
OFFICE OF DEAN (ACADEMIC AFFAIRS)

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

Date: 24.01.2024

ACADEMIC YEAR: 2022-23

Analysis on Students Feedback: Action Taken Report

A. The various source of feedback from the students obtained and analysed during the Academic Year 2022-23:

- Feedback Level I & II (About the course & course teacher) during the odd and even semesters.
- Feedback obtained from students through the statutory meetings viz. Board of Studies / IQAC / School level advisory committee etc.
- Institution website (online)
- Exit survey from graduating students

The feedbacks were collected and collated in the Department level / Institution level and important suggestions / comments / remarks given by the students to enhance the curriculum, syllabi and other course related activities are considered for further course of action. The salient suggestions (S1, S2, S3 & S4) are as follows:

S1: Curriculum of advanced courses and latest topics can be included to meet industry demand.

S2: To broaden the selection of program electives by collaborating with industries.

S3: To introduce hands-on laboratory courses to enhance practical exposure.

B. Details of Action Taken

- S1 & S3 was considered during major revision of curriculum & syllabi of UG Engineering and Arts & Science programmes; and MBA under Regulations 2021. New elective courses related to industrial demands, knowledge enhancement and cutting edge technologies were introduced. The agenda items emphasizing S1 and S3 were deliberated in the 20th meeting and 21st

meeting of Academic Council which was held on 13th April 2023 and 20th December 2023, and the sample is presented in the agenda item 20.7.1, 20.8.1, 21.12.2 and 21.13.6

- S2 was fulfilled by introducing new professional elective courses in a few programs. Agenda item no. 20.9.1 & 21.15.1, in 20th and 21st ACM are the samples of new professional elective courses introduced to suit the needs of current industrial expectations.

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

the Academic Year 2023-24.

Resolution:

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

DEPARTMENT OF AEROSPACE ENGINEERING

Item 20.9

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

Item 20.9.1

To consider and approve the syllabi (III and IV semester) of M.Tech. Avionics under Regulations 2022.

Note on Agenda:

The major revisions in curriculum of M.Tech. Avionics Engineering under R 2022 and syllabi of I & II semester courses were approved in the 19th meeting of Academic Council held on 29.09.2022. In the 17th meeting of Board of Studies of Aerospace Engineering Department, which was held on 03.02.2023, the syllabi of programme core and professional elective courses (semester III & IV) were deliberated. After deliberations, the Board has recommended the same for approval in the Academic Council.

The syllabi of the courses (III & IV semester programme core and professional Electives) of M.Tech. Avionics under R 2022 are given in [Annexure 20.9.1](#).

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 20.9.2

To consider and approve the syllabi for (VI semester) elective courses of B.Tech. Aeronautical Engineering under Regulations 2021

Note on Agenda:

The major revisions in curriculum of B.Tech. Aeronautical Engineering under R 2021

and syllabi of I – VIII semester courses were approved in the 17th, 18th and 19th meeting of Academic Council respectively. In the 17th meeting of Board of Studies of Aerospace Engineering Department, which was held on 03.02.2023, the syllabi of professional elective courses (Semester VI) were deliberated. After deliberations, the Board has recommended the same for approval in the Academic Council.

The salient features of the B.Tech Aeronautical Engineering curriculum under R 2021 with respect to ‘Introduction of New Courses’ and ‘Courses with Syllabus Revision’ with respect to VI semester elective courses are as follows:

I. Professional Elective courses : (VI semester)

a. New Courses proposed: AY 2023-24

Course Code	Course Title	Credits
AEDX 19	Vibration and Aero Elasticity	3
AEDX 21	Experimental Techniques for Aircraft Structures	3
AEDX 37	Space Debris Management	1

b. Courses with Syllabus revision: AY 2023-24

Course Code	Course Name	Credits	Revision (%)
AEDX 04	Viscous Flows	3	25%
AEDX 05	Hypersonic Aerodynamics	3	25%
AEDX 28	Measurement Systems	3	30%

The syllabi of the (VI semester) elective courses of B.Tech. Aeronautical Engineering under R 2021 is given in [Annexure 20.9.2](#).

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 POLYMER ENGINEERING

Item 20.10

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

Item 20.10.1

To consider and approve the syllabi of programme core and professional

elective courses (Semester V – VIII) of B.Tech. Polymer Engineering under Regulations 2021.

Note on Agenda:

The major revisions in curriculum of B.Tech. Polymer Engineering under R 2021 and syllabi of I & II, III & IV Semester courses were approved in the 17th & 18th meeting of Academic Council respectively. In the 15th meeting of Board of Studies of Polymer Engineering Department, which was held on 07.02.2023, the syllabi of programme core and professional elective courses (Semester V – VIII) were deliberated. After deliberations, the Board has recommended the same for approval in the Academic Council.

The salient features of B.Tech. Polymer Engineering curriculum under R-2021 with respect to “Introduction of New courses” and “Courses with Syllabus revisions” are as follows:

I. Semester V to VIII

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

Course Code	Course Title	Credits
PED3102	Polymer Blends and Nano composites	3
PEDX01	Biopolymers and Hydrogel	3
PEDX03	Polymers for Advanced Technologies	3
PEDX05	Polymers for Battery Technology	3
PEDX06	Speciality Elastomers	3
PEDX07	Polymers for Electric vehicles	3
PEDX11	Fibre Technology	3
PEDX12	Polymer Post-Processing Operations	3
PEDX35	Automation in Polymer Processing Industries	3

b) Courses with syllabus revisions:

Course Code	Course Title	Credits	Revision (%)
PED3101	Polymer Composites Engineering	3	20
PED3103	Plastic and Rubber Testing Technology	3	25
PED3104	Polymer Reaction Engineering	3	10
PED3105	Rubber Processing Laboratory	3	20
PED3201	Plastic and Rubber Product Design	3	10
PED3203	Plastic Product Design Laboratory	3	20
PEDX02	Biomedical Polymers for Health Care	3	40
PEDX13	Rubber Product Manufacturing	3	20

	Technology		
PEDX14	Advanced Processing Technology	3	10
PEDX15	Tyre Manufacturing Technology	3	20
PEDX16	Polymer Waste Management and Recycling	3	20
PEDX17	Plastic Packaging Technology	3	20

The syllabi of the courses (V to VIII semesters) of B.Tech. Polymer Engineering under R 2021 are given in [Annexure 20.10.1.](#)

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 20.10.2

To consider and approve the open elective courses for B.Tech. programmes under Regulations 2021.

Note on Agenda:

The syllabi of one open elective course offered from Polymer Engineering department to B.Tech. programmes under R 2021 were deliberated in the 15th of Board of Studies of Polymer Engineering Department held on 07.02.2023. After deliberations, the Board has recommended the same for approval in the Academic Council.

List of new open elective course proposed:

Course Code	Course Title	Credits	Semester (VI / VII)
GEDX 221	Polymers for Different Transportation	3	VI

The syllabus of the open elective course offered by the Department of Polymer Engineering for B.Tech. programmes under R 2021 is given in [Annexure 20.10.2.](#)

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

Resolution:

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

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

Note on Agenda:

The syllabi of the following **open elective courses** offered from Electrical and Electronics Engineering department to B.Tech. Programmes under R 2021 were deliberated in the 19th meeting of Board of Studies of Electrical and Electronics Engineering Department. After deliberations, the Board has recommended the same for approval in the Academic council.

Course Code	Course Title	Credits
GEDX 220	Optimization Techniques	3
GEDX 112	Electric Vehicle	3
GEDX 122	Introduction to Artificial Intelligence and Evolutionary Computing	3

The syllabi of the open elective courses offered from Electrical and Electronics Engineering department to B.Tech. programmes under R 2021 is given in [Annexure 21.12.1.](#)

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

Discussions:

Dr. Ranjani Parthasarathy suggested that the open elective courses titled “Optimization Techniques” and “Introduction to Artificial Intelligence and Evolutionary Computing” can be handled by the Department of Mathematics and Department of Computer Science & Engineering respectively, considering these courses are core to their discipline. Also it was proposed that the EEE department could offer open elective courses in the Renewable Energy domain. After discussions, the HOD, EEE agreed to offer open elective courses on the Renewable Energy domain in the forthcoming academic year.

Resolution:

After deliberations, it was resolved that the open elective course “GEDX 112 – Electric Vehicles” would be implemented from the Academic Year 2024-25.

Item 21.12.2

To consider and approve the inclusion of Electric Mobility Laboratory in VI semester for B.Tech. EEE programme under R2021.

Note on Agenda:

In the 19th meeting of Board of Studies of Electrical and Electronics Engineering

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.

Item 21.13.3

To consider and ratify the syllabus of new professional elective course of M.Tech. VLSI & Embedded Systems under Regulations 2022.

Note on Agenda:

The inclusion of the following new Professional elective course offered to the M.Tech VLSI & Embedded Systems under R 2022, The syllabus 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
ECEY 063	VLSI Design Flow	3

The revised curriculum and syllabus of the professional elective courses offered to the M.Tech VLSI & Embedded Systems under R 2022 is given in [Annexure 21.13.3](#).

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

Resolution:

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

Item 21.13.4

To consider and ratify the course equivalency of NPTEL/SWAYAM courses with the BSACIST for availing the credit transfer under Regulations 2021 of B.Tech. ECE programme.

Note on Agenda:

The syllabus of the following five courses offered from NPTEL/ SWAYAM were deliberated in the 25th Board of Studies of ECE Department held on 20.09.2023.

B.Tech ECE R17 curriculum		Swayam courses- NPTEL		
Course code and Name	Credit	Course code and Name	No of weeks	Credit (Equivalency)
ECCX 27- Deep Learning	3	Noc23_cs56 Deep learning	12	3

GECX 205 - Industrial Safety	3	Noc23-MG 98 - Industrial Safety Engineering	12	3
GECX113 -Fundamentals of Project Management	3	Noc23-MG107-Project Management For Managers	12	3
ECCX 05 - Image Processing	3	Noc23_ee118- Digital Image Processing	12	3
ECCX44-Fundamentals of internet of things	3	Noc23_cs52-Introduction to Industry 4.0 and Industrial Internet of Things	12	3

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

The syllabi of the above NPTEL/ SWAYAM courses & BSACIST courses are given in [Annexure 21.13.4.](#)

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 21.13.5

To consider and ratify the course equivalency of NPTEL/SWAYAM courses with the BSACIST for the credit transfer under Regulations 2022 of M.Tech. VLSI & Embedded System programme.

Note on Agenda:

The syllabus of the following three courses offered from NPTEL/ Swayam were deliberated in the 25th Board of Studies of ECE Department.

M.Tech (VLSI & Embedded Systems) R22 curriculum		Swayam courses- NPTEL		
Course code and Name	Credit	Course code and Name	No of weeks	Credit (Equivalency)
ECEY 026 Artificial Intelligence	3	Noc23_ge40-Fundamentals of Artificial Intelligence	12	3
OEEY 711 – Project Management	3	<u>Noc23_mg107-Project Management for Managers</u>	12	3
ECEY 063 VLSI Design Flow	3	Noc 23_ee137-VLSI Design Flow: RTL to GDS	12	3

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.

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