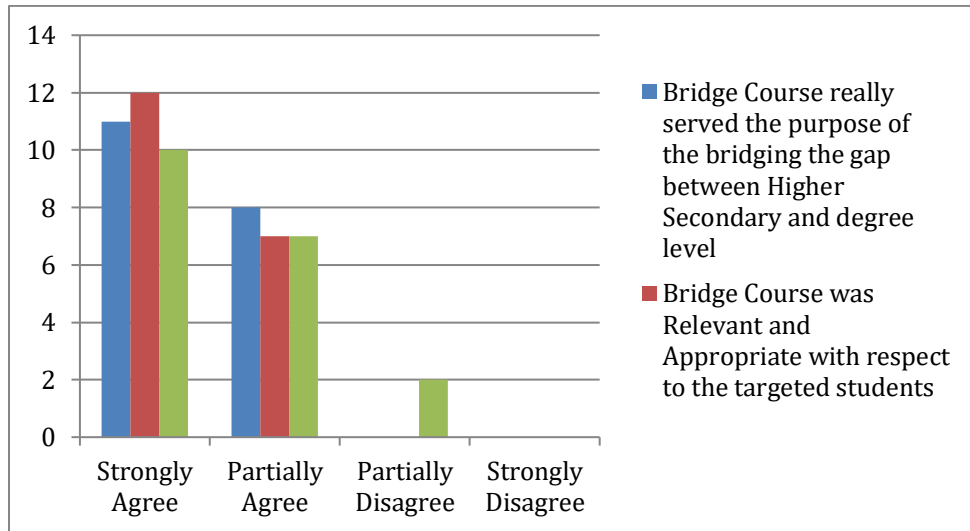
Conclusion

The bridge course programme was conducted successfully. Based on the evaluation of feedback and examination it was observed that the programme was effective and served its purpose.

Programme Coordinator	HoD	Principal
Ms Sobha P K	Ms Jisha Nair B J	Prof(Dr.) Suresh S

Photos

Inaugural Address

Keynote Address

Sessions

Alappuzha, Kerala, India
8HW4+W8P, Eramallikkara, Kerala 689102, India
Lat 9.34761°
Long 76.555988°
19/12/22 01:32 PM GMT +05:30

Alappuzha, Kerala, India
8HX4+2H7, Eramallikkara, Kerala 689102, India
Lat 9.347687°
Long 76.556112°
23/11/22 10:44 AM GMT +05:30
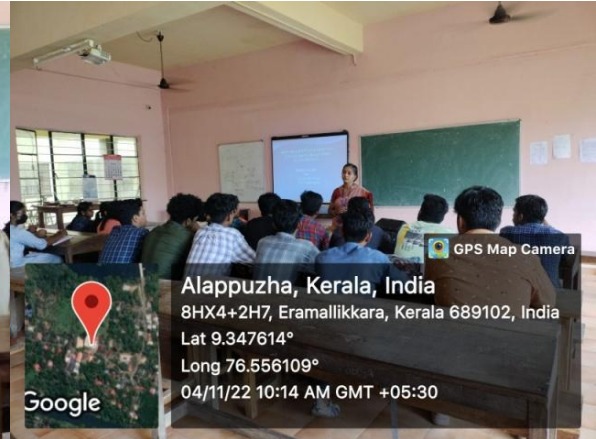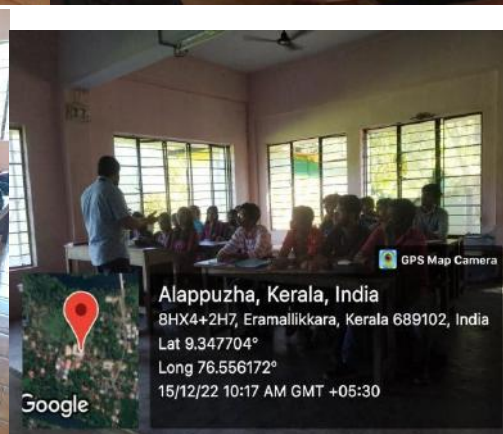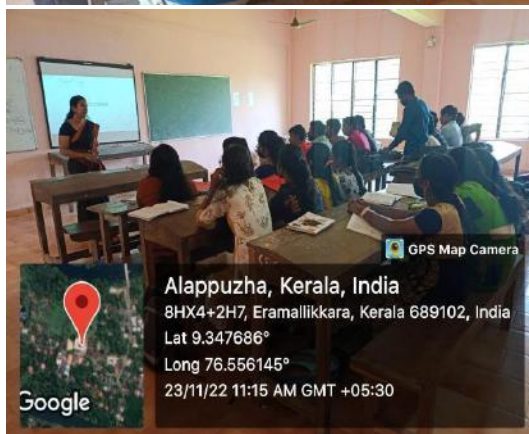
OPERATING SYSTEM

1. Which of the following is not an operating system?
   . Windows
   a. Linux
   b. Oracle
   c. DOS

Answer: (c) Oracle

0. When was the first operating system developed?
   . 1948
   a. 1949
   b. 1950
   c. 1951

Answer: (c) 1950

0. Which of the following windows does not have a start button?
   . Windows 7
   a. Windows 8
   b. Windows XP
   c. None of these

Answer: (b) Windows 8

0. Which is the Linux operating system?
   . Private operating system
   a. Windows operating system
   b. Open-source operating system
   c. None of these

Answer: (c) Open-source operating system

0. Which of the following is not application software?
   . Windows 7
   a. WordPad
   b. Photoshop
   c. MS-excel

Answer: (a) Windows 7

Mathematics

1. Let f: N $\Box$ N be defined by f(x) = x .
   Which of the following is true?
   a. f is one one but onto
   b. f is bijective
   c. f is onto but one one
   d. f is neither one one nor onto

2. The derivative of e^{-x} is with respect to x is
   a. e^x
   b. $-e^{-x}$
   c. e^{2x}

     d. e^{x-1}

3.   A function f: N $\square$ N defined by $f(x) = x^2$ is
     a.   one to one
     b.   not one to one
     c.   onto
     d.   bijective

4.
     a.   sin x + C
     b.   -sin x
     c.   cos x
     d.   -cos x

5.   Derivative of log x with respect to x is
     a.   -1x
     b.   1x
     c.   x
     d.   None of the above

ANSWER KEY

1.   b
2.   b
3.   a
4.   a
5.   b

ALGORITHM AND FLOWCHART

1. In computer science, algorithm refers to a pictorial representation of a flow chart
.   True
a.   False
Answer: b

0.   An algorithm is a ------------------that provides a series of instructions that should be carried out in a particular order to get the desired outcome
.   Step-by-step process
a.   Flowchart process
b.   Pseudocode process
c.   None of the above
Answer:a

0.   What does an arrow represent in a flowchart?
.   Decision making
a.   Data Flow
b.   Start
c.   Stop
Answer:b

0.   What shape represents the start and end of a flowchart?
.   Oval
a.   Rectangle
b.   Diamond
c.   Square

Answer:a

0.   What are the advantages of Algorithms?

.   Easy to understand

a.   Algorithms follow a predefined path

b.   It is independent of any programming language

c.   All of the above

Answer:d

C Programming

1. ………statement terminates the execution of the nearest enclosing do , for , switch , or while statement in which it appears and passes control to the statement that follows the terminated statement.
2. The …….. loop is used to iterate the statements or a part of the program several times.
3. ……….. is defined as the collection of similar type of data items stored at contiguous memory locations
4. The ……..statement in C language is used to bring the program control to the beginning of the loop.
5. The …… function is a compulsory function that marks the beginning of the program execution.

Key

1. Break
2. For
3. Array
4. Continue
5. Main()

Database Management system

1. What is the full form of DBMS?
a) Data of Binary Management System
b) Database Management System
c) Database Management Service
d) Data Backup Management System

Ans : b

2. Which type of data can be stored in the database?
a) Image oriented data
b) Text, files containing data
c) Data in the form of audio or video
d) All of the above

Ans : d

3. Which of the following is not an example of DBMS?
a)
MySQL
     b) Google
c) Microsoft Acess
d) IBM DB2

Ans : b

4. Which of the following is not a function of the database?
a) Managing stored data
b) Manipulating data   c)
Analysing code
d) Security for stored data

Ans : c

5.Which of the following is a component of the DBMS?
a) Data
b) Data Languages
c) Data Manager
d) All of the above

Ans : d

HTML

1.   HTML stands for _____
        . HyperText Markup Language
        a. HyperText Machine Language
        b. HyperText Marking Language
        c. HighText Marking Language
0.   Which of the following is used to read an HTML page and render it?
        .   Web server
        a.   Web network
        b.   Web browser
        c.   Web matrix
0.   Which of the following tag is used for inserting the largest heading in HTML?
        . head
        a.   <h1>
        b.   <h6>
        c.   heading
0.   Which tag is used to create a numbered list in HTML?
        .
        a.
        b.
        c. <ll>

0.   Full form of W3C is _____
        . World Wide Websites community
        a. World Wide Web community
        b. World Wide Websites consortium
        c. World Wide Web consortium
Answer Key
1.a
2.c
3.b

4.a
5.d