

OFFICE OF DEAN (ACADEMIC AFFAIRS)

Ref.: 907 (D) /Dean (AA)/2023 Date: 09.02.2023

ACADEMIC YEAR 2021-22

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 February 2022 during Convocation.
- Participation of Alumni in Academic Meetings viz. Meetings of Board of Studies, School level advisory committee meetings etc which are held during December 2021 – January 2022 and June – August 2022
- 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: Courses on High Voltage Engineering and Electric Vehicles, computer programming language, Artificial Intelligence, Data Sciences, Web 3.0, Block chain, DeFi courses can be introduced
- S3: Application based learning shall be facilitated in the syllabus
- S4: Industry institutional tie-up is to be enhanced
- S5: New programmes emphasizing on cutting edge technologies and to cater industry needs.



B. Details of Action Taken

- The suggestions given in S1, S2, and S3 were considered as an agenda item in the 18th Academic council, where, Major revisions were carried in the curriculum of B.Tech Regulations 2021, Arts and science and Management studies to offer the courses based on industry demands and to enhance the employability skills of the students across all the programmes. Agenda item 18.10.1, 18.11.1,18.12.1,18.13.1, 18.14.1,18.14.2, serves as an evidence for S1 and S2.
- S4 was considered by establishing the "DASSAULT SYSTEMES centre for excellence" by school of Mechanical Sciences, and signing an MoU with L&T EduTech to offer few courses through "college connect" program. The agenda item 18.1.6 (page no.24), and agenda item 18.2.2 (page no. 35) contains the approval of the courses offered in collaboration with the industries. To have industrial collaborations, MoUs were signed by various schools and Departments are mentioned in the minutes of 18th Academic Council meeting (page no. 15).

S 5 was considered as 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 sample agenda items emphasizing A1 and A3 in the 18th meeting of Academic Council which was held on 24th February 2022, were 18.11.1, 18.12.1, 18.14.1, 18.14.2, 18.14.3, 18.14.4, 18.14.5, given in (Page No. 57, 59 64, 68 to 73 of minutes of 18th Academic Council meeting)

Annexure: Highlighted pages of Minutes of 18th Academic Council meeting.

Dean, Academic Affairs

DEAN (ACADEMIC AFFAIRS)

B.S. Abdur Rahman Crescent Institute of Science & Technology Vandalur, Chennai - 600 048, India

Annexure: Excerpts of 18th Academic Council Meeting



Minutes of the

Eighteenth meeting of the Academic Council of

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

held on February 24, 2022

Online Meeting



Career Guidance Programme : 2
 Inauguration / Launch of Clubs : 2
 Industrial Visits : 11

VIII. CENTRE FOR SUSTAINABLE DEVELOPMENT

✓ Indian Social Science Congress 2022

- The Institute, in association with Indian Social Science Academy is organizing 45th
 Indian Social Science Congress on March 28 April 1, 2022.
- 31 Research Committees and 22 Thematic Panel subject areas have been formed.
- Received 4.5 Lakhs funding from ISRO, Bengaluru, DST-SERB from New Delhi, and CSIR, New Delhi.

✓ Promotion of Research through seed money

 Provided seed money to a sum of Rs 8.71 Lakhs in the AY 2020-21 to the Faculty / Research Scholar / Students to take up small Research studies and Experiments.

√ Faculty Research/Project Incentive Award 2021

 119 faculty members were awarded incentives for their achievement towards publication of research articles, sponsored project and consultancy in the Academic Year 2020-21 on 05.09.2021.

IX. MOU'S SIGNED BY THE DEPARTMENTS / INSTITUTE

S. No.	Collaboration with Department / School / Institute	Details of the institute	Date	Valid Until
1.	Dept. of Mechanical Engg.	EDS Technologies, Bangalore.	11.08.2021	10.08.2022
2.	Institute Level	Tamil Nadu Physical education and Sports University, Chennai.	07.08.2021	06.08.2026
3.	Dept. of Mechanical Engg.	Skill Shark Edutech pvt. Ltd., Hydrabed.	24.08.2021	23.08.2024
4.	Dept. of Polymer Engg.	SRF Ltd, New Delhi.	15.09.2021	14.09.2024
5.	Institute Level	Thassim Beevi Abdul Kader College for Women, kilakari.	17.09.2021	16.09.2026



The introduction of new programmes was deliberated in the 21st meeting of Board of Management, which was held on 10.01.2022 and the board has approved the same.

The academic council may consider and note the same.

Discussions:

Prof. C. Thangamuthu appreciated the management and administrative authorities for the establishment of B.S. Abdur Rahman Crescent Institute of Science and Technology, Madurai Off-campus. He also said that the salient features of the campus and programmes shall be branded appropriately to attract potential students.

Resolution:

The agenda item was noted and approved for implementation from the Academic Year 2022 – 23.

Item 18.1.6

To consider and approve the establishment of Dassault Systèmes Centre of Excellence in the School of Mechanical Sciences.

Note on Agenda:

The Dassault Systèmes Centre of Excellence is established in the School of Mechanical Sciences on 11th August, 2021. Dassault Systèmes (DS), a pioneer in digital solutions, provides business and people with virtual universes to imagine sustainable innovations in order to improve the real world. Dr. B. Suryarajan, Asst. Professor, Mechanical Engineering is appointed as the co-ordinator.

The salient features and objectives of DS Centre of Excellence are:

- ❖ Establish B. S. Abdur Rahman Crescent Institute of Science and Technology as the prestigious 'Academic Certification Centre of DASSAULT SYSTÈMES'
- ❖ Award the coveted '3DS ACADEMY MEMBER' label to B. S. Abdur Rahman Crescent Institute of Science and Technology
- Enhance the employability of students
- Enrich opportunities to connect with global and local innovation centres
- Provides world class training in latest technologies
- Develops industry connect in 12 major disciplines



SI. No.	Offered Department	Course Name& Credits	No. of Students
1.	Civil Engineering	Design of Structural Steel Members – 4	40
2.	EEE and E&I	Applied Industrial IoT - 3	53

Upon registration of students in these courses, classes shall happen through online / blended mode under the supervision of the faculty in-charge from the respective department. The evaluation of academic performance will be jointly done by the L & T EduTech and Institute considering the hours allotted in the curriculum of respective regulations for Lecture, Tutorial and Practical sessions with predefined metrics (framed by the respective department).

The details of assessment from L & T EduTech for a 16 week long and 30 hour course module is:

Exam Name	Туре	% Marks	Period (at the end of
Test 1	MCQs	10	Week 4
Test 2	MCQs	10	Week 12
Test 3	MCQs	50	Week 16
Project	Project	15	Week 8
Learning Progression	Learning	15	Overall Learning
		100	

The marks awarded by L & T EduTech will be considered for 80% as continuous evaluation of academic performance in the course. The Institute will conduct semester end examination for 20% weightage of marks. The cumulative marks will be considered for award of grade in the equivalent course in the curriculum.

The following faculty members were nominated to act as Institute Level Coordinators:

- 1. Dr. V.S. Priya, Associate Professor, Department of Civil Engineering
- 2. Dr. M.S. Murshitha Shajahan, Asst Prof. (Sr.Gr), Department of EIE

The Academic Council may consider and approve the same for implementation from the even semester of academic year 2021-22.



SCHOOL OF ELECTRICAL AND COMMUNICATION SCIENCES

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

Item 18.11

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

Item 18.11.1

To consider and approve the syllabi (III & IV semester) of B.Tech. EEE under Regulations 2021.

Note on Agenda:

The major revision in curriculum of B. Tech EEE under R 2021 & Syllabi of I & II Semester courses was approved in the 17th meeting of Academic Council and accordingly implemented from the year AY 2021-2022.

In the 16th meeting of Board of Studies of EEE Department, which was held on 13th December 2021 the syllabi of III and IV semester courses including the 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. EEE curriculum under R 2021 with respect to 'Introduction of New Courses' and 'Courses with Syllabus Revision' are as follows:

I. Semester I & II (AY 2021-22)

a) New Courses introduced:

Course Code	Course Title	Credits
GED 1202	Basic Electrical and Electronics Engineering	4
GED 1204	Basic Electrical and Instrumentation Engineering	4
GED 1203	Basic Electrical Engineering	4
EED 1202	Signals and Systems	3
EED 1201	Electric and Magnetic Circuits	3

b) Courses with Syllabus revision:

Course Code	Course Name	Credits	Revision (%)
GED 1103	Manufacturing Practices Laboratory	1	20%
EED 1203	Electric Circuits Laboratory	1	60%



II. Semester III and IV (AY 2022-23)

a) New Courses Proposed:

Course Code	Course Title	Credits
EED 2104	Transmission and Distribution	3
EED 2205	Python for Electrical Engineers	3
EEDX62	Solar Energy Technology	3

b) Courses with syllabus revision (Proposed):

Course Code	Course Name	Credits	Revision (%)
EED 2101	Electronic Devices	3	25%
EED 2102	Electro Magnetic Theory	3	25%
EED 2103	Electromechanical Energy	3	50%
	Conversion		
EED 2105	Electronic Devices Laboratory	1	30%
EED 2106	Electromechanical Energy	1	20%
	Conversion Laboratory		2070
EED 2201	AC Machines	3	25%
EED 2202	Digital Electronics	3	25%
EED 2203	Electrical Measurement and	3	40%
	Instrumentation	Ü	10 70
EED 2204	Power System Protection	3	25%
EED 2206	AC Machines Laboratory	1	20%
EED 2207	Digital Electronics Laboratory	1	20%
EEDX02	Electric Energy Generation,	3	20%
	Utilization and Conservation		2070
EEDX 12	Network Analysis and Synthesis	3	20%

The curriculum and syllabi of the courses (III & IV semester) of B. Tech. EEE under R 2021 are given in <u>Annexure 18.11.1</u>. The Academic Council may consider and approve the same for implementation from the academic year 2022-23.

Resolution:

After deliberations, the agenda item was approved.



Item 18.14.1

To consider and approve the syllabi (III & IV semester) courses of B.Tech. Computer Science and Engineering; B.Tech. CSE (Internet of Things); B.Tech. CSE (Cyber Security) and B.Tech. (Artificial Intelligence and Data Science)under Regulations 2021.

Note on Agenda:

The major revision in curriculum of B.Tech. Computer Science and Engineering; B.Tech. CSE (Internet of Things); B.Tech. CSE (Cyber Security) and B.Tech. (Artificial Intelligence and Data Science)under R 2021 and Syllabi of I & II Semester courses of these programmes was approved in the 17th meeting of Academic Council and accordingly implemented from the year AY 2021-2022.

In the 19th meeting of Board of Studies of Department of Computer Science & Engineering which was held on 28.12.2021, the syllabi of III & IV Semester Courses of B.Tech. Computer Science and Engineering; B.Tech. CSE (Internet of Things); B.Tech. CSE (Cyber Security) and B.Tech. (Artificial Intelligence and Data Science) were deliberated. After deliberations the board has recommended the same for approval in the Academic Council.

The salient features of the B.Tech. Computer Science and Engineering; B.Tech. CSE (Internet of Things); B.Tech. CSE (Cyber Security) and B.Tech. (Artificial Intelligence and Data Science) curriculum under R 2021 with respect to 'Introduction of New Courses' and 'Courses with Syllabus Revision' are as follows:

I. B.Tech. Computer Science and Engineering R 2021

a) Semester I & II (AY 2021-2022)

i) New Courses Introduced:

SI. No.	Course Code	Course Title	Credits
1	CSD 1101	Programming for Problem Solving	2
2	CSD 1201	Object Oriented Programming	3

b)Semester III & IV (AY 2022-2023)

i) New Courses (Proposed)

SI. No.	Course Code	Course Title	Credits
1.	CSD 2101	Python Programming	3
2.	CSD 2105	Python Programming Laboratory	1



the board has recommended the same for approval in the Academic Council.

i. B.Tech. (Artificial Intelligence and Data Science) - New Elective Courses

Course Code	Course Name	Credits
CSCX 501	IoT Architecture and Protocol	3
CSCX 502	Intelligent Information Retrieval	3
CSCX 503	Digital Image Processing	3
CSCX 504	Advanced Python for Data science	3
CSCX 505	Web and Social Media Mining	3
CSCX 506	Statistics for Business Analytics	3
CSCX 507	Automata Theory	3
CSCX 508	Web and Social Media Analytics	3
CSCX 509	Advanced Artificial Intelligence Systems	3
CSCX 510	Cognitive Analytics	3
CSCX 511	Secure Cloud Computing	3
CSCX 512	Security Risk Assessment and Management	3
CSCX 513	Information Security	3
CSCX 515	Cyber Crime and Computer Ethics	3
CSCX 516	Secure Web App	3

ii. B.Tech. CSE (Cyber Security) - New Elective Courses

Course Code	Course Name	Credits
CSC X 301	Agile Software Development	3
CSC X 303	Malware Analysis	3
CSC X 305	Secure Software Development Life Cycle	3
CSCX 302	Multimedia security	3
CSC X 407	Cyber Crime Investigation and Digital Forensics	3
CSC X 408	Information Security Intelligence and Compliance Analytics Using Big Data	3



CSC X 409	Penetration Testing and Vulnerability Assessment	3
CSC X 410	legal Issues in Information Assurance	3
CSC X 411	Secure Electronic Commerce	3
CSC X 412	Cloud Security	3
CSC X 306	Block Chain & Crypto currency Technology	3
CSC X 307	Security in Industry 4.0	3
CSC X 308	Security Governance, Risk and compliance	3
CSC X 309	Operating System Security	3
CSC X 310	Android Security	3
CSC X 311	Security in Smart devices	3
CSC X 312	Cognitive Psychology in Cyber Security	3

The syllabi of the elective courses of B.Tech. (Artificial Intelligence and Data Science) and B.Tech. CSE (Cyber Security) under R 2017 are given in Annexure 18.14.2(a) &18.14.2(b).

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

Resolution:

After deliberations, the agenda item was approved.

Item 18.14.3

To consider and approve the syllabi (II semester) of M.Tech. (Artificial Intelligence and Data Science) under Regulations 2019.

Note on Agenda:

The curriculum and syllabi of I semester M.Tech. (Artificial Intelligence and Data Science) was approved in the 17th meeting of Academic Council and accordingly implemented from the year AY 2021-2022.

In the 19th meeting of Board of Studies of Department of Computer Science & Engineering which was held on 28-12-2021, the syllabi of II semester courses of M.Tech. (Artificial Intelligence and Data Science) were deliberated. After deliberations the board has recommended the same for approval in the Academic Council.



The salient features of the M.Tech. (Artificial Intelligence and Data Science) curriculum under R 2019 are as follows:

I. Semester I & II (AY 2021-22)

a) New Courses introduced:

S.No.	Course Code	CourseTitle	Credit
1.	CSD 6121	Advanced Data Structures	3
2.	CSD 6122	Artificial Intelligence in Data Mining	4
3.	CSD 6123	Essentials of Artificial Intelligence	3
		and Machine Learning	
4.	CSD 6144	Data Science Foundations using R	4
5.	CSD 6221	Natural Language Processing	3
6.	CSD 6222	Deep Learning	4
7.	CSDY 301	SQL for Data Science	3
8.	CSDY 303	Exploratory Data Analytics	3
9.	CSDY 351	Business Intelligence	3
10.	CSDY 306	Soft Computing Techniques	3
11.	CSDY 307	Artificial Neural Networks	3
12.	CSDY 308	Knowledge Engineering and Expert	3
		Systems	
13.	CSDY 309	Scripting languages	3
14.	CSDY 310	Distributed, Parallel and Spatial	3
		Databases	
15.	CSDY 311	Data Visualization	3
16.	CSDY 353	Optimization methods for Analytics	3
17.	CSDY 354	Knowledge Representation and	3
		Reasoning	
18.	CSDY 355	Data Science with Bio Informatics	3
19.	CSDY 359	Web Analytics	3

The curriculum and syllabi of M.Tech. (Artificial Intelligence and Data Science) under R 2019 are given in Annexure 18.14.3.

The Academic Council may consider and approve the same for implementation from the academic year 2021-22.



Resolution:

After deliberations, the agenda item was approved.

Item 18.14.4

To consider and approve the syllabi of the elective courses offered to B.Tech. EEE under Regulations 2021.

Note on Agenda:

The syllabi of elective courses offered to B.Tech. EEE under R2021 were deliberated in the 19th meeting of Board of Studies of Department of Computer Science & Engineering held on 28-12-2021. After deliberations, the board has recommended the same for approval in the Academic Council.

B.Tech. EEE R2021 - Elective Courses

- i CSDX 81 Introduction to Cloud Computing
- ii CSDX 82 Computer Hardware and Interfacing
- iii CSDX 83 Computer Networks
- iv CSDX 84 Fundamentals of Data Structures
- v CSDX 85 Java Programming

The syllabi of elective courses offered to B.Tech. EEE under R 2021 are given in **Annexure 18.14.4.**

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

Resolution:

After deliberations, the agenda item was approved.

Item 18.14.5

To consider and approve the syllabi of the courses offered to B.Tech. EIE under Regulations 2021.

Note on Agenda:

The syllabi of courses offered to B.Tech. EIE under R2021 were deliberated in the 19th meeting of Board of Studies of Department of Computer Science & Engineering held on 28-12-2021. After deliberations, the board has recommended the same for approval in the Academic Council.

B.Tech. EIE R2021 - Elective Course

- i EID 2204 Python for Instrumentation Engineers
- ii EID X62 R Programming

The syllabi of elective courses offered to B.Tech. EIE under R 2021 are given in



Annexure 18.14.5

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

Resolution:

After deliberations, the agenda item was approved.

DEPARTMENT OF INFORMATION TECHNOLOGY

Item 18.15

To consider and approve the recommendations of the Board of Studies of the Department of Information Technology.

Item 18.15.1

To consider and approve the syllabi (III & IV semester) of B.Tech. Information Technology under Regulations 2021.

Note on Agenda:

The major revision in curriculum of B.Tech. Information Technology under R 2021 & Syllabi of I & II Semester courses was approved in the 17th meeting of Academic Council and accordingly implemented from the AY 2021-2022.

In the 15th meeting of Board of Studies of Department of Information Technology which was held on 16.12.2021, the syllabi of III & IV Semester Courses were deliberated. After deliberations the board has recommended the same for approval in the Academic Council.

The salient features of the B.Tech. Information Technology curriculum under R 2021 with respect to 'Introduction of New Courses' and 'Courses with Syllabus Revision' are as follows:

I. Semester I & II (AY 2021-22)

a) New Courses introduced:

Course Code	Course Title	Credits
ITD 1201	Programming in C++	3

II. Semester III & IV (AY 2022-23)

a) New Courses Proposed:

Course Code	Course Title	Credits
ITD 2104	Data Structures and Algorithms	3



ITD 2106	Data Structures and Algorithms Lab	1
ITD 2201	Programming in Java	3
ITDX 03	Principles of Programming Languages	3
ITDX 04	Graphics and Multimedia	3
ITDX 05	Human Computer Interaction	3

b) Courses with Syllabus Revision (Proposed):

Course Code	Course Title	Credits	Revision (%)
ITD 2102	Programming in Python	3	20%
ITD 2103	Computer Architecture	3	20%
ITD 2105	Fundamentals of Web Designing	3	40%
ITD 2202	Database Management System	4	20%
ITD 2203	Computer Networks	4	20%
ITD 2204	Software Engineering	3	24%
ITD 2205	Operating Systems	4	20%
ITDX 02	Android Application Development	3	40%
ITDX 26	Principles of Communication	3	20%

The curriculum and syllabi of the courses (III & IV Semester) of B.Tech. IT under R 2021 are given in <u>Annexure 18.15.1</u>.

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

Resolution:

After deliberations, the agenda item was approved.

DEPARTMENT OF COMPUTER APPLICATIONS

Item 18.16

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

Item 18.16.1

To consider and approve the revised curriculum and syllabi (III & IV semester) of BCA under Regulations 2021.

Note on Agenda:



The major revision in curriculum of BCA under Regulation 2021 and syllabi of I & II semester courses was approved in the 17th meeting of Academic Council and accordingly implemented from the academic year 2021-2022.

In the 16th meeting of Board of Studies of the Department of Computer Applications, which was held on 23rd December 2021, revision in curriculum and the syllabi of III and IV semester courses were deliberated. After deliberations, the board has recommended the same for approval in the Academic Council.

In the curriculum, under IV Semester technology elective courses, the course 'CADX 204 – Web Design and Development' was replaced by the course 'Web Technology'.

Based on industry needs, we are replacing the following course:

CADX 204 - Web Design and Development

CADX 208 - Web Design Laboratory in semester IV of BCA

As New Course:

CADX 204 - Web Technology

CADX 208 - Web Technology Laboratory in semester IV of BCA

The introduction of new specializations viz. (i) Cyber security and (ii) Artificial Intelligence in the BCA under R 2021 was also deliberated and approved by the board of studies.

The salient features of the BCA curriculum under R 2021 with respect to 'Introduction of New Courses' and 'Courses with Syllabus Revision' are as follows:

I. Semester I and II (AY 2021-2022)

a) Courses with Syllabus Revision:

Course Code	Course Title	Credits	Revision (%)
	Core Courses		
CAD 1101	Computer Fundamentals and Organization	3	40%
CAD 1102	Programming in C	3	30%
CAD 1103	Data Structures	3	20%
CAD 1201	OOPS with C++	3	30%
CAD1202	Operating Systems	3	40%
_	Laboratory Courses	<u> </u>	
CAD 1104	Programming in C Laboratory	2	30%



CAD 1105	Data Structures Laboratory	2	40%
CAD 1203	OOPS with C++ Laboratory	2	40%
CAD 1204	Linux Laboratory	2	40%

II. Semester III and IV (AY 2022-2023)

a) New courses Proposed:

Course Code	Course Title	Credits
CAD 2101	Design and Analysis of Algorithms	3
CADX 202	Business Intelligence	3
CADX 214	Exploratory Data Analytics	3
CADX 204	Web Technology	3
CADX 251	Information Retrieval	3
CADX 252	Social Media Analysis	3
CADX 253	Online Advertisement	3
CADX 254	PHP Programming	3
GEDX 311	Customer Relationship Management Analytics	3
CADX 208	Web Technology Laboratory	2

b) Courses with syllabus revision (Proposed):

Course Code	Course Title	Credits	Revision (%)
	Core courses		<u> </u>
CAD 2102	Software Engineering	3	20%
CAD 2103	Relational Data base Management Systems	3	20%
CAD 2104	Computer Networks	3	30%
CAD 2105	Programming in Java	3	40%
CAD2201	Python Programming	3	40%
CADX103	Introduction to Data Science	3	30%
CADX101	Introduction to Cloud Technology	3	30%



CADX 201	Fundamentals of Data center	3	20%
CADX 203	Information Security Fundamentals	3	20%
	Laboratory Courses		
CAD 2106	Relational Data base Management Systems	2	20%
	Laboratory		
CAD2107	Programming in JAVA Laboratory	2	30%
CAD 2203	Python Programming Laboratory	2	70%
CADX 211	Big Data Analytics Laboratory	2	30%
CADX 209	Server Operating System Laboratory	2	10%

The revised curriculum and syllabi of the courses (III and IV Semester) of BCA under R 2021 are given in Annexure 18.16.1.

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

Resolution:

After deliberations, the agenda item was approved.

Item 18.16.2

To consider and approve the Syllabi of (III and IV semester) of B.Sc. (Computer Science) under Regulations 2021.

Note on Agenda:

The major revision in curriculum of B.Sc. (Computer Science) under Regulation 2021 and syllabi of I and II semester courses was approved in the 17th meeting of Academic Council and accordingly implemented from the academic year 2021-2022.

In the 16th meeting of Board of Studies of Department of Computer Applications, which was held on 23rd December 2021, the syllabi of III and IV semester courses were deliberated. After deliberations, the board has recommended the same for approval in the Academic Council.

The salient features of the B.Sc. (Computer Science) curriculum under R 2021 with respect to 'Introduction of New Courses' and 'Courses with Syllabus Revision' are as follows:

I. Semester I & II (AY 2021- 2022)

a) Courses with Syllabus Revision



Course Code	Course Title	Credits	Revision (%)
	Core Courses		
CAD1101	Computer Fundamentals and	3	40%
	Organization		
CAD1102	Programming in C	3	30%
CAD1103	Data Structures	3	20%
CAD1201	OOPS with C++	3	30%
CAD1202	Operating Systems	3	40%
	Laboratory Courses	•	
CAD1104	Programming in C Laboratory	2	30%
CAD1105	Data Structures Laboratory	2	40%
CAD1203	OOPS With C++ laboratory	2	40%
CAD1204	Linux Laboratory	2	40%

II. Semester III & IV (AY 2022- 2023)

a) New courses Proposed:

Course Code	Course Title	Credits
	Core Courses	
CAD2103	Design and Analysis of Algorithms	3
CAD2108	Digital Marketing	3
	Elective Courses	
CADX251	Information Retrieval	3
CADX252	Social Media Analysis	3
CAD253	Online Advertising	3
CAD254	PHP Programming	3
GEDX311	Customer Relationship Management Analytics	3

b) Courses with Syllabus Revision (Proposed):

Course Code	Course Title	Credits	Revision (%)	
	Core Courses			
CAD2102	Software Engineering	3	20%	
CAD2103	Relational Data base Management Systems	3	20%	
CAD2104	Computer Networks	3	30%	



CAD2105	Programming in JAVA	3	40%	
CAD2201	Python Programming	3	40%	
CAD2204	Web Design and Development	3	30%	
CAD2205	Data mining and Data Warehousing	3	30%	
CAD2206	Object Oriented Analysis and Design	3	20%	
	Laboratory Courses			
CAD2106	Relational Data base Management	2	20%	
	Systems Laboratory			
CAD2107	Programming in JAVA Laboratory	2	30%	
CAD2203	Python Programming Laboratory	2	70%	
CAD2207	Web Design Laboratory	2	30%	

The curriculum and syllabi of the courses (III and IV Semester) of B.Sc. (Computer Science) under R 2021 are given in <u>Annexure 18.16.2</u>. The Academic Council may consider and approve the same for implementation from the academic year 2022-23.

Resolution:

After deliberations, the agenda item was approved.

Item 18.16.3

To consider and approve the revised curriculum and syllabi of elective courses in the MCA Programme under Regulations 2019.

Note on Agenda:

Based on the alumni, stakeholders, parents feedback, the courses 'Cyber Security' and 'Full Stack Development' are updated in the elective list of MCA curriculum framework under Regulations 2019 as follows:

Course Code	Course Title	Credits
CADY 255	Cyber Security	3
CADY 371	Full Stack Development	3

Based on feedback from faculty and students, the following elective courses were removed from the curriculum.

Course Code	Course Title	Credits
CADY 351	Mobile Commerce	3



CADY 354	Principles of Virtualization	3
CADY 355	Cloud Architectures	3
CADY 356	Cloud Storage Infrastructures	3
CADY 359	Semantic Web	3
CADY 362	Web Mining	3
CADY 363	Data Mining and Data Warehousing	3
CADY 365	Social Media Analytics	3
CADY 366	Health Care Analytics	3
CADY 368	Decision Support System	3
CADY 369	Predictive Analysis	3
CADY 370	Internet of Things	3

These revisions were discussed in the Board of Studies of the Department of Computer Applications and the board has recommended the same for approval. The revised curriculum framework and syllabi is enclosed in **Annexure 18.16.3**.

The Academic Council may consider and approve the same with effect from academic year 2021-22.

Resolution:

After deliberations, the agenda item was approved.

DEPARTMENT OF MATHEMATICS AND ACTUARIAL SCIENCES

Item 18.17

To consider and approve the recommendations of the board of studies of the Department of Mathematics & Actuarial Sciences

Item No. 18.17.1

To consider and approve the introduction of new courses and revision of courses to be offered to Ph.D scholars of the Department of Mathematics & Actuarial Sciences

Note on Agenda:

In the 13th meeting of Board of Studies of Department of Mathematics & Actuarial Sciences the introduction of new courses and revision in courses as follows were deliberated in detail, in order to facilitate Ph.D scholars to pursue these courses. After deliberations, the board has recommended the same for approval in the Academic Council.

a) Details of new courses:

Annexure: Excerpts of 19th Academic Council Meeting



Minutes of the

Nineteenth Meeting of the Academic Council of

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

held on

September 29, 2022



Item 19.8.4

To consider and approve the syllabi of courses offered by the ECE department to the B.Tech. Information Technology under Regulations 2021.

Note to Agenda:

In the 23rd meeting of Board of Studies of Electronics and Communication Engineering Department, the syllabi of the following courses of B.Tech. IT programme under R 2021 were deliberated. After deliberations, the Board has recommended the same for approval in the Academic council.

Course Code	Course Title	Credits	Semester
ECD3181	Signals and Systems	2	5
ECDX 084	Embedded System	3	6
ECDX 085	5G Technology	3	7

The syllabi for the above courses of B.Tech. IT under R 2021 is given in Annexure
19.8.4

The Academic Council may consider and approve the same for implementation from the Academic Year 2022-23.

Resolution:

After deliberations, the agenda item was approved.

Item 19.8.5

To consider and approve the syllabi of Open Electives courses offered from ECE department to other B.Tech. Programmes under Regulations 2021.

Note on Agenda:

Syllabi of the following open elective courses offered from ECE department to other B.Tech. Programmes under R 2021 were deliberated in the 23rd meeting of Board of Studies of Electronics and Communication Engineering Department. After deliberations, the Board has recommended the same for approval in the Academic council.

Course Code	Course Title	Credits	Semester
GEDX 205	Consumer Electronics	3	6
GEDX 214	Internet of Things and Its Applications	3	6
GEDX 113	Emerging Technologies in Mobile Networks	3	7
GEDX 117	Image Processing and Its Applications	3	7



The syllabi of the above courses offered from ECE department to other B.Tech Programmes under R 2021 is given in Annexure 19.8.5

The Academic Council may consider and approve the same for implementation from the Academic Year 2022-23.

Resolution:

After deliberations, the agenda item was approved.

Item 19.8.6

To consider and approve Open Electives courses offered from ECE department to Arts and Science Programmes under Regulations 2021.

Note on Agenda:

Syllabi of the following open elective courses offered from ECE department to Arts and Science programme under R 2021 were deliberated in the 23rd meeting of Board of Studies of Electronics and Communication Engineering Department. After deliberations, the Board has recommended the same for approval in the Academic council.

Course Code	Course Title	Credits
GEDX302	Al for e-Commerce	3
GEDX309	Consumer Electronics	3
GEDX321	Internet of Things and Its Applications	3

The syllabi of the courses offered from ECE department to Arts and Science programme under R 2021 is given in Annexure 19.8.6

The Academic Council may consider and approve the same for implementation from the Academic Year 2022-23.

Resolution:

After deliberations, the agenda item was approved.

Item 19.8.7

To consider and approve the syllabus of the course "Research Methodology and IPR" offered to M.Tech. programmes under Regulations 2022

Note on Agenda:

The course "Research Methodology and IPR" is offered to M.Tech. programmes under Regulations 2022 with 2 credits in line with the AICTE guidelines. The syllabus of the course was deliberated in the 23rd meeting of Board of Studies of Electronics and



<u>19.11.2.</u>

The Academic Council may consider and approve the same for implementation from the Academic Year 2022-23.

Resolution:

After deliberations, the agenda item was approved.

DEPARTMENT OF COMPUTER APPLICATIONS

Item 19.12

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

Item 19.12.1

To consider and approve the revision in curriculum of BCA under Regulations 2021 with the introduction of specializations on "Cyber Security" and "Artificial Intelligence".

Note to Agenda:

The introduction of courses pertaining to new specializations on "Cyber security" and "Artificial Intelligence" in the curriculum of BCA under Regulations 2021 was presented in the 17th meeting of Board of Studies of Department of Computer Applications held on 1st June 2022 by considering the needs of the Industry. This necessitates revision in curriculum of III – VI semester of BCA under Regulations 2021. After deliberations the BOS recommended the revision in curriculum and syllabi of new specialization courses on "Cyber security" and "Artificial Intelligence" in the curriculum of BCA under Regulations 2021 for approval in the Academic Council.

The salient features of the curriculum of BCA R 2021 due to the introduction of new specializations are:

I. Semester III & IV

a) Introduction of New courses (proposed): Academic Year 2023-24

Course Code	Course Title	Credits
CADX103	Introduction to Artificial Intelligence (AI)	3
CADX 122	Introduction to Cyber security(CS)	3
CADX 219	Introduction to Machine Learning Techniques (AI)	3
CADX 220	Digital Image Processing (AI)	3
CADX 221	Knowledge Engineering (AI)	3



CADX 224	Ethical Hacking (CS)	3
CADX 225	Web Application Security (CS)	3
CADX 226	Cryptography and Network Security (CS)	3
CADX 222	Digital Processing Laboratory(AI)	2
CADX 227	Ethical Hacking Lab (CS)	2

II. Semester V & VI

a) Introduction of New courses (proposed): Academic Year 2024-25

Course Code	Course Title	Credits
CAD 3102	Full Stack Development	3
CADX 123	Introduction to Deep Learning Techniques (AI)	3
CADX 124	Computer Vision (AI)	3
CADX 125	Natural Language Processing (AI)	3
CADX 129	Information Security Fundamentals (CS)	3
CADX 130	Block Chain Technology (CS)	3
CADX 126	Computer Vision Laboratory (AI)	2
CADX 127	Natural Language Processing Laboratory (AI)	2
CADX 131	Information Security Laboratory (CS)	2
CADX 223	Intelligent Systems (AI)	3
CADX228	Cyber Law (CS)	3

The revised curriculum and syllabi of new specialization courses on "Cyber Security" and "Artificial Intelligence" under R 2021 are given in <u>Annexure 19.12.1</u>

The Academic Council may consider and approve the same for implementation from the Academic Year 2022-23.

Resolution:

After deliberations, the agenda item was approved.

Item 19.12.2

To consider and approve the curriculum and syllabi of MCA under Regulations 2022.

Note on Agenda: