
OFFICE OF DEAN (ACADEMIC AFFAIRS)

Ref.: 139 (D) /Dean (AA)/2024

Date: 24.01.2024

ACADEMIC YEAR 2022-23

Analysis on Feedback from Alumni: Action Taken Report

A. Feedback from alumni was obtained in the following ways during the Academic Year 2021-22:

1. The 'online feedback' in January 2023 during Convocation.
2. Participation of Alumni in Academic Meetings viz. Meetings of Board of Studies, School level advisory committee meetings etc which are held during October 2022 – January 2023 and May – July 2023.
3. Feedback through Institution website

The Feedback received from the above sources were analyzed and the following suggestions related to courses were considered for further course of action:

- S1: Curriculum needs to be updated, with highest emphasis on the employability skills
- S2: Some of the courses content can be updated relevant to industrial expectations.
- S3: More practical exposure in programming skills may be given to students for better placement opportunities

B. Details of Action Taken

- S1: Revisions in the curriculum and syllabi of UG & PG programs were carried relevant to employability skills. Agenda items 20.7.1, 20.8.1 and 20.16.1 of the 20th Academic Council emphasize the actions implemented for S1.
- Considering the Industrial needs few elective courses were introduced in B.Tech. EEE programme and M.Tech programme vide agenda item no. 20.11.1 and 20.12.2 are the samples for S2.

- S3: Courses emphasizing programming skills were introduced in the B.Tech. and BCA programmes. Agenda item 20.12.3, 20.16.3 of 20th academic council and 21.13.1, 21.13.6 and 21.15.1 of 21st Academic Council serve as action implemented for S3.

Annexure: Highlighted pages of Minutes of 20th and 21st Academic Council meeting.



Dean, Academic Affairs

DEAN (ACADEMIC AFFAIRS)
B.S. Abdur Rahman Crescent Institute of
Science & Technology
Vandalur, Chennai - 600 048. India.

Excerpts of Minutes of 20th Academic Council Meeting



Minutes of

Twentieth Meeting of Academic Council

of

B.S. Abdur Rahman Crescent Institute of Science and Technology

held on

April 13, 2023

The Academic Council may consider and ratify the above list of personality and character development club / activities from the academic year 2022-23.

Resolution:

After deliberations, the agenda item was ratified for implementation from the Academic year 2022 – 23.

SCHOOL OF INFRASTRUCTURE
DEPARTMENT OF CIVIL ENGINEERING

Item 20.7.1

To consider and approve the syllabi (V & VI semester) of B.Tech. Civil Engineering under Regulations 2021.

Note on Agenda:

The major revisions in curriculum of B.Tech. Civil Engineering under R 2021 and syllabi of I & II Semester courses was approved in the 17th meeting of Academic Council and accordingly implemented from the year AY 2021-2022. The syllabi of III & IV semester courses were approved in the 18th meeting of Academic Council and accordingly implemented from the year AY 2022-2023.

In the 18th meeting of Board of Studies of Civil Engineering Department, the syllabi of **V and VI** Semester courses, including relevant professional elective courses, were deliberated. After deliberations, the Board has recommended the same for approval in the Academic Council

The Salient features of the B.Tech. Civil Engineering curriculum (V & VI sem.) under R 2021 with respect to “Introduction of New courses” and “Courses with Syllabus revisions” are as follows:

I. Semester V & VI (AY 2023-2024)

a) New courses proposed:

Course Code	Course Title	Credits
CEDX 17	Waterproofing of Concrete and Masonry Structures	3
CEDX 18	Corrosion Prevention and Control in RC Structures	3
CEDX 20	Intelligent Building Management System	3
CEDX 21	Automation in construction and management	3
CEDX 33	Subsurface Investigation and Report Writing	3
CEDX 56	Water Distribution Systems	3

CEDX 65	Railway Engineering	1
CEDX 66	Airport planning & Engineering	3
CEDX 67	Docks and Harbour Engineering	3
CEDX 75	Islamic Architecture	3

b) Courses with Syllabus revisions:

Course Code	Course Title	Credits	Revision (%)
CED 3101	Structural Analysis II	3	25
CED 3103	Hydraulic and Hydraulic Machinery	4	20
CED 3104	Repair and Rehabilitation of RC Elements	3	25
CED 3105	GIS and its Applications	3	10
CED 3201	Design of Structural Steel Elements	3	20
CED 3202	Construction Management	3	25
CEDX 04	Earthquake Resistant Design of Structures	3	25
CEDX 08	Prefabricated Structures	3	20
CEDX 09	Introduction to Steel-Concrete Composite Structures	3	20
CEDX 23	Housing Planning and byelaws	3	20
CEDX 35	Geo-Environmental Engineering	3	30
CEDX 37	Geo Synthetics	3	30
CEDX 43	Industrial Waste Water Treatment	3	20
CEDX 44	Hazardous Waste Management	3	60
CEDX 45	Environmental Risk Assessment	3	30
CEDX 46	Environmental Impact Assessment	3	20
CEDX 47	Sustainable Water and Sanitation for Smart cities	3	20
CEDX 51	Hydrology	3	20
CEDX 52	Ground Water Engineering	3	20
CEDX 53	Storm Water and Flood Management	3	25
CEDX 62	Urban Planning and Design	2	40
CEDX 64	Pavement Design	2	20
CEDX 72	Remote Sensing	3	10

The syllabi of the courses (V & VI Semester) of B.Tech. Civil Engineering under R 2021 (including syllabi of relevant professional elective courses) is given in [Annexure](#)

20.7.1.

The Academic Council may consider and approve the same for implementation from the academic year 2023-24.

Resolution:

After deliberations, the above item was approved for implementation from the academic year 2023-24.

Item 20.7.2

To consider and approve the syllabi of open elective courses offered by the Department of Civil Engineering for B.Tech. programmes under Regulations 2021

Note on Agenda:

The Department of Civil Engineering offering open elective courses, for the benefit of other department students' in the VI & VII semester of B.Tech. Programmes under R 2021 were deliberated in the 18th Board of Studies of Civil Engineering Department held on 05.04.2023. After deliberations, the Board has recommended the same for approval in the Academic Council.

The following are the salient details of open elective courses offered by the Department:

I. Semester VI & VII (AY 2023-2024)

a) New courses proposed:

Course Code	Course Title	Credits
GEDX 105	Building Repair Solutions	3
GEDX 229	Waste Water Management	3

b) Courses with Syllabus revisions:

Course Code	Course Title	Credits	Revision (%)
GEDX 209	Disaster Management	3	20
GEDX116	Green Design and Sustainability	3	40

The syllabi of the open elective courses offered by the Department of Civil Engineering for B.Tech. programmes under R 2021 are given in [Annexure 20.7.2](#).

The Academic Council may consider and approve the same for implementation from the academic year 2023-24.

Resolution:

After deliberations, the agenda item was approved for the implementation from the academic year 2023-24.

Item 20.7.3

To consider and approve the syllabus of the open elective course “Green Building and Energy Management’ offered by the Department of Civil Engineering for M.Tech. programmes under Regulations 2022.

Note on Agenda:

The Department of Civil Engineering offering the open elective course “Green Building and Energy Management” for the benefit of other department students of M.Tech. Programmes under Regulations 2022. The syllabus of this course was deliberated in the 17th Board of Studies of Civil Engineering Department held on 10.08.2022. After deliberations, the Board has recommended the same for approval in the Academic Council.

The following are the salient details of open elective course offered by the Department:

I. Semester III (AY 2023-2024)

a) New course proposed:

Course Code	Course Title	Credits
OEEY	Green Building and Energy Management	3

The syllabus of the open elective course “Green Building and Energy Management” offered by the Department of Civil Engineering to M.Tech. programmes under Regulations 2022 is given in [Annexure 20.7.3](#).

The Academic Council may consider and approve the same for implementation from the academic year 2023-24.

Resolution:

After deliberations, the above agenda item was approved for implementation from the academic year 2023-24.

Item 20.7.4

To consider and ratify the revised Programme Educational Objectives of B.Tech. Civil Engineering under R 2021

Note on Agenda:

The Programme Educational Objectives of B.Tech. Civil Engineering under R 2021 were revised by following the guidelines of NBA. The expected attributes of the graduate engineers after 3-5 years of their graduation was measured as a scale for framing PEOs.

These PEOs were deliberated in the 18th Board of Studies of Civil Engineering Department held on 05.04.2023. After deliberations, the Board has recommended the same for ratification in the Academic Council.

The revised PEOs of B.Tech. Civil Engineering under R 2021 is given in [Annexure 20.7.4.](#)

The Academic Council may consider and ratify the same for implementation from the academic year 2022-23.

Resolution:

After deliberations, the above item was ratified and considered for the implementation from the academic year 2022-23.

SCHOOL OF MECHANICAL SCIENCES
DEPARTMENT OF MECHANICAL ENGINEERING

Item 20.8

To consider and approve the recommendations of the Board of Studies of the Department of Mechanical Engineering.

Item 20.8.1

To consider and approve the revised curriculum and syllabus of elective courses (II & III semester) of M.Tech. (CAD-CAM) programme under Regulations R2022.

Note on Agenda:

The major revision in the curriculum of M.Tech. (CAD CAM) programme under R 2022 and syllabi of core courses and professional elective courses (Semester I) were approved in the 19th meeting of the Academic Council held on 29.09.2022. In the 21st meeting of the Board of Studies of the Mechanical Engineering Department, which was held on 10.02.2023, an amendment was proposed in the curriculum by introducing a new elective course based on the suggestion from 19th meeting of the Academic Council and syllabus of the professional elective courses (II & III semester) were deliberated. After deliberations, the Board has recommended the same for approval in the Academic Council.

The details of new elective course introduced and courses with syllabus revisions in the M.Tech. (CAD CAM) under R 2022 is given below.

a) New courses proposed:

Sl. No.	Course Code	Category	Course Title	Credits
1.	MEEY 039	PE	Circular Economy *	2
2.	MEEY 015	PE	Design for Sustainability	2
3.	MEEY 038	PE	Industry 4.0	1
4.	MEEY 037	PE	Augmented Reality / Virtual Reality	1

* New elective course added in the curriculum as suggested by 19th Academic Council

b) Courses with syllabus revisions:

Sl. No.	Course Code	Course Title	Credits	Revision (%)
1	MEEY 001	Advanced Mechanisms Design and Simulation	3	22
2	MEEY 002	Advanced Strength of Materials	3	20
3	MEEY 003	Advanced Tool Design	3	20
4	MEEY 004	Computational Fluid Dynamics	3	25
5	MEEY 005	Computer-Aided Process Planning	3	27
6	MEEY 007	Design of Material Handling Equipment	3	25
7	MEEY 008	Industrial Robotics and Flexible Automation	3	20
8	MEEY 010	Optimization Techniques in Design	3	25
9	MEEY 014	Mechanics of Composite Materials	2	30
10	MEEY 016	Geometric Dimensioning and Tolerance	1	20
11	MEEY 017	Topology Optimization	1	20
12	MEEY 023	Processing of Polymers and Composites	3	20
13	MEEY 024	Precision Engineering and Nano Technology	3	24
14	MEEY 025	Newer Materials	2	23
15	MEEY 026	Automotive Manufacturing	1	23
16	MEEY 027	Virtual Manufacturing	1	20
17	MEEY 031	Data Communication in CAD/CAM	3	20
18	MEEY 033	Integrated Manufacturing Systems and management	3	20

Sl. No.	Course Code	Course Title	Credits	Revision (%)
19	MEEY 035	Reliability and Total Productive Maintenance	3	25
20	MEEY 036	Product Life Cycle Management	1	20

The revised curriculum and syllabus of elective courses (II & III semester) of M.Tech. (CAD-CAM) are given in [Annexure 20.8.1](#).

The Academic Council may consider and approve the same for implementation from the academic year 2023-24.

Resolution:

After deliberations, the above item was approved for implementation from the academic year 2023-24.

Item 20.8.2

To consider and approve the open elective courses for M.Tech. programmes under Regulations 2022.

Note on Agenda:

The syllabi for the following open elective courses offered from the Mechanical Engineering department to M.Tech. programmes under R 2022 were deliberated in the 21st meeting of Board of Studies of the Mechanical Engineering Department, which was held on 10.02.2023. After deliberations, the Board has recommended the same for approval in the Academic Council.

a) List of open elective courses proposed:

Sl. No.	Course Code	Course Title	L	T	P	C
1	OEEY	Project Management	3	0	0	3
2	OEEY	Robotic Technology	3	0	0	3

The syllabi of the above open elective courses to be offered by the Department of Mechanical Engineering for M.Tech. programmes under R 2022 are given in [Annexure 20.8.2](#).

The Academic Council may consider and approve the same for implementation from

SCHOOL OF ELECTRICAL AND COMMUNICATION SCIENCES

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

Item 20.11

To consider and approve the recommendations of the Board of Studies of the Department of Electrical and Electronics Engineering

Item 20.11.1

To consider and approve the revised curriculum and introduction of new elective courses in the B.Tech. Electrical and Electronics Engineering programme under R2021

Note on Agenda:

The major revisions in curriculum of B.Tech. Electrical and Electronics Engineering under R 2021 and syllabi of I to VIII Semester courses were approved in the 17th & 18th & 19th meeting of Academic Council. In the 19th academic Council which was held on September 29th, 2022, the expert members suggested to introduce elective courses on "Gas Insulated Substation, Cost Economics of Renewable energy Systems and Digital Electrical Control System for Modern Buildings" considering the industry requirements. Accordingly, three new elective courses were proposed and submitted in 18thBoS for approval.

In the 18th meeting of Board of Studies of Electrical and Electronics Engineering Department, which was held on 10.02.2023, the syllabi of these three elective courses were deliberated. After deliberations, the Board has recommended the same for approval in the Academic Council.

The salient features of B.Tech. Electrical and Electronics curriculum under R2021 with respect to "Introduction of New courses" are as follows:

I. Semester V to VIII (AY 2023-24)

a) New courses proposed:

Course Code	Course Title	Credits
EEDX 13	Gas Insulated Substation	3
EEDX 64	Cost Economics of Renewable Energy Systems	3
EEDX 65	Digital Electrical Control System For Modern Buildings	3

The revised curriculum and syllabi of the newly introduced elective courses of B.Tech. Electrical and Electronics Engineering under R 2021 are given in [Annexure 20.11.1](#).

The Academic Council may consider and approve the same for implementation from the academic year 2023-24.

Resolution:

The agenda item was approved for implementation from the academic year 2023-24.

Item 20.11.2

To consider and approve the open elective courses for M.Tech. programmes under Regulations 2022.

Note on Agenda:

The syllabi of the following open elective courses offered from the Department of Electrical and Electronics Engineering to M.Tech. programmes under R 2022 were deliberated in the 18th Board of Studies of EEE Department held on 10.02.2023. After deliberations, the Board has recommended the same for approval in the Academic Council.

List of new open elective courses proposed:

Course Code	Course Title	Credits
OEEY	Soft Computing Techniques	3
OEEY	Electric Vehicle and Battery Storage Technology	3

The syllabi of the open elective courses offered from Electrical and Electronics Engineering Department for M.Tech. programmes under R 2022 is given in [Annexure 20.11.2](#).

The Academic Council may consider and approve the same for implementation from the Academic Year 2023-24.

Resolution:

After deliberations, the agenda item was approved for implementation from the academic year 2023-24.

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Item 20.12

To consider and approve the recommendations of the Board of Studies of the Department of Electronics and Communication Engineering

Item 20.12.1

To consider and approve the curriculum and syllabi (I & II Semester) of B.Tech. Electronics and Computer Engineering under Regulations 2021.

Note on Agenda:

The curriculum of B.Tech. **Electronics and Computer Engineering** under the Regulations 2021 was framed in alignment with the AICTE model curriculum with the structure of the programme consisting of Core courses, Professional Electives courses, Soft skill courses, Humanities & Sciences courses and open elective courses.

The curriculum & syllabi of (I & II semester) courses were deliberated in the 24th meeting of Board of Studies of ECE Department which was held on 08.02.2023. After deliberations, the BoS has recommended the same for approval in the Academic Council.

I. Semester I & II (AY 2023-24)

a) New courses proposed: (Semester II)

Sl. No.	Course Code	Course Title	Credits
1.	ESD 1201	Electron Devices	3
2.	ESD 1202	Data Structures and Algorithms	3
3.	ESD 1203	Electron Devices Laboratory	1

The curriculum and syllabi of the courses (I & II Semesters) of B.Tech. Electronics and Computer Engineering under R 2021 are given in [Annexure 20.12.1](#)

The Academic Council may consider and approve the same for implementation from the academic year 2023-24.

Resolution:

The agenda item was approved for implementation from the academic year 2023-24.

Item 20.12.2

To consider and approve the open elective courses for M.Tech. / M.Sc. programmes under Regulations 2022.

Note on Agenda:

The syllabi of the following open elective courses offered from ECE department to M.Tech. / M.Sc. programmes under R 2022 were deliberated in the 24th Board of Studies of ECE Department held on 08.02.2023. After deliberations, the Board has recommended the same for approval in the Academic Council.

List of new open elective courses introduced:

Course Code	Course Title	Credits	M.Tech. / M.Sc.
OEEY	Industry 4.0 and Applications	3	M.Tech.
OEEY	Real Time Embedded Systems.	3	M.Tech.
OEEY	MATLAB Programming	3	M.Sc.
OEEY	Introduction to Embedded System	3	M.Sc.

The syllabi of the open elective courses offered from ECE Department for M.Tech. / M.Sc. programmes under R 2022 is given in [Annexure 20.12.2](#)

The Academic Council may consider and approve the same for implementation from the Academic Year 2023-24.

Resolution:

The agenda item was approved for implementation from the academic year 2023-24.

Item 20.12.3

To consider and approve the syllabus of professional elective course (Semester VI) of B.Tech. ECE under Regulations 2021.

Note on Agenda:

The following professional elective course is included in the B.Tech ECE under R2021 Curriculum was deliberated in the 24th Board of Studies of ECE Department held on 08.02.2023. After deliberations, the Board has recommended the same for approval in the Academic Council.

I. Semester VI (AY 2023-2024)

a) New course proposed:

Course Code	Course Title	Credits
ECDX 060	Programming in Embedded Systems	3

The syllabi of the above course is given in [Annexure 20.12.3](#)

The Academic Council may consider and approve the same for implementation from the Academic Year 2023-24.

Resolution:

The agenda item was approved for implementation from the academic year 2023-24.

The syllabus of the following open elective course to be offered from Department of Information Technology to other M.Tech. programmes under R2022 was deliberated in the 17th meeting of Board of Studies of the Department of Information Technology which was held on 28.02.2023. After deliberations, the Board has recommended the same for approval in the Academic Council.

New open elective course (proposed):

Course Code	Course Title	Credits
OEEY	Data Science and Machine Learning	3

The syllabus of the above mentioned open elective course is given in [Annexure 20.15.2](#)

The Academic Council may consider and approve the same for implementation from the Academic Year 2023-24.

Resolution:

The agenda item was approved for implementation from the academic year 2023-24.

DEPARTMENT OF COMPUTER APPLICATIONS

Item 20.16

To consider and approve the recommendations of Board of Studies of the Department of Computer Applications.

Item 20.16.1

To consider and approve the syllabi of the programme core and professional elective courses (Semester V & VI) of BCA programme, with specialization in Cloud Technology & Information Security, Multimedia and Web Application Development and Data Science under regulations 2021.

Note on Agenda:

The major revisions in curriculum of BCA programme, with specialization in Cloud Technology & Information Security, Multimedia and Web Application Development and Data Science under R 2021 and syllabi of I to IV Semester courses were approved in the 17th & 18th meeting of Academic Council respectively.

In the 19th meeting of Board of Studies of Computer Applications Department, which was held on 13-02-2023, the syllabi of programme core and professional elective courses (Semester V – VI) were deliberated. After deliberations, the Board has recommended the

same for approval in the Academic Council.

The salient features of BCA programme curriculum under R-2021 with respect to “Introduction of New courses” and “Courses with Syllabus revisions” are as follows:

I. Semester V & VI

a) New courses proposed:(AY 2023-24)

Course Code	Course Title	Credits
CAD 3108	Full Stack Technologies	4
CADX 108	Cloud Services for Data Science	3
CADX 118	Cloud Services Laboratory	1

b) Courses with Syllabus revision:(AY 2023-2024)

Course Code	Course Title	Credits	Revision (%)
CAD3101	Logical Reasoning and Thinking	3	20
CAD3201	Enterprise Application Development	3	50
CADX109	Virtualization And Cloud Security:	3	40
CADX107	Games, Arts and Design	3	20

The syllabi of the courses (V & VI semesters) of the BCA programme under Regulations 2021 are given in [Annexure 20.16.1](#).

The Academic Council may consider and approve the same for implementation from the academic year 2023-24.

Resolution:

After deliberations, the agenda item was approved for implementation from the academic year 2023-24.

Item 20.16.2

To consider and approve the syllabi of the programme core and professional elective courses (Semester V & VI) of B.Sc. Computer Science programme, regulations 2021.

Note on Agenda:

The major revisions in curriculum of B.Sc. Computer Science programme, under R 2021 and syllabi of I to IV Semester courses were approved in the 17th & 18th meeting of Academic Council respectively.

In the 19th meeting of Board of Studies of Computer Applications Department, which was held on 13-02-2023, the syllabi of programme core and professional elective courses

4.	CADX 221	Technology Core IV Knowledge Engineering	3
5.	CADX 2203	Python Programming Laboratory	2
6.	CADX 222	Technology Core Lab – I Digital image Processing Laboratory	2
7.	CADX 224	Technology Core II Ethical Hacking	3
8.	CADX225	Technology Core III Web and Mobile Application Security	3
9.	CADX226	Technology Core IV Cryptography and Network Security	3
10.	CADX227	Technology Core Lab – I Ethical Hacking Lab	3

The syllabi of the courses (III & IV semesters) of the BCA (Artificial Intelligence) & BCA (Cyber Security) programme under Regulations 2021 are given in [Annexure 20.16.3](#).

The Academic Council may consider and approve the same for implementation from the academic year 2023-24.

Resolution:

After deliberations, the agenda item was approved for implementation from the academic year 2023-24.

Item 20.16.4

To consider and approve the curriculum and syllabi (I & II Semester) of BCA programme, with specialization in Data Analytics under Regulations 2021.

Note on Agenda:

A new UG programme BCA (Data Analytics) was approved in the 18th Academic Council to be offered in the Madurai Campus. The curriculum and syllabi (I & II semester) was deliberated in the 18th meeting of Board of Studies of Computer Applications Department, which was held on 15.11.2022. After deliberations, the Board has recommended the same for approval in the Academic Council.

The salient features of BCA (Data Analytics) programme curriculum under R2021 with

Excerpts of Minutes of 21st Academic Council Meeting



Minutes of

21st Meeting of Academic Council

held on

20th December, 2023

B.S. Abdur Rahman Crescent Institute of Science and Technology

Department, the inclusion of new laboratory course “EED 3206 - Electric Mobility Laboratory” instead of EED3205 - Comprehension in VI semester of B.Tech. EEE programme under R2021, was deliberated. After deliberations, the Board has recommended the same for approval in the Academic council.

I. Semester VI (AY 2024-25)

a) New courses introduced / proposed:

Course Code	Course Title	Credits
EED3206	Electric Mobility Laboratory	1

The revised curriculum of B.Tech. EEE and syllabus of the EED 3206 Electric Mobility Laboratory are given in [Annexure 21.12.2](#).

The Academic Council may consider and approve the same for implementation from the even semester of Academic Year 2023-24.

Discussions:

Mr. Arul Raj Kumar, Vice President of Ford Motor India Ltd., suggested the inclusion of renewable energy in the curriculum, emphasizing the importance for students to acquire knowledge about renewable energy sources.

Resolution:

After deliberations, the above item was approved for implementation from the even semester of the academic year 2023-24.

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Item 21.13

To consider and approve the recommendations of the 25th Board of Studies of the Department of Electronics and Communication Engineering held on 20.09.23.

Item 21.13.1

To consider and approve the syllabi of professional elective courses of B.Tech. Electronics and Communication Engineering under Regulations 2021.

Note on Agenda:

The inclusion of the following Professional elective courses offered to the B.Tech ECE under R2021 Curriculum, was deliberated in the 25th Board of Studies of ECE

Department. After deliberations, the Board has recommended the same for approval in the Academic council.

a) New courses introduced / proposed: (AY 2023-24)

Course Code	Course Title	Credits
ECDX 61	Graphical Programming Based System Design	3

The syllabi of the professional elective courses offered to the B.Tech. ECE under R 2021 is given in [Annexure 21.13.1](#).

The Academic Council may consider and approve the same for implementation from the Even semester of Academic Year 2023-24.

Resolution:

After deliberations, the above item was approved for implementation from the Even semester of Academic Year 2023-24.

Item 21.13.2

To consider and approve the syllabus of new open elective course offered by ECE Department to other B.Tech. Programme under Regulations 2021.

Note on Agenda:

The inclusion of new **open elective** course offered by ECE Department to other B.Tech. programme under R 2021 was deliberated in the 25th Board of Studies of ECE Department. After deliberations, the Board has recommended the same for approval in the Academic council.

a) New courses introduced / proposed: (AY 2024-25)

Course Code	Course Title	Credits
GEDX 231	Electronics for Mechanical Systems	3

The syllabus of the open elective courses offered by ECE Department to other B.Tech programme under R 2021 was is given in [Annexure 21.13.2](#).

The Academic Council may consider and approve the same for implementation from the even semester of Academic Year 2023-24.

Resolution:

After deliberations, the above item was approved for implementation from the even semester of Academic Year 2023-24.

After deliberations, the Board has recommended the same for ratification in the Academic council.

The syllabi of the above NPTEL/SWAYAM & BSACIST courses are given in [Annexure 21.13.5.](#)

The Academic Council may consider and ratify the same for implementation from the Academic Year 2023-24.

Resolution:

After deliberations, the above item was ratified for implementation from the Academic Year 2023-24.

Item 21.13.6

To consider and approve the curriculum and syllabi (II – IV Semester) of B.Tech. Electronics and Computer Engineering under B.Tech. Regulation 2021.

Note on Agenda:

In the 25th meeting of Board of Studies of ECE Department, the curriculum and syllabi of (II – IV semester) for B.Tech. Electronics and Computer Engineering programme were deliberated. After detailed discussion, the board has recommended the same for approval in the Academic council.

The salient features of the B.Tech. Electronics and Computer Engineering under R 2021 with respect to ‘Introduction of New Courses’ and ‘Courses with Syllabus Revision’ with respect to (II - IV semester) are as follows:

I. Semester II – IV (AY 2023-24 and 2024-25)

a) New courses introduced / proposed:

Course Code	Course Title	Credits
ESD 2103	Operating Systems	4
ESD 2104	Object Oriented Programming	3
ESD 2106	Object Oriented Programming Laboratory	1
ESD 2204	Software Engineering	3
ESD 2205	Database Management System	3
ESD 2207	Database Management System Laboratory	1
ESD 2203	Microcontroller Architecture and Programming	3
ESD 2206	Microcontroller Programming Laboratory**	1

The detailed curriculum and syllabi (I to IV semester) of B.Tech. Electronics and Computer Engineering are given in [Annexure 21.13.6.](#)

The Academic Council may consider and approve the same for implementation from the even semester of academic year 2023-24.

Resolution:

After deliberations, the above item was approved for implementation from the even semester of academic year 2023-24.

DEPARTMENT OF ELECTRONICS AND INSTRUMENTATION ENGINEERING

Item 21.14

To consider and approve the recommendations of 20th Board of Studies of the Department of Electronics and Instrumentation Engineering held on 07.09.2023

Item 21.14.1

To consider and approve the new syllabus for professional elective courses on “EIDX 12 Aircraft Instrumentation” of B.Tech. Electronics and Instrumentation Engineering under Regulations 2021.

Note on Agenda:

In the 20th meeting of Board of Studies of Electronics and Instrumentation Engineering Department the syllabi of professional elective course “EIDX 12 Aircraft Instrumentation” was deliberated. After discussions, the Board has recommended the same for approval in the Academic council.

The salient deliberations of B.Tech. Electronics and Instrumentation Engineering curriculum under R-2021 with respect to “Introduction of New courses” are as follows:

I. Semester VII (AY 2024-25)

a) New courses introduced / proposed:

Course Code	Course Title	Credits
EIDX12	Aircraft Instrumentation	3

The revised curriculum and syllabi of the courses of B.Tech Electronics and Instrumentation Engineering under R 2021 are given in [Annexure 21.14.1](#).

The Academic Council may consider and approve the same for implementation from the academic year 2024-25.

Resolution:

After deliberations, the above item was approved for implementation from the academic year 2024-25

SCHOOL OF COMPUTER, INFORMATION AND MATHEMATICAL SCIENCES
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Item 21.15

To consider and approve the recommendations of the 22nd Board of Studies of the Department of Computer Science and Engineering held on 17.08.2023.

Item 21.15.1

To consider and ratify the curriculum and revision in syllabi of B.Tech. – CSE (CS) under R2017, B. Tech (CSE), B. Tech – CSE (CS), B. Tech-CSE(IoT), B.Tech (AI & DS) programmes under R2021, M.Tech. CSE and M.Tech. (AI &DS) under R2022.

Note on Agenda:

The revised curriculum and revision in syllabi of B.Tech. (CSE) B. Tech – CSE (CS), B. Tech. CSE(IoT), B.Tech. (AI & DS) programmes under R2021, B. Tech – CSE (CS) under R2017 and M.Tech. (AI & DS) under R2022 were deliberated in the 22nd Board of Studies of Computer Science and Engineering Department. After deliberations, the Board has recommended the same for ratification in the Academic Council.

The salient deliberations B.Tech. CSE, CSE(CS), CSE(IoT) and B.Tech. AI & DS curriculum under R 2017 and R 2021 with respect to “Introduction of New courses” for ratifications are as follows:

I. B.Tech. CSE(CS) under R 2017

a) New courses introduced - Semester VII (AY: 2023-24)

Course Code	Course Title	Credits
CSC 4102	Compiler Design	3
CSC 4104	Compiler Laboratory	1

II. B.Tech. CSE, B.Tech. CSE (CS) and B.Tech. CSE(IoT) under R2021

a) New courses introduced - Semester V (AY: 2023-24)

The course Theory of Computation is introduced with course code CSD 3101 for the programme B.Tech. CSE, B.Tech. CSE (CS) and B.Tech. CSE (IoT)

Course Code	Course Title	Credits
CSD 3101	Theory of computation	3

III. B.Tech. CSE(CS) under R 2021

New courses introduced - Semester VI (AY 2023-2024)

The course CSD 3231 – Ethical Hacking and CSD 3233 – Ethical Hacking Laboratory has been moved to cyber security professional electives with course code CSDX 413 and a

new course CSD 3202 – Compiler Design has been introduced.

Course Code	Course Title	Credits
CSD 3202	Compiler Design	3
CSD 3203	Compiler Laboratory	1

IV. B.Tech. CSE (IoT) under R 2021(AY: 2023-24)

New Professional Elective Courses Introduced

Course Code	Course Title	Credits
CSDX 455	IoT Cloud Infrastructure	3
CSDX 354	3D Printing and Software Tools	3
CSDX 355	IoT Multimedia Technologies	3
CSDX 360	Energy Harvesting Technologies and Power Management for IoT Devices	3
CSDX 361	Internet of Medical Things	3
CSDX 362	5G and IoT Technologies	3
CSDX 363	Artificial Intelligence and IoT	3
CSDX 364	Machine Learning and Deep Learning for IoT	3

V B.Tech. AI & DS under R 2021

a) New courses introduced: (AY 2023-2024)

Course Code	Course Title	Credits
CSD 3153	Automata theory	3
CSD 3156	Data and Security lab	1
CSD 3253	Data Analytics and Visualization Laboratory	1
CSD 3255	Software Tools and Techniques Laboratory	1
CSD 4151	Applied Artificial Intelligence	3
New Professional Elective courses Introduced		
CSDX 606	R Programming for Artificial Intelligence and Data Science	3
CSDX 503	Artificial Intelligence based Web application	3
CSDX 504	Game theory	3
CSDX 507	Decision Making for Data Science	3
CSDX 508	Social Network Analysis	3

CSDX 510	Healthcare Data Analytics	3
CSDX 511	Recommender System	3
CSDX 624	High Performance Computing	3
CSDX 628	Web Analytics	3
CSDX 630	Text Analytics	3
CSDX 632	Spatial Databases	3
CSDX 521	Speech Processing	3
CSDX 522	Computer Vision	3
CSDX 524	Reinforcement Learning	3

b) The revised elective course codes and course names are given below:

S.No.	Existing code	Modified Code	Course Title
1.	CSDX 502	CSDX 603	Intelligent Information Retrieval
2.	CSDX 524	CSDX 501	Web and Social Media Mining
3.	CSD 3152	CSDX 502	Artificial Neural Networks
4.	CSD 3155	CSDX 509	Pattern Recognition
5.	CSDX 519	CSDX 621	Process Automation
6.	CSDX 515	CSDX 622	Applied Machine Learning
7.	CSDX 518	CSDX 623	Agent-Based Intelligent System
8.	CSDX 520	CSDX 625	Human and Intelligent Systems
9.	CSD 3254	CSDX 626	Natural Language Processing
10.	CSD 3253	CSDX 629	Exploratory Data Analysis
11.	CSDX 501	CSDX 631	Graph Theory and its Applications in Data Science
12.	CSDX 504	CSDX 532	Predictive Analytics

VI. Courses with syllabus revisions (ratified):

B.Tech. CSE (AY 2023-24)

Course Code	Course Title	Credits	Revision (%)
CSD 2203	Computer Architecture and Microprocessor	3	20%
CSDX 226	Web Analytics and Social Media Mining	3	20%
CSDX 108	Computer Vision	3	5%

B.Tech. AI & DS (AY 2023-24)

Course Code	Course Title	Credits	Revision (%)
CSD 2255	Essentials Of Data Science	3	25%
CSD 3152	Cloud Computing Services	4	20%
CSD 3154	Machine Learning Techniques	3	70%
CSDX 502	Pattern Recognition	3	45%

The course learning objectives and course outcomes of undergraduate programmes under R2021 and post-graduate programmes under R2022 were revised.

The updated curriculum and syllabi revision are given in **Annexure [21.15.1 \(a\)](#), [21.15.1 \(b\)](#), [21.15.1 \(c\)](#) and [21.15.1 \(d\)](#)**

The Academic Council may consider and ratify the same from the Academic Year 2023-24.

Resolution:

After deliberations, the above item was ratified for implementation from the academic year 2023-24

Item 21.15.2

To consider and ratify the course equivalency of NPTEL / SWAYAM courses and BSACIST for the credit transfer of B.Tech. Computer Science and Engineering programme under Regulations 2021.

Note on Agenda:

In the 22nd meeting of Board of Studies of CSE Department, the course equivalency of NPTEL / SWAYAM courses with BSACIST for the credit transfer of B.Tech. Computers Science Engineering programme under R2021, R2017 were deliberated. After deliberations, the Board has recommended the same for ratification in the Academic council. The details of NPTEL / SWAYAM courses with the BSACIST are as follows:

Programme & Regulation	Course code and Name	Credit	Swayam courses- NPTEL		
			Course code and Name	No of weeks	Credit (Equivalence)
B.Tech CSE R2021	CSDX 108- Computer Vision	3	noc23-cs77- Computer Vision	12	3
B.Tech AI & DS R2017	CSC 3252 - Introduction to Internet of Things	3	noc23-cs83 - Introduction to Internet of Things	12	3