DEPARTMENT OF ELECTRONICS AND COMPUTER SCIENCE ENGINEERING

MINUTES OF XVth BOARD OF STUDIES MEETING

The department Board of Studies meeting was held from 10:00 A.M. on 02/07/2018 in sunflower hall, KLEF University.

Agenda of the Meeting:

1. To consider and approve the minutes of the Department Academic Committee (DAC) held on 25th May 2018 and recommend the same to the Academic Council to be incorporated into curriculum.
2. To consider and approve the Curriculum Structure, Syllabus for the 2018 admitted B.Tech. Electronics and Computer Science Engineering students framed as per the recommendations of the Department Academic Committee (DAC) and feedback from the stakeholders.
3. To consider and approve the changes in Curriculum Structure, Syllabus for the 2017 admitted B.Tech. Electronics and Computer Science Engineering students made according to the recommendations of the Department Academic Committee (DAC) and feedback from the stakeholders.
4. To consider and approve the changes in Curriculum Structure, Syllabus for the 2016 admitted B.Tech. Electronics and Computer Science Engineering students made according to the recommendations of the Department Academic Committee (DAC) and feedback from the stakeholders.
5. To consider and approve the Curriculum Structure, Syllabus for the 2018 admitted M.Tech. Embedded Systems students framed as per the recommendations of the feedback from the stakeholders.
6. To consider and recommend the commencement of a new B. Tech program titled "**Computer Science and Business Systems"** course with support of Industry from 2019-2020 Academic Year.
7. Any other points with permission of the Chair.

The following members were present.

Serial Number	Name of the Person	Position	Organization
Internal Members			
1.	Dr.Pranveer Singh Satvat	Dean Academics, Patron	KLEF
2.	Dr. K.Raghava Rao	Prof. & HOD-BoS Chairman	KLEF
3.	Dr. N.V.K.Ramesh-Assoc.	Assoc.Prof& Alternate HOD BoS Secretary	KLEF
4.	Dr. N.Venkatram- Member	Principal-&Professor, ECSE, Member	KLEF
5.	Dr. J.K.R. Sastry	Advisor (Quality) , Professor ECSE, Member	KLEF
6.	Dr. Md. Ali Hussain	Professor, Member	KLEF
7.	Dr. M.Kameswara Rao	Assoc. Prof. Member	KLEF
8.	Dr. K.V.Daya Sagar	Assoc. Prof.-Member	KLEF
9.	Smt.P.S.G.Arunasri	Assoc. Prof. Member	KLEF
10.	Dr.T.Narendra Babu	Assoc. Prof.-Member	KLEF
11.	Dr.N.Naresh Kumar Reddy	Assoc. Prof. Member	KLEF
12.	Mr.A.V.Prabhu	Assoc .Prof, Member	KLEF
13.	Mr.K.Ravi Kumar	Asst. Prof, Member	KLEF
14.	Mr.M.Trinath Basu	Asst. Prof, Member	KLEF
15.	Mr.Pramod Kumar	Alumni Associate	KLEF
16.	Ms.Priyanka	Student, member	KLEF
17.	Mr.Manoj A	Student, member	KLEF
External Members			
18.	Dr J Ravi Kumar	Professor in ECE-Ext. Member(Academia)	NIT Warangal
19.	Dr.Rama Krishna	Professor in CSE -Ext. Member(Academia)	NIT Warangal
20.	Mr. Rama Krishna	MD, (Industry Expert)	Efftronics, Vijayawada
21.	Mr.Abubaker Atif	vice President, (Industry Expert	Smartron, Hyderabad
Co-opted Members			
22.	Dr.D.Rajeswara Rao,	Professor in CSE, Member	KLEF
23.	Dr.BTP Madhav,	Professor in ECE, Member	KLEF
24.	Dr.Venkatratnam,	Professor in ECE, Member	KLEF
25.	Dr.V.S.Bhagavan,	Professor in Mathematics, Member	KLEF
26.	Dr.Rajesh,	Asst. professor in Physics, Member	KLEF
27.	Dr.Pradeep	Asst. professor in chemistry, Member	KLEF

1. Dr. K.RaghavaRao, Chairman of BoS opened the meeting by welcoming and introducing the external members, to the internal and co-opted members and thanked them for accepting to become the member of the Board of Studies and the Chairman then put forward the Agenda items before the Board.
2. Chairman of the BoS informed the members present about the Department Academic

Committee (DAC) meeting held on 26th May 2018 (Agenda Item No: 1) and highlighted the major resolutions of discussion as brought to the notice of the DAC by the student members and the board unanimously resolved to approve the recommendations made by the DAC. **(Annexure-1: DAC minutes dt:26-05-2018)**

3. A brief presentation on how the curriculum for the 2018 admitted B.Tech. Electronics and computer science Engineering batch students was designed taking into consideration the recommendations of APIIC, Human Resource Development Policy, Govt. of India, Confederation of Indian Industries, ABET, NBA, ACM,ONET norms and AICTE statutory norms was presented to the members present by the Chairman BoS. The presentation highlighted the Most Cutting Edge, Emerging and Enduring Fields, Areas identified for Additional Training, Emerging and Enduring Tools and Techniques as well as the Professional Skill Sets required for the Electronics and Computer Science engineering graduates to meet the global challenges in the next 10 to 20 years
4. The presentation also featured the comparison of the proposed curriculum to that of the model curriculum proposed by All India Council for Technical Education, the feedback from National Skill Development Corporation (NSDC), Andhra Pradesh State Skill Development Corporation (APSSDC) on the technical skills trainings needed for the Electronics and Computer Science Engineering graduates.
5. The Chairman of BoS also briefed the members present about the SWEAR Analysis which is done to identify the Strengths, Weaknesses and Opportunities of the students and ensure that they choose the areas of their interest and thus also informed the members about the specialization areas offered in the department for choosing the electives based on the feedback from the interactions with NSDC and APSSDC. The SWEAR analysis was also conducted for the 2017 and 2016 admitted B.Tech. Electronics and computer science Engineering students batch.
6. Chairman of the BoS then presented the proposed structure of the curriculum and detailed syllabus of Basic Sciences, Humanities, Engineering Sciences and Professional Core for the 2018 admitted B.Tech. Electronics and Computer Science Engineering students to the members present and proposed for comments by the members.
7. At the outset the focus of the programs offered has been discussed and fixed as

   a..B. Tech (ECSE) students shall be prepared to take up developer / Tester Jobs in the fields of embedded systems, IOT , and Web Technologies

   b.M. Tech (Embedded Systems) students be prepared to take the Jobs in the fields of Video streaming, Audio's streaming, Intelligent systems and Image processing, which was agreed to all members.

8. Problem solving methods have not been presented in the beginning of the syllabus related to the course "**Problem solving and computer programming**"

9. In the course titled "Data Structure", no data representation mechanisms have been included without which it would be quite difficult for the students to understand different data structures.

10. In the First Semester, three courses which include (1) Logic and reasoning (2) Coding skills (3) Problem solving and computer programming have been included. They have opined that no coding skills can be developed without the complete knowledge of the programming. To even explain the logic and reasoning, knowledge of programming language is required. The courses "Logic and reasoning" and "coding skills" scheduled for 1st semester are moved to the 2nd semester.

11. The offering of the subjects must be in sequential order and must focus on the core and electives such that the program offering should be in tune with Industry requirement and follows proper precedence.

12. The Electronics and CSE subjects must be offered such that both the paths will merge into specializations offered in the program

13. The curriculum must be designed considering the smartness issues, system of system approach and the intelligent issue built considering the Industry focus

14. The courses offered considering ES and CSE streams must be fully integrated along with WEB Technologies so that the students are made fully industry ready

15. The courses must be selected and offered such that full knowledge considering total cycle of development and implementation of systems is imparted to the students. The cycle should include Analysis, design, development, testing and implementation

16. To make the students learn RTOS considering open source RTOS like "**free RTOS**" which are frequently being used instead of Embedded Linx kind of RTOS

17. It is necessary to introduce Communication basics before offering communication courses like **(a) wireless communication (b) mobile communication** etc.

18. The concepts related state modelling be introduced especially in the courses related designing IOT or ES based systems

19. The Syllabi of every course must include Introduction, related concepts and possible applications before going into details of the components included into the course

20. It is resolved to accept and approve some of the CSE courses required for attempting GATE examination (Finite Automata, Compiler design etc.) be covered as open electives

21. It is resolved to accept and approve IOT Architecture and protocol course should introduce basic architectural design, and latest protocols being used such as BCE, NBIOT, LORA, ZigBee etc.

22. It is resolved to accept and approve the course VLSI Coverage be dropped academic year 2017 admitted batch on wards

23. It is resolved to accept and recommend the proposed course structure for the batch that will be admitted in the year 2018-19 for B.Tech. in Electronics and computer Science Engineering subjected to the changes made as suggested by the members. The curriculum has the following salient features. **(Annexure-3: B.Tech 2018-19 Course Structure)**

a) Three Mathematics courses where the 3rd course that will be purely department specific.

b)

b)11 Professional Core Courses.

c) Six Professional Electives with lab associated to each course with an L–T–P -S structure of 2–0–2-0.

d) There will be Six Open Electives out of which one is a Communication Course, one is a Foreign/non-native Language course (keeping in view the Alumni feedback, who requested such courses owing to potential jobs abroad, as well as out of the states of AP and TS within India, for Electronics and computer Science Engineering graduates) and one is a Management Elective.

e) Six Technical Skills courses of which four are department specific and two are coding/ Computing based.

f) Term Paper - A Literature review paper in 6^{th} semester with 2 credits (0 – 0 – 4).

g) Minor Project in 7^{th} semester with 2 credits (0 – 0 – 8).

h) Major Project / Practice School in 8^{th} semester with 8 credits (0 – 0 – 32).

24. It is resolved and recommend the changes in Curriculum Structure and Syllabus of the Professional Electives, Professional Core courses for the 2017 admitted B.Tech. Electronics and Computer Science Engineering students (Agenda Item No: 3) made according to the recommendations of the Department Academic Committee (DAC) and feedback from the stakeholders and the same are recommended to be put up and implemented as it is for that of 2018 admitted B.Tech. Electronics and Computer Science Engineering Students, as listed out in above minute points. **(Annexure-4: B.Tech 2017-18 Course Structure)**

25. It is resolved and recommended the changes in curriculum structure and syllabus of the professional electives, skilling for engineer courses for the 2016 admitted B.Tech Electronics and computer science engineering students(Agenda Item No:4)made according to the recommendations of the Department Academic Committee (DAC) and feedback from the stakeholders, listed out in above minute points. **(Annexure-5: B.Tech 2016-17 Course Structure)**

26. It is resolved to approve and recommend the proposed Curriculum Structure, Syllabus for the 2018 admitted M.Tech. Embedded Systems. **(Annexure-5: M.Tech Embedded Systems 2018-19 Course Structure)**

27. It is resolved and recommend commencement of the program titled B.Tech in "Computer Science and Business Systems" with effect from the Academic Year 2019-2010 with support from industry. A detailed design of the courses shall be developed and submitted to next BOS for review.

(Dr. K.Raghava Rao)
Chairman – BoS
Dept. of ECSE