Ref : CCEW/AC/81/2021-22   Date : 12th July, 2021

The Online meeting of Academic Council of MKSSS's Cummins College of Engineering for Women was held on Friday, dated 20th August, 2021, at 2.30 p.m.
Following members were present for the meeting.

(01) Dr. Madhuri Khambete   (02) Dr. Shabbir Merchant   (03) Dr. Anurdda Ganesh
(04) Dr. Sachin Lodha   (05) Dr. Dattatray Bormane   (06) Mr. Datta Kuvalekar
(07) Mr. A.N. Muchrikar   (08) Dr. Sunita Jahirabadkar (09) Dr. Vikram Athalye
(10) Dr. Ajit Bhosale   (11) Dr. Prachi Mukherji   (12) Dr. Supriya Kelkar
(13) Dr. Anagha Panditrao   (14) Dr. Anagha Kulkarni   (15) Dr. Madhuri Purandare
(16) Dr. Anita Patil   (17) Prof. Amit Rajurkar   (18) Dr. Sandeep Musale
(19) Dr. Ravindra B. Ingle   (20) Dr. C. Amaranth   (21) Dr. Anand Bewoor

Dr. Kalyani Joshi and Dr. Aditya Abhyankar were not present for the meeting. Their absence was approved by Academic Council.

Following points were discussed and decisions were taken in the meeting:

Point No. 1]   To confirm the minutes of the previous Academic Council meeting held on 9th July, 2021.

Decision :   Minutes of the previous Academic Council meeting held on 9th July, 2021 were confirmed.

Point No. 2]   To approve contents of Courses for S.Y. B.Tech (all programmes) w.e.f. A.Y. 2021-22, T.Y. B.Tech. (All programmes) w.e.f. A.Y. 2022-23 and Final Year B.Tech. (All programmes) w.e.f. A.Y. 2023-24.

Discussion :   1) Dr. Ajit Bhosale presented details of courses for S.Y. B.Tech., T.Y. B.Tech. and Final year B.Tech. Following suggestions were given by members.

   i.   Dr. Ganeshan and Mr. Datta Kuwalekar suggested including topic on 'corrosion' in appropriate course. They suggested referring syllabi of other universities for this purpose.
   ii. Dr. Amarnath suggested to consider more practical examples while teaching for the 'Design thinking' course
   iii. Mr. Datta Kuwalekar suggested including friction bearing topic in 'machine Design' course.
   iv. Committee members appreciated courses on 'Data science' and 'Electric vehicles'.
   v.   Mr. Kuwalekar suggested discussing mechanical engineering application while teaching 'Data science' course.

2) Dr. Prachi Mukherji presented details of courses for S.Y. B.Tech, T.Y. B.Tech and Final year B.Tech. of E &TC Engineering program. Following suggestions were given by the members.

   i. Dr. Merchant suggested adding book, 'A simplified Approach' by 'Ganesh Rao' in the reference list for the course 'Signals and Systems.

   ii. Dr. Merchant and Dr. Khambete suggested including 'Deep Learning' course as Program Elective with lab in third year.

   iii. Dr. Khambete suggested reviewing the contents of the course 'Artificial Intelligence and Machine Learning'. She also suggested adding python programming in the course.

   iv. Dr. Merchant suggested to remove the last unit from the course 'Analog and digital communication' which is in the second year 4th semester, and to add it in 'Information and Theory Coding' course.

   v. Dr. Merchant recommended adding Book by Lathi for the course 'Analog and Digital Communication'.

   vi. Dr. Merchant advised to include Image restoration topic in the course 'Digital Image Processing'.

3) Dr. Supriya Kelkar presented details of courses for S.Y. B.Tech, T.Y. B.Tech and Final year B.Tech. of Computer Engineering program. Following suggestions were given by the members.

   i. Dr. Lodha suggested to give emphasize on classical DBMS in the course 'Database Management Systems'. He added that 'NoSQL' topic can go in trends or in advanced topics. He suggested to merge unit 4 & 5 of 'Database Management Systems' course and make space for relational algebra, emphasize on RDBMS concepts.

   ii. Dr. Lodha advised to ensure that students make use of appropriate Data structure while implementation for the course 'Operating System'.

   iii. Dr. Lodha told to Swap unit 4 & 5 of the course 'Design and Analysis of Algorithm'. He also suggested checking sequence of units; computational complexity unit can be covered before unit on strategies. He advised to change unit 6 title as 'Introduction to advanced algorithms'.

   iv. Suggestion was given to keep Unit 4 –'Trends' as a last unit for the course 'Cloud Computing'.

   v. Dr. Lodha suggested taking interesting datasets like MH government data such as COVID dataset, employment data, societal data etc. for the course 'Statistics for Computer Science'.

   vi. Dr. Khambete suggested changing unit titles of the course 'Multimedia Systems'. She suggested giving more specific titles instead of only 'images', 'videos' etc.

vii. Dr. Lodha asked to rename Unit 5 of 'Operations Research' as 'Game Theory'. He said interesting assignments, problems, examples such as: Amazon and Swiggy may be given under this course.

viii. For the course 'Distributed Systems' Dr. Lodha told to add Blockchain as one of the trends in unit 6.

ix. Dr. Lodha said that in the 'Introduction to Blockchain' course, the topic 'Cryptocurrency' can be either merged with Unit 6 instead of separate unit OR the separate 'Cryptocurrency' unit can be made as Unit 5.

4) Dr. Anagha Kulkarni presented details of courses for S.Y. B.Tech, T.Y. B.Tech and Final year B.Tech. of Information technology program. Following suggestions were given by the members.

   i. Dr. Lodha suggested to rename unit 'Tables' as 'Hash' or 'Hash Tables' in the course 'Data Structure'.

   i. Dr. Lodha suggested removing NOSQL and adding relational algebra in the course 'Database Management System'.

   ii. For the course 'Human Computer Interaction', Dr. Lodha advised to give examples of bad HCI also.

   iii. Suggestion was given to include Proof techniques in the course 'Design and Analysis of Algorithm'.

   iv. It was suggested by Dr. Lodha to keep 'Application security' as the last unit for the course' Information Security'. He also advised to merge 'zero knowledge protocol' and last unit of the same course.

   v. For the course 'Natural Language Processing' suggestion was given to add work done by Pushpak Bhattacharya in the reference list. It was also suggested to Emphasise on the dataset based on Indian Language.

   vi. Dr. Lodha suggested to give eemphasise on enterprise data and multimedia component while teaching the course 'Multimedia Techniques'.

   vii. For the course 'Advanced Database Management system' Dr. Lodha advised to remove database security and to add NOSQL.

5) Dr. Anagha Panditrao presented details of courses for S.Y. B.Tech, T.Y. B.Tech and Final year B.Tech. of Instrumentation & Control Engineering program.

6) Dr. Anita Patil presented details of open elective courses offered at T.Y. B.Tech and Final year B.Tech. for all programmes.

Following open elective options were proposed:

1. Open Elective Courses at T.Y. B.Tech (Sem-V):

Course Title	Offered to the students of
Entrepreneurship Development	
Intellectual Property Rights	
Introduction to Digital Marketing	All programs
Law for Engineers	
Organizational Behaviour	
Project Management	

2. Open Elective Courses at T.Y. B.Tech (Sem-VI):

Course Title	Offered to the students of
Automation and Control Engineering	
Automotive Electronics	
Avionics	
Bioinformatics	
Computer Vision	
Design Thinking	All programs
e-Business	
Electric Vehicles	
Gamification	
Geographical Information Systems	
Multimedia Systems	

3. Open Elective Courses at Final Year. B.Tech (Sem-VIII):

Course Title	Offered to the students
Big data and analytics	
Cyber Physical Systems	
Digital Control	
Industrial Engineering and Management	All programs
Introduction to Cyber-crime and Forensics	
Instrumentation in Food and Agriculture	
Medical IoT	

Quantum Computing	
Renewable Energy Sources	
Soft Computing	All programs
Software Testing and Quality Assurance	

4. Open Elective Courses at Final Year. B.Tech (Sem-VIII): (Multidisciplinary)

Course Title	Offered to the students of programs*
Applied statistics with R Programming	ETC, IN, M
Automobile Engineering	C, IT, ETC, IN
Autonomous Robots	C, IT, M
Building Automation and Energy Audit	C, IT, ETC, M
Data Analysis and Visualization	ETC, IN, M
Data Science using Python	ETC, IN, M
Industrial Drives and Control	C, IT, ETC, M
Selection and specification of material for engineering application	C, IT, ETC, IN
Smart Sensors and Structures	C, IT, ETC, M
Wireless networks	C, IT, IN, M

[Note: C= Computer Engg., IT= Info. Tech., ETC= Electronics & Telecommunication Engg., IN= Instrumentation & Control Engg.]

Committee members appreciated and approved syllabi of open elective courses.

Decisions :

1) B.Tech. Mechanical Engineering:

i. It is decided to include friction and bearing topic in 'Machine design' course.
ii. It is decided to consider more practical examples while teaching and assessment of the course 'Design thinking'.

2) B.Tech. E&TC Engineering:

i. 'A simplified Approach' book by 'Ganesh Rao' is included in the reference list for the course 'Signals and Systems.
ii. It is decided to include 'Deep Learning' course in the sixth semester.

iii. It is decided to revise the course 'Artificial Intelligence and Machine Learning' as 'Machine Learning with Python'. It is also decided to offer 'Artificial Intelligence' as Program Elective in 8th Semester.

iv. It is decided to modify the title of the course 'Error Correcting codes' to the title 'Information Theory and Coding Techniques'.

v. It is decided to Remove the last unit from the course 'Analog and digital communication' i.e. probability and Source Coding and to add it in 'Information and Theory Coding' course offered in the fifth semester.

vi. It is decided to add text book, "Modern Digital and Analog Communication Systems" by B. P. Lathi for the course 'Analog and Digital Communication'.

vii. It is decided Include Image restoration topic in the course 'Digital Image Processing'.

3) B.Tech. Computer Engineering:

i. It is decided to add NoSQL as advanced topic in the course DBMS. It also decided to cover relational algebra and emphasize on RDBMS concepts.

ii. It is decided to swap unit 4 & 5 of the course 'Design and Analysis of Algorithm'. It is decided to change unit 6 of the same course as 'Advance Algorithms'.

iii. It is decided to keep Unit 4 'Trends' as a last unit for the course 'cloud Computing'.

iv. It is decided to take interesting datasets like COVID dataset, employment data, and Indian societal data in laboratory work of the course 'Statistics for Computer Science'.

v. It is decided to involve industry experts while delivering the course 'User Experience Design'.

vi. It is decided to rename course units of 'Multimedia Systems'

vii. It is decided to rename Unit 5 of the course Operations Research as 'Game Theory'.

viii. It is decided to add Blockchain as one of the trends in unit 6 for the course 'Distributed Systems'.

ix. It is decided to address Crypto-currency in the course 'Introduction to Blockchain' under Unit - 5.

4) B.Tech. Information technology:

   i. It is decided to rename Unit of tables as Hash Tables in the course 'Data Structure'.

   ii. It is decided to remove NOSQL from the course 'Database Management System'. It also decided to relational algebra in the same course.

   - It is decided to include examples of good and bad HCI in the course Human Computer Interaction. Examples are to be added in Unit I.
   - It is decided to include Proof techniques in the syllabus 'Design and Analysis of Algorithm'.
   - It is decided to keep last unit on Application security in the course 'Information Security'. It is also decided to merge zero knowledge protocol with this unit.
   - It is decided to add two books by Pushpak Bhattacharya in the reference list of the course 'Natural Language Processing'. It also decided to refer datasets based on Indian Language during the Lecture and Laboratory sessions.
   - It is decided to keep Enterprise data and Multimedia component as a part of Unit I of the course 'Multimedia Techniques'.
   - It is decided to remove database security and to add NOSQL in the course 'Advanced Database Management system'.

5) B.Tech. Instrumentation & Control Engineering:

The structure and syllabi of SY, TY & Final Year B.Tech. Programs are approved.

6) Open elective course:

Approval is granted to the syllabi of all open elective courses.

Point No. 3]   To approve course contents of Audit Courses of SY B.Tech. from 2021-22 and TY B.Tech. from AY 2022-23.

Discussion
   - Dr. Anita Patil presented details of audit courses at S.Y. B.Tech and T. Y B.Tech. for all programmes.

(1) In SY B.Tech. first semester following courses were proposed:

Audit Courses at S.Y. B.Tech Semester-III:

i	Leadership and Personality Development
ii	Professional Ethics and Etiquette
iii	Women Health and Well-Being
iv	Yoga and Meditation

(2) In SY B.Tech. second semester audit course 'Employability Skill Development (ESD)' is proposed which covers topics on communication Skills and quantitative aptitude.
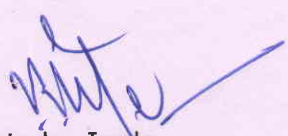
(3) In TY B.Tech. first semester audit course 'self-expression' is proposed.

Under the Audit Course 'Self-Expression', following options are proposed:

S.N.	Options
1.	Dance
2.	Cooking
3.	Film appreciation
4.	Theatre
5.	Drawing and painting
6.	Paper quilling and candle making
7.	Flower making
8.	Ceramic pot painting
9.	Hand Embroidery
10.	Gardening
11.	Tie and Dye and Block printing
12.	Literature

Decision : It is decided to approve audit courses at SY and TY B.Tech. Approval was also granted to the syllabi of the audit courses.

Point No. 4] Any other point with the permission of Chair.

No additional point was discussed.

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