

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING Minutes of Meeting – First Draft – BoS – 30th August, 2020

MINUTES OF THE 1st ONLINE MEETING

BOARD OF STUDIES OF COMPUTER SCIENCE AND ENGINEERING

DATE: 3rd August, 2020, Monday

Time: 3.30 PM – 5.30 PM

PLATFORM : Microsoft Teams

Meeting Link: <u>https://teams.microsoft.com/l/meetup-</u> join/19%3aa8e4660d1ed24b689b264edae729fe75%40thread.tacv2/1596092629829?context=%7b%22Tid%22%3a%222666d919-f1fc-4027-b9c5-212d4e95e68a%22%2c%22Oid%22%3a%2269c03f2c-2035-4ad9-bb42-0be9ae948681%22%7d

IN ATTENDANCE:

S.No	Name of the Expert	Designation	Capacity
1	Dr.Sabu M.Thampi Professor	Indian Institute of Information Tech- nology Management-Kerala, Trivan- dram E-mail ID: sabu.thampi@iiitmk.ac.in Phone No: 9447103005	
2	Dr.R.B.V.Subraman- yam, Professor and Head, Department of Computer Science and Engineering	National Institute of Technology, Wa- rangal E-mail ID: rbvs66@nitw.ac.in Phone No: 9491346969	Academic Council nominated BoS Members
3	Mr.G.S.Raman, Director, Training Divi- sion	Sri Moogambikai Infotech Solutions, Madurai <u>ramansriranga@gmail.com</u> Phone No: 8870324388	Industrialist



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4.	Dr.R.Venkatesan, Assis- tant professor, CSE	Karunya University, Coimbatore <u>rlvenkei2000@karunya.edu</u> Phone No: 98948 80563	Alumnus

FACULTY OF COMPUTER SCIENCE AND ENGINEERING		MEMBERS
S.No	Name of the Faculty	Designation
1	Dr.M.IndraDevi	Professor and Head
2	Dr.R.Muthuselvi	Professor
3	Dr.A.Meenakshi	Associate Professor UG (CSE) Programme Co-ordinator
4	Mr.A.Anandh	Associate Professor / CSE
5	Dr.R.Ramya	Assistant Professor / CSE UG (AI &DS) Programme Co-ordinator
6	Mr.L.Prabahar	Assistant Professor / CSE
7	Mrs.V.Sutha Jebakumari	Assistant Professor / CSE
8	Mr.G.Srinivasan	Assistant Professor / CSE
10	Mr.B.Muthukrishnavinayagam	Assistant Professor / CSE
11	Mrs.K.Muthulakshmi	Assistant Professor / CSE
12	Ms.P.Swathika	Assistant Professor / CSE



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13	Mrs.S.Janani	Assistant Professor / CSE
14	Ms.T.Maharajothi	Assistant Professor / CSE
15	Ms.G.Nirmala	Assistant Professor / CSE
16	Ms.K.Leelarani	Assistant Professor / CSE
17	Ms.Rajashree	Assistant Professor / CSE
18	Mr.M.Rajasekaran	Assistant Professor / CSE
19	Ms.G.Vijayalalitha	Assistant Professor / CSE

THE MINUTES:

The meeting is called for considering the Undergraduate (CSE) and Undergraduate (AI&DS) curriculum & syllabi.

DISCUSSIONS:

1. Dr.M. Indra Devi welcomed the gathering and introduced the external members to the faculty.

2. Dr. M.Indra Devi presented the Overview of the Institution/Department, Courses offered in the institution, Student and Faculty strength and also about the growth and development of the Institution/Department.

3. Dr. M. Indra Devi discussed about the Proceedings of 1st Academic Council Meeting held on 17th July 2020 to the experts. The highlights of the discussion were as follows:



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Recommendations from the Governing Body and Aca- demic Council for Framing UG Curriculum(CSE and AI &DS)	 Credit range: 165 – 170 20 – 24 credit per Semester. VIII Sem Project Work: 8 – 10 credits Online Course (Maximum 6 credits) Audit Course (Mandatory non credit) First semester is common for all Programme First year credit range : 40 – 42 Engineering Graphics to be in II Semester Programme specific papers could be offered in II Sem. AICTE & AU 2019 curriculum could be taken as base for framing curriculum. III Sem Mathematics (Programme specific) Mandatory
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BE (CSE)

4. Dr. A, Meenakshi presented the features of the UG(CSE) regulations.

5. Dr.R.Venkatesan recommended to have Linux with Shell Scripting instead of Unix Internals.

6. Mr.G.S.Raman, recommended to have Bootstrap which is in VII Sem to be earlier as for Full Stack Developer it is the prerequisite.

7. Dr.Sabu M.Thambi suggested for a major revision in the curriculum as some of the basic papers are in higher semester.

8. Dr.Sabu M.Thambi enquired whether Chemistry is mandatory for Semester I.

9. Dr.M.Indra Devi replied that it mandatory as per AICTE norms.

10. Mr.G.S.Raman suggested to have infra structure automation tools like Terraform, Ansible for value added courses.

11. Mr.G.S. Raman recommended to have Divide and conquer approach called Micro services for value added courses.

12. Mr.G.S.Raman also suggested to have separate courses for Docker, Containers and Kubernetes.

13. Mr.Sabu M.Thambi recommended to have the above topics as part of Cloud computing as virtualization wont have much life.



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- 14. Mr.G.S.Raman suggested to have AWS and Google Cloud.
- 15. For infrastructure management he advised to go for AWS.
- 16. He also recommended to have MongoDB in value added courses.
- 17. All the experts suggested to have Model II For Semester II.
- 18. Dr.R.B.V.Subramaanyan recommended to have OOAD in IV Semester and to move OS to V Semester.
- 19. Dr.Sabu M.Thambi suggested to bring following papers as compulsory core papers:
- Artificial Intelligence
- Cryptography and Network Security
- Distributed systems
- 20. He recommended to combine Computer Networks Sensor networks.
- 21. Dr.Sabu M.Thambi suggested to have Probability and Statistics either in II Semester or III semester.
- 22. He recommended to have Chemistry and Physics subjects should be of Computer approach.

23. Dr.Sabu M.Thambi recommended to have Subjects like artificial intelligence, machine learning subjects as main subject papers instead of teaching them as electives.

24. In Mathematics he suggested to emphasize the application in Computer field (E.g. Fourier Transform application in computer field) so that students will find it interesting.

- 25. Mr.G.S.Raman suggested to do practical in AWS, Google colab for Cloud computing,
- 26. Dr.Sabu M.Thambi recommended to have Quantum mechanics instead of Engineering Physics.
- 27. He also suggested to replace Data mining with Machine Learning, Fiber optic and Electromagnetism.

BE (AI & DS)

1. Dr. R.RAmya presented the features of the UG(AI & DS) regulations.

2. He asked to omit PhP, my SQL, Augmented Reality, 2D and 3D animations. Instead Reinforcement learning and Business Intelligence can be added.

3. Dr.R.Ramya replied saying that we have Analytics domain wherein these subjects will be added.

4. Dr.Sabu M.Thambi recommended to have a course in Data Science. Pyspark and Scala should be introduced.

- 5. He suggested to have some Data Science papers like
 - Data Wrangling
 - NLP
 - Deep Learning
 - Scala (II Semester)

6. Dr.R.B.V.Subramaanyan said that electives are common for both courses and courses related to the specialization should be included.



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7. Dr.R.Venkatesan recommended to have fundamentals of AI and DS in the second semester.

8. He also suggested to have Block chain as elective paper.

9. Dr. Dr. Sabu M. Thambi recommended to include Artificial Intelligence specialization electives to be included :

- NLP
- Vision
- Data Science

10. Mr.G.S.Raman recommended to include more specific industry oriented courses as electives.

11. Dr. Dr. Sabu M.Thambi advised to refer Syllabus of Amrita School of Engineering for Algorithmic subjects.

12. He suggested to remove CCNA, Adobe Photoshop and NodeJS and to include: Data Analytics with R programming (already proposed in our syllabus), PyStan – Python interface for Stan, Scala, Tableau Software, Tabular bi, Educloud, IBM cognos, Data Crawling Tools, Python framework, Material Science, NLP and Robotics.

13. Dr.Sabu M.Thambi asked if EVS is mandatory to be included in syllabus and suggested to have environmental informatics instead of EVS.

14. Dr.M.Indra Devi replies saying that as per AICTE norms it is mandatory to have EVS subject.

15. Dr.Sabu M.Thambi asked whether 3D printer is available in our College.

16. Dr.M.Indra Devi replied that it is available in Mechatronics Department and we are going to have a lab for IoT based projects for 70 lakhs.

17. Dr.R.B.V.Subramaanyan suggested that ECE department can offer some electronics oriented papers as open elective for our students.

18. Dr.Sabu M.Thambi suggested to have Material science as it has future.

Date of next meeting: The next meeting will be held during the next even semester (tentatively, third week of January, 2021).

Dr.R.Muthuselvi proposed the vote of thanks to all the external and internal experts and the meeting adjourned



S.P.G.Chidambara Nadar - C.Nagammal Campus S.P.G.C.Nagar, K.Vellakulam - 625 701, (Near Virudhunagar), Madurai District.

ANNEXURE III

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING





Department of ECE

Date : 01-08-2020

Board of Studies of Electronics and Communication Engineering

Minutes of the 1st Board of Studies Meeting (Online Mode)

Date : 31-07-2020 Friday

Time : 10.00 A.M to 1.00 P.M

Platform : Microsoft Teams

Meeting Link : <u>https://teams.microsoft.com/l/meetup-</u> join/19%3ameeting <u>M2Q3MDE2ODktYWJkMS00Y2EzLTk5YzktYzFjY2U3NzljZDY</u> w%40thread.v2/0?context=%7b%22Tid%22%3a%222666d919-f1fc-4027-b9c5-212d4e95e68a%22%2c%22Oid%22%3a%22e2bd1ae4-544b-4688-9cd6e10de0b4a9ec%22%7d

In Attendance:

S.No	Name of the Expert	Designation	Capacity
1	Dr.H.Umma Habiba,	Professor, ECE,	Anna University
	Ph.D.,	Sri Venkateswara College of	Nominee
		Engineering,	
		Irungattukottai - 602117.	
		Sriperumbudur Taluk.	
2	Dr.D.Sriram Kumar,	Professor, ECE,	Academic
	Ph.D.,	National Institute of Technology,	Council
		Tiruchirappalli - 620015.	Nominee
3	Dr.A.Amalin Prince,	Associate Professor, Department of	Academic
	Ph.D.,	EEE, BITS Pilani, K.K.Birla Goa	Council
		Campus, Zuarinagar, Goa –	Nominee
		403726.	
4	Mr.M.Chinnathambi,	Technical Lead,	Industrialist
	M.E.,	Viasat India, Global Infocity,	Nominee
		Module 1 & 2, 5th Floor, Block C,	
		No. 40, MGR Salai, Perungudi,	
		Chennai - 600097.	
5	Dr.R.Preetha, Ph.D.,	Associate Professor, ECE,	Alumni
		Rajalakshmi Institute of	Nominee
		Technology,	
		Chennai - 600124.	

	Internal Members of BoS – ECE Department			
S.No	Name	Designation		
1.	Dr.R.Suresh Babu, M.E.,M.B.A.,Ph.D.,	Professor and Head / ECE,		
		Chairman of BoS – ECE		
2.	Dr.C.Geetha Priya, M.E., Ph.D.,	Professor / ECE		
3.	Dr.A.Geetha, M.E., Ph.D.,	Associate Professor / ECE		
4.	Dr.R.S.Venkatesan, M.E., Ph.D.,	Assistant Professor / ECE		
5.	Dr.V.Jeyalakshmi, M.E., Ph.D.,	Assistant Professor / ECE		
6.	Mrs.T.Prathiba, M.E.,(Ph.D.,)	Assistant Professor / ECE		
7.	Mrs.T.Pandiselvi, M.E.,(Ph.D.,)	Assistant Professor / ECE		
8.	Mrs.C.Nagavani, M.E.,(Ph.D.,)	Assistant Professor / ECE		
9.	Mr.M.Ramesh, M.E.,(Ph.D.,)	Assistant Professor / ECE		
10.	Mr.R.Ashok, M.E.,(Ph.D.,)	Assistant Professor / ECE		
11.	Mrs.N.M.Mary Sindhuja, M.E.,(Ph.D.,)	Assistant Professor / ECE		
12.	Mrs.S.Nisharani, M.E.,(Ph.D.,)	Assistant Professor / ECE		
13.	Mr.P.Aravind, M.E.,	Assistant Professor / ECE		
14.	Mrs.P.Ramalakshmi, M.E.,(Ph.D.,)	Assistant Professor / ECE		
15.	Mrs.M.Stella Mercy, M.E.,(Ph.D.,)	Assistant Professor / ECE		
16.	Mr.S.Alwyn Rajiv, M.E.,(Ph.D.,)	Assistant Professor / ECE		
17.	Mrs.M.Gokila, M.E.,	Assistant Professor / ECE		
18.	Mrs.Vidya P.Janaki, M.E.,	Assistant Professor / ECE		
19.	Mrs.P.Muthumari, M.E.,	Assistant Professor / ECE		
20.	Mrs.A.J.Bhuvaneshwari, M.E.,	Assistant Professor / ECE		
21.	Mr.S.Wesley Moses Samdoss, M.E.,	Assistant Professor / ECE		

The Minutes:

The meeting is called for considering the Undergraduate and Postgraduate curriculum & syllabi.

Discussions:

1. Dr.R.Suresh Babu gave a warm cordial welcome to all the members of the Board of Studies and ECE department.

- Dr.R.Suresh Babu gave a brief presentation about the Institution and the ECE department. Also, Dr.R.Suresh Babu gave presentation briefing about the department's accomplishments.
- 3. Dr.R.Suresh Babu discussed on the minutes of 1st AC meeting held on 17th July 2020 to the experts. The highlights of the discussion were as follows:

	1. Credit range: 165 - 170
	2. 20 - 24 credit per Semester.
	3. VIII Sem Project Work: 8 - 10 credits
Recommendations from	4. Online Course (Maximum 6 credits)
Recommendations from	5. Audit Course (Mandatory non credit)
the Governing Body and	6. First semester is common for all Programme
Academic Council for	7. First year credit range : 40 - 42
Framing UG Curriculum:	8. Engineering Graphics to be in II Semester
Fraining UG Curriculum.	9. Programme specific papers could be offered in II Sem.
	10. AICTE & AU 2019 curriculum could be taken as base for
	framing curriculum.
	11. III Sem Mathematics (Programme specific) Mandatory
	1. Credit range : 70 - 75
	2. 20 - 22 credit per semester.
	3. Online Course (Max 3 credits)
Recommendations from	4. Open Elective: Industry Certification Courses
the Governing Body and	5. AU R2017 & AU R2019 curriculum could be taken as
	base for framing curriculum
Academic Council for	6. Project Work Phase I : 6 - 8 credit
Framing PG Curriculum:	7. Project Work Phase II : 12 - 14 credit
	8. II Sem Mathematics (Programme specific) Optional
	9. Over and above credit will appear in transcript
	10.1 Tutorial period = 1 credit

- 4. Dr.R.Suresh Babu presented the proposed R2020 PG Programme Curriculum and Syllabi for 1st and 2nd year M.E. – Communication and Networking
- 5. Dr.H.Umma Habiba, Ph.D., suggested that the Mini Projects can be included so that students will start using all open source simulation tools and this will enhance their resume and even students can continue the main project with the help of their mini project.
- 6. Dr.H.Umma Habiba, Ph.D., suggested that Only References can be included and there is no need of mentioning separate Text Books for PG.

- Dr.H.Umma Habiba, Ph.D., suggested that if any basic topics in UG curriculum / other courses are getting repeated in PG courses (subjects) then it can be mentioned as review topic.
- Dr.H.Umma Habiba, Ph.D., suggested upgrading the course objectives and outcomes for all subjects. There should be one to one correspondence in the Course Objectives and Outcomes.
- Dr.H.Umma Habiba, Ph.D., suggested that for Computer Vision and Applications (OE) subject, more sub topics need to be included in unit IV and unit V and those topics can be application oriented.
- 10. Dr.D.Sriram Kumar, Ph.D., suggested that the total number of credits given for PG curriculum can be around 70. One Professional Elective course can be removed / merged so that the total credits will be around 72. As this is the first phase of Autonomous, credits can be maintained as 75 and in the next phase it may be revised.
- 11. Dr.D.Sriram Kumar, Ph.D., suggested that only Learning Resources can be included instead of mentioning separately as Text books, Reference books. In this group of Learning Resources, web references and links can also be included wherever necessary.
- 12. Dr.D.Sriram Kumar, Ph.D., suggested that MEMS and NEMS with reduced contents can be included in Open Elective which will help for other PG branch students.
- Dr.A.Amalin Prince, Ph.D., suggested that in PG curriculum Mini Project can be included in the lab courses and this will help them to improve their Curriculum Vitae as a strong one.
- 14. Dr.A.Amalin Prince, Ph.D., suggested that in Assignments, students may be encouraged to use open source tools to increase employability enhancement.
- Mr.M.Chinnathambi, M.E., suggested that for Applied Mathematics for Communication Engineers subject - 1D and 2D wave equations can be included.
- 16. Mr.M.Chinnathambi, M.E., appreciated that, for Networking Laboratory, Open Source tools such as NS2 and NS3 is used for simulation in addition to Matlab.
- Mr.M.Chinnathambi, M.E., suggested that for the subject Python for Machine Learning (OE) – "Application of Python in automation" can be included as case studies
- Dr.R.Preetha, Ph.D., suggested that in Advanced Digital Communication Techniques Unit V –Applications of OFDM can be included
- Dr.R.Preetha, Ph.D., appreciated that the Open Elective Theory "Medical Image Processing" covers the most relevant topics such as MRI, PET and SPECT and hence it is well framed.

20. Dr.R.Suresh Babu presented the proposed R2020 First Year Curriculum and Syllabi for UG Programme B.E. – Electronics and Communication Engineering.

- 21. Model 1 and Model 2 are presented in which, for semester 1, the curriculum and syllabi will be common to all branch students as per the AC recommendations.
- 22. Among the two models presented, the BoS members suggested that the Model 2 seems better and in model 2, the students will be studying one Professional Core Theory in the second semester.
- 23. The BoS members approved the syllabus framed for the following courses in second semester
 - a. Circuit Analysis Theory
 - b. Circuit Analysis Laboratory Practical
 - c. Engineering Practices Laboratory (Electronics Part) Practical
- Dr.R.Suresh Babu presented the proposed R2020 UG Programme Curriculum for 2nd, 3rd and 4th year for UG Programme B.E. Electronics and Communication Engineering.
- 25. Dr.H.Umma Habiba, Ph.D., suggested that in semester 1, instead of giving C language in Fundamentals of Programming theory course, it will be better if Python language is given or the particular theory course can be given with C and Python programming languages. Dr.R.Suresh Babu assured to pass this information to First Year BoS since AC suggested common curriculum for semester 1.
- 26. Dr.H.Umma Habiba, Ph.D., suggested that in semester 3, the theory course "Fundamentals of Data Structures in C" can be renamed as "Data Structures and Algorithms". Similarly, in semester 3, the Lab course "Fundamentals of Data Structures in C Lab" can be renamed as "Data Structures and Algorithms Lab".
- 27. Dr.H.Umma Habiba, Ph.D., suggested that in the RF domain area, the professional elective courses such as "Signal Integrity for High Speed Design", "RF System Design" "Advanced Radiation Systems", "Electromagnetic Interference and Compatibility in System Design" and "Advanced Microwave Communication" can be included.
- 28. Dr.H.Umma Habiba, Ph.D., suggested that in RF domain area, the concept of Waves and Waveguides is missing. Hence it is suggested that in semester 3, the course "Electromagnetic Theory" can be changed to "Electromagnetic Fields and Waves" in which the Unit 5 can comprise of "Waves" concepts. And in semester 5, only "Waveguides" concepts can be included in the course "Transmission Lines and RF Engineering"

- 29. Dr.D.Sriram Kumar, Ph.D., suggested that the total number of credits given for UG curriculum can be around 165 and this credits reduction from 169/168 to 165 can be implemented in the next phase.
- 30. Dr.D.Sriram Kumar, Ph.D., suggested that in semester 7, the theory course "Antennas and Microwave Engineering" will be too lengthy and can be converted to two different theory courses. But in Anna University current R2017 curriculum contains the course as "Antennas and Microwave Engineering" only, hence it can be accepted.
- 31. Dr.D.Sriram Kumar, Ph.D., appreciated that only one Online course is present in Eighth semester in addition to Project Work since the students can opt for industry internship projects. This will make the students industry ready and more easy for the students to get job offers from the industry.
- 32. Dr.D.Sriram Kumar, Ph.D., suggested that "Electronics Packaging" and "Bio MEMS" courses can be included in open electives list.
- 33. Dr.D.Sriram Kumar, Ph.D., suggested that the theory cum lab courses can be introduced gradually to reduce the number of credits in the curriculum.
- 34. Dr.A.Amalin Prince, Ph.D., suggested that for a Theory course and its corresponding Lab course, if possible, the students can be instructed to use the free simulator tools. For example, for some courses, PSPICE simulation tool can be used to explain the concepts involved
- 35. Dr.A.Amalin Prince, Ph.D., suggested that instead of giving semester wise list of professional elective subjects, pool of total professional electives list can be given so that students can select subjects with more flexibility. But it is accepted that if a student wants to move into a particular sector like Electronics Industry, Management based Industry etc., then the electives in a single basket may have different set of courses.
- 36. Dr.A.Amalin Prince, Ph.D., suggested that the students can be specifically insisted about the importance of "Object Oriented Programming" course to their placement interviews as the course is present in Electives List.
- 37. Dr.A.Amalin Prince, Ph.D., suggested that "Machine Learning" Course can be included in open electives list to enrich the students for the software based jobs.
- Mr.M.Chinnathambi, M.E., suggested that for "Circuit Analysis" course and its corresponding Lab course, Matlab simulink tools can be used to simulate the circuits and concepts.

- 39. Mr.M.Chinnathambi, M.E., suggested that the courses such as "Software Engineering and Software Development Life Cycle" can be included in the professional Elective courses so that students will be finding easy to work in software industries also.
- 40. Mr.M.Chinnathambi, M.E., suggested that in addition to online courses from NPTEL and Swayam, online courses from UDEMY can also be considered for the online courses.
- 41. Dr.R.Preetha, Ph.D., accepted that the theory course "Computer Architecture and Organization" can be moved to professional electives since the concepts of this course is already available in other professional core courses such as "Microprocessors and Microcontrollers" and "Discrete Time Signal Processing".
- 42. Dr.R.Preetha, Ph.D., suggested that Web Designing, Java Programming, IOT and Mobile App Development courses can be introduced in the Elective courses as the students are separately studying these courses for their placement purposes
- 43. Dr.R.Preetha, Ph.D., suggested that PCB Design Course can be included in open electives list.
- 44. After this, Any other items on the consent of the Chairman of BoS was discussed.
- 45. Dr. Sriram Kumar suggested that the courses such as "Green Environmental Engineering","Energy Audit" can be included in Audit courses.
- 46. Mr.M.Chinnathambi, Dr.A.Amalin Prince and Dr.R.Preetha suggested that the courses such as "Economics, Financial Management and Accounting" type of courses can be included in the Audit courses.
- 47. BoS members approved the NPTEL / SWAYAM online courses and if the students submit the NPTEL certificates, the corresponding grades can be awarded by CoE. Suppose if the student fails in online courses, Assessment of the Online Course can be done by the Three Members Committee within the department (HoD, Online Courses Coordinator, Corresponding Course Instructor/Expert) by evaluating the submitted assignments and also by setting a separate Question Paper for the particular online course. If the student passed in the exam, the three member committee will recommend the grades to CoE.
- 48. The various general suggestions were given for the growth of the department.
- 49. It is suggested to follow Innovation in teaching and Evaluation process.
- 50. The students should be exposed to practical knowledge and can introduce some class quiz regularly.
- 51. To improve the standard of question paper, the question paper pattern can be changed with some multiple choice questions.
- 52. The students can be trained to solve concept based questions.

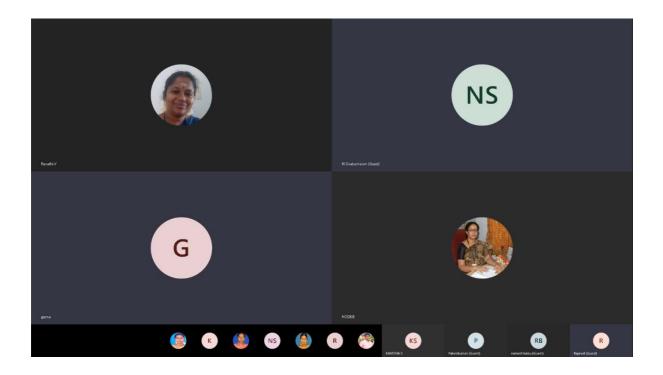
- 53. Faculty should get upgraded to the new technology development.
- 54. More Open Book exams can be conducted.
- 55. Theory courses along with Design and Applications can be introduced.
- 56. <u>Date of next meeting:</u> The tentative date for the 2nd BoS Meeting (ECE Board) is suggested as 30-01-2021 (Saturday) by the BoS Members.
- 57. The meeting ended with the Vote of Thanks by Dr.C.Geetha Priya, Professor, Department of ECE, Kamaraj College of Engineering and Technology, Madurai.

(Dr. R.SURESH BABU) BoS Chairman - ECE



ANNEXURE IV

DEPARTMENT OF ELECTRONICS AND INSTRUMENTATION ENGINEERING





DEPARTMENT OF ELECTRONICS AND INSTRUMENTATION ENGINEERING Minutes of Meeting – First Draft – BoS – 5th August, 2020 MINUTES OF THE 1st ONLINE MEETING

BOARD OF STUDIES OF ELECTRONICS AND IN-STRUMENTATION ENGINEERING

DATE: 5th August, 2020, Wednesday

Time: 11.00 AM – **01**.00 PM

PLATFORM : Teams App

Meeting Link: https://tinyurl.com/KCET-EIE-BoS

IN ATTENDANCE:

S.No	Name of the Expert	Designation	Capacity
1	Dr.N.Sivakumaran, Professor/ I & C	Professor, Department of Instrumentation and Control Engineering, NIT, Trichy	Anna University Nominee
2	Dr.G.Uma, Professor and Head / I &C	Professor, Department of Instrumenta- tion and Control Engineering, NIT, Trichy	Academic Council nominated BoS
3	Dr. P. Ramesh Babu Professor and Head / C&I	Professor, Pondicherry Engineering college	Members
4	Er.K.Murugesan Assistant General Man- ager	LETWIND Shriram Manufacturing Ltd., Chennai	Industrialist



DEPARTMENT OF ELECTRONICS AND INSTRUMENTATION ENGINEERING Minutes of Meeting – First Draft – BoS – 5th August, 2020

5.	Dr.G.Palani Kumar Lead Controls Engineer	GE Renewable Energy, Bangalore	Alumni
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FACULTY OF ELECTRONICS AND IN- STRUMENTATION ENGINEERING		MEMBERS
S.No	Name of the Faculty	Designation
1	Dr.S.Jeyadevi	Chairman / HoD-EIE
2	Mr. A.Rajavel	UG Programme Co–ordinator
3	Mrs. M.Vigneswari	Assistant Professor / EIE
4	Mrs.J.Uma Maheswari	Assistant Professor / EIE
5	Mrs.L.V.Revathi	Assistant Professor / EIE
6	Mr.S.Ramesh Prabhu	Assistant Professor / EIE
7	Mr. R.Rajprabu	Assistant Professor / EIE
8	Mrs. R.Santhiya	Assistant Professor / EIE
9	Ms. S.Kavitha	Assistant Professor / EIE



DEPARTMENT OF ELECTRONICS AND INSTRUMENTATION ENGINEERING Minutes of Meeting – First Draft – BoS – 5th August, 2020

THE MINUTES:

The meeting was called for considering the Undergraduate curriculum & syllabi.

DISCUSSIONS:

- 1. Dr.S.Jeyadevi welcomed the gathering and introduced the external members to the department faculty members.
- 2. Dr.S.Jeyadevi presented the overview of the Institution/Department, courses offered in the institution, student and faculty strength and also about the growth and development of the Institution/Department.
- 3. Dr.S.Jeyadevi discussed the Proceedings of 1st Academic Council Meeting held on 17th July 2020 to the experts. The highlights of the discussion were as follows:

Recommendations from the	 Credit range: 165 – 170 20 – 24 credit per Semester. VIII Sem Project Work: 8 – 10 credits Online Course (Maximum 6 credits) Audit Course (Mandatory non credit) First semester is common for all Programme First year credit range : 40 – 42 Engineering Graphics to be in II Semester Programme specific papers could be offered in
Governing Body and Aca-	II Sem. AICTE & AU 2019 curriculum could be taken
demic Council for Framing	as base for framing curriculum. III Sem Mathematics (Programme specific)
UG Curriculum:	Mandatory

- 4. Dr.S.Jeyadevi presented the regulations of the undergraduate syllabus.
- 5. Dr.S.Jeyadevi, presented the proposed R2020 First year curriculum, syllabus and curriculum framework for the Undergraduate (UG) program. She presented the compari-



DEPARTMENT OF ELECTRONICS AND INSTRUMENTATION ENGINEERING Minutes of Meeting – First Draft – BoS – 5th August, 2020

son of the overall credit of proposed R2020 KCET, AICTE model curriculum and AU R2019 curriculum to the board.

- 6. Dr.G.Uma approved Model II (One Program specific paper and One Program specific lab) for semester II. She suggested that a bridge course may be conducted on the topic "Introduction to basic electrical and electronics components" as a prerequisite for "Circuit theory course" during the vacation period of the first semester. Dr.N.Sivakumaran suggested to conduct a bridge course for Basics of Instrumentation also.
- 7. Dr.N.Sivakumaran and Dr. P. Ramesh Babu suggested that the UG curriculum should have 160 credits (maximum).
- 8. Mr.A.Rajavel presented the proposed UG curriculum for the II, III and IV years. The members of the Board of Studies recommended that the academic council recommendations could be adopted.
- 9. Dr.N.Sivakumaran and Dr. P. Ramesh Babu suggested to change the name of the Subject "Instrument Transducer" (in III Sem.) to "Sensors & Transducers".
- 10. Dr. P. Ramesh Babu suggested to include Electrical and Electronic measurements subject by Combining the subjects "Electrical measurement" & "Modern Electronic Instrumentation" in IV semester and also to shift the "Object oriented Programming (theory cum lab) from VI semester to IV semester.
- 11.Dr.G.Uma, Dr.N.Sivakumaran and Dr. P. Ramesh Babu suggested to combine the practical courses -Instrumentation System Design Laboratory and Virtual Instrumentation Laboratory together in the IV semester and also suggested to include sensors and transducers lab in the third semester.
- 12. Dr.G.Uma and Dr. P. Ramesh Babu suggested to refer GATE syllabus and based on that the courses the syllabus should be framed.
- 13. Er.K.Murugesan advised that Instrumentation Standards Course must be in PC course list instead of PE. He also suggested that Electronics has to be given equal weightage as Instrumentation in EIE program.
- 14. Dr.N.Sivakumaran and Dr. P. Ramesh Babu suggested to include Control system lab separately in the curriculum.



DEPARTMENT OF ELECTRONICS AND INSTRUMENTATION ENGINEERING Minutes of Meeting – First Draft – BoS – 5th August, 2020

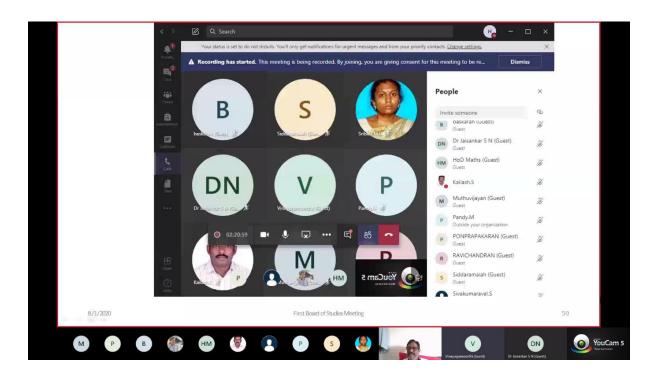
- 15. Dr.G.Uma and Dr.N.Sivakumaran suggested to improve the curriculum structure in such a way that there is flexibility for the students to select the course as per their interest. It is possible by increasing the program elective papers and open elective papers as per the guidelines given in National Education policy.
- 16. Dr.G.Palanikumar suggested to add artificial intelligence and machine learning as a professional elective.
- 17. Dr. P. Ramesh Babu suggested that the number of elective papers should be higher than the core papers and also suggested to include "Ethics and Human values" paper in the VII semester. Dr.N.Sivakumaran suggested to include the industry oriented subjects like Instrumentation & control in paper and pulp industries, Instrumentation & control in cement manufacturing industries, Network control systems, Intelligent Instrumentation and SMART instrumentation in Professional elective segment.
- 18. Dr.G.Uma, Dr.N.Sivakumaran and Dr. P. Ramesh Babu were suggested to combine the Process control lab & Industrial automation lab.
- 19. Dr.N.Sivakumaran and Dr. P. Ramesh Babu suggested to shift Power electronics subject to professional elective list. Since the curriculum for second year to final year only was discussed in this meeting, BoS members asked to the entire syllabus and conduct brain storming sessions before finalizing the syllabus for all the years.
- 20. Students should complete two mandatory audit courses (non credit) to become eligible for getting degrees.
- 21. Over and above credit for internship/training, value added programs can be included.
- 22. <u>Date of next meeting:</u> The next meeting will be held during the next even semester (tentatively, Last week of January, 2021).
- 23. Mrs.L.V.Revathi proposed the vote of thanks to all the external and internal experts and the meeting was adjourned.



S.P.G.Chidambara Nadar - C.Nagammal Campus S.P.G.C.Nagar, K.Vellakulam - 625 701, (Near Virudhunagar), Madurai District.

ANNEXURE V

DEPARTMENT OF POLYMER TECHNOLOGY





MINUTES OF

POLYMER TECHNOLOGY BOARD OF STUDEIS OF 1st ONLINE MEETING

Date:	:	01.08.20
Time:	:	10 AM -12.00 Noon
Platform	:	Microsoft Team

Members Present:

Capacity	Name & Designation	Institute
Anna University Nominee	Dr.K.Ravichandran Professor	Madras Institute of Technology, MIT Road, Radha Nagar, Chromepet, Chennai, Tamil Nadu 600044.
Academic Council Nominee -1	Dr.S.N. Jaisankar Sr. Principal Scientist	Polymer Science & Technology CSIR-Central Leather Research Institute Adyar, Chennai – 600 020
Academic Council Nominee -2	Dr. Siddaramaiah Professor & Head	Department of Polymer Science and Technology Sri Jayachamarajendra College of Engineering, Mysuru – 570 006. Karnataka.
Industrialist	Er. M.Pandian Deputy General Manager	M/s.Fenner (India) Ltd, 3, Madurai - Melakkal Road, Kochadai, Madurai, Tamilnadu
Alumni	Er. J.Muthuvijayan Material Leader- Engineering	M/s. TPI Composites India Pvt Ltd 1st Main Rd, South Phase, Ambedkar Nagar, Indira Nagar, Gandhi Nagar, Chennai, Tamil Nadu 600032



	All Polymer Department faculty members		
	Dr.S.Gandhi, M.Sc., Ph.D	Chairman & HOD/PT	
	Dr. Dr(mont.) C.T.Vijayakumar, Ph.D.	Professor/PT	
Dr. R.Baskaran, M.Tech., Ph.D Associ	Associate Professor & UG-Program Co-ordinator		
Internal	Dr. S.Vinayagamoorthi, M.Sc., Ph.D	Associate Professor & PG-Program Co-ordinator	
	Dr. M.G.Sribala, M.Tech., Ph.D.,	Assistant Professor/PT	
	Dr. K.Agathian, M.Tech., Ph.D.,	Assistant Professor/PT	
	Er. S.Sivakumaravel, M.Tech.	Assistant Professor/PT	
	Dr. S.Kailash, M.Tech., Ph.D.,	Assistant Professor/PT	
	Dr. K.Poprapharan, M.Tech., Ph.D.,	Assistant Professor/PT	

THE MINUTES:

Points

Discussion Points

No



- 1. Welcome address: The meeting was conducted in online mode in Microsoft Team platform at 10AM. HOD/PT welcomed the all the members of the Board of studies members.
- 2. Overview of the institution and Department: HOD/PT presented the Evolution of institution, department and its events.
- 3. Highlighting the points discussed in First Academic council meeting held on 17th July 2020: Dr.S.Gandhi, HOD/PT presented the points discussed in the First Academic council meeting held on 17th July 2020-especially, the suggestions and recommendations for framing the UG and PG curricula.
- Recommendations from the Governing Body and Academic Council for Framing UG Curriculum:Credit range: 165 – 170
 - 1.20 24 credit per Semester.
 - 2. VIII Sem Project Work: 8 10 credits
 - 3. Online Course (Maximum 6 credits)
 - 4. Audit Course (Mandatory non credit)
 - 5. First semester is common for all Programme
 - 6. First year credit range : 40 42
 - 7. Engineering Graphics to be in II Semester
 - 8. Programme specific papers could be offered in II Sem.
 - 10.AICTE & AU 2019 curriculum could be taken as base for framing curriculum.
 - 11. III Sem Mathematics (Programme specific) Mandatory
- 5. Recommendations from the Governing Body and Academic Council for Framing PG Curriculum:
 - 1. Credit range : 70 75
 - 2. 20 22 credit per semester.
 - 3. Online Course (Max 3 credits)
 - 4. Open Elective: Industry Certification Courses
 - 5. AU R2017 & AU R2019 curriculum could be taken as base for framing curriculum
 - 6. Project Work Phase I : 6-8 credit
 - 7. Project Work Phase II : 12-14 credit



- 8. II Sem Mathematics (Programme specific) Optional
- 9. Over and above credit will appear in transcript
- 1 Tutorial period = 1 credit

To consider and approve the proposed UG program curriculum.

6. Dr.R.Baskaran, ASP/PT presented the proposed the UG program curriculum. Dr.Siddharamaiah appreciated the structure of UG curriculum framed and accoladed that there will be no objection in NAAC / NBA during the accreditation process.

The following points were mentioned by the members.

- 7. Foundation Course: Dr.Ravichandran pointed out that Mechanics of solids course in III sem need to be altered since it was inappropriate for program specificity and Dr.Jaishankar raised the question on maximum credits for Maths course. Then, it was accepted to be 4 credits.
- 8. **Professional Core**: Dr.Siddharamaiah pointed out the topic-Thermodynamics of polymers should be included in polymer physics course.
- **9.** Dr.Pandian mentioned that Fluid mechanics topics were being covered in Fluid Mechanics and polymer rheology course. Hence there is no need of fluid mechanics unit in chemical engineering course. In addition to that he suggested to include improvised Management Courses like TQM to improve the overall design of the Courses.
- 10 Dr.Ravichandran pointed out that the course title Rubber processing and testing could be used instead of Rubber testing and processing. Similarly, Computer drafting molding lab in II semester and polymer in computer drafting using CAD in VII semester seemed to be similar and hence it could be given a suitable different name. In addition to that he noted that Mold and die design course should be aligned with theory as well as practical in the same semester. Composite laboratory may be included.



- 11. Employability Enhancement Courses (EEC): Er.Muthuvijayan mentioned that industry related courses need to be given more weightage - mainly Design courses and practical oriented courses. He proposed that Theory cum Calculation (50-50%) oriented syllabus are to be incorporated especially for TQM course.
- **12.** Dr.Ravichandran gave a note to incorporate skill development courses wherever possible and mentors should educate students about EDC and motivate them to become start-ups.
- 13. Open Elective (OE): number of courses may possibly be increased.
- **14. Online Course (OLC):** Norms should be fixed for online courses by following the University norms and guidelines.
- **15 Professional Elective (PE):** The course title is to be modified related to industry specificity
- **16.** General comments:

Online course in Eighth semester:

Dr.Siddharamaiah pointed out that in the VIII semester, one online course (non credit course) may be included. In SJCE, Mysore, two theory papers on two days per week and project --five days per week are followed and he instructed to abide by the related university norms and guidelines.

17. Dr.Ravichandran mentioned that students need to do the industry projects with full concentration and subsequently they would not be able to spare time for additional courses. Hence he recommended to prepone the online courses instead of VIII semester like Anna university curriculum in 2017 regulation.

18. Professional Elective instead of Online course:

Since the polymer course is specialized course, number of online courses offered by NPTEL/SWAYM is limited. Hence, if suitable online courses are not found that candidate could opt a Professional elective instead of online course.

19. It was informed that detailed syllabus for proposed curriculum will be framed and submitted in the second BOS meeting for getting approval



Department of Polymer Technology Minutes of Meeting for FIRST –PT-BOS on 1.8.20 To consider and approve the proposed PG program curriculum and syllabi.

20. Dr.M.G.Sribala, AP/PT presented the proposed the PG program curriculum and syllabi.

The following points were mentioned by the members.

- **21.** Course Title change: Dr.Siddharamaiah remarked that Thermoplastics title could be renamed as Engg plastics / Advanced polymeric materials, Polymer composites as Advanced composites, Synthetic fibers as Fiber technology, specialty polymers as Functional polymers / Intelligent polymers as well as Injection mold design title to be changed; conducting polymers as smart materials.
- **22.** Laboratories: Dr.Jaishankar pointed out that Characterization and testing lab may be separated or renamed as Polymer Testing lab
- 23. NDT testing may perhaps be included in lab.
- **24.** Foundation course like mathematics shall be placed in Elective bucket.
- **25.** Open Elective: Dr.Siddharamaiah guided that the duration of on- line courses should be mentioned as 20/25/30 hours run by the corresponding IITs.
- **26.** In IInd Sem, polymer products and mold die design course title are to be changed as product and die design.
- **27.** Mold engg title is to be strengthened/modified and possibly will be as process engineering.
- **28.** Er.Muthuvijayan mentioned that Adhesive science and technology title is to be revamped as adhesive science and seal technology.
- **29.** Professional elective (PE): Dr.Siddharamaiah remarked that PE course titles have to be revamped and modernized name is to be given for attracting candidates.
- 30 General comments:
 Dr.Ravichandran pointed out that the UG course title in general should not be repeated in PG curriculum and on an average, 25 % of syllabus repetition is allowed.
- **31.** Different discipline candidates are eligible to choose PG. Hence PE have the courses title suitable for different disciplines to create student's interest.



Department of Polymer Technology

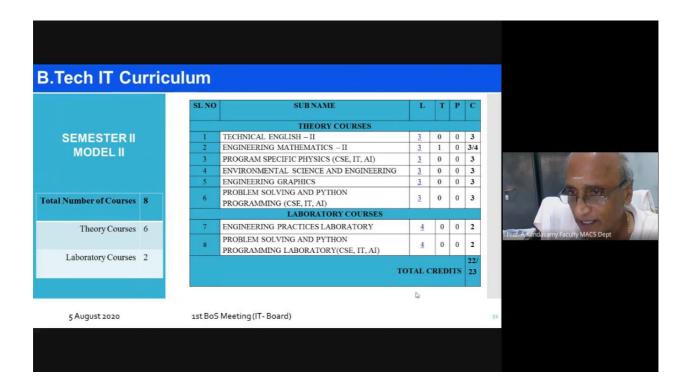
Minutes of Meeting for FIRST –PT-BOS on 1.8.20
32. Dr.Jaishankar told that recent 10 years publication books / review articles should be given as references and one or two subjects on research orientation may be included.

- 33. To consider and approve the proposed UG program first year curriculum.
- **34.** Dr.S.Gandhi, HOD/PT proposed Model –I and Model –II Curriculum for First year.
- **35.** Dr.Siddharamaiah pointed out that Basic electrical/electronics and civil / Mech Engg is essential for an engineer. It could be in I semester and Program specific course-Physical and Organic Chemistry could be fixed in III semester.
- **36.** Dr.Pandian supported model I Papers for II Semester initially and accepted Model –II after discussion
- **37.** All the BOS members accepted Model –II curriculum and Dr.Ravichandran stressed the title –New material given in Unit 5 in polymer chemistry in I semester needs to be altered.
- **38.** To fix the date for the second meeting of academic council : The next meeting will be held during the next even semester (tentatively, First week of January, 2021).
- **39.** Vote of Thanks: With a formal thanks note by Dr.S.Vinayagmoorhi, ASP/PT Member, the meeting came to an end.



ANNEXURE VI

DEPARTMENT OF INFORMATION TECHNOLOGY





DEPARTMENT OF INFORMATION TECHNOLOGY Minutes of Meeting –First Draft –BoS –5th August, 2020 MINUTES OF THE 1st ONLINE MEETING

BOARD OF STUDIES OF INFORMATION TECHNOLOGY

DATE: 5th August, 2020, Wednesday

Time: 5:00 PM –7:00 PM

PLATFORM : GOOGLE MEET

Meeting Link: https://meet.google.com/uir-sway-qht

IN ATTENDANCE:

S.No	Name of the Expert	Designation	Capacity	
1	Dr. C.Deisy, M.E., Ph.D.,	Professor, Department Information Technology, Thiagarajar College of Engineering, Madurai.	Anna University Nominee	
2	Dr. A.Kandasamy, M.Sc., Ph.D.,	Professor Department of Mathematical and Computational Sciences, National Institute of Technology, Karnataka, Suratkal.	Academic Council nominated BoS Members	
3	Dr. R.Rajesh, M.E., Ph.D.,	Associate Professor Department of Computer Science and Engineering Central University of Kerala, Kasaragod.		
4	Dr. K.Poyyamozhi, M.C.A., Ph.D.,	Principal Program Manager, Symantec, Chennai.	Industrialist	



DEPARTMENT OF INFORMATION TECHNOLOGY Minutes of Meeting –First Draft –BoS –5th August, 2020

5.	Assistant Professor (Sr, Gr.)/CSE, Mepco Schlenk Engineering College, Sivakasi.	Alumni	

FACULTY MEMBERS OF INFORMATION TECHNOLOGY - MEMBERS

S.No	Name of the Faculty	Designation
1	Dr. P. Subathra	Chairman / HoD- IT
2	Dr. E.Vakaimalar, M.E., Ph.D.,	UG Programme Co–ordinator
3	Dr. M.Chengathir Selvi, M.C.A., M.Phil., M.E., Ph.D.	Assistant Professor / IT
4	Ms. P.Antony Seba, M.E.,	Assistant Professor / IT
5	Ms. D.Kayathri Devi, M.E., Ph.D (pursuing).,	Assistant Professor / IT
6	Ms. R.Arthy, M.E., Ph.D (pursuing).,	Assistant Professor / IT
7	Mr. D.Vendhan, M.Sc (SE), M.Tech., Ph.D (pur- suing).,	Assistant Professor / IT
8	Ms. P.Kaviya, M.Tech.,	Assistant Professor / IT
9	Ms. M.Kanimozhi, M.E.,	Assistant Professor / IT



DEPARTMENT OF INFORMATION TECHNOLOGY Minutes of Meeting –First Draft –BoS –5th August, 2020

SUBJECT EXPERTS

S.NO.	NAME OF THE FACULTY	DESIGNATION
1	Ms. V.Vijayalakshmi, M.C.A., M.E.,	Assistant Professor / SS
2	Ms. V.Deepa Priya, M.Sc., M.Phil.,M.E., Ph.D(pursuing).,	Assistant Professor / SS
3	Ms S.Athilakshmi, M.Sc., M.Phil.,M.E., Ph.D(pursuing).,	Assistant Professor / SS
4	Mr. P.Praveen Kumar, M.Sc., M.B.A.,M.Tech., Ph.D(pursuing).,	Assistant Professor / SS

THE MINUTES:

The meeting is called for considering the Undergraduate curriculum & syllabi.

DISCUSSIONS:

- 1. Mrs. D. Kayathri Devi, the Board of Studies in-charge of the welcomed the gathering.
- 2. Dr. E. Vakaimalar, UG coordinator of the department introduced the external members to the faculty.
- 3. Dr. P. Subathra presented the Overview of the Institution/Department, Courses offered in the institution, Student and Faculty strength and also about the growth and development of the Institution/Department.
- 4. Dr. P. Subathra discussed the Proceedings of 1st Academic Council Meeting held on 17th July 2020 to the experts.

The highlights of the discussion were as follows:



DEPARTMENT OF INFORMATION TECHNOLOGY Minutes of Meeting –First Draft –BoS –5th August, 2020

Recommendations from the Govern- ing Body and Academic Council for Framing UG Curriculum:	 Credit range: 165 –170 20 –24 credit per Semester. VIII Sem Project Work: 8 –10 credits Online Course (Maximum 6 credits) Audit Course (Mandatory non credit) First semester is common for all Programme First year credit range : 40 –42 Engineering Graphics to be in II Semester Programme specific papers could be offered in II Sem. AICTE & AU 2019 curriculum could be taken as base for framing curriculum. III Sem Mathematics (Programme specific) Mandatory
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5. Dr. P. Subathra presented the regulation of Undergraduate syllabi:

FIRST YEAR

- a. Dr. P. Subathra, presented the proposed R2020 First year curriculum, syllabus and curriculum framework for the Undergraduate (UG) program.
- b. Two models of Semester II were presented and Dr. C. Deisy suggested to offer Problem Solving and Python Programming that would greatly help the students to face the interview.
- c. Dr. K. Poyyamozhi suggested to offer Problem Solving and Python Programming with basic concepts so that the students can apply it in all over application.
- d. Er. B. Selvakumar suggested giving Object Oriented Programming using Python.
- e. Dr. C. Deisy suggested to offer the basic Python and earlier semester and Object Oriented Concepts with Python in later semesters
- f. Dr. A. Kandasamy suggested including modern tools in the syllabus.
- g. The syllabi for First semester Fundamentals of Computing and Programming Theory and Lab for all branches and the Second semester's Problem Solving and Python programming Theory and Lab for the IT was presented and the BoS members approved it.



DEPARTMENT OF INFORMATION TECHNOLOGY Minutes of Meeting –First Draft –BoS –5th August, 2020

- h. With all our Board of Studies Members' consent, Model-II for Semester-II was selected unanimously.
- i. Dr. P. Subathra presented the proposed UG curriculum for the II, III and year. The board of study members recommended that most of the academic council recommendations could be adopted and gave suggestion on few aspects.
- j. Students should complete two mandatory audit courses (non -credit) to become eligible for getting degree,
- k. Over and above credit for internship/training, value added programs can be included.

Semester III

- a. Dr. A. Kandasamy insisted that Fundamentals of Electrical and Electronics Engineering theory without lab will not be appropriate. The fundamentals should be included as theory. When model II in Semester II is to be offered then, Fundamentals of Electrical and Electronics Engineering will be missed out. Instead, he suggested in removing Discrete Mathematics from the core and in elective and to include Fundamentals of Electrical and Electronics Engineering theory in Semester III.
- b. Dr. C. Deisy suggested offering Discrete Mathematics since it is needed for engineering and it is required as per Program Specific Outcome. Instead she recommended combining Analog and Digital Communication theory & Digital Principles and System Design theory. So that there will be a space to include program specific / new cutting edge domain subjects.
- b. Dr. K. Poyyamozhi suggested offering Computer Organization and Architecture in Semester III and Data Structures in Semester IV so that the student will get a better understanding of the data getting stored, retrieved and processed

Semester IV

- c. Dr. A. Kandasamy insisted to have Computer Organization and Architecture instead of Computer Architecture. In addition, he also suggested offering Computer Organization and Architecture in Semester III.
- d. Dr. C. Deisy suggested to include Devops in Software Engineering syllabus and advanced database concepts like MongoDB, NoSQL in Database Management Systems syllabus.



DEPARTMENT OF INFORMATION TECHNOLOGY Minutes of Meeting –First Draft –BoS –5th August, 2020

Semester V

- e. Dr. C. Deisy suggested offering Internet of Things instead of Microprocessor and Microprocessor and Microprocessor and Microprocessor and Second S
- f. Mr. B. Selvakumar suggested offering Theory cum project instead of Mini Project.
- g. Dr. K. Poyyamozhi guided to highlight all the mandatories in the curriculum.
- h. Dr. A. Kandasamy insisted not to narrow down the courses towards Information Technology (IT). He insisted that as an engineer he/she should know the fundamentals of circuit courses. He also added that placement supporting courses can be included.
- i. Dr. C. Deisy suggested offering Principles of Compiler Design and Theory of Computation subjects which will greatly help the students for GATE preparation.

Semester VI

- c. Dr. C. Deisy suggested offering Mobile Communication as a separate course and frame a separate theory course for Mobile Application Development Lab which can be a Theory cum practical.
- d. Dr. C. Deisy suggested introducing one week or two week courses in collaboration with industry. She also recommended to include courses related to security domain.
- j. Dr. K. Poyyamozhi insisted the need of Mobile Application Development Lab and insisted to include latest UX design concepts in Web Technology course

Semester VII

- 1. Dr. C. Deisy suggested that Operational Research and Accounting courses can be included to bring up Entrepreneur Skills in Students.
- 2. Dr. A. Kandasamy insisted to make Engineering Management and Principles of Management courses as core papers.
- e. Dr. K. Poyyamozhi clarified that the Software Project Management satisfies the Engineering Management and accounting domains. The members agreed with his explanation.

Semester VIII

- 1. Dr. C. Deisy suggested offering project alone in the semester VIII and making the credit of project as 10 credits.
- 2. Dr. A. Kanadasamy also recommended giving more credits to Project.
- 3. Dr. R. Rajesh suggested not to have online course during semester VIII which may result in the delay of the publishing of result. He also insisted that online courses can be provided for a course for which there is no faculty member to handle the course.



DEPARTMENT OF INFORMATION TECHNOLOGY Minutes of Meeting –First Draft –BoS –5th August, 2020

He insisted on giving the online course as a non-mandate course for which the over and above credits can be included.

- 4. Dr. A. Kanadasamy suggested offering online courses but it should not be made compulsory. It can be used for credit transfer.
- 5. Dr. C. Deisy mentioned about guided study which can be provided to meritorious students.

Electives

Dr. R. Rajesh suggested offering elective courses as theory cum practical and other BoS members from academic stream reflected the same opinion.

Computer Organization and Architecture Domain

- a. Dr. C. Deisy suggested including Edge Computing course under this domain.
- b. Mr. B. Selvakumar insisted that Multicore Architecture, Parallel Architecture and Real Time Architecture will have common concepts and so care should be given while framing the syllabus with minimal overlaps.

Software Engineering Domain

c. Mr. B. Selvakumar recommended not to have Service Oriented Architecture under this domain.

Networks Domain

d. Dr. C. Deisy and Mr. B. Selvakumar insisted to remove Watermarking and Stegnography Techniques course instead Cloud Security can be included. They also insisted the Ethical Hacking and Cyber Security will have overlapping syllabus and so care should be taken in framing the syllabus. They also suggested that including Block Chain course under this domain is inappropriate.

Data Analytics Domain

- a. Dr. C. Deisy suggested not to include Digital Image Processing under this domain. Instead Image Analytics can be included and Digital Image Processing will be prerequisite for this.
- b. Mr. B. Selvakumar insisted to include Data Mining and Warehousing which is the fundamental for data analytics.
- c. Dr. C. Deisy suggested offering Data Mining before Artificial Intelligence. She also suggested that Data Analytics for IoT can be included.

Software Development Domain

a. Mr. B. Selvakumar suggested combining Software Engineering and Software Development as a simple domain and offer the courses such that Elective I comprises of Software Engineering domain and Elective II & III comprises of Software Development courses. He also clarified that Advanced Python Programming will cover web development concepts.



DEPARTMENT OF INFORMATION TECHNOLOGY Minutes of Meeting –First Draft –BoS –5th August, 2020

- b. Dr. K. Poyyamozhi suggested offering Microsoft Office Programming under Software Development domain and Agile Methodologies under Software Engineering domain. He also insisted including Full Stack Development Framework instead of Scripting Paradigms.
- c. Dr. C. Deisy suggested removing Information Retrieval and Web Search course since it will be already dealt in Data Analytics domain.

Humanities Domain

- d. Mr. B. Selvakumar suggested not to have a separate domain as humanities since students prefer this course rather that program specific courses.
- e. Dr. C. Deisy suggested to offer humanity related courses in semester VII as a core paper.

General Comments

- a. Mr. B. Selvakumar suggested to have Cyber Security as a domain instead of Security.
- b. Dr. K. Poyyamozhi suggested to present the vertical stack representation slide before presenting the curriculum

Date of next meeting: The next meeting will be held during the next even semester

Tentative Month – January 2021(Actual Date will be confirmed through mail communication before the month of December 2020)

Ms. M. Kanimozhi proposed the vote of thanks to all the external and internal experts and the meeting adjourned

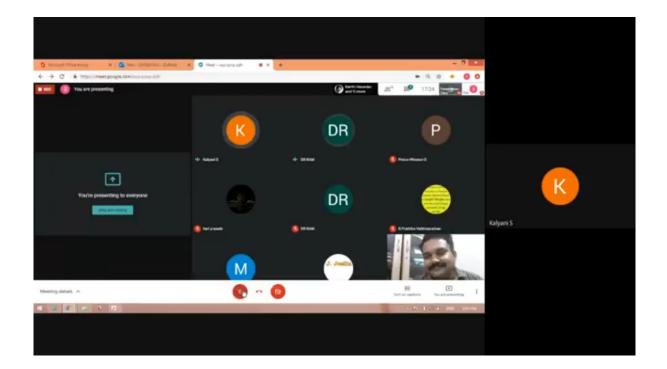
Approved by:

- Dr. P. Subathra M.E., Ph. D, Chairman of the BoS 1. 2. Dr. C.Deisy, M.E., Ph.D., Anna University Nominee _ Dr. A.Kandasamy, M.Sc., Ph.D., 3. -4. Dr. R.Rajesh, M.E., Ph.D., 5. Dr. K.Poyyamozhi, M.C.A., Ph.D., _ Industrial Expert Er. B.Selvakumar. M.E., 6.
 - AC nominated BoS Members
 - AC nominated BoS Members
 - Alumni



ANNEXURE VII

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING





DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

Minutes of Meeting – 05th August, 2020

MINUTES OF THE 1st ONLINE MEETING

BOARD OF STUDIES ELECTRICAL AND ELECTRONICS ENGINEERING

DATE: 05-08-2020

TIME: 3.00 pm to 5.00 pm

Platform: Google Meet

Meeting Link: meet.google.com/xoz-sznq-zdh

IN ATTENDANCE:

S. No.	Name of the Expert	Designation	Capacity
1.	Dr. M. Saravanan	Professor Department of EEE Thiagarajar College of Engineering, Madurai.	AU Nominee
2.	Dr. Sishaj P Simon	Associate Professor Department of EEE National Institute of Technology, Trichy.	Academic Council nominated BoS
3.	Dr. S. Jeevananthan	Professor Department of EEE Pondicherry Engineering College, Pondicherry.	Members
4.	Dr. K. Janakiraman	Head – Technical M/s. OBO BETTERMANN India Pvt. Ltd., Chennai	Industrialist
5.	Er. R.V. Prathiba	Research Scholar Department of EEE Thiagarajar College of Engineering, Madurai.	Alumni



DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

S. No.	Name of the Faculty	Designation
1.	Dr. S.Kalyani	Professor & Head / EEE Chairman, Board of Studies (EEE Board)
2.	Dr. D. Prince Winston	Professor / EEE
3.	Dr. M. Sudalaimani	Assistant Professor / EEE
4.	Dr. S. Rajesh Babu	Assistant Professor / EEE
5.	Dr. J. Jeslin Drusila Nesamalar	Assistant Professor / EEE
6.	Mrs. B. Noorul Hamitha	Assistant Professor / EEE
7.	Mrs. V. Chandra	Assistant Professor / EEE
8.	Mr. B. Guru Karthik Babu	Assistant Professor / EEE
9.	Mr. A. Azarudeen	Assistant Professor / EEE
10.	Mr. D. Mariappan	Assistant Professor / EEE
11.	Mr. K. Ganesan	Assistant Professor / EEE
12.	Mr. A. Karuppasamy	Assistant Professor / EEE
13.	Mr. S. Jegan	Assistant Professor / EEE
14.	Mrs. S. Vimala Devi	Assistant Professor / EEE
15.	Mrs. C. Nagadevi	Assistant Professor / EEE
16.	Mr. A. Karthikeyan	Assistant Professor / EEE
17.	Mr. R. Ganesan	Assistant Professor / EEE
18.	Ms. R. Reenu	Assistant Professor / EEE
19.	Mr. T. Hari Prasath	Assistant Professor / EEE



DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

Minutes of Meeting – 05th August, 2020

THE MINUTES:

The meeting is called for considering the Undergraduate and Postgraduate curriculum & syllabi in R2020 Regulations.

DISCUSSIONS:

- The meeting started in online mode in Google meet platform at 03.00pm.
 Dr. S. Kalyani, Professor & Head / EEE gave a warm cordial welcome to all the members of the Board of Studies.
- 2. **Dr. S. Kalyani**, Professor & Head / EEE gave a brief presentation about the institution & the department and its accomplishments. Members appreciated for a nice presentation briefing about the institution and department.
- Dr. S. Kalyani, Professor & Head / EEE discussed about the Proceedings of 1st Academic Council Meeting held on 17th July 2020 to the experts. The highlights of the discussion were as follows:

Recommendations from the	 Credit range: 165 – 170 20 – 24 credit per Semester. VIII Sem Project Work: 8 – 10 credits Online Course (Maximum 6 credits) Audit Course (Mandatory non credit) First semester is common for all Programme First year credit range : 40 – 42 Engineering Graphics to be in II Semester Programme specific papers could be offered in
Governing Body and	II Sem. AICTE & AU 2019 curriculum could be taken
Academic Council for	as base for framing curriculum. III Sem Mathematics (Programme specific)
Framing UG Curriculum:	Mandatory



DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

Minutes of Meeting – 05th August, 2020

Recommendations from the	 Credit range : 70 - 75 20 - 22 credit per semester. Online Course (Max 3 credits) Open Elective: Industry Certification Courses AU R2017 & AU R2019 curriculum could be taken as base for framing curriculum
Recommendations from the Governing Body and Academic Council for Framing PG Curriculum:	1 · · · ·
	Optional 9. Over and above credit will appear in transcript 10. 1 Tutorial period = 1 credit

4. **Dr. D. Prince Winston,** Professor / EEE presented the PG curriculum with detailed syllabi for semester 1 to semester 4 including Professional Elective Courses.

- 5. Members asked to verify / check the no. of hours allocated in L T P C both in the curriculum table and syllabus carefully and also need to be cross checked with the credits. One Lecture hour accounts to 1 credit, one tutorial hour accounts to 1 credit and two practical hours accounts to 1 credit.
- 6. Members suggested that the unique course code for the various courses based on proper guidelines need to be added. It must be ensured that courses common to one or two programmes must be given the same course code.
- Members suggested that the Text books and References given at the end of the syllabus for each course can be renamed as Learning Resources. Recent Edition must be included for all text books / reference books.
- 8. Members suggested to include IEC standards / IEEE references in the syllabus of courses wherever applicable.
- 9. Members suggested that the Name of the courses offered in PG should not be same as that offered in UG curriculum.



DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

- 10. Members suggested that the grouping of courses for each Professional Elective (PE) to be taken by student during each semester can be avoided and can be given as a complete list of students, so that students will have better choice of choosing the PE course.
- 11. Members suggested that the inputs can be obtained from industrialists to add more courses in PE list and a brainstorming session can be conducted among students and their suggestions also can be used in listing courses in PE.
- 12. Suggestions given by Experts for each PG course based on syllabus presented follows herein

S. No.	Name of the Course	Comments
1.	Applied Mathematics for Electrical Engineers	 3 L and 1 T to be mentioned. Title to be changed as : Applied Mathematics for Power System Engineers In Unit-IV, other Conventional optimization Techniques such as Quadratic Programming can be included apart from Linear Programming.
2.	Computer Aided Power System Analysis	 Unit 1 contains more of UG syllabus such as Newton Raphson and Fast Decoupled. Advanced Topics related to Load flow such as Single Phase AC and DC load flow can be included. In unit 2, Single phase AC, DCOPF and three phase AC, DCOPF can be added. In Unit-IV, Open circuit faults and its analysis can be added 3-4 course outcomes can be written for the course.



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S. No.	Name of the Course	Comments
3.	Power System Operation and Control	 Course name need to be changed as "Advanced Power System Operation and Control" Topics of Economic Dispatch and Unit Commitment in Deregulated Environment can be include in Unit-I and Unit-II In Text Books, Wood, Woolenberg & Shebley (3rd Edition) – is suggested to be included.
4.	Power System Transients	• Name of the course can be changed as "Electromagnetic Transients in Power Systems"
5.	Power System Dynamics	• The contents in Unit-I and Unit-II needs to be reduced.
6.	Extra High Voltage AC and DC transmission	• Case studies of Typical HVDC and HVAC links available in India can be included in appropriate units.
7.	Power System Deregulation	• URL of the Indian Energy Market or Power Exchange (IEX) can be included in References
8.	Advanced Power System Simulation laboratory	 L T P C of the syllabus need to be corrected as 4 practical hours accounts to 2 credits. For protection related experiments, experimental verification in hardware setup can be included, if equipments available. Study of DFIG can be changed as Simulation of DFIG
9.	Research Methodology / Intellectual Property Rights	 Both the course syllabus can be merged together and proper allocation of L T P C can be given. Introduction to Indian and US patents and patent filing process to be included
10.	Computer Aided Design of Electrical Apparatus	• Instead of CAD, ECAD can be mentioned to be more specific.



DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

S. No.	Name of the Course	Comments
11.	Solar and Energy Storage Systems	 Mathematical Modeling of PV cells to be included in Unit-I Fuel cells, Ultra capacitor, super capacitor and Compressed air technologies can be included in Unit-V (Energy Storage Systems). Pumped hydroelectric energy storage can be removed in Unit-IV. In Unit 5, Applications need to be specific like Sizing of solar system for 5 HP motor pump
12.	Flexible AC Transmission Systems	• Dynamic FACTS devices such as DSTATCOM also can be added in appropriate units.
13.	Energy Management and Auditing	• Role of Energy Auditor and Energy Manager and the bureau standards for energy auditing process can be included at appropriate units
14.	Wind Energy Conversion Systems	• Word Spacing and Alignment needs to be checked.
15.	AI Techniques for Power Systems	• Recent books available for AI can be included.
16.	Distributed Generation and Microgrid	• Microgrid is a single word and needs to be combined.
17.	Power Quality Assessment and Mitigation	• Unit 5 Title to be given as Smart Grid
18.	SCADA and DCS	• One of the text book written by ex-NIT Trichy Director can be identified and included in references.
19.	Energy Efficient Building Management System	• In Unit 1, Green building and its introduction can be included. Standards as per Green Building Society of India for energy efficient buildings can also be included.
20.	Internet of Things for Power Engineers	• Course name can be changed as "IoT for Power Engineers"



DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

- 13. Dr. Jeslin Drusila Nesamalar, AP / EEE presented the 1st Year Curriculum and Syllabi for UG Programme B.E. – Electrical and Electronics Engineering and Syllabus of the courses offered by EEE to other UG programmes during I year.
- 14. Members asked us to verify / check the no. of hours allocated in L T P C both in the curriculum table and syllabus carefully and also need to be cross checked with the credits. One Lecture hour accounts to 1 credit, One tutorial hour accounts to 1 credit and Two practical hours accounts to 1 credit
- 15. For II Sem UG (B.E.-EEE) programme, the curriculum with Program Specific Theory (Circuit Theory) and Laboratory (Electric Circuits Laboratory) was recommended by the BoS Experts.
- 16. Suggestions given by Experts for I year UG course based on Curriculum & Syllabus presented follows herein

S. No.	Name of the Course	Comments
1.	Basic Civil and Mechanical Engineering	• Can be offered as Open Elective for EEE Students as the knowledge of this course is also required.
2.	Circuit Theory	• Although the no. of credits is 3, 4 hours can be allotted (3 Lecture Hours and 1 Tutorial Hour) as it is an Analytical course and involves lot of numerical problems to be solved.
3.	Electric Circuit Analysis Laboratory	 Some of the experiments mentioned as "Study of" can be changed as "Simulation of". The word study can be removed from all experiments as the experiments are performed either in simulation or hardware component.



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S. No.	Name of the Course	Comments
4.	Fundamentals of Electrical and Electronics Engineering	 Topics related to Basics of house wiring, Electrical Safety and Basic of UPS can be included. Few topics already given in the proposed syllabus can be removed, if required. Can be offered as Open Elective for other UG programmes, if not offered as Core Paper.
5.	Engineering Practice Laboratory	• Study of UPS also can be included, if possible.

- 17. **Mr. K.Ganesan**, Assistant Professor / EEE presented the UG Programme Curriculum for 2nd, 3rd and 4th year of B.E. Electrical and Electronics Engineering.
- 18. Members asked us to check / verify the flow of the courses and the pre requisites for each course offered in higher semesters can be checked thoroughly.
- 19. Suggestions given by Experts for I year UG course based on Curriculum & Syllabus presented follows herein

S. No.	Name of the Course	Comments
1.	AC Machines	 Name of the course can be changed as "Induction and Synchronous Machines", if needed

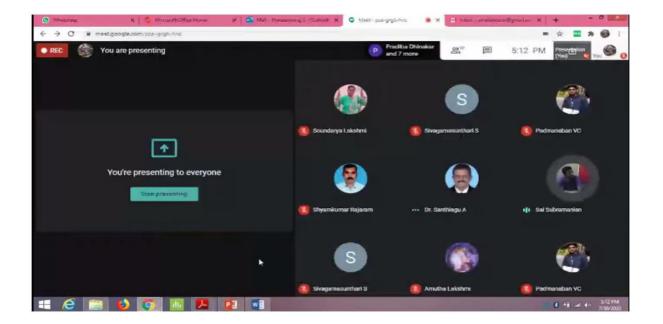
- 20. <u>Date of next meeting:</u> The next meeting will be held during the next even semester (tentatively, First Saturday of February, 2021).
- 21. **Dr. D. Prince Winston,** Professor / EEE proposed the vote of thanks to all the external and internal experts and the meeting adjourned



S.P.G.Chidambara Nadar - C.Nagammal Campus S.P.G.C.Nagar, K.Vellakulam - 625 701, (Near Virudhunagar), Madurai District.

ANNEXURE VIII

DEPARTMENT OF BIOTECHNOLOGY



KCET/ R2020/ BT/ MoM



(An Autonomous Institution - AFFILIATED TO ANNA UNIVERSITY, CHENNAI) S.P.G.Chidambara Nadar - C.Nagammal Campus S.P.G.C.Nagar, K.Vellakulam - 625 701, (Near Virudhunagar), Madurai District.

DEPARTMENT OF BIOTECHNOLOGY Minutes of Meeting – First Draft – BoS– 30th July, 2020

MINUTES OF THE 1st ONLINE MEETING

BOARD OF STUDIES OF BIOTECHNOLOGY

DATE: 30th July, 2020, Thursday

Time: 2.30 PM – 5.30 PM

PLATFORM : GOOGLE MEET

Meeting Link: <u>https://meet.google.com/pze-grgb-hnz</u>

IN ATTENDANCE:

S.No	Name of the Expert	Designation	Capacity
1	Dr. SukumaranPrabhu, Professor	Professor, Department of Biotechnology Sri Venkateswara College of Enigneering, Sriprembadur.	Anna University Nominee
2	Dr. A.Santhiagu	Professor, School of Biotechnology, NIT Calicut, Kerala-673601.	Academic Council
3	Dr. N.Ayyadurai	Senior Scientist, Biochemistry & Biotech- nology, CSIR-Central Leather Research Institute, Adyar, Chennai – 600 020.	nominated BoS Members
4	Dr. K. Rajeshwari, Founder and Managing Director	Bioklone Biotech Private Limited, Plot No. 14 and 15, Golden Jubilee Biotech Park, (Inside SIPCOT IT Park), Siruseri, Nava- lur, Chennai – 603 103, Tamil Nadu, India.	Industrialist
5.	Ms.S.Sivagamasunthari Associate Scientist	Biocon Park , SEZ, BommasandraJigani Link Rd, Phase-IV, Bommasandra Industri- al Area, Bengaluru, Karnataka 560099.	Alumni

FACULTY OF BIOTECHNOLOGY

MEMBERS

S.No	Name of the Faculty	Designation
1	Dr. M. Vasanthi	Chairperson / HoD-BT
2	Dr. AnantAchary	Principaland Senior Professor / BT
3	Dr. R. Shyam Kumar	PG Programme Co-ordinator
4	Dr. S. Mariaamal Raj	UG Programme Co–ordinator
5	Dr. K. Geetha	Research Programme Co-ordinator
6	Dr. I. Ganesh Moorthy	Associate Professor / BT
7	Dr.S.Karthikumar	Assistant Professor / BT
8	Mr.S.Manibalan	Assistant Professor / BT
9	Ms.M. Soundaryalakshmi	Assistant Professor / BT
10	Dr.V. C. Padmanaban	Assistant Professor / BT
11	Dr. A. Ronaldo Anuf	Assistant Professor / BT
12	Er. R.Amuthalakshmi	Assistant Professor / BT
13	Dr.D.Pradiba	Assistant Professor / BT

THE MINUTES:

The meeting is called for considering the Undergraduate and Postgraduate curriculum & syllabi.

DISCUSSIONS:

- 1. Dr.M.Vasanthi, the chairperson, welcomed the gathering and introduced the external members to the faculty.
- 2. The chairperson presented the Overview of the Institution/Department, Courses offered in the institution, Student and Faculty strength and also about the growth and development of the Institution/Department.
- 3. The chairperson discussed about the Proceedings of 1st Academic Council Meeting held on 17th July 2020 to the experts. The highlights of the discussion were as follows:

Recommendations from the Governing Body and Aca- demic Council for Framing UG Curriculum:	 Credit range: 165 – 170 2.20 – 24 credit per Semester. VIII Sem Project Work: 8 – 10 credits Online Course (Maximum 6 credits) Audit Course (Mandatory non credit) First semester is common for all Programme First year credit range : 40 – 42 Engineering Graphics to be in II Semester Programme specific papers could be offered in II Sem. AICTE & AU 2019 curriculum could be taken as base for framing curriculum. III Sem Mathematics (Programme specific) Mandatory
Recommendations from the Governing Body and Aca- demic Council for Framing PG Curriculum:	 Credit range : 70 – 75 20 – 22 credit per semester. Online Course (Max 3 credits) Open Elective: Industry Certification Courses AU R2017 & AU R2019 curriculum could be taken as base for framing curriculum Project Work Phase I : 6-8 credit Project Work Phase II : 12-14 credit II Sem Mathematics (Programme specific) Optional Over and above credit will appear in transcript 1 Tutorial period = 1 credit

- 4. Dr. R. Shyam Kumar presented the features of the PG regulations.
- 5. Dr.SukumaranPrabhu, the Anna University nominee, suggested that credit distribution should be as per AICTE model curriculum. This would mean an allocation of credit range of 70 -75 for Postgraduate Syllabus.
- 6. The Anna University nominee advised to invite external evaluators for evaluation of both theory and practical papers for at least 5 years. After that internal faculty members could be involved in the evaluation process.
- 7. The Anna University nominee also suggested renaming the paper"Applied statistics for Biologists" to Applied statistics for Biotechnologists. He also recommended having a Committee of Faculty members from Mathematics and Biotechnology departments while preparing the syllabus.
- 8. Dr.A.Santhiagu supported the above statement and suggested to include Biostatistics related contents and case studies addressing the biological concepts in the syllabus.

- 9. The chairperson enquired that whether non parametric tests could be included in the syllabus and Dr.A.Santhiagu accepted the above suggestion.
- 10. The Anna University nominee enquired about the minimum number of students required for the selection of one elective.
- 11. The chairperson replied that according to the Academic council meeting recommendations, the minimum number of students required for the selection of one elective in Post graduate programme would be followed and it is recommended to be 4 candidates
- 12.Dr.A.Santhiagu recommended including the Bioprocess Simulation course in the first semester as bridging course.
- 13.Dr.N.Ayyaduraisuggested to addcourses like Synthetic Biology and Structural Biology course in the syllabus.
- 14.Dr.A.Santhiagu supported the above statements and advised to include the subjects as Professional Elective in Semester 2.
- 15.Dr.K.Rajeshwari enquired about the provision for including courses focusing at Pharma Industry regulatory issues or Entrepreunership to bridge the gap and make the students Industry ready candidates.
- 16. The Anna University nominee advised that there should be some difference between the Undergraduate and Postgraduate syllabus of Advanced Bioprocess Technology.
- 17.Dr.V.C.Padmanaban explained the outline of the Bioprocess Principles and Bioprocess Engineering of Undergraduate Curriculum and mentioned that around 20 -25% of syllabus is advanced in Postgraduate Curriculum.
- 18.Dr.A.Santhiagu recommended that the title of the first unit "Black Box Model" of Advances in Bioprocess Technology course has to be reframed.
- 19.He also suggested the swapping of Unit 3 and Unit 2 in Bioprocess Technology Course
- 20.Dr.K.Rajeshwari advised including Antibody therapeutics / Mammalian cell culture system as Case Studies in Unit 5 of Immunotechnology Course
- 21.Anna University nominee suggested to include Drug Designing topic in the Computational Biology paper and Mr.S.Manibalan mentioned that Molecular Docking topic was already there in the syllabus.
- 22.Anna University nominee enquired whether Animal Ethical committee approval is there for Animal Handling experiments given in Immunotechnology laboratory
- 23. The chairperson informed that it extension of approval need to be sought from Committee for the Purpose of Control and Supervision of Experiments on Animals (CPCSEA)

- 24.Dr.A.Santhiagu and Anna University nominee suggested to remove the Handling of Animals Experiment (Experiment No. 1) from the immunotechnology lab syllabus
- 25.Dr.A.Santhiagu suggested renaming the lab course "Integrated Bioprocess Development Lab"as "Integrated Bioprocess Laboratory".
- 26.Anna University nominee suggested moving the Preparative Analytical Techniques lab to Semester 1 and Dr. Rajeshwari also suggested the same.
- 27. The chairperson suggested that over the years it is observed that Postgraduate students find it difficult to process the analytes in their chosen model or system for project work as they are not aware of the derivatization or analytical tools to be used for a specific biomolecule purification and characterization. It was discussed and concluded that first seven experiments of the Lab Preparative Analytical Techniques can be moved to semester 1 as separate laboratory. As per this suggestion new laboratory course titled Advanced Biochemistry and Advanced Microbiology laboratory would be included in the first semester.
- 28. Anna University nominee insisted on having Biosafety Committee for conducting experiments related to Recombinant DNATechnology.
- 29. Anna University nominee also suggested to include the Extracellular matrix and Scaffold topics in Unit 3 of Tissue Engineering.
- 30.Anna University nominee suggested to include including Research methodology for Biotechnologists course as Professional Course instead of elective course. Dr.A.Santhiagu suggested that it is mandatory for Ph.D program and for the Post graduate program it could be offered as elective paper and students opting for higher studies could study it
- 31. The above statement was discussed and it was decided to include the Research Methodology paper to the Professional Elective Category.
- 32.Er.S.Sivagamasundari suggested providing Industry specific topics like Regulatory Affairs and Industry Oriented Certification courses as Professional Elective.
- 33.All the faculty members of the department accepted her suggestion.
- 34. Anna University nominee suggested NPTEL/SWAYAM platform for Online courses as 2 credit course.
- 35.Er.M.Soundaryalakshmi enquired about the duration of Online Course to the experts.
- 36.It was recommended that duration of online course can be minimum of 8 weeks and maximum of 12 weeks.
- 37. The External experts suggested the following suggestions regarding the formatting of the syllabus:

- i. For every Paper, under objective, the phrase "The Course aims at"has to be removed.
- ii. The objective has to be pointed out clearly.
- iii.For every paper, Unit title has to be checked for the appropriateness with the contents of the unit
- iv. In each unit, subtitles have to be clearly mentioned separated by hyphen.
- v. In reference section, DOI can be mentioned for e-Books, for re-prints, Book edition and Publication has to be checked
- vi. For the entire syllabus, margin alignments have to be done uniformly.
- 38. After this, the chairperson presented the regulation of Undergraduate syllabus.
- 39. The chairperson, presented the proposed R2020 First year curriculum, syllabus and curriculum framework for the Undergraduate (UG) program. Also, she presented the comparison of the overall credit of proposed R2020 KCET, AICTE model curriculum and AU R2019 curriculum to the board.
- 40.Anna University nominee suggested framing the UG curriculum with 160 credits. Dr. AnantAchary and the chairperson highlighted the Academic council recommendations as well as AICTE model curriculum.
- 41.Dr. A. Santhiagu and other board members agreed to proceed with overall credit of 165 to 170 for the UG program.
- 42. The chairperson presented the proposed UG curriculum for the II, III and year. The board of study members recommended that the academic council recommendations could be adopted.
- 43.Students should complete two mandatory audit courses (non -credit) to become eligible for getting degree,
- 44.Online courses of maximum 6 credits (one online course should be given during VII/VIII semester),
- 45.Seven professional electives can be offered to UG Biotechnology students and 2 open electives couldbe offered to other departments
- 46.Over and above credit for internship/training, value added programs couldbe included.
- 47.Anna University nominee opined that categorization of courses under specific categories like professional core, professional electives, engineering sciences, general engineering, employability enhancement courses need to be properly verified before drafting the syllabus. He also suggested that prerequisite components for higher semester

papers should be met with in the lower semesters and there has to be a sequential arrangement of theory and laboratory courses and should facilitate thorough understanding of the concepts by the students. The chairperson assured that all these fundamental things will be abided and will follow the institutional guideline framework for allocation of codes and categories for the courses.

- 48. The chairperson explained to the members that the UG curriculum framework will be shared to the members of the BOS through online before drafting of the syllabus and the presentation of the same in the meeting to be scheduled for finalization and approval of UG curriculum framework and syllabus.
- 49.Dr. A.Santhiagu, and Ms. S.Sivagamasundari appreciated the efforts taken by the Department of Biotechnology to design the professional elective category based on the various domains of biotechnology that would support the Program Specific outcome of industry preparedness and higher study preparedness. The external expert members appreciated the effort taken by the department in considering GATE syllabus while framing the elective subject options.
- 50. The syllabus of the programme specific course to be offered during the second semester, Biochemistry and Biochemistry Laboratory was presented to the board and the following modifications were suggested by Dr. A. Santhiagu : the title of Unit 1 to be modified as "Introduction to Biomolecules" and modifying the content of unit 2 based on unit 1.
- 51. Anna University nominee opined that the syllabus for Biochemistry theory paper proposed for the second semester needs extensive revision as the syllabus proposed is very vast. He also opined that the subunits need to be specifically pronounced to avoid ambiguity while setting question paper. He also suggested including clinical biochemistry aspects in the fifth unit instead of case studies related to industrial biotechnology. He also extended his support in drafting the syllabus
- 52.In Biochemistry laboratory Course, the members opined that no modifications were required and it could be taken as such

<u>Date of next meeting</u>: The next meeting will be held during the next even semester (tentatively, First week of January, 2021).

Dr.R.Shyam Kumar proposed the vote of thanks to all the external and internal experts and the meeting adjourned

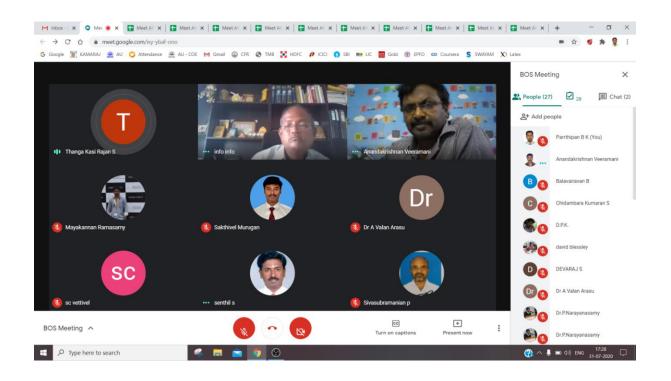
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S.P.G.C.Nagar, K.Vellakulam - 625 701, (Near Virudhunagar), Madurai District.

ANNEXURE IX

DEPARTMENT OF MECHANICAL ENGINEERING





(An Autonomous Institution - AFFILIATED TO ANNA UNIVERSITY, CHENNAI) S.P.G.Chidambara Nadar - C.Nagammal Campus S.P.G.C.Nagar, K.Vellakulam - 625 701, (Near Virudhunagar), Madurai District. DEPARTMENT OF MECHANICAL ENGINEERING ACCREDITED BY NBA, NEW DELHI

Minutes of Meeting – BoS – 31st July, 2020 MINUTES OF THE 1st ONLINE MEETING

BOARD OF STUDIES OF MECHANICAL ENGINEERING

DATE: 31st July, 2020, Friday

Time: 4.00 PM – 7.00 PM

PLATFORM : GOOGLE MEET

Meeting Link: https://meet.google.com/ixy-ybaf-ono

IN ATTENDANCE:

S.No	Name of the Expert	Designation	Capacity	
1	Dr. A. Valan Arasu, M.E., Ph.D.	Professor/ Mechanical Engineering Thiagarajar College of Engineering, Madurai	Anna University Nominee	
2	Dr. S.C. Vettivel, M.E., Ph.D.	Associate Professor/Mechanical Engineering Chandigarh College of Engineering and Technology, Chandigarh	Academic Council nominated BoS Members	
3	Dr. V. Anandha Krishnan, M.E., Ph.D.	Associate Professor/Production Engineering National Institute of Technology, Tiruchirapalli		
4	Er. K. Rajarathinam B.E.,	Proprietor Essar Engineers, Coimbatore	Industrialist	



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Minutes of Meeting – BoS – 31st July, 2020

5.	Er. R. Mayakannan M.Tech.,	CAE Engineer Renault Nissan Technology and Business Centre, Chennai	Alumni
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FACULTY OF MECHANICAL ENGINEERING

MEMBERS

S.No	Name of the Faculty	Designation
1	Dr. S. Senthil	Chairman / HoD-MECH
2	Dr. S. S. Saravana Kumar	Associate Professor / MECH
3	Dr. P. Narayanasamy	Assistant Professor / MECH
4	Mr. T. Ramesh	Assistant Professor / MECH
5	Mr. S. Chidambara Kumaran	Assistant Professor / MECH
6	Mr. D. Palani Kumar	Assistant Professor / MECH



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S.P.G.C.Nagar, K.Vellakulam - 625 701, (Near Virudhunagar), Madurai District. **DEPARTMENT OF MECHANICAL ENGINEERING ACCREDITED BY NBA, NEW DELHI** Minutes of Meeting – BoS – 31st July, 2020

Minutes of Meeting – BoS – 31 st July, 2020		
7	Mr. P. Siva Subramanian	Assistant Professor / MECH
8	Mr. B. Prabhu	Assistant Professor / MECH
9	Mr. B. Balavairavan	Assistant Professor / MECH
10	Mr. N. R. Madhan	Assistant Professor / MECH
11	Mr. B. K. Parrthipan	Assistant Professor / MECH
12	Mr. S. Devaraj	Assistant Professor / MECH
13	Mr. M. Prithiviraj	Assistant Professor / MECH
14	Mr. T. Suresh	Assistant Professor / MECH
15	Mr. A.Sankar Narayana Murthy	Assistant Professor / MECH
16	Mr. K. Murugananthan	Assistant Professor / MECH
17	Mr. P. Senthamarai Kannan	Assistant Professor / MECH



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18	Mr. S. Thanga Kasi Rajan	Assistant Professor / MECH UG Programme Coordinator
19	Mr. R. Sakthivel Murugan	Assistant Professor / MECH PG Programme Cooordinator
20	Mr. S. David Blessley	Assistant Professor / MECH
21	Mr. L. Loganathan	Assistant Professor / MECH
22	Mr. S. Muthu Natarajan	Assistant Professor / MECH

THE MINUTES:

The meeting is called for considering the Undergraduate and Postgraduate curriculum & syllabi.

DISCUSSIONS:

- 1. Dr.S.Senthil welcomed the gathering and introduced the external members to the faculty.
- 2. Dr.S.Senthil gave a brief presentation about the institution and overview of the Department and its profile, faculty profile & achievements, student Profile & achievements.



DEPARTMENT OF MECHANICAL ENGINEERING ACCREDITED BY NBA, NEW DELHI

Minutes of Meeting – BoS – 31st July, 2020

3. Dr.S.Senthil presented the proceedings of the first Academic Council meeting (Guidelines recommended for framing UG, PG and First year Curriculum) held on 17.07.2020. The highlights of the discussion were as follows

Recommendations from the	 Credit range: 165 – 170 20 – 24 credit per Semester. VIII Sem Project Work: 8 – 10 credits Online Course (Maximum 6 credits) Audit Course (Mandatory non credit) First semester is common for all Programme First year credit range : 40 – 42 Engineering Graphics to be in II Semester Programme specific papers could be offered in
Governing Body and	II Sem. AICTE & AU 2019 curriculum could be taken
Academic Council for	as base for framing curriculum. III Sem Mathematics (Programme specific)
Framing UG Curriculum:	Mandatory
Recommendations from the Governing Body and Academic Council for Framing PG Curriculum:	 Credit range : 70 – 75 20 – 22 credit per semester. Online Course (Max 3 credits) Open Elective: Industry Certification Courses AU R2017 & AU R2019 curriculum could be taken as base for framing curriculum Project Work Phase I : 6-8 credit Project Work Phase II : 12-14 credit II Sem Mathematics (Programme specific) Optional Over and above credit will appear in transcript 1 Tutorial period = 1 credit

4. Er. R. Sakthivel Murugan AP/Mech presented the proposed curriculum KCET_PG_R2020 for M.E Manufacturing Engineering.



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- **5.** Dr. Anandha Krishnan, Expert member expressed that the syllabus of Advances in Manufacturing Technology doesn't include any joining processes like casting, welding etc., which may be included. Also he recommended that recent trends like machine tooling, tool building has to be included.
- 6. He also suggested that as a Manufacturing Engineering syllabus, Rapid prototyping can be renamed as rapid Manufacturing. Theoretical knowledge on CNC machining must be included in curriculum before going for CNC Simulation Lab
- 7. Dr. S.C. Vettivel, expert member suggested that subjects like Design of Experiments and Optimization Techniques can be put under a single subject as Research Methodology.
- **8.** He also suggested that in Manufacturing Engineering Curriculum, Advances in Casting and Welding should be included in professional core rather than in professional elective.
- 9. Dr. Valan Arasu, Expert member advised that care should be taken while framing the syllabus for PG and the syllabus studied in UG should not be repeated for PG.
- **10.**It is suggested that, if theory based labs can be incorporated in UG curriculum, the same can be done in PG curriculum also.
- **11.**He also pointed out that the PEO statements for PG should be corrected as graduates of the programmes and not as students of the programme.
- **12.**Er. Mayakannan, suggested that 3D product development by using 3D scanning techniques may be taught to students as an additional topic.
- 13.Er. S. Thanga Kasi Rajan, AP/Mech made the concluding remarks for the PG curriculum and pointed that the subjects like Machining, Forming, casting, welding and Tooling are included as Professional core. Their advancements shall also be included. Subjects like Research methodologies and Design of experiments shall be merged and offered as a single paper. Care should be taken so that the syllabus content should not be repeated from the UG syllabus.
- 14.HOD/Mechanical Engg gave a presentation on First year UG curriculum of B.E. Mechanical Engineering. He gave presentation on both two models. Model I is common. Model II program specific papers are included. He also presented the syllabus for the subjects like Material Science, Engineering Graphics, Engineering Mechanics, Engineering practice lab and Basic Civil and mechanical engineering.
- 15.In Engineering Graphics syllabus, it is recommended not to remove any contents from the AU syllabus instead, it can be bracketed as 'not for examinations' or 'simple problems only'



(An Autonomous Institution - AFFILIATED TO ANNA UNIVERSITY, CHENNAI) S.P.G.Chidambara Nadar - C.Nagammal Campus S.P.G.C.Nagar, K.Vellakulam - 625 701, (Near Virudhunagar), Madurai District. DEPARTMENT OF MECHANICAL ENGINEERING ACCREDITED BY NBA, NEW DELHI

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16.The expert committee recommended to include program specific papers Electrical Engineering Lab and Engineering Mechanics in Semester II as they are necessary for a Mechanical Engg student.

17.Er. S. Thanga Kasi Rajan, AP/Mech presented the proposed curriculum KCET_UG_R2020 for B.E. Mechanical Engineering.

- 18.Dr. Valan Arasu, Expert member suggested to provide equal importance for Thermal Engineering stream like Design and Manufacturing Engineering in terms of credit points.
- 19.He insisted that the curriculum of each semester should contain at least one subject in each stream.
- 20.He suggested the courses completed through NPTEL/ Swayam are added as a separate category and not included in any other categories (Professional core/ Professional Elective/ Basic Science/ etc.,)
- 21.He suggested to propose the list of courses offered in a specific stream with its credit points and the weightage of each streams semester wise in the subsequent meeting.
- 22.He also suggested to incorporate Theory based laboratory courses in future.
- 23.Dr. Anandha Krishnan examined the inclusion of the new courses in the curriculum and also to show the list of subjects which has been removed from the AU 2019 curriculum.
- 24.He agreed the proposed new curriculum and recommended to prepare the syllabus carefully so that it covers industrial expectations as well as competitive exams
- 25.Er. Rajarathinam, Industrialist expressed that the Interaction with Industry should be more. He suggested industrial training/ internship for both students and faculty. He also appreciated the efforts taken by our college for enhancing Industry Institute Interaction. It was concluded that the students shall be given extra credits for industrial training/ internship as over and above credit which will be printed in their transcript and not included for CGPA calculation.

General Conclusions:

- 26.Thermodynamics and Fluid Mechanics are included in the same semester, which may be separated as the students may find it difficult to learn
- 27. The online courses recommended to choose need not match with the subjects which the student already studied



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- 28. The students can be allowed to take any BOS approved courses from NPTEL/ Swayam and has a freedom to choose either 4 weeks/ 8 weeks or 12 weeks courses. However for CGPA calculation maximum of 6 credits only will be considered as per the regulation. The expert committee accept the proposed online course system.
- 29. Credit allocation for audit courses, internships were clarified
- 30.The expert committee members were satisfied with the proposed curriculum and appreciated Er. S. Thanga Kasi Rajan for his excellent presentation and the Team of KCET/Mech for their efforts in framing the curriculum structure.
- 31. Date of next meeting: The tentative date for the next Board of Studies meeting was discussed and scheduled on 4th Saturday of January 2021
- 32. The meeting ended up with Vote of Thanks proposed by Dr.S.S.Saravana Kumar ASP/Mech



ANNEXURE -X

DEPARTMENT OF CIVIL ENGINEERING

DATE: 03rd August 2020, Wednesday

Time: 11.00 AM

Meeting Link: https://meet.google.com/rye-bosr-jsy





COMMITTEE MEMBERS

Capacity	Name & Designation
Chairman of the Board of Civil Engineering	Dr.R.Lakshmi, M.E, Ph.D., Head of the Department, Department of Civil Engineering, Kamaraj College of Engineering and Technology, Madurai -625 701
Anna University Nominee	Dr.G.Chitra Professor, Dept.of Civil Engineering, Thiagarajar College of Engineering, Madurai-625 015
Academic Council Nominee	Dr. S.Jayalekshmi Professor Department of Civil Engineering, NIT Trichy, Tamil Nadu - 620015
	Dr. G. Janardhanan Associate Professor, Center for Environmental Management,NITTTR, Taramani, Chennai - 600113.
Industrialist	Er.L.Balaji , International Professional Engineer & Registered Valuer , Balaji & Associates, Madurai -625016.
Alumni	Mr. P. Karthick Project Associate, CSIR – Structural Engineering Research Centre(SERC), Chennai

MEMBERS PRESENT:

Dr.P.Kathirvel, M.E, Ph.D.,

Professor, Department of Civil Engineering, Kamaraj College of Engineering and Technology, Madurai. **PG programme Co ordinator**

Mr.S.P.Muralikannan,

Assistant Professor, Department of Civil Engineering, Kamaraj College of Engineering and Technology, Madurai. **UG programme Co ordinator**

Mr.P.Ponkarthikeyan,

Assistant Professor, Department of Civil Engineering, Kamaraj College of Engineering and Technology, Madurai. **Member**

Mr.N.Jegan Durai,

Assistant Professor, Department of Civil Engineering, Kamaraj College of Engineering and Technology, Madurai. **Member**

Mr.D.Velumani,

Assistant Professor, Department of Civil Engineering, Kamaraj College of Engineering and Technology, Madurai. **Member**

Mr.A.Krishnamoorthy,

Assistant Professor, Department of Civil Engineering, Kamaraj College of Engineering and Technology, Madurai. **Member**

Mr.M.Subahar,

Assistant Professor, Department of Civil Engineering, Kamaraj College of Engineering and Technology, Madurai. **Member**

Mr.P.Ganesh Prabhu,

Assistant Professor, Department of Civil Engineering, Kamaraj College of Engineering and Technology, Madurai. **Member**

Mrs.B.Deepa,

Assistant Professor, Department of Civil Engineering, Kamaraj College of Engineering and Technology, Madurai. **Member**

Dr.A.Karthick,

Assistant Professor, Department of Civil Engineering,

Kamaraj College of Engineering and Technology, Madurai. **Member**

Mr.R.Ganesh,

Assistant Professor, Department of Civil Engineering, Kamaraj College of Engineering and Technology, Madurai. **Member**

Mrs.R.Sangeetha,

Assistant Professor, Department of Civil Engineering, Kamaraj College of Engineering and Technology, Madurai. **Member**

Mr.K.Hariharan,

Assistant Professor, Department of Civil Engineering, Kamaraj College of Engineering and Technology, Madurai. **Member**

Mrs.J.Vijaya Keerthana,

Assistant Professor, Department of Civil Engineering, Kamaraj College of Engineering and Technology, Madurai. **Member**

Discussions of the meeting:

- 1. The meeting started in online mode using Google meet platform at 11.00 a.m. Head of the Department offered a warm welcome to all the members of the Board of Studies. Salient points about the institution and Department were presented by HOD.
- 2. HOD presented the list of members of the academic council and highlighted the suggestions recommended by academic council regarding curriculum framework under autonomous process.
- 3. The proposed PG regulation was presented by Dr.P.Kathirvel, Professor in Civil Engineering and discussions were held on review of curriculum and syllabi. Following suggestions given by Experts and Alumni member on PG Programme.
- 4. Dr.G.Chitra recommended that Repair and Rehabilitation course shall be modified as Forensic Engineering and should include more case studies in repairing techniques which is also a vital concept for Structural Engineering students.
- 5. Dr G. Janarthanan added that Research methodology and IPR should be given preference while selecting online courses.
- 6. Analytical software tools such as STAAD Pro., ANSYS and ABACUS are presently conducted as value added courses to the PG students. Experts opined that these should be mandatorily included in curriculum itself.

- 7. Er P Karthick emphasized that Pipeline designs, Oil and Gas storage structures should be included in Industrial structures as it is the need of many industries which shall add employability scope of Structural Engineers.
- 8. Practical training for PG students is specified in three semesters as per AU 2017 curriculum. The importance of these trainings was discussed and the members recommended that training during II Semester and III semester is sufficient as students are expected to be attached with industries for the research work during the fourth semester.
- 9. Mr.S.P.Muralikannan, UG Programme co ordinator presented curriculum frame work of Semester I & II and experts gave the following suggestions.
- 10. Model I and II curriculum for semester II were discussed. Members recommended Model II curriculum as it includes the Engineering Mechanics- Programme Specific course which is fundamental to understand the Civil Engineering subjects.
- 11. As credits are limited for the first year courses, Dr.S.Jayalekshmi suggested that credit points for language courses shall be considered as one credit courses as these courses are not connected with technical concepts directly.
- 12. The proposed R2020 UG regulation Semester III to VIII was presented and discussions were held on review of curriculum of B.E. Civil Engineering programme. Following suggestions were given by Expert members.
- 13. Dr. G.Chitra suggested that laboratory courses should be conducted in successive semesters when correlating with theory subjects for better understanding.

14.Er.L.Balaji advised One credit/two credit courses should be offered by industry experts. He elaborated about such courses and the effectiveness of the courses in some other institutions to shape the students to match with industrial requirements.

15.Dr.Jayalekshmi suggested that IPR related topics should be included in any of the elective subjects and Dr.G.Janarthanan recommended that syllabus of Construction Materials should include new topics like green material, sustainable material, Nano materials, construction chemicals etc.

16.Experts emphasized that Construction Management course should be included in the curriculum as Professional Core and training on construction management software packages is vital for Civil Engineering students.

16.Dr.G.Janarthanan suggested that essential topics such as OSHA standards, EIA 2020 standards, Accounting and financing should be included in the syllabus with due consideration of their relevance to the courses.

17.Industrialist Er.L.Balaji added that new topic like Geo-Informatics shall be offered as EEC and extended that would afford employability for Civil Engineers for Prime minister's informed Digital mapping technology in India scheme.

18.Experts suggested that elective subjects should cover the important domains of Civil Engineering. Courses suggested for professional elective courses :

- Environmental impact assessment.
- Sustainability
- Human resource management
- Industrial Psychology

19. Courses suggested for Employability Enhancement courses :

- Smart City Planning and Development
- IoT Applications in Civil Engineering
- Sustainable Road Development

20. Mr P Karthick, Alumni suggested that Inhouse training for construction practices such as Bar bending Scheduling and Detailing should be focused.

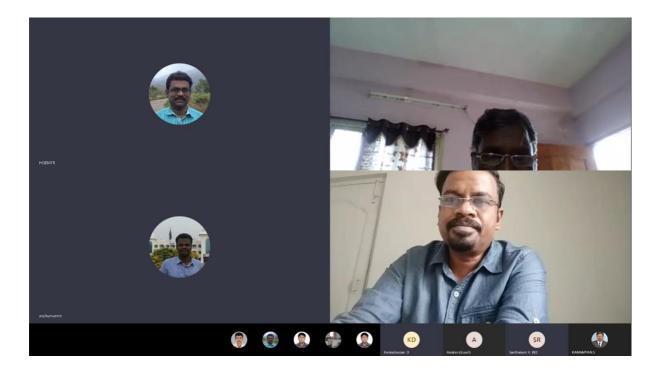
21.Dr. G. Janarthanan emphasized that students should be encouraged to attend internship programs organized by AICTE.

With a formal thanks note the meeting was concluded.



ANNEXURE XI

DEPARTMENT OF MECHATRONICS ENGINEERING





DEPARTMENT OF MECHATRONICS ENGINEERING Minutes of Meeting –First Draft –BoS –05th August, 2020 MINUTES OF THE 1st ONLINE MEETING

BOARD OF STUDIES OF MECHATRONICS ENGINEERING

DATE: 05th August, 2020, Wednesday

Time: 10.00 PM –12.30 PM

PLATFORM : Microsoft Team

Meeting Link: http://tiny.cc/MTREBOS

IN ATTENDANCE:

S.No	Name of the Expert	Designation	Capacity
1	Dr. V. Santhanam	Dr. V. Santhanam, Professor & Head, Department of Mechatronics Engineer- ing, Rajalakshmi Engineering College,Chennai - 602 105. <u>santhanam.v@rajalakshmi.edu.in</u> Ph: 9840166401	AU Nominee
2	Dr. T. Asokan	Dr. T. Asokan, Professor & Head, De- partment of Engineering Design, Indi- an Institute of Technology Madras, Chennai – 600036 <u>asok@iitm.ac.in</u> Ph: 22574707	Academic Council nominated BoS Members
3	Dr. N. Selvaraj	Dr. N. Selvaraj, Professor, Department of Mechanical Engineering, National Institute of Technology Warangal, Telangana-506004 <u>selva@nitw.ac.in</u> Ph:9989231847	



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4	Dr. N. Manivannan	Mr. N. Manivannan Managing Director, Techland Automa- tion, 196 Dindigul main road, Tiruchirappalli – 620001. <u>info@techland.in</u> Ph:9994304608	Industrialist
5.	Dr. D. Kannadassan	Dr. D. Kannadasan, Associate Professor, Center For Nanotechnology Research, Vellore Institute of Technology, Vellore-600 014 <u>dkannadasan@vit.ac.in</u> Ph:91-9944055243	Alumni

FACULTY OF	
MECHATRONICS ENGINEERING	MEMBERS

S.No	Name of the Faculty	Designation
1	Dr. K. Kannan	Associate Professor
2	Mr. G. Sakthivel	Assistant Professor
3	Mr. A. Arul Kumar	Assistant Professor
4	Mr. S. Kannappan	Assistant Professor
5	Mr. P. Balasundar	Assistant Professor
6	Mr. B. Aravind Kumar	Assistant Professor
7	Mr. A. Ganesan	Assistant Professor



DEPARTMENT OF MECHATRONICS ENGINEERING Minutes of Meeting –First Draft –BoS –05th August, 2020

THE MINUTES:

The meeting is called for considering the Undergraduate curriculum & syllabi.

DISCUSSIONS:

- 1. Dr. K. Kannan welcomed the gathering and introduced the external members to the faculty.
- 2. Dr. K. Kannan presented the Overview of the Institution/Department, Courses offered in the institution, Student and Faculty strength and also about the growth and development of the Institution/Department.
- 3. Dr. K. Kannan discussed about the Proceedings of 1st Academic Council Meeting held on 17th July 2020 to the experts. The highlights of the discussion were as follows:

Recommendations from the	 Credit range: 165 –170 20 –24 credit per Semester. VIII Sem Project Work: 8 –10 credits Online Course (Maximum 6 credits) Audit Course (Mandatory non credit) First semester is common for all Programme First year credit range : 40 –42 Engineering Graphics to be in II Semester Programme specific papers could be offered in
Governing Body and Aca-	II Sem. AICTE & AU 2019 curriculum could be taken
demic Council for Framing	as base for framing curriculum. III Sem Mathematics (Programme specific)
UG Curriculum:	Mandatory

- 4. After this, Dr. K. Kannan presented the regulation of Undergraduate syllabus.
- **5.** Dr. K. Kannan, presented the proposed R2020 First year curriculum, syllabus and curriculum framework for the Undergraduate (UG) program. Also, he presented the overall credit of proposed R2020 KCET.
- **6.** In the proposed R2020 KCET Curriculum, two models were proposed for II Semester. Dr. V. Santhanam, recommended to follow the curriculum in which there are program specific theory and lab course. The program specific theory paper named "Engineering



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Mechanics" will be helpful for students to study strength of materials & Machine design in the upcoming semester.

- **7.** Dr. N. Selvaraj, Dr. T. Asokan, Dr. N. Manivannan & Dr. D. Kannadassan suggested to follow the same because it is suitable for our students.
- **8.** Dr. T. Asokan told that it is not good to offer Fundamentals of Electrical and Electronics Lab in II semester without offereing Theory course on Fundamentals of Electrical and Electronics. So, it is decided to offer GE155-Computer Modeling and Drafting laboratory as program specific lab in II semester.
- **9.** Dr. N. Selvaraj & Dr. T. Asokan Suggested to modify GE155-Computer Modeling and Drafting laboratory as Computer Aided Drafting laboratory. Also they asked to include one exercise for "Geometrical Dimensioning and Tolerances"
- **10.**Dr. K. Kannan presented the proposed UG curriculum for the II, III and IV year. The board of study members recommended that the academic council recommendations could be adopted.
- **11.**Students should complete two mandatory audit courses (non –credit) to become eligible for getting degree.
- **12.**Online courses of maximum 6 credits (one online course should be given during VI/VII semester).
- 13. Over and above credit for internship/training, value added programs can be included.
- **14.** Dr. T. Asokan suggested to include the fundamentals of Electrical and Electronics Engineering as introduction part in Electrical Machines and Drives which will be offered in III Semester.
- **15.** Dr. V. Santhanam recommended to include at least one programming subject like C, C++, Python, PLC & Robot languages in higher semester since there is no Programming oriented subjects in higher semesters.
- **16.** Dr. N. Manivannan suggested to add some programming papers like C, C++ and python in higher semesters



DEPARTMENT OF MECHATRONICS ENGINEERING Minutes of Meeting –First Draft –BoS –05th August, 2020

- 17. Dr. N. Selvaraj recommended to increase the number of papers in elective options for the students and suggested to include electives like Nano Science & Nano Materials, Soft computing techniques, Design of Experiments, Artificial Intelligence & Machine Learning & Software Project management.
- **18.** Dr. N. Selvaraj suggested that the subject Design of Machine Elements is a vast one. So, while framing syllabus, care must be taken to have the syllabus content for 3 Credits alone.
- **19.** Dr. N. Manivannan suggested the elective subjects like Embedded System, Autotronics & Computer networks will help the students for placement.
- **20.**Dr. N. Selvaraj suggested having atleast one theory paper in Eighth semester in addition to one online course and main project. It was explained that students will be motivated to undertake industrial project as Main project and they will be at industry during their VIII Semester.
- **21.**Dr. N. Selvaraj suggested to modify the professional elective title in VII semester MT920- Modeling and simulation into System simulation.
- **22.** Dr. V. Santhanam asked about the Kinematics and Dynamics Lab exercises. It was explained that Kinematics Lab will be done using ADAMS package and Dynamics Lab exercises will be done using various kits.
- **23.** Dr. V. Santhanam also asked about the Robotics Lab in seventh semester. It was explained that experiments will be done using ROS and 1D, 2D & 4D robot kits.
- **24.** Dr. V. Santhanam & Dr. T. Asokan suggested the Credits can be reduced to one and the number of hours can also be reduced to 2 hours instead of 4 hours for Manufacturing Laboratory & Sensors Laboratory and the credits can be used for any other necessary subjects.
- **25.**Dr. N. Selvaraj suggested limiting the content of MT910-Computer Networks specific to Mechatronics Engineering only.
- **26.**Dr. V. Santhanam suggested to ensure the syllabus do not overlap for CNC Technology, Computer Aided Design, Manufacturing Technology and Advanced Manufacturing Technology.



DEPARTMENT OF MECHATRONICS ENGINEERING Minutes of Meeting –First Draft –BoS –05th August, 2020

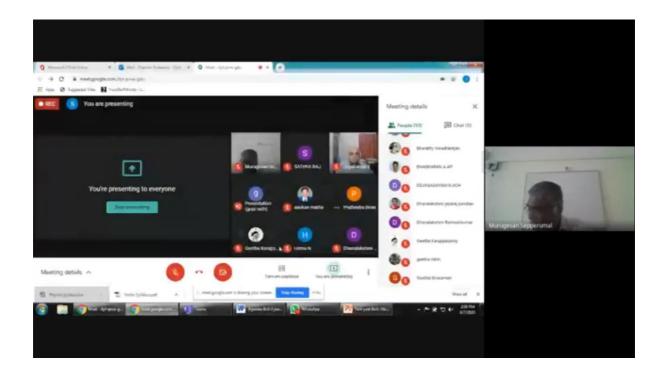
- **27.**Date of next meeting: The next meeting will be held during the (tentatively, December, 2020).
- **28.**Mr. A. Arul Kumar proposed the vote of thanks to all the external and internal experts and the meeting adjourned.



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ANNEXURE XII

DEPARTMENT OF ENGLISH





DEPARTMENT OF ENGLISH

MINUTES OF THE 1st ONLINE MEETING

BOARD OF STUDIES OF ENGLISH

DATE: 7th August, 2020, Friday

Time: 2.30 pm– 6.10 pm

PLATFORM : GOOGLE MEET

Meeting Link: https://meet.google.com/dyt-prva-gdu

IN ATTENDANCE:

EXTERNAL EXPERT MEMBERS

S.No	Name of the Expert	Designation and Address	Capacity
1	Dr. A. Bhaskaran	Professor and Head, Department of Applied Physics, Head - Campus Safety and Security, Sri Venkateswara College of Engineer- ing, Sriperumbudur - 602117	Overall Coordina- tor of First year Board
2	Dr.N.Hema Professor	Dept.of English, Rajalakshmi Engineering College Kanchipuram, Chennai.	Anna University Nominee
3	Dr. Sathyaraj Venkatesan. Associate Professor	Department of English, National Institute of Tech- nology, Trichy.	Academic Council nominated BoS Member
4	Dr. G. Baskaran Professor	School of English and Foreign lan- guages, The Gandhigram rural institute (Deemed to be university), Gandhigram.	Academic Council nominated BoS Member

INTERNAL EXPERT MEMBERS



DEPARTMENT OF ENGLISH

S.No	Name of the Faculty	Designation
1	Dr.N.Pratheeba	HoD-ENGLISH
2	Dr.N.Sundararajan	Associate Professor / ENGLISH
3	Mr.U.S.Ramaswamy	Associate Professor / ENGLISH
4	Dr.B.Kayalvizhi	Assistant Professor / ENGLISH
5	Mr.P.Vairamani	Assistant Professor / ENGLISH
6	Mr.S.Pradeepkumar	Assistant Professor / ENGLISH

MINUTES OF THE MEETING:

The First Board of Studies of the First year was conducted on 7.08.2020 through online mode at 2.30 PM - 6.00 PM. Dr. K. Geetha, First Year Coordinator, welcomed all the expert members and presented the overview of the institution, programmes offered in the institution and student profile. Dr. K. Geetha also presented the proposed R2020 - First year curriculum framework for all first year Undergraduate (UG) programmes.

DISCUSSIONS:

1. Dr. N.Pratheeba HoD/English, introduced the Board of Studies members to the faculty.

2. Dr. N.Pratheeba presented the list of courses to be offered by the Department of English in semesters I and II. The syllabus for the courses was presented to the Board of Studies for further discussions.

3. The syllabus for SH101 – Communicative English was presented.

a) Dr. Sathyaraj suggested to remove the word Specifically from the title in Unit I as it is redundant.



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DEPARTMENT OF ENGLISH

- b) Dr. Sathyaraj enquired about the language lab usage of first year students and Dr. Pratheeba mentioned that second and third year students have regular language lab classes whereas the first year students are taken to the language lab then and there for listening classes. The very same point was also raised by Dr. Baskaran.
- c) Dr. Sathyaraj recommended that HBR resources may be given for reading tasks that will ultimately help to improve the reading skills of students.
- d) Dr. Hema mentioned that Tenses are over dumped in Unit I and segregation may be done. Dr. Sathyaraj suggested that if it is going to be a reinforcement of already learnt topics, it would not be a problem. Dr. Hema also recommended that the components of Critical thinking and evaluative thinking may be added and it should be mentioned in objectives.Dr.Sathyaraj approved the statements of Dr. Hema. Dr. Baskaran suggested to include creative component.
- e) Dr. Sathyaraj suggested that idioms and phrases can be given together. Dr. Pratheeba informed that idioms have been given in Technical English paper. But Dr. Sathyaraj said that if they are given together, it will be of meaningful articulation.
- f) Dr. Hema suggested that virtual learning should be given more importance and that online tools links may be attached. Online digital resources can be made part of the syllabus.-all the three experts were unanimous in this point. Dr. Pratheeba replied that all the digital resources are mentioned in the course plan.
- g) All the three experts were unanimous in their opinion that in the evaluation process, one component should be allotted for oral presentation which may carry 10-15 marks.Dr. Pratheeba replied that oral assignments will be given .Except for the suggestions given above, the members accepted the lay out and content of the syllabus.
- 4. Next the syllabus for SH151– Technical English was presented.
 - a) Dr. Sathyaraj suggested that the word Interpretation can be replaced by the word Transcoding in the title for Unit 2
 - b) Dr. Sathyaraj suggested that Interview Skills can be given as an introduction to the Budding Engineers in Unit 3. He also suggested that Visumes can be given as it will be useful for students to improve their communication skills. Dr. Hema approved the



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DEPARTMENT OF ENGLISH

statements of Dr. Sathyaraj.

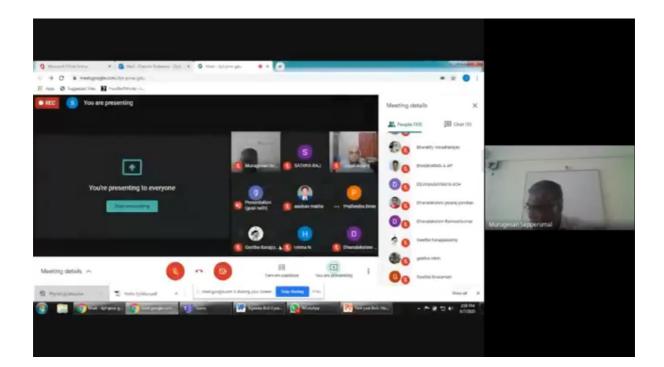
- c) Dr. Sathyaraj also mentioned that Unit IV is overloaded with many report writings. He advised that any one of the reports can be taken into account with minutes of the meeting and the rest of the reports can be given in II year or III year. Dr. Pratheeba mentioned that some domain specific assignments will be given in this paper and it was approved by the experts. The content of the above paper was accepted by the members.
- 5. All the members suggested that suitable web resources should be given in the syllabus.



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ANNEXURE XIII

DEPARTMENT OF MATHEMATICS





DEPARTMENT OF MATHEMATICS Minutes of Meeting –First Draft –BoS–7th August, 2020 MINUTES OF THE 1st ONLINE MEETING

BOARD OF STUDIES OF MATHEMATICS

DATE:7th August, 2020, Friday

Time: 2.30 PM –5.30 PM

PLATFORM : GOOGLE MEET

Meeting Link: https://meet.google.com/dyt-prva-gdu

IN ATTENDANCE:

S.No	Name of the Expert	Designation	Capacity
1	Dr.B. Thilaka	Professor, Department of Applied Mathematics Sri Venkateswara College of Enigneer- ing, Sriperumputhur.	Anna University Nominee
2	Dr. R.Asokan	Professor, Department of Mathematics, Madurai Kamaraj University, Madurai	Academic Council nominated BoS
3	Dr.V. Lakshmana Gomathi Nayagam	Department of Mathematics, National Institute of Technology, Thiruchirapalli-15	Members

FACULTY OF MATHEMATICS		MEMBERS		
S.No Name of the Faculty Designation				



DEPARTMENT OF MATHEMATICS Minutes of Meeting –First Draft –BoS–7th August, 2020

1	Dr. K. Thanalakshmi	HoD/MATHS
2	Dr. N. Kamatchi	Associate Professor/Maths
3	Dr.A. Maheswari	Associate Professor/Maths
4	Dr. A. Thamilisai	Assistant Professor / Maths
5	Dr. N. Mehala	Assistant Professor / Maths
6	Dr. S. Brindha	Assistant Professor / Maths
7	Mr. K.M. Sathiskumar	Assistant Professor / Maths
8	Mrs. M. Geetha	Assistant Professor / Maths
9	Mr. P. Pandiaraj	Assistant Professor / Mths
10	Mrs. C.Revathy	Assistant Professor / Maths
11	Mrs.K.Ananthi	Assistant Professor / Maths
12	Mrs.P. Mala	Assistant Professor / Maths
13	Mrs. S. Meenakshi	Assistant Professor / Maths



DEPARTMENT OF MATHEMATICS Minutes of Meeting –First Draft –BoS–7th August, 2020

14	Mr. S. Gopinath	Assistant Professor / Maths

THE MINUTES:

The First Board of Studies of the First year was conducted on 7.08.2020 through online mode at 2.30 PM - 6.00 PM. Dr. K. Geetha, First Year Coordinator, welcomed all the expert members and presented the overview of the institution, programmes offered in the institution and student profile. Dr. K. Geetha also presented the proposed R2020 - First year curriculum framework for all first year Undergraduate (UG) programmes.

DISCUSSIONS:

- 1. Dr. K. Thanalakshmi, Head/Department of Mathematics introduced the Board of Studies members to the faculty.
- 2. Dr.K.Thanalakshmi, presented the syllabus of Mathematics courses for I year(Both UG & PG)
- 3. On presenting the syllabus of Engineering Mathematics I, Dr.V.Lakshmana Gomathi Nayagam enquired about the repetition of basic concepts of Differentiation and Integration as they would have been already covered in School syllabus and added that it may be boring for good students.
- Dr.K.Thanalakshmi replied that these are the basic concepts for engineering students; however students from higher secondary level generally do not come with proper understanding.
- 5. Anna University Nominee Dr.B.Thilaka suggested that the syllabus should cater to the heterogeneity of the students. She asked to include an extra topic on applications which can lead the students to appreciate the relevance of their syllabus to various fields ranging from data analytics to predictive analytics.
- 6. Dr.V. Lakshmana Gomathi Nayagam suggested to include the basic concepts of Differentiation and Integration in the Bridge course and asked to add application topics as a section in the end of each unit.
- 7. Dr. B. Thilaka, Anna University Nominee opined that the students should learn Mathematics by using its applications from day1.



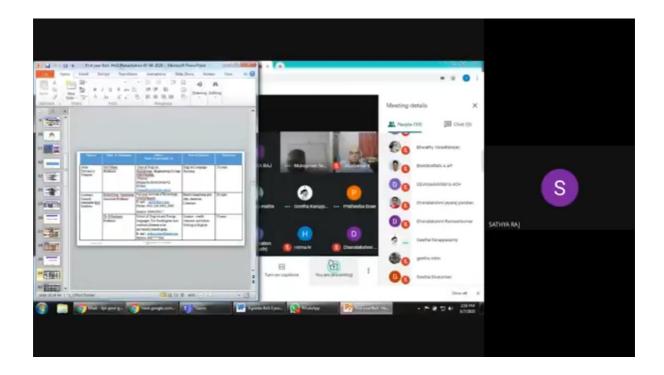
DEPARTMENT OF MATHEMATICS Minutes of Meeting –First Draft –BoS–7th August, 2020

- 8. The syllabus of Engineering Mathematics II was presented. Dr. V. Lakshmana Gomathi Nayagam suggested to reduce the content in Unit IV complex integration. Use of circular contour and semicircular contour with no poles on the real axis should be removed. Other members also accepted his suggestions.
- 8. The members also prescribed Erwin Kreyszig book on Advanced Engineering Mathematics as a reference book mentioning it as a better book for mathematical foundation.
- 9. The members suggested to give exposure to MATLAB and Mathematica to the students by including Hands on training programs in the syllabus.
- 10. When the syllabus of PG courses namely Applied mathematics for Communication Engineers, Applied mathematics for Power system Engineers, Applied Statistics for Biotechnology and Advanced Mathematical Methods were presented, the BoS members were satisfied as it was the combination of the required topics for research work.
- 11. When the syllabus of Applied mathematics in Manufacturing, Dr.B.Thilaka suggested to include bivariate and correlation topics which is a base for regression analysis in M.E Manufacturing Engineering syllabus. Also she suggested to include at least 1 hour Hands on training on regression and ANOVA leading to predictive analysis.
- 12. BoS Members suggested that separate meetings may be conducted for each subject after the common introduction of all experts to have better discussions in the corresponding subjects.
- 13. Dr.N.Pratheeba, Head/Department of English proposed vote of thanks to all the external and internal expert members.



ANNEXURE XIV

DEPARTMENT OF PHYSICS





DEPARTMENT OF PHYSICS Minutes of Meeting –BoS–7th August, 2020

MINUTES OF THE 1st ONLINE MEETING

BOARD OF STUDIES OF PHYSICS

DATE: 7th August, 2020, Friday

Time: 2.30 PM –6.10 PM

PLATFORM : GOOGLE MEET

Meeting Link: <u>https://meet.google.com/dyt-prva-gdu</u>

IN ATTENDANCE:

S.No	Name of the Expert	Designation	Capacity
1	Dr. A. Bhaskaran Professor and Head, Department of Applied Physics, Head - Campus Safety and Security, Sri Venkateswara College of Engineer- ing, Sriperumbudur - 602117		Overall Coordinator of First year Board
2	Dr.M.Mahendran	Department of Physics Thiagarajar College of Engineering, Ma- durai Email: <u>manickam-mahendran@tce.edu</u> Phone: 04522482240	Anna University Nominee
3	Dr.J.Hemalatha	National institute of Technology, Tiruchirappalli <u>hemalatha@nitt.edu</u> 0431-2503800 / 2503803	Academic Council nominated BoS
4	Dr.K.Jayakumar	Professor, Department of Physics, Gandhigram Rural Institute (Deemed to be University), Gandhigram, Dindigul	Members



	Kjkumar_gri@rediffmail.com 04512452371	
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FACULTY OF PHYSICS	MEMBERS
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S.No	Name of the Faculty	Designation
1	Dr.K.Geetha	First Year Co-ordinator
2	Dr. A.Yelilarasi	Chairman / HoD-Physics
3	Dr. M.Hema	Associate Professor / Physics
4	Dr.K.Sakthiraj	Assistant Professor / Physics
5	Dr.M.Shanthi	Assistant Professor / Physics
6	Dr.G.Bharathy	Assistant Professor / Physics
7	Mr.K.M.Manikandan	Assistant Professor / Physics

THE MINUTES:

The meeting was called for considering the Undergraduate curriculum & syllabi. **DISCUSSIONS:**



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Dr.A.Yelilarasi presented the syllabus for first semester theory Engineering Physics & Basic sciences laboratory (common to all programmes).

1. ENGINEERING PHYSICS

- a) Dr.M. Mahendran suggested to remove the following topics in UNIT I -ULTRA-SONICS: Magnetostriction effect, piezoelectric effect, drilling, welding, soldering and cleaning, pulse echo system through transmission and reflection modes. He suggested to include: Magnetic particle testing. Dr.K.Jayakumar enquired Dr.M.Mahendran about the reason to remove those concepts.He insisted that first year students need to study the basic concepts and an elaborate syllabus is better for them. Dr.A.Bhaskaran suggested that the faculty would explain the basic terminology in their lesson plan.
- b) Dr.M. Mahendran suggested to remove some topics in Unit –II WAVES AND FIBER OPTICS: waves oscillations-free, forced and damped oscillations (qualitative) - population of energy levels, Derivation part of Einstein coefficient, population of energy levels, resonant cavity, optical amplification, losses associated with optical fibers.
- c) Dr.K.Jayakumar suggested the following reference books for Engineering Physics;

➢ John Wilson, J. F. B. Hawkes, Optoelectronics: An Introduction, Prentice Hall of India, 1998.

P.M. Mathews and Venkatesan, A Text book of Quantum Mechanics, Tata McGraw hill, 2010.

- Elementary Solid state physics by Ali omar.
- d) Dr.A.Yelilarasi presented the syllabus for Basic Sciences laboratory Course (Physics Laboratory). The members suggested that no modifications were required and it could be taken as per the availability of the instruments.
- e) Dr.A.Yelilarasi presented the syllabus proposed for second semester Program specific Physics theory courses.

2. PHYSICS FOR INFORMATION SCIENCE

- a) Dr.A.Yelilarasi requested the expert members for their suggestion to replace the Unit-V, Nano-electronic devices with Sensors and Transducers in Physics for Information science (common for CSE, IT, AI) because it had been suggested by IT BOS members
- b) In this syllabus certain modifications were suggested by experts. In Unit-I-



Conducting & Super conducting Material Dr.M.Mahendran suggested to remove Introduction - Classical free electron theory of metals - Expression for electrical conductivity & thermal conductivity of metals using classical free electron theory -Wiedemann-Franz law – Success and failures of classical theory. These are the basic things studied by the students in their higher secondary level. He suggested to include free electron theory, super conducting electrode single flux quantum technology used in super computers. He insisted that it was essential for CSE, IT, AI students.

- c) In Unit-II-Semiconducting materials, Dr.M.Mahendran suggested to include Carrier generation and recombination processes. He opined that the basic aspect of Semiconductor was not needed. He suggested to include continuity equation and rectification equation in syllabus. Dr.K.Jayakumar also suggested the same.
- d) In Unit-III Magnetic Properties of Materials Dr.M.Mahendran suggested that the concepts were basic. In this unit he also suggested to add Langevin equation, Nonisotropy, Neel temperature. Dr.K.Jayakumar suggested to replace the content Magnetic hard disk with GMR sensor. He also suggested that studying Density of states would be heavy for a first year student.
- e) Experts suggested that Unit-V content was at a higher level, i.e research level. They felt that some minor corrections were needed. The syllabus must be on-par with the Anna university level not more than that.
- f) Dr.K.Jayakumar recommended the following books: 1. Physics of Semiconductor Devices – S.M.Sze, and 2. Electronic transport in Mesoscopic Systems – Suprio Dutta

3. PHYSICS FOR BIOTECHNOLOGY

- a) Dr.A.Yelilarasi presented the syllabus **Physics for Biotechnology** (**BT**). Dr.M.Mahendran suggested to remove the Nucleation-homogeneous and heterogeneous nucleation from Unit-I. He also suggested that the given text book would not be sufficient to cover the entire syllabus. He suggested the book "Material Science" by Dr.A.Marikani and Dr.Rajagopal. He also suggested to remove the topics like electron density in bulk material, Quantum structure and quantum wire in Unit-II. He also suggested remove the topic-Types of Optical microscopy in Unit-III.
- b) Dr.K.Jayakumar suggested to change the title of Unit-IV as Optical Instruments. Also he suggested to add more references.
- c) Dr.M.Mahendran suggested to remove the following topics in Unit-V: Types and



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applications of ceramics, classification of composites, role of matrix and reinforcement, processing of fiber reinforced plastics, silicone and chemical sensors. He suggested to add advanced materials like Nanocomposites, multifunctional material and Drug delivery materials.

d) Dr.K.Jayakumar suggested a reference book NANO: The essentials By T.Pradeep and Quantum Well,Quantum Well Wire, Quantum Dot – Paul.

4. MATERIAL SCIENCE

- a) Dr.A.Yelilarasi presented the syllabus **Material Science (common to MECH, MTR & PT students)**. Dr.K.Jayakumar enquired why the syllabus was specific for Iron in Unit-I. Dr.A.Bhaskaran explained the importance of iron-carbon diagram for mechanical students . Dr.K.Jayakumar was satisfied with his answer.
- b) Experts suggested that the syllabus was quite good and looked heavy for the first year students. Dr.M.Mahendran noted that Unit-III Mechanical Properties looked too heavy. He suggested to reduce the content of the syllabus otherwise it would be difficult for question paper setting.
- c) Experts enquired about the Question paper setting & evaluation process. Dean Examination Dr.S.Kalyani, HoD/EEE explained the process and Dr.M.Vasanthi, Dean Academic and Vice Principal ,assured that it would be documented in the minutes and it would be represented in syllabus approval meeting. Draft of the syllabus would be sent to the experts before academic council meeting for final approval of the syllabus.
- d) Dr.K.Jayakumar suggested a reference book NANO: The essentials By T.Pradeep.

5. <u>PHYSICS FOR CIVIL ENGINEERING</u>

- a) Dr.A.Yelilarasi presented the syllabus **Physics for Civil Engineering (for CIVIL students)**. Dr.M.Mahendran suggested to add the topic "Thermal Material" in Unit-IV New Engineering materials.
- b) Dr.M.Mahendran and Dr.K.Jayakumar suggested to include Basic concept of Colour Temperature of lamps /lights the book Engineering Physics by Dr.Arumugam as a reference book.

6. PHYSICS FOR ELECTRONICS ENGINEERING

- a) Dr.A.Yelilarasi presented the syllabus **Physics for Electronics Engineering** (for ECE, EEE & EIE).
- b) Dr.M.Mahendran suggested the following modifications: Unit-I: Expression for electrical conductivity-Thermal conductivity, Wiedemann Franz law, Success and



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Failures, Quantum free electron theory may be removed. He suggested that instead of SQUID, MRI and CT scans should be included. He suggested to include electrical switching devices like cyclotron.

- c) Unit-II: Intrinsic semiconductors Energy band diagram, carrier concentration in intrinsic semiconductors, extrinsic semiconductors, carrier concentration in N-type & p-Type semiconductors, Application of Hall effect, Zener and avalanche breakdown in p-n junctions. He suggested to include Diffusion current & drift current in Unit-II Physics of semiconducting devices.
- d) **Unit- III**: BOS members suggested to remove Dia, para and ferromagnetic materials, Hysteresis curve, soft and hard magnetic materials, Applications of dielectrics. They suggested to include the applications of ferromagnetic materials, theories of ferromagnetism, Exchange interaction between atoms and Coulomb adiabatic demagnetization.
- e) Unit-IV: Suggested to include Color centers
- f) **Unit-V**: BOS members suggested to remove Quantum interference effects, conductivity of metallic nanowires, quantum resistance and conductance and suggested to include new simple devices. He insisted to add reference book written by S.O.Pillai.
- g) Dr.K.Jayakumar suggested the following reference books:
 - 1. Physics of Semiconductor Devices S.M.Sze
 - 2. Electronic transport in Mesoscopic Systems Suprio Dutta
 - 3. Solid State Electronic Devices Ben G .Streetsman
- In general the experts asked to reduce the content of the syllabus to avoid the auditing problem during question setting.
- 7. Dr.J.Hemalatha suggested the following reference books for all subjects.
 - a) Laser Fundamentals, William T. Silfvast, 2nd edn, Cambridge University press, New York (2004)
 - b) Fundamentals of Physics, 6th Edition, D. Halliday, R. Resnick and J. Walker, John Wiley and Sons, New York (2001).
 - c) Fundamentals of Physics, R. Shankar, Yale University Press, New Haven and London (2014).
 - d) Introduction to solid state physics,7th Edn, CharlsKittel, Wiley, Delhi (2007)
 - e) Charles Kittel, Introduction to Solid State Physics, Wiley Eastern, 8thedition, (2012)



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- f) S. Blakemore, Solid State Physics, 2ndedition, Cambridge University Press (1974)
- g) L. H. Van Vlack, Elements of Materials Science and Engineering, 6thedition, Addison Wesley (1989).
- h) J. Dekker, Solid State Physics, MacMillan India (1995).
- i) Concepts of Modern Physics. Arthur Beiser, Tata McGraw-Hill, New Delhi (2010).
- j) A Textbook of Engineering Physics, M N Avadhanulu, S. Chand Publishing, 1992
- k) Semiconductor Physics and Devices: Basic principle, Donald A. Neamen 4th ed,, McGraw-Hill, New York (2012).
- 1) L.I. Schiff, Quantum Mechanics, McGraw-Hill (1968).
- m) D.J. Griffiths, Introduction to Quantum Mechanics, Pearson Education (2005)
- n) Introduction to Nanotechnology, C.P. Poole and F.J. Owens, Wiley, New Delhi (2007)
- o) N.John Dinardo and Weinheim Cambridge, Nanoscale Characterization of Surfaces & Interfaces, 2ndedition, Wiley-VCH (2000).

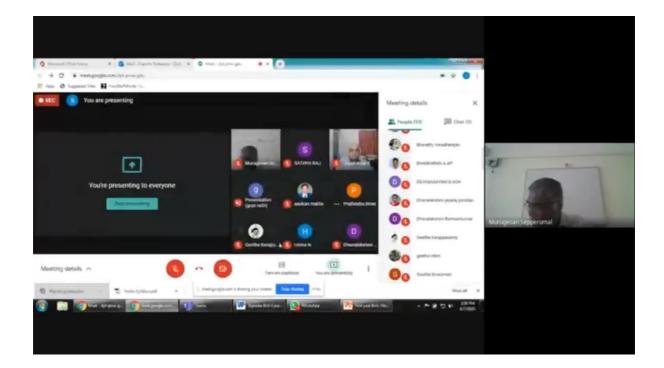
8. Date of next meeting: The expert members suggested the first year coordinator to fix the next meeting as per her team's convenience and intimate the same to them.

9. Dr.N.Pratheepa, HoD/English proposed the vote of thanks to all the external and internal experts and the meeting was adjourned.



ANNEXURE XV

DEPARTMENT OF CHEMISTRY





DEPARTMENT OF CHEMISTRY

MINUTES OF THE 1st ONLINE MEETING

BOARD OF STUDIES OF CHEMISTRY

DATE: 7th August, 2020, Friday

Time: 2.30 PM – 6.10 PM

PLATFORM : GOOGLE MEET

Meeting Link: <u>https://meet.google.com/dyt-prva-gdu</u>

IN ATTENDANCE:

EXTERNAL EXPERT MEMBERS

S.No	Name of the Expert	Designation and Address	Capacity
1	Dr. A. Bhaskaran	Professor and Head, Department of Applied Physics, Head - Campus Safety and Security, Sri Venkateswara College of Engineer- ing, Sriperumbudur - 602117	Overall Coordina- tor of First year Board
2	Dr. G. Devasagayam,	Professor & Head Department of Applied Chemistry Sri Venkateswara College of Engineer- ing, Pennalur, SriPerumbudur	Anna University Nominee
3	Dr. R. Karvembu	Professor Department of Chemistry National Institute of Technology Trichy-620 015	Academic Council nominated BoS Members
4	Dr. S. Murugesan	Professor and Head Department of Inorganic chemistry School of Chemistry Madurai Kamaraj University, Madurai	



DEPARTMENT OF CHEMISTRY

INTERNAL EXPERT MEMBERS

S.No	Name of the Faculty	Designation
1	Dr. T. Dhanalakshmi	HoD-CHEMISTRY
2	Dr. S. Luna Eunice	Assistant Professor / CHEMISTRY
3	Dr. J. Dhanalakshmi	Assistant Professor / CHEMISTRY
4	Dr. S. Shamim Rishwana	Assistant Professor / CHEMISTRY
5	Mr. A. R. Sivakumar	Assistant Professor / CHEMISTRY
6	Mr. N. Sivakumar	Assistant Professor / CHEMISTRY

MINUTES OF THE MEETING:

The First Board of Studies of the First year was conducted on 7.08.2020 through online mode at 2.30 PM - 6.00 PM. Dr. K. Geetha, First Year Coordinator, welcomed all the expert members and presented the overview of the institution, programmes offered in the institution and student profile. Dr. K. Geetha also presented the proposed R2020 - First year curriculum framework for all first year Undergraduate (UG) programmes.

DISCUSSIONS:

- 1. Dr. T. Dhanalakshmi, HoD/Chemistry, introduced the Board of Studies members to the faculty.
- 2. Dr. T. Dhanalakshmi presented the list of courses to be offered by the Chemistry department in the Semesters I and II. The syllabus for the courses was presented to the Board of Studies for further discussions.
- 3. The syllabus for CY101 Engineering Chemistry was presented and the members suggested that based on UGC recommendations, one hour period should be considered for one credit.
 - a) Prof. S. Murugesan suggested that in Unit II, the terminology "applications of electrochemistry" should be changed.
 - b) Prof. R. Karvembu suggested that discussion on Concentration Cells should be in-



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DEPARTMENT OF CHEMISTRY

cluded since it will be interesting for the students.

- c) In Unit IV, Prof. R. Karvembu suggested that the mechanism of Coordination polymerisation, Ziegler Natta polymerization may be included.
- d) The members suggested that the title of Unit V may be changed as Engineering Materials and Prof. S. Murugesan expressed that the sol- gel and hydrothermal methods are not physical methods for synthesis of nanomaterials and the syllabus should be changed accordingly with the physical methods.
- 4. The syllabus for GE102 Basic Sciences Laboratory was presented and the board accepted the content. It was suggested that the experiment for the calculation of molecular weight of polymer by Oswald viscometer should be removed because now digital viscometers are available. It will be of no use to the students.
- 5. The syllabus for GE157 Environmental science and Engineering for the second semester was presented.
 - a) Prof. S. Murugesan suggested that all the units should be given equal hours since equal weightage will be given in the end semester examinations. He suggested to remove some topics from Unit I and redistribute.
 - b) Prof. G. Devasagayam clarified that in Anna University also, the Units have different lecture hours and hence syllabus was accepted.
- 6. The syllabus for CY151 Physical and Organic chemistry was presented.
 - a) Prof. S. Murugesan suggested that the order of the Units should be changed. All the members also agreed with him and they suggested that the order of the units should be Unit I- Structure & Reactivity of Organic Compounds, Unit II – Reaction Mechanisms, Unit III – Heterocyclic compounds in Polymer Technology, Unit IV – Phase Rule and Unit V – Corrosion Science
 - b) Prof. S. Murugesan suggested to change the title of Unit III (heterocyclic compounds in polymer technology) because the content is quite irrelevant to the title given.
 - c) Prof. R, Karvembu suggested that in Phase rule unit, the phase diagram for CO_2 system and a comparative study between water system and CO_2 system may be included.
- 7. Prof. R. Karvembu also suggested that textbooks of recent editions should be recommended.
- 8. All the members suggested that suitable web resources should be given in the sylla-



DEPARTMENT OF CHEMISTRY

bus.