

**OFFICE OF DEAN (ACADEMIC AFFAIRS)**

Ref.: 697(A) /Dean (AA)/2021

Date: 31.12.2021

**ACADEMIC YEAR 2020 - 21**

**Analysis on Feedback from Alumni: Action Taken Report**

**A. The various ways in which feedback from alumni were obtained during the Academic Year 2020-21:**

1. The 'online feedback' in January 2021 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 December 2020 – January 2021(Phase I) and June – July 2021 (Phase II).
3. Feedback through Institution website

The Feedback received through various avenues were analyzed and the following suggestions were taken for further course of action:

A1: Introduction of new courses in Arts & Science and Engineering streams to cater the need of the industry and in line with technological advancements.

A2: High focus on Artificial Intelligence, Data Science and Block chain domains.

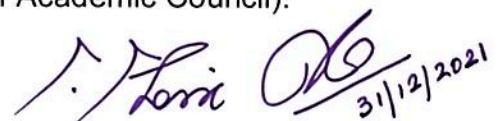
A3: Application based learning shall be facilitated in the syllabus

A4: Industry internship shall be mandated in the curriculum

A5: New programmes emphasizing on cutting edge technologies and to cater industry needs.

**B. Details of Action Taken**

- A1 was considered as agenda items 17.7.1, 17.9.1, 17.11.1, 17.14.1 in the 17th meeting of Academic Council held on 15.07.21 (Page no. 39, 40, 46, 47, 51, 52, 57 and 58 in the minutes of 17th meeting of Academic Council).

  
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- A2 was considered as an agenda item 17.1.4 in the 17<sup>th</sup> meeting of Academic Council held on 15.07.21 (Page no. 15 of minutes of 17<sup>th</sup> meeting of AC)
- A3 was considered as agenda items 17.2.2, 17.2.3, 17.2.4 and 17.2.5 in the 17<sup>th</sup> meeting of Academic Council held on 15.07.21 (Page Nos. 21, 22, 24 and 25 of minutes of 17<sup>th</sup> meeting of Academic Council)
- A4 was taken care of in the 17<sup>th</sup> meeting of Academic council vide agenda item 17.2.2, 17.2.3 and 17.2.4 in the Engineering, Arts & Science & B.Arch. Regulations.
- A5 was considered in the agenda item 17.1.4 of 17<sup>th</sup> meeting of Academic Council held on 15.07.21 (Page no. 15 & 16 of minutes of 17<sup>th</sup> meeting of Academic Council)

**Annexure: Highlighted pages of Minutes of 17<sup>th</sup> Academic Council meeting.**

  
31/12/2021

**Dean, Academic Affairs**

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



B.S. Abdur Rahman  
**Crescent**  
Institute of Science & Technology

Deemed to be University u/s 3 of the UGC Act, 1956  
GST Road, Vandalur, Chennai 600 048

**Minutes of the**

**Seventeenth Meeting of the Academic Council**

*of*

**B.S. Abdur Rahman Crescent Institute of Science & Technology,**

**held on**

**July 15, 2021**

**Online Meeting**

3-5, 2021. Our Institution was accredited with A+ Grade (CGPA: 3.33 out of 4.00) for the period of five years with effect from 08-02-2021.

The detailed report is given Annexure 17.1.3.

The academic council may consider and take note of the same.

### **Resolution:**

The agenda item was noted.

### **Item 17.1.4**

**To consider and approve the introduction of new programmes from the academic year 2021-22.**

#### **Note on Agenda:**

To meet the changing industry demand and societal needs, the following programmes are to be introduced from the academic year 2021-22:

1. MBA Innovation, Entrepreneurship and Venture Development
2. BA Public Policy

The following programmes are also offered from the academic year 2021-22 for which the approval was already obtained in the 16<sup>th</sup> meeting of Academic Council which was held on 23<sup>rd</sup> December 2020.

1. M.Tech. Data Science
2. M.Tech. Artificial Intelligence & Data Science
3. M.Tech. Food Biotechnology

Note : The AICTE granted approval for the above M.Tech. programmes and MBA (IEV) vide F.No. Southern/1-9320023375/2021/EOA dated 08.07.2021.

The Academic Council may consider and approve the introduction of new programmes for implementation from the academic year 2021-22.

### **Discussions:**

Prof. Thangamuthu pointed out that Public Policy can also be offered as a Post Graduate programme.

### **Resolution:**

The introduction of the above mentioned new programmes was approved by the Academic Council for implementation from the academic year 2021-22.

### **Item 17.1.5**

**To consider and approve the establishment of Department of Public Policy under School of Social Sciences and Humanities**

**Note on Agenda:**

The Institution proposed to offer B.A. Public Policy from the Academic Year 2021-22. This necessitated the creation of “Department of Public Policy” to effectively handle all the academic activities pertaining to this programme. This department will function under the School of Social Sciences and Humanities.

The Academic Council may consider and approve the establishment of Department of Public Policy.

**Resolution:**

The agenda item was approved.

**Item 17.1.6**

**To consider and approve the establishment of “Centre for Distance and Online Education” for offering Open and Distance Learning (ODL) and Online Mode (OL) programmes**

**Note on Agenda:**

The “Centre for Distance and Online Education” has been established in the Institution to offer programmes under Open and Distance Learning (ODL) and Online (OL) mode from the academic year 2021- 22. Prof. V. Rhymend Uthariaraj was appointed as Director, Centre for Distance and Online Education.

The Academic Council may consider and approve the same.

**Resolution:**

The agenda item was approved.

**Item 17.1.7**

**To consider and approve the introduction of MCA and MBA programmes under Regulations 2021 in Open and Distance Learning (ODL) and Online Mode (OL)from the academic year 2021-22.**

**Note on Agenda:**

The offering of MCA and MBA Programme under ODL and OL modes was deliberated and approved in the 18<sup>th</sup> Meeting of BoM which was held on 03.03.2021. Accordingly the Institution has applied for approval in AICTE. The AICTE granted approval for the MCA and MBA programmes in ODL & OL in the Academic Year 2021-21 vide F.No. Southern/1-9320023375/2021/EOA dated 08.07.2021.

The Academic Council may consider and approve the starting of MCA and MBA programmes under ODL and OL mode from the academic year 2021-22.

**Resolution:**

The agenda item was approved.

**Item 17.2.2**

**To consider and approve the B.Tech. Regulations 2021 and BA / BBA / B.Com. / BCA / B.Sc. Regulations 2021.**

**Note on Agenda:**

It is the practice of the Institution to bring major revision in curriculum and syllabi of B.Tech. Programmes once in 4 years and UG arts and science programmes once in 4 years by considering the industry trends, employment opportunities and societal needs and also to satisfy the statutory authority/ regulatory guidelines. This necessitates revision in regulation of programmes. The feedback given by the stakeholder's viz., student, parents, faculty, alumni, and employers over the last 4 years were also considered during the revision.

The salient features of the B.Tech. Regulations 2021 are:

- The eligibility criteria for the admission have been updated in line with AICTE guidelines.
- Introduction of additional clauses for the admission of students who pursued B.Sc. programmes and vocational streams.
- Mandatory three-week induction programme was introduced in the first semester.
- Inclusion of mandatory non credit courses as per AICTE guidelines.
- Two mandatory industry internship at the end of second and third year of study.
- Mandatory industrial visit by student's at least once in a year.
- Mandatory skill based courses in the curriculum to enhance communication skills and report writing, and skills to face placement interviews / competitive examinations.
- Introduction of new structure of courses viz., value added course, skill based course and employability enhancement course.
- Introduction of condonation under the attendance requirement clause.
- Specific procedure for handling students availing break of study.
- Mandatory enrollment in professional development activities.

Note: The curricula of engineering programmes were framed such that to facilitate the exit of students during the period of study (i.e. award of diploma at the end of second year of study) as emphasized in National Education Policy 2020.

**B.A. / B.B.A / B.Com. / BCA / B.Sc. Regulations 2021**

The salient features of the regulations are

- Introduction of new structure of courses in line with UGC viz., core course, discipline specific electives, ability enhancement courses, general electives and

skill based course.

- Mandatory skill based courses in the curriculum to enhance communication skills and report writing, and skills to face placement interviews / competitive examination
- Guidelines are provided for industry internship.
- Mandatory industrial visit by students at least once in a year.
- 10% credits in a semester can be pursued through SWAYAM and apply for credit transfer.
- Introduction of condonation under attendance requirement clause.
- Specific procedure for handling students availing break of study.
- Mandatory enrollment in professional development activities

The B.Tech. Regulations 2021 is given in [Annexure 17.2.2\(a\)](#) and B.A. / BBA / B.Com. / BCA / B.Sc. Regulations 2021 is given in [Annexure 17.2.2\(b\)](#).

The Academic Council may consider and approve the B.Tech. Regulations 2021 and B.A. / BBA / B.Com. / BCA / B.Sc. Regulations 2021 for implementation from the academic year 2021-22.

#### **Discussions:**

The external members informed to verify the eligibility clause for admissions to B.Tech programmes in line with AICTE guidelines.

#### **Resolution:**

After detailed deliberations, the B.Tech. Regulations 2021 and B.A. / BBA / B.Com. / BCA / B.Sc. Regulations 2021 were approved.

#### **Item 17.2.3**

**To consider and approve the B.Arch. Regulations 2021 and B.Des. Regulations 2021 for implementation from the academic year 2021-22.**

#### **Note on Agenda:**

It is the practice of the Institution to effect the major revision in curriculum and syllabi of B.Arch programmes once in 5 years considering the industry trends, employment opportunities and societal needs and also to satisfy the Council of Architecture and other statutory authority / regulatory guidelines. This necessitates revision in regulation of programmes. The feedback given by the stakeholder's viz., student, parents, faculty, alumni, and employers over the last 5 years was also considered during the revision. In the similar way, the B.Des. Regulations were revised after four years.

The salient features of the B.Arch. Regulations 2021 are:

- Inclusion of agile learning curriculum as per National Educational Policy,

- facilitating intermittent exit of students.
- Mandatory educational tour for student's at least once in a year.
  - The structure of the programme include open electives – between B.Arch and B.Des programme, Online courses, Summer school course , Clubs & Societies, value added course, skill based course and employability enhancement course.
  - Credits requirement is 270 credits out of which 254 credits to be gained from mandatory core courses, remaining 6% of credits is flexible [Open electives/online courses/Summer school courses]
  - Contact hours of only 28 periods/ hours out of 34 periods/ hours in a week and remaining 6 hrs will be left to the students to engage in online courses, open electives & Club activities.

The salient features of the B. Des. Regulations 2021 are:

- Inclusion of mandatory non credit courses as per AICTE guidelines.
- Inclusion of agile learning curriculum as per National Educational Policy, 2020.
- Introduction of new structure of courses viz., value added course, skill based course and employability enhancement course.
- Students are also offered the following new streams of subjects.
  01. Open electives – Between B.Arch and B.Des. programme
  02. Online courses
  03. Summer school course
  04. Clubs & Societies
- The Students will have maximum contact hours of 28 hrs. (out of 34 hrs.) in a week, remaining 6 hrs. will be left for the students to involve in online courses and club & Societies activities.
- The students have flexibility to peruse other areas of interest like club activities, workshops, etc.
- Inclusion of summer term courses to enhance the skills of the students.
- The students will have to gain a min. of 210 credits to earn the B.Des degree, out of which 198 credits to be gained from mandatory core courses and the remaining 6% of credits is flexible [Open electives/online courses/Summer school courses]

The B.Arch. Regulations 2021 and B.Des. Regulations 2021 are given in Annexure 17.2.3(a) and 17.2.3(b).

The Academic Council may consider and approve the B.Arch. Regulations 2021 and B.Des. Regulations 2021 for implementation from the academic year 2021-22.



**Resolution:**

After deliberations, the B.Arch. Regulations 2021 and B.Des. Regulations 2021 were approved.

**Item 17.2.4**

**To consider and approve the MBA Regulations R 2021 and MBA (IEV) R2021**

**Note on Agenda:**

It is the practice of the Institution to bring major revision in curriculum and syllabi of MBA programmes once in 3 years considering the market trends, employment opportunities and societal needs and also to satisfy the statutory authority / regulatory guidelines. This necessitates revision in regulation of programmes. The feedback given by the stakeholder's viz., student, parents, faculty, alumni, and employers over the last 5 years was also considered during the revision.

**The salient features of the MBA Regulations 2021 are:**

- The curriculum has been re-structured into three semester of teaching & one semester of project work instead of four semesters of teaching & project.
- Total number of credit has been revised from 112 to 108. The credit requirement is above the required credits of 104 prescribed by AICTE.
- New Electives stream "Banking" is introduced with 5 new elective courses.
- Value added courses are introduced.
- Mandatory enrollment in MOOC courses of 3 credits.
- The number of credit for the summer internship is increased to 4.

Consider the uniqueness of the MBA Innovation Entrepreneurship and venture Development (IEV) programme a separate regulation was framed following the AICTE guidelines.

**The salient features of the MBA (IEV) under Regulations 2021 are:**

- The eligibility criteria for the admission as per AICTE guidelines.
- The salient provisions emphasized in the AICTE / UGC regulations were adopted for curriculum framework.
- Introduction of more practical oriented courses.
- The total number of credits are limited to 104. Of the total credits 20 credits for core courses, 24 credits for electives, 14 credits for skill certification, 12 credits for capstone project & 34 credits for Action based learning segments.
- Each students will be attached to a mentor who will groom students with the business model, financial aspects, IPR related guide lines & Lunching of the start-up.
- The handling of courses by experts (Adjunct / Affiliate faculty) from industry / academic Institutions will be emphasized.

- The program is intended to give opportunities for students aspiring to become entrepreneurs.

The MBA Regulations 2021 and MBA (IEV) Regulations 2021 are given in Annexure [17.2.4 \(a\)](#) and [17.2.4 \(b\)](#)

The Academic Council may consider and approve the MBA Regulations 2021 and MBA (IEV) Regulations 2021 for implementation from the academic year 2021-22.

#### **Discussions:**

Prof. Thangamuthu suggested that entrepreneurship can be provided as an elective for all MBA specializations. He opined that MBA (IEV) programme may attract more admissions than the regular MBA.

#### **Resolution:**

After deliberations, the MBA Regulations 2021 and MBA (IEV) Regulations 2021 were approved.

#### **Item 17.2.5**

**To consider and approve the Regulations 2021 for Minor degree programmes offered for B.Tech. students.**

#### **Note on Agenda:**

The AICTE facilitates the students to pursue a minor degree programme in different specializations as per AICTE approval process handbook 2020-21. Based on these guidelines the Institution offers the minor degree programmes such as Artificial Intelligence and Machine Learning, Block Chain, Cyber Security, Data Science, Virtual and Augmented Reality, Sensor Technology, Electric Vehicles, Internet of Things (IoT), Industrial Automation, Robotics, 3D Printing, GIS and Remote Sensing and Computational Biology for the students admitted in the academic year 2020-21. The curriculum was framed such that the students shall pursue courses upto 18-20 credits in the relevant minor degree programme starting from the second year of study. This necessitates framing of separate regulations for minor degree programmes.

The Regulations for minor degree programme R 2021 is given in [Annexure 17.2.5](#).

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

#### **Discussions:**

Prof. Thangamuthu suggested that the Arts and Science stream students can also be given an option of pursuing Minor Degree programmes.

6. ITDX 75 - Security in Computing

Based on the feedback from alumni the following new courses (Core and elective courses) were introduced:

1. ITDX 03 - Principles of Programming Languages
2. ITDX 19 - Functional Programming

Based on the feedback from Students, Faculty and Industry experts, the following new courses (Core and elective courses) were introduced:

1. ITDX 51 - Computer Vision and Image Processing

These revisions were discussed in the 14<sup>th</sup> Meeting of Board of Studies of the Department of Information Technology and the board has recommended the same for approval.


The revised curriculum and the syllabi (I and II Semester) of B.Tech. Information Technology under Regulations 2021 are given in Annexure 17.6.1.

**Discussions:**

Dr. B. Suresh suggested to offer research oriented core courses in the curriculum of programme to motivate students to pursue Master's degree and research programme, in addition to courses catering industry needs.

**Resolution:**

After deliberations, the agenda item was approved.

  
31/12/2021

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

**DEPARTMENT OF COMPUTER APPLICATIONS**

**Item 17.7**

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

**Item 17.7.1**

**To consider and approve the curriculum and syllabi of BCA under Regulations 2021 and B.Sc. Computer Science under Regulations 2021.**

**Note on Agenda:**

The Institution follows the best practice of effecting major revision in curriculum and syllabi of BCA and B.Sc. Computer Science programmes once in 4 years considering the dynamic changes in the industry, introduction of new technology and techniques, emerging trends, employment opportunities and feedback from stakeholder's viz., students, parents, faculty, alumni and employers. This is in addition to the revision in curriculum and syllabi of programmes facilitated once in six months.

The salient revisions made in BCA curriculum R 2021 are:

1. Based on the feedback from faculty the following new courses (Core and elective courses) were introduced:

- CADX 113 Time Series Analysis
- CADX 103 Virtualization and Cloud Security
- CADX 102 Computer Forensics and Investigation
- CADX 107 Games, Arts and Design
- CADX 262 Customer Relationship Management Analytics
- CADX 264 Decision Support System

2. Based on the feedback from students and parents, the following new courses (Core and elective courses) were introduced:

- CADX 214 Exploratory Data Analytics
- CADX 082 Introduction to Health Care Analytics
- CADX 088 Introduction to Artificial Intelligence
- CADX 085 Web Application Development

3. Based on the feedback from employers and alumni the following new courses (Core and elective courses) were introduced:

- CADX 202 Business Intelligence
- CADX 114 Specialization in 3D Productions
- CAD 3108 Personality Development Skills
- CADX 081 Data Analytics & Visualization
- CADX 084 Cloud Services and Management

4. The following courses were revised as per the suggestions of faculty and students:

- CAD 1101 Computer Fundamentals and Organization
- CAD 1102 Programming in C
- CAD 1103 Data Structures Using C
- CAC1201 OOPS with C++
- CAC1202 Operating Systems

The salient revisions made in the curriculum of B.Sc. Computer Science R2021 are:

1. Based on the feedback from faculty the following new courses (Core and elective courses) were introduced:

- CAD 3102 Artificial Intelligence
- CADX262 Customer Relationship Management Analytics
- CADX263 Management Information System
- CADX264 Decision Support System
- CADX081 Data Analytics and Visualization

2. Based on the feedback from students and parents, the following new courses (Core and elective courses) were introduced:

CAD3104	R Programming
CAD 3101	Reasoning and Thinking
CAD2101	Design and Analysis of Algorithms
CADX085	Web Application Development
CADX 252	Social Media Analysis

3. Based on the feedback from employers and alumni the following new courses (Core and elective courses) were introduced:

CAD 3201	Enterprise Application Development
CAD3108	Personality Development Skills
CADX 150	Healthcare Analytics
CADX 152	Human Resource Analytics
CADX089	Digital Advertisement

4. The following courses were revised as per the suggestions of faculty and students:

CAD 1101	Computer Fundamentals and Organization
CAD 1102	Programming in C
CAD 1103	Data Structures Using C
CAC1201	OOPS with C++
CAC1202	Operating Systems

These revisions were discussed in the 15<sup>th</sup> Meeting of Board of Studies of the Department of Computer Applications and the board has recommended for approval.

The revised curriculum and the syllabi of courses (I and II Semester) of BCA under Regulations 2021 and B.Sc. Computer Science programme under Regulations 2021 are given in Annexure [17.7.1 \(a\)](#) & [17.7.1\(b\)](#).

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

### **Resolution:**

The agenda item was approved.

### **Item 17.7.2**

**To consider and approve the syllabi of courses offered in 3rd and 4th semester of MCA programme under Regulations 2019.**

### **Note on Agenda:**

By following the guidelines of AICTE, two year MCA programme was offered from the academic year 2020-21. The syllabi of courses of first two semesters were approved in the 15<sup>th</sup> meeting of Academic Council held on 25.06.2020. As a continuation, the syllabi of courses offered in the third and fourth semester were deliberated in detail in the 15<sup>th</sup> Meeting

## DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

### Item 17.9

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

#### Item 17.9.1

To consider and approve the curriculum and syllabi of B.Tech. EEE under Regulations 2021.

#### Note on Agenda:

The Institution follows the best practice of effecting major revision in curriculum and syllabi of B.Tech. Programmes once in four years considering the dynamic changes in the industry, introduction of new technology and techniques, emerging trends, and employment opportunities. This is in addition to the revision in curriculum and syllabi of programmes facilitated once in six months.

The curriculum of B.Tech. EEE under Regulations 2021 was framed after deliberations with the various stakeholders viz., students, parents, Alumni, Experts from Academia and Industry in the School Level Advisory Committee (SLAC) meetings and various department level meetings.

Based on the feedback from faculty, the following new courses (Core and elective courses) were introduced in the B.Tech.EEE R 2021:

EED 3104	VLSI (Lab Integrated)
EED 3205	Comprehension
EEDX 23	Electrical Machine Design
ECDX 083	Micro Electronics
EIDX 93	Biomedical Signal Processing
EEDX 55	Grid Integration of Renewable Energy Systems
EEDX57	Image and Video Processing
ECDX081	Communication Engineering
EIDX93	Biomedical Signal Processing
GEDX---	Optimization Techniques

Based on the feedback from students and parents, the following new courses (Core and elective courses) were introduced

EED 2205	Python for Electrical Engineers
CSDX 84	Fundamentals of Data Structures
EEDX 58	Industrial IoT

Based on the feedback from employers and alumni the following new courses (Core and elective courses) were introduced:

EED3202	Electric Vehicle Technologies
EEDX 05	IEEE and IEC standards
EIDX94	Industrial Instrumentation
EEDX 51	Artificial Intelligence for Electrical Engineers
EEDX 53	DC Micro grid

Based on the feedback from Board of Studies members the following new elective courses were introduced

EIDX 96	Transducers
ECDX 084	Computer Communication Networks
EEDX 63	Machine Learning

The following courses in Semester I and II were revised as per the suggestions of faculty and students:

- GED XXXX Electric and Magnetic Circuits
- EED 1202 Electric Circuits Laboratory
- EED 1201 Signals and Systems

The revised curriculum and the syllabi of courses (I and II semester) were discussed in the 15<sup>th</sup> Meeting of Board of Studies of the Department of Electrical and Electronics Engineering and the board has recommended the same for approval.

The curriculum and syllabi of B.Tech. EEE under R 2021 are given in [Annexure 17.9.1.](#)

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

**Resolution:**

After detailed deliberations, the agenda item was approved.

*A. Hossain*  
31/12/2021

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

**Item 17.9.2**

**To consider and approve the syllabi of courses Basic Electrical Engineering, Basic Electrical and Instrumentation Engineering & Basic Electrical and Electronics Engineering offered to B.Tech. programmes under Regulations 2021.**

Three following courses were framed considering the requirements of different disciplines of study:

- (i) Basic Electrical and Electronics Engineering common for all branches except B.Tech ECE, EIE and B.Tech Biotechnology
- (ii) Basic Electrical Engineering for B.Tech. Biotechnology and B.Tech. EIE.
- (iii) Basic Electrical and Instrumentation Engineering for B. Tech. ECE

The syllabi of the above courses were deliberated in the 15<sup>th</sup> Meeting of Board of

The syllabi of the courses ECD6123, ECD6222 and ECDY052 are given in Annexure 17.10.3.

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

**Resolution:**

The agenda item was approved.

**DEPARTMENT OF ELECTRONICS AND INSTRUMENTATION ENGINEERING**

**Item 17.11**

**To consider the recommendations of the Board of Studies of the Department of Electronics and Instrumentation Engineering.**

**Item 17.11.1**

**To consider and approve the curriculum and syllabi of B.Tech. EIE under Regulations 2021.**

**Note on Agenda:**

The Institution follows the best practice of effecting major revision in curriculum and syllabi of B.Tech Programmes once in four years considering the dynamic changes in the industry, introduction of new technology and techniques, emerging trends, employment opportunities and feedback from stakeholder's viz., students, parents, faculty, alumni and employers. This is in addition to the revision in curriculum and syllabi of programmes facilitated once in six months.

Based on the feedback from faculty the following new courses (Core and elective courses) were introduced in the B.Tech. EIE R 2021:

1. EID 1201 Network analysis and synthesis
2. EID 1203 Electron Devices and Network synthesis Laboratory
3. EID X06 Advanced Instrumentation Systems
4. EID X33 Instrumentation and control in Pharmaceutical Industries
5. EID X34 Instrumentation and control in Chemical Industries
6. EID X45 Mechatronics
7. EID X46 Design Technology and Innovation
8. EID X48 Advanced Digital Signal Processing
9. EID X49 Electronics equipment integration and Prototype building
10. EID X61 Industrial Data Networks
11. EID X63 3D Animation
12. EID X68 Big data Analytics
13. EID X69 Data science for Engineers



#### 14. EID X70 Practical Machine learning with tensor flow

Based on the feedback from students and parents, the following new courses (Core and elective courses) were introduced:

1. EID 4102 Biomedical Instrumentation
2. EID X41 MEMS and Nanoscience
3. EID X42 Applied Power Electronics
4. EID X62 R-Programming
5. EID X66 Introduction to Industry 4.0 and Industrial Internet of things
6. EID X67 Deep Learning

Based on the feedback from employers and alumni the following new courses (Core and elective courses) were introduced:

1. EID 2204 Python for Instrumentation Engineers
2. EID 3201 Embedded System and RTOS
3. EID X09 Space and Navigational instrumentation
4. EID X10 Safety Instrumentation
5. EID X11 Piping and Instrumentation Diagram
6. EID X23 Industry 4.0

The following course was revised as per the suggestions of faculty and students:

1. EID 1202 Electron Devices

The curriculum and the syllabi (I and II semester) courses were discussed in the 16<sup>th</sup> meeting of Board of Studies of the Department of Electronics and Instrumentation Engineering and the board has recommended the same for approval.

The curriculum and syllabi of courses (I and II semester) of B.Tech EIE under R2021 are given in [Annexure 17.11.1](#).

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

#### **Resolution:**

The agenda item was approved.

#### **Item 17.11.2**

**To consider and approve the revised curriculum and syllabi of B.Tech. EIE under Regulations 2017.**

#### **Note on Agenda:**

- As per the feedback from the students', the course EICX26 AppliedBio-Medical Instrumentation is introduced to improve the placement opportunities in the core biomedical industries and research organizations.

## **Department of Aerospace Engineering.**

### **Item 17.13.1**

**To consider and approve the curriculum and syllabi of B.Tech. Aeronautical Engineering under Regulations 2021.**

#### **Note on Agenda:**

The Institution follows the best practice of effecting major revision in curriculum and syllabi of B.Tech. programmes once in four years considering the dynamic changes in the industry, introduction of new technology and techniques, emerging trends and employment opportunities. This is in addition to the revision in curriculum and syllabi of programmes facilitated once in six months.

The curriculum of B.Tech. Aeronautical Engineering under regulations 2021 was framed after deliberations with the various stakeholders viz., students, parents, Alumni, Experts from Academia and Industry in the in the School Level Advisory Committee (SLAC) meetings and various department level meetings.

Based on the feedback from all stakeholders the new core course “Control Engineering and Computational Fluid Dynamics” was introduced in the B.Tech. (Aeronautical Engineering) R 2021:

The course “Basics of Aeronautical Engineering” was revised. The curriculum and the syllabi of courses (I and II semester) were discussed in the 14<sup>th</sup> meeting of Board of Studies of the Department of Aerospace Engineering and the board has recommended the same for approval.

The curriculum and syllabi of B.Tech. Aeronautical Engineering under R 2021 are given in Annexure 17.13.1.

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

#### **Discussions:**

Mr. Sivasankara Prasad Thupalli suggested that an interdisciplinary project can be undertaken by the Department of Aerospace Engineering and Department of Electrical & Electronics Engineering to reduce the noise inside the helicopters.

#### **Resolution:**

After detailed deliberations, the agenda item was approved.

## **DEPARTMENT OF AUTOMOBILE ENGINEERING**

### **Item 17.14**

**To consider and approve the recommendation of Board of Studies of the Department of Automobile Engineering.**

#### **Item 17.14.1**

**To consider and approve the curriculum and syllabi of B.Tech Automobile Engineering under Regulations 2021.**

**Note on Agenda:**

The Institution follows the best practice of effecting major revision in curriculum and syllabi of B.Tech Programmes once in four years considering the dynamic changes in the industry, introduction of new technology and techniques, emerging trends and employment opportunities. This is in addition to the revision in curriculum and syllabi of programmes facilitated once in six months.

The curriculum of B.Tech. Automobile Engineering under regulations 2021 was framed after deliberations with the various stakeholders viz., students, parents, Alumni, Experts from Academia and Industry in the in the School Level Advisory Committee (SLAC) meetings and various department level meetings.

Based on the feedback from faculty and students the following new courses (Core and elective courses) were introduced in the B.Tech. Automobile Engineering R 2021:

**Core courses**

- Vehicle Inspection & Maintenance
- Battery Technology for Electric Vehicles
- Hybrid and Electric Vehicles

**Elective Courses**

- Electric Vehicle Charging Station
- Electric Bike Design, Servicing & Maintenance
- EV Technology and Business Management
- Advanced Driver Assistance systems
- Connected and Autonomous Vehicle Engineering
- Finite Element Analysis of Automotive Components
- Vehicle Design Data Characteristics
- Automotive Accident Investigation and Reconstruction Techniques
- Automotive Sensors and Applications
- Automotive Suspension and Steering Systems
- Off Road Vehicle
- Measurements and Instrumentation
- Production Process of Automotive Components

The courses Fluid Mechanics and Fluid Mechanics laboratory course were revised as per the suggestions of faculty and students.

The curriculum and the syllabi of courses (I and II semester) were discussed in the 12<sup>th</sup> meeting of Board of Studies of the Department of Automobile Engineering and the board has recommended the same for approval.



31/12/2021

**DEAN (ACADEMIC AFFAIRS)**  
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