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K.S. INSTITUTE OF TECHNOLOGY

Affiliated to VTU, Belagavi & Approved by AICTE, New Delhi, Accredited NAAC & NBA (CSE, ECE and ME)

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Date: 17-06-2023

To,
BoS (CSE),
VTU,
Belagavi -590018

As per the VTU Notification VTU/BGM/Aca/BoS/2023/1280 Dated 9th June 2023, the department meeting was held on 13th June 2023 with course and module coordinators regarding draft scheme of 3rd to 8th semesters 2022. The following feed back are suggested.

Feedback on draft 3 – 8 semester 2022 scheme of teaching and examination						
SNo	Semester	Course Code	Course Name	Existing	Changes proposed	Remarks /Feed back
1	5	-	-	BCS501 Software Engineering & Project Management	BCS701 Internet of Things	Interchange of these two will enable students to carryout projects related to IOT Domain Also it will make 7 th semester students to focus on multidimensional activities such as placement, Gate exam preparation, Higher studies
2	5	BCS503	Theory of Computation	-	-	Clarity about pre-requisite for this course is required
3	5	BCS586	Mini Project	-	-	4 hr/week is reflected in the scheme, need more clarity about L T P component as 4 hr Lab session (P component) is allotted which need to be investigated

[Signature]
HOD

Head of the Department
Dept. of Computer Science & Engg.
K.S. Institute of Technology
Bengaluru -560 109

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Below is the feedback from the faculties of E&CE Department for 2022 Scheme

Sl. No.	Feedback
1.	Retain the core EC subjects as like previous schemes (2015, 2018 scheme).
2.	1 Syllabus is framed as per the NEP. It is good that students are exposed to hands on experience in the form of skill labs, internships and projects
3.	The syllabus of 2022 is improved with respect to 2021 scheme. But some of non technical subjects like Biology is not much required for the engineers. Also architecture of and peripherals of Basic controllers like 8051 to be introduced so that students will understand the flair of peripherals and its programming
4.	Introducing The subject UHV- universal human values is a very good idea But the students think that we know all these facts n no need to attend the lectures as it's having MCQs s for exams and only one credit. If we want the students to study that subject it should be made with at least 2 credits with 2 hours per week and written exam for 50 marks at least should be there Biology for engineers is not required as the people who are doing projects on sensors will study on their own and we need not employ biology teachers for that .The first year students should study minimum basics of electrical, electronics, civil and mechanical engineering as it's required for all the engineers. A computer engineer studying only programming languages can't study analog electronics in 3rd Sem without knowing KCL and KVL.I think studying about electrical is more important than biology for engineers. Because the students here don't know about switches fuse and MCBs and motors. How they will work on projects with interfacing and IOT. Why research methodology is required in 3rd semester what research they are doing in 3rd sem. They can't even research about their subjects and syllabus It's suitable for final years. The subjects for the first years were ideally designed earlier
5.	Better than 2021 scheme. It would be good if 2018 scheme is retained.
6.	According to 2022 scheme, number of core subjects are reduced. Some subjects includes integrated labs and it is difficult for staffs to focus on completion of syllabus. advance subjects with current technology is included so that students gain knowledge in relevant fields
7.	More courses can be technical than non-technical
8.	Non-technical subjects can be removed.
9.	The necessity of biology for technical education is not opt.
10.	Please give importance for EC core subjects.

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To

17.4.2019

The Registrar -Academics
VTU, Belagavi

Sub: VTU Curriculum gaps for BE-E&CE programme in addressing Program Outcomes of NBA..

Respected Sir,

The department of E&CE of KSIT has considered the 2018 curriculum provided by the VTU for BE E&CE. As per the Course Outcome to Program Outcomes mapping (CO-PO) for all the courses of 2018 syllabus (for the 2018-22 batch of students), the department of Electronics and Communication Engg. has identified curriculum gaps in addressing following PO's of NBA -PO4, PO6, PO7, PO8, PO11 & PO12.

In this regard, I kindly request you to take necessary steps to bridge the curriculum gaps during revision of curriculum.

[Handwritten Signature]
17.4.2019

PRINCIPAL
K.S. INSTITUTE OF TECHNOLOGY
BENGALURU - 560 109

To,
The BOS Chairman,
CSE & ISE Board,
VTU, Belgaum.

16/11/2019

From,
Deepa S R,
Associate Professor, CSE,
KSIT, Bengaluru.

Through,
The Principal,
KSIT, Bengaluru.

Respected Sir,

Sub: Regarding conduction of experiments in 3rd sem CSE ADE lab exams.

This is to bring to your notice the following points regarding conduction of experiments in 3rd sem CSE ADE lab (18CSL37):

1. According to the syllabus of 18CSL37 students have to choose one experiment from part-A and one experiment from part-B and need to conduct both the experiments in practical examination. But each experiment in both part-A and part-B has both hardware circuit construction and software simulation. So, if a student has to conduct one experiment from both the sections then he/she has to totally conduct 4(2+2) experiments.
2. It will be very difficult to complete all the 4 experiments in 3 hours along with write-up and viva-voce. For instance, if a student gets experiment no-4(part-B), the student has to conduct, half adder, full adder, half subtractor and full subtractor i.e. 4 individual experiments in hardware and individual experiments in software. Along with these experiments, the student has to do one or more from part-A which includes both hardware and simulation, which is very difficult for a 3rd sem student.

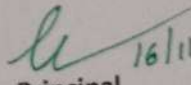
Hence, we request you to reconsider the pattern of choice as one experiment to be conducted out of the total 9 experiments, which amounts to one hardware and one software experiment.

Kindly do the needful at the earliest.

Faculty Taught:

Deepa
16/11/19

Thanking you


16/11/2019
Principal



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To,
The Registrar Evaluation
VTU, Belagauru

Subject: Feedback on syllabus of 1st and 2nd Semester (2022 Scheme), VTU Notification
VTU/BGM/BOS/2023/6557 Dated 2nd February 2023

As per the VTU Notification VTU/BGM/BOS/2023/6557 Dated 2nd February 2023, please note down the following feedback & suggestions after going through 2022 draft scheme of BE/BTECH I/II Semester and syllabus and also regulations governing the same.

Feedback and Suggestions given by:

1. Dr Rekha B Venkatapur, Professor and Head CSE

1. It is a good initiative to give options for students to select courses under 3 categories (ESC-I) Engineering Science Courses-I (ETC-I) Emerging Technology Courses-I and (PLC-I) Programming Language Courses-I
2. In place of 22PLC15D Introduction to C++ Programming, Fundamentals of R Programming can be added
3. 22POP13/23 Principles of Programming in C can be made as a mandatory course either in odd or in even semester for all streams as basic programming skills are needed for any stream students & usually when companies visit for campus selection /hiring they expect basic programming skills in C language.
4. Instead of different number of Course Outcomes (Ex- In Course 22MATS11 Mathematics-I for Computer Science and Engineering stream there are 5 COs defined where as in 22PLC15A/22PLC25 A Introduction to Web Programming there are only 4 COs, commonly 5 COs can be defined in all courses.
5. In most of the courses the Course title starts with "Introduction to" instead of that the basic course title can be reframed as "Fundamentals of"

2. Dr. Prashanth H S, Professor, Computer Science and Engineering

Few thoughts about the syllabus for 1st year CSE Branch

1. In the assessment methodology for the Emerging course, 50% weightage should be given for report making (Literature survey) and 50% for IA (CIE: Report making + IA)
2. Laboratory course for mathematics course (both 1st and 2nd semester) may be handled by respective engineering department to highlight or connect mathematical experiment with application or courses they will be learning in their higher semester

Rekha B Venkatapur

HoD 3/2/2023

Head of the Department
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Shumal G

Principal

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To,
The Chairman,
BoS, CSE/ISE,
VTU,
Bellary
560018

24-2-2021

Sir
kind permission to refer to
Chairman BoS of CSE/ISE
ಇವುಗಾಗಿ
2-13/21

From,
Prof. Harshavardhan J.R,
Asst. Prof, CSE,
K S Institute of Technology,
Bengaluru - 560 109



Respected Sir,

SUB: Revising number of lab experiments in MOBILE APPLICATION DEVELOPMENT(CODE:18CSMP68) Laboratory-reg.

With respect to the above subject, firstly, I would thank all the concerned esteemed board of Studies members who has framed the lab experiments which is a sure learning pleasure for both faculty and students in terms of knowledge and technology. Undoubtedly the given experiments are well designed and cover broader area in mobile applications development effectively using android O.S, but, the downsides are

- Concentrating only on lab experiments without a strong subject theory in the class room.
- The number of experiments to be covered which is slightly an uphill task due to academic and Non-Academic constraint.

To make learning simple, easy and interesting, can the concerned esteemed board of Studies members

- Reduce the number of experiments by removing redundancy (if any) in both part A & part B and to have only one part which covers basics concepts required for basic app development. These things are to be covered in regular lab sessions.
- To include mini-project where students can explore and learn advanced concepts.

Thanking You

Chairman BoS
24/2/2021
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Yours' Faithfully

(Harshavardhan J.R)
Asst. Prof. Dept. of CSE, KSIT
BENGALURU - 560 109.

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DTDC Courier : B72209860

Date : 30-07-2020

To: Dr A. S. Deshpande
Registrar
Visvesvaraya Technological University
Belagavi - 590018

Forwarded for kind consideration

Thru: Dr. KVA Balaji
Principal and CEO
KS Institute of Technology,
Bangalore - 560109

R. Gurus
29/7/2020
PRINCIPAL
K.S. INSTITUTE OF TECHNOLOGY
BENGALURU - 560 109

July 28, 2020

Subject: Request for review of course 18CSL57 (Computer Networks Laboratory)

Dear Sir

I have been assigned Computer Network course (18CS52) to 5th sem UG students of Computer Science and Engineering discipline under VTU 2018-22 scheme. I consider it my privilege to teach this subject as for last 30+ years I have been working in this field. I am glad to see that syllabus for this course has been updated from previous UG CSE schemes (2017-2021, and 2015-2019 etc.), especially replacing module 4 with incorporation of network security. However, the syllabus accompanying the Computer Networks Lab (18CSL57) hasn't undergone a change at all and thus most of the lab experiments, is out of sync with theory syllabus. Below I provide the relationship details of the lab experiments with theory.

Further, "Course Learning Objectives" refer to "GSM and CDMA" and "Data Link Layer" which is not part of theory at all. so these Course learning objective be updated accordingly, such as

- Demonstrate operation of network and its management commands
- Demonstrate the working of Application and Transport layer protocols
- Implement network security and firewalls.

Analysis of Existing CN Lab (18CL57) Experiments

Lab #	Description and Analysis
Lab 1:	Implement three nodes point - to - point network with duplex links between them. Set the queue size, vary the bandwidth and find the number of packets dropped.
	Analysis: There is no course content related to duplex links (Link Layer). The details of bandwidth, pkt drop, queuing etc pertain to Chap 01 of text book, which is not covered in the text book.
	Recommendation: This experiment should be replaced.
Lab 2:	Implement transmission of ping messages/trace route over a network topology consisting of 6 nodes and find the number of packets dropped due to congestion.
	Analysis: This experiment partially covered in Module 3 ("Where does Queueing Occur"). The experiment has no notion of switching fabric, the key part of router processing.
	Recommendation: This experiment should be replaced

Lab #	Description and Analysis
Lab 3:	Implement an Ethernet LAN using n nodes and set multiple traffic nodes and plot congestion window for different source / destination
	Analysis: Experiment related to congestion and this is covered in Module 2 under "Principles of Congestion Control". For TCP there is no requirement for Ethernet.
	Recommendation: This experiment is relevant. Thus, Ethernet based network need not be required.
Lab 4	Implement simple ESS and with transmitting nodes in wire-less LAN by simulation and determine the performance with respect to transmission of packets
	Analysis: There is no theory topic in any of the module
	Recommendation: This experiment should be replaced.
Lab 5	Implement and study the performance of GSM on NS2/NS3 (Using MAC layer) or equivalent environment.
	Analysis: There is no theory topic in any of the module
	Recommendation: This experiment should be replaced.
Lab 6	Implement and study the performance of CDMA on NS2/NS3 (Using stack called Call net) or equivalent environment
	Analysis: There is no theory topic in any of the module
	Recommendation: This experiment should be replaced.
Lab 7	Write a program for error detecting code using CRC-CCITT (16- bits).
	Analysis: CRC is part of Ethernet header, which belongs to Link Layer. The link layer is not covered in any theory topics
	Recommendation: This experiment should be replaced.
Lab 8	Write a program to find the shortest path between vertices using bellman-ford algorithm.
	Analysis: Related theory is covered in Module 3 (Routing Algorithms) which belongs to Distance Vector Routing.
	Recommendation: This experiment is relevant
Lab 9	Using TCP/IP sockets, write a client – server program to make the client send the file name and to make the server send back the contents of the requested file if present.
	Analysis: This experiment is related to Module 1 (TCP socket programming).. However, it should be explicitly stated to implement FTP protocol
	Recommendation: This experiment is relevant, but should be modified to implement FTP protocol commands
Lab 10	Write a program on datagram socket for client/server to display the messages on client side, typed at the server side.
	Analysis: This experiment is related to Module 1 (UDP socket programming).
	Recommendation: This experiment is relevant

Lab #	Description and Analysis
Lab 11	Write a program for simple RSA algorithm to encrypt and decrypt the data.
	Analysis: This experiment is related to Module 4 (RSA algorithm).
	Recommendation: This experiment is relevant
Lab 12	Write a program for congestion control using leaky bucket algorithm.
	Analysis: This experiment not covered in any theory part. Earlier this topic was covered in module 5 under the scheme 2015-17 and prior.
	Recommendation: This experiment should be replaced.

Recommendation for Replacement Experiments:

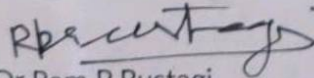
In the analysis above, I have suggested to replace 7 experiments so that lab experiments have direct relevance to what is studied in theory. Given below is the list of the experiments that can be used as a replacement. These replacement experiments are directly related to theory concepts of Computer Network course (18CS52).

Lab #	Description and Analysis
Lab 1:	Develop a web page that contains 10 embedded images. Access this web pages with non-persistent and persistent HTTP connections and analyse the performance., The number of persistent connection should be varied from 3 to 6. Apache or Nginx web server can be used to serve this web page
	Analysis: Theory is covered in Module 1.
	Recommendation: This experiment can be easily conducted using Apache of Nginx web server, which are open source.
Lab 2:	Design a web page that sets at least two cookies with a cookie expiry of 30 seconds a 60 seconds correspondingly. When web page is refreshed in less than 30 seconds both cookies should be sent by browser, when refreshed between 30s and 60s, only 2nd cookie should be sent by browser and when refreshed after 60s, no cookie should be sent.
	Analysis: Theory is covered in Module 1.
	Recommendation: This experiment can be easily conducted using Apache of Nginx web server, which are open source.
Lab 4	Write a simple UDP server program that communicates with many clients and thus demonstrates demultiplexing concepts. The UDP Server should receive the message, convert to upper case and echo back to requesting client, Use netcat (nc) as a UDP client from two or more windows to communicate with this server.
	Analysis: Theory is covered in module 2 (Multiplexing and Demultiplexiing)
	Recommendation: This experiment can be conducted using nc (built in tool on Linux).
Lab 5	Write a simple TCP server program that communicates with many clients and thus demonstrates multiplexing concepts. The TCP server should serve 3+ concurrent clients. The server program should use select() API to receive data from a client and respond back. Server after receiving the message, converts to upper case and echo back to requesting client., Use netcat (nc) as a TCP client from two or more windows to communicate with this server.

	Analysis: Theory is covered in module 2 (Multiplexing and Demultiplexing)
	Recommendation: This experiment can be conducted using nc (built in tool on Linux).
Lab 6	Implement a simplistic version of Diffie-Hellman Key exchange. Program P1 should encrypt a chosen key with some chosen number XA and communicates to server this encrypted value along with p (prime number) and alpha (primitive root of p). Program P2 encrypt the key with another chosen number XB and return the doubly encrypted value. Program P1 decrypts using XA and send encrypted value to P2. P2 decrypts using XB and retrieves the shared key.
	Analysis: Theory is covered in module 4
	Recommendation: This experiment requires simple programming.
Lab 7	Using iptables, implement a basic firewall to demonstrate the following <ul style="list-style-type: none"> i. Drop all ICMP responses ii. Drop all UDP traffic except with destination port 53, 67, 68. iii. Drop All TCP traffic except with destination port 80, 443 and 22 iv. Drop all traffic to particular host. Using ping, nc (netcat) or browser communicate with web (e.g. your college website or google.com) and analyse the response using wireshark and verify that firewall rules are working.
	Analysis: Theory is covered in module 4
	Recommendation: This experiment does not require any programming but understanding of iptables rules (Linux), and use of available tools such as ping, nc, and web browser.
Lab 12	Implement a simple Content Distribution Network (CDN). Develop a web page that contains at least 2 embedded URLs (e.g. corresponding to 2 images) fetching contents from a different website running on a CDN server (different system). This CDN server can be implemented either via VirtualBox (Open source tool available on Windows, Linux) or on a separate physical system.. When browser requests the web pages, it main web page from the local server running Apache (or Nginx) and embedded web pages from CDN server.
	Analysis: Theory is covered in module 5
	Recommendation: This experiment does not require any programming but understanding of configuring web servers and DNS resolution of host names. A CDN server can be either a VM using VirtualBox or a separate physical system running a web server.

I, therefore, humbly request you to bring forth this to the notice of Board of Studies for Computer Science and Engineering and help VTU CSE students improve their learning of the subject and knowledge assimilation. I will be happy to provide any inputs regarding these experiments and willing to suggest few other experiments as well which would help students understand the subject in a more cohesive manner. If these experiments are considered, it would a privilege to conduct FDP program for VTU faculties who would take the classes for 18CSL57 (Computer Network Lab).

With regards


Dr Ram P Rustagi

CC:

✓ Dr Karisiddappa, Vice-Chancellor, VTU, Belagavi - 590019
✓ Rekha Venkatpur, HoD, CSE Dept, KSIT, Bangalore - 560109