



# PRESIDENCY UNIVERSITY

Private University Estd. in Karnataka State by Act No. 41 of 2013

## SCHOOL OF ENGINEERING DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Ref: PU-SOE-CSE/2020-2021/BOS-12/CIR-01

Date: 26-7-2021

### **12<sup>th</sup> BOS MEETING NOTICE**

The 12th Board of Studies (BOS) meeting of Department of Computer Science and Engineering, SOE is convened on Wednesday, August, 2021, at 10.00 a.m. online hosted from Presidency University Campus Itgalpur, Rajankunte, Yelahanka, Bengaluru.

You are hereby requested to attend the meeting.

#### **Agenda:**

**SOE-CSE 12.1:** To approve the minutes of 11<sup>th</sup> Board of Studies Meeting held on 4th September 2020.

**SOE-CSE 12.2.1:** To consider and approve the changes in Program Regulations and Curriculum for SOE-CSE 2020 Batch B.Tech Programs

1. Computer Science and Engineering (Cyber Security)
2. Computer Science and Engineering (Artificial Intelligence and Machine Learning)
3. Computer Science and Engineering (IOT)
4. Computer Science and Engineering (Block Chain)
5. Computer Science and Engineering (Data Science)
6. Computer Science and Technology
7. Computer Science and Technology (DevOps)
8. Computer Science and Technology (Big Data)
9. Computer Science and Technology (specialization in AI & ML)

**SOE-CSE 12.2.2:** To consider and approve the changes in Program Regulations and Curriculum for SOIS-CSE 2020 Batch B.C.A Programs

1. B.C.A [General]
2. B.C.A [Augmented Reality & Virtual Reality]
3. B.C.A [Gaming & Graphics]

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SOE-CSE 12.2.3: To consider and approve the changes in Program Regulations and Curriculum for SOE-CSE 2020 Batch M.Tech Programs

1. M.Tech (Data Science)
2. M.Tech (Artificial Intelligence)

SOE-CSE 12.3.1: To consider and approve the changes in Program Regulations and Curriculum for SOE-CSE 2019 Batch B.Tech Programs

1. Computer Science and Engineering
2. Information Science and Engineering
3. Information Science and Technology
4. Computer Engineering
5. Electronics and Computer Engineering
6. Computer and Communication Engineering

SOE-CSE 12.3.2: To consider and approve the changes in Program Regulations and Curriculum for SOIS-CSE 2019 Batch B.C.A Programs

1. B.C.A [General]

SOE-CSE 12.4: To consider and approve the changes in Program Regulations and Curriculum for SOE-CSE 2018 Batch B.Tech Programs

1. Computer Science and Engineering
2. Information Science and Engineering
3. Information Science and Technology
4. Computer Engineering
5. Computer and Communication Engineering

SOE-CSE 12.5: To review the Feedback obtained on structure and curriculum of existing programs from Industry, students, alumni & faculty members

SOE-CSE 12.6.1: To consider and approve the Proposed CBCS Course grid and the Course catalogues for the SOE-CSE 2021 batch B.Tech Programs.

SOE-CSE 12.6.2: To consider and approve the Proposed CBCS Course grid and the Course catalogues for the SOIS-CSE 2021 batch B.C.A Programs.

1. B.C.A [General]
2. B.C.A [Augmented Reality & Virtual Reality]
3. B.C.A [Gaming & Graphics]



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SOE-CSE 12.6.3: To consider and approve the Proposed CBCS Course grid and the Course catalogues for the SOIS-CSE 2021 batch B.Sc Programs.

1. B.Sc [Data Science]

SOE-CSE 12.6.4: To consider and approve the Proposed CBCS Course grid and the Course catalogues for the SOE-CSE 2021 batch M.Tech Programs.

1. M.Tech [Artificial Intelligence]
2. M.Tech [Data Science]

SOE-CSE 12.7: To review the Feedback obtained on Industry, students, faculty members and alumni on the proposed CBCS Course grid.

SOE-CSE 12.8: Any other matter with the permission of the chair.

**Chairperson  
BOS-CSE Committee**

Copy to:

- Pro-Chancellor, PU
- Registrar, PU
- Dean-SoE, PU
- Vice-Chancellor, PU
- Pro-Vice-chancellor, PU
- Dean-Academics, PU
- Members of the BOS-CSE Committee:

1	Dr. Abdul Sharief	9	Dr. Chandrasekhar Gorikanthu, Practice Head, Wipro
2	Dr. Jacob Augustine	10	Dr. Keshava Munegowda, Vice President, Goldman Sachs
3	Dr. Kalaiarasan C	11	Mr. Ganesh Mahadevan, Head of Enterprise IT and Digital Transformation, BOSCH
4	Dr. C. Shankar Ramamoorthy	12	Prof. R. B. V. Subramaanyam, Professor, Dept. of CSE, National Institute of Technology, Warangal
5	Dr. T. K. Thivakaran	13	Dr. K. Rajanikanth, Former Principal, MSRIT
6	Dr. Deepak Sakkari	14	Dr. Hari Seetha, Professor and Director, COE in AI and Robotics, VIT-AP University
7	Prof. Isaac Joel Raj. S	15	Dr. Mohan K G, Professor, Dept. of CSE, Geetam University
8	Prof. Tapas Guha		

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## SCHOOL OF ENGINEERING DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Ref: PU-SOE-CSE/2020-2021/BOS-12/MOM-01


Date: 06-8-2021

### Minutes of the 12<sup>th</sup> Meeting of Board of Studies (Computer Science and Engineering - BOS - CSE)

The 12<sup>th</sup> meeting of Board of Studies (BOS) of the Computer Science and Engineering has been held on 4<sup>th</sup> August, 2021 at 10:00 AM, online.

#### The following members were present:

S. No.	Name	Designation with Affiliation	Status
1	Dr. Abdul Sharief	Dean, School of Engineering, Presidency University	Chairman
2	Dr. Kalaiarasan C	Associate Dean & Professor, Dept. of CSE, Presidency University	Member
3	Dr. C. Shankar Ramamoorthy	Professor, Dept. of CSE, Presidency University	Special Invitee
4	Dr. T. K. Thivakaran	Program Chair & Professor, Dept. of CSE, Presidency University	Special Invitee
5	Dr. Deepak Sakkari	Program Chair & Assistant Professor, Dept. of CSE, Presidency University	Special Invitee
6	Prof. Isaac Joel Raj. S	Program Chair & Assistant Professor, Dept. of CSE, Presidency University	Special Invitee
7	Prof. Tapas Guha	Assistant Professor, Dept. of CSE, Presidency University	Special Invitee
8	Dr. Chandrasekhar Gorikanthu	Practice Head, Wipro	Senior Professional
9	Dr. Keshava Munegowda	Vice President, Goldman Sachs	Senior Professional
10	Dr. Ganesh Mahadevan	Chief Information Officer, BOSCH	Senior Professional
11	Prof. R. B. V. Subramaanyam	Professor, Dept. of CSE, National Institute of Technology, Warangal	External Expert

  
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12	Dr. K. Rajanikanth	Former Principal, MSRIT, Bangalore	External Expert
13	Dr. Hari Seetha	Professor and Director, COE in AI and Robotocs, VIT-AP University	External Expert
14	Dr. Mohan K G	Professor, Dept. of CSE, Geetam University	External Expert
15	Dr. Jacob Augustine	Associate Dean & Professor, Dept. of CSE, Presidency University	Member Secretary

**The following members are given leave of absence:**

Sr. No.	Name	Designation	Status
		NIL	

The Chairman welcomed the Members and all the members were formally introduced to each other.

**Agenda SOE-CSE 12.1: To approve the minutes of 11<sup>th</sup> Board of Studies Meeting held on 4th September 2020.**

The minutes of the 11<sup>th</sup> meeting of the Board of Studies of Computer Science and Engineering held on 4th September 2020 was placed before the members and the same was unanimously approved (**Annexure CSE 12.1**).

**Agenda SOE-CSE 12.2.1: To consider and approve the changes in Program Regulations and Curriculum for SOE-CSE 2020 Batch B.Tech programs**

1. Computer Science and Engineering (Cyber Security)
2. Computer Science and Engineering (Artificial Intelligence and Machine Learning)
3. Computer Science and Engineering (IOT)
4. Computer Science and Engineering (Block Chain)
5. Computer Science and Engineering (Data Science)
6. Computer Science and Technology
7. Computer Science and Technology (DevOps)
8. Computer Science and Technology (Big Data)
9. Computer Science and Technology [specialization in AI & ML]

  
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The details of the changes in program regulations and curriculum for the 2020-2024 batch B.Tech programs were presented before the members (**Annexure CSE 12.2**). The members discussed the same at length.

**Resolution:** Resolved that the program regulations and curriculum of the new programs 2020-2024 are approved with the following suggestions:

1. Thorough faculty mentorship should be introduced to guide students in efficiently selecting Elective courses (DE and OE) from third semester onwards
2. Since Electives are introduced as early as in third semester, proper exercise must be done to ensure the electives are not too difficult for an average third semester student to get hold of the associated concepts and applications.
3. In the course structures of 2020 Batch CSE and all allied programs, the courses Transform Techniques Partial Differential Equation and Probability (MAT 107) and Numerical Methods, Probability Distributions and Sampling Techniques (MAT 108) have been proposed in the third and fourth semesters respectively. The members suggested to interchange the semesters for the two courses. Numerical Methods, Probability Distributions and Sampling Techniques (MAT 108) should be in third semester and Numerical Methods, Probability Distributions and Sampling Techniques (MAT 108) should be in the subsequent, i.e. fourth semester.

**Agenda SOE-CSE 12.2.2:** To consider and approve the changes to Program Regulations and Curriculum for SOIS-CSE 2020 Batch B.C.A Programs

1. B.C.A [General]
2. B.C.A [Augmented Reality & Virtual Reality]
3. B.C.A [Gaming & Graphics]

B.C.A [General]

The members were presented with the following change in third semester B.C.A [General] program.

- Change in credit structure for the course Optimization Techniques

Sl. No	Course Code	Course Title	Existing Credit Structure				Revised Credit Structure			
			L	T	P	C	L	T	P	C
1	BCA201	Optimization Techniques	3	1	0	4	3	0	0	3

B.C.A [Augmented Reality & Virtual Reality] and B.C.A [Gaming & Graphics]

The members were presented with the following revised course structure for BCA third semester Augmented Reality & Virtual Reality and Gaming & Graphics.

- Revised Course Structure for Semester III (AR/VR)

Sl. No	Course Code	Course Title	Existing Credit Structure			
			L	T	P	C
1	BCA 219	Introduction to 3D Animation	3	0	0	3
2	BCA 203	Database Management Systems	3	0	0	3
3	BCA 204	Operating System	3	0	0	3
4	BCA 220	Introduction to Immersive Technologies	3	0	0	3
5	BCA 205	Database Management Systems Lab	0	0	4	2
6	BCA256	3D Animation Lab	0	0	4	2
7	BCA257	Computer Graphics and Multimedia Lab	2	0	2	3
8	SIC501	Social Immersion Course	-	-	-	1
9	PPD131	Personal and Professional Development-3	0	0	2	-

- Revised Course Structure for Semester III (G&G)

Sl. No	Course Code	Course Title	Existing Credit Structure			
			L	T	P	C
1	BCA 219	Introduction to 3D Animation	3	0	0	3
2	BCA 203	Database Management Systems	3	0	0	3
3	BCA 204	Operating System	3	0	0	3
4	BCA 264	Introduction to Game Design	3	0	0	3
5	BCA 205	Database Management Systems Lab	0	0	4	2

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6	BCA256	3D Animation Lab	0	0	4	2
7	BCA257	Computer Graphics and Multimedia Lab	2	0	2	3
8	SIC501	Social Immersion Course	-	-	-	1
9	PPD131	Personal and Professional Development-3	0	0	2	-

The members were also presented with the following summary of the changes.

- Addition of Course Description (Annexure CSE 12.2).

Sl. No	Course Code	Course Title	Existing Credit Structure			
			L	T	P	C
1	BCA 219	Introduction to 3D Animation	3	0	0	3
2	BCA 220	Introduction to Immersive Technologies	3	0	0	3
3	BCA256	3D Modelling Lab	0	0	4	2
4	BCA257	Computer Graphics and Multimedia Lab	2	0	2	3
5	BCA 264	Introduction to Game Design	3	0	0	3

- Change in Course Title

Sl. No	Course Code	Existing Course Title	Proposed Course Title	Existing Credit Structure			
				L	T	P	C
1	BCA256	3D Modelling Lab	3D Animation Lab	0	0	4	2

**Resolution:** The proposed changes are accepted and approved.

**Agenda SOE-CSE 12.2.3:** To consider and approve the changes in Program Regulations and Curriculum for SOE-CSE 2020 Batch M.Tech Programs

1. M.Tech (Data Science)



2. M.Tech (Artificial Intelligence)

The following change was presented before the members

Existing Course Code	Proposed Course Code	Course Title
CSE 368	CSE 372	Advanced Analytics and Visualization

**Resolution:** The proposed change is approved.

**Agenda SOE-CSE 12.3.1: To consider and approve the changes in Program Regulations and Curriculum for SOE-CSE 2019 Batch B.Tech Programs**

1. Computer Science and Engineering
2. Information Science and Engineering
3. Information Science and Technology
4. Computer Engineering
5. Electronics and Computer Engineering
6. Computer and Communication Engineering

The following changes were presented before the members.

- For the 2019 batch B.Tech students, the course Engineering Economics have been made mandatory across all programs.

Sl.No	Course Code	Course Title	Credits				(Semester to be offered)
			L	T	P	C	
1	MGT 113	Engineering Economics (MGT 113)	3	0	0	0	5 <sup>th</sup> SEM All Programs

- Introduction of a course in the sixth semester Computer Science and Engineering program

Sl.No	Proposed Course Code	Course Title	Credits				(Semester to be offered)
			L	T	P	C	
1	CSE248	Object Oriented Analysis And Design With Uml	3	0	2	4	6 <sup>TH</sup> SEM CSE

**Resolution:** The proposed changes are accepted and approved.

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**Agenda SOE-CSE 12.3.2: To consider and approve the changes in Program Regulations and Curriculum for SOIS-CSE 2019 Batch B.C.A Programs**

1. B.C.A [General]

The members were presented with the following revised course structure of semester V.

Sl.No	COURSE CODE	COURSE NAME	L	P	C
1	BCA212	Artificial Intelligence	3	0	3
2	BCA213	Cloud Computing	3	0	3
3	BCA214	Mobile Applications Development	1	4	3
4	DE 1	Discipline Elective – I	1	4	3
5	DE 2	Discipline Elective – II	1	4	3
6	OE1	Open Elective	1	4	3
7	BCA320	Internship	-	-	2

The following changes were also discussed.

- Inclusion of courses as Electives (Annexure CSE 12.3)

Sl.No	Proposed Course Code	Course Title	Credits				Remarks
			L	T	P	C	
1	BCA317	DE1: Advanced Web Design	1	0	4	3	5 <sup>th</sup> Sem Disciplinary Elective
2	BCA316	DE2: UI/UX Design	1	0	4	3	5 <sup>th</sup> Sem Disciplinary Elective
3	BCA268	OE: Digital Marketing	1	0	4	3	5 <sup>th</sup> Sem Open Elective

- Removal of Courses

Sl.No	Proposed Course Code	Course Title	Credits			
			L	T	P	C
1	BCA303	Advanced Python	3	0	0	3
2	BCA304	R Programming	3	0	0	3
3	BCA268	OE: Digital Marketing	3	0	0	3

**Resolution:** The members discussed the proposed revisions and approved the same.

**Agenda SOE-CSE 12.4: To consider and approve the changes in Program Regulations and Curriculum for SOE-CSE 2018 Batch B.Tech Programs**

1. Computer Science and Engineering
2. Information Science and Engineering
3. Information Science and Technology
4. Computer Engineering
5. Computer and Communication Engineering

The members were presented with the following change in the 7<sup>th</sup> semester.

- Introduction of Courses

The following new courses and their course descriptions were presented (**Annexure CSE 12.4**).

Sl.No	Program	Course Code	Course Title	L	P	C
1	CCE	CSE 240	Information Security	3	0	3
2	CCE	CSE 241	Wireless Sensor and Adhoc Networks	3	0	3
3	ISE	CSE 243	Natural Language Processing	1	2	2
4	IST	CSE 266	Semantic Web	1	4	3
5	COM	CSE 234	Social Media Analytics	1	4	3

  
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6	COM	CSE 384	Data Warehousing and Mining	2	2	3
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**Resolution:** The inclusion of the courses were unanimously accepted and approved by the members.

**Agenda SOE-CSE 12.5:** To review the Feedback obtained on structure and curriculum of existing programs from Industry, students, alumni & faculty members

The University has been in the process of upgrading its curriculum annually from its inception in 2015, the Board of Governors had directed the Academic community to revamp the whole curriculum from 2021 as the current curriculum is of 5 years old and many new curriculum concepts are getting evolved elsewhere in the world. In view of this, a detailed feedback on the existing curriculum was obtained from all the stake holders (Industry experts, faculty members, students and Alumni). A summary of the feedback was presented before the members (**Annexure CSE 12.5**).

**Agenda SOE-CSE 12.6.1:** To consider and approve the Proposed CBCS Course grid and the Course catalogues for the SOE-CSE 2021 batch B.Tech Programs

The chairman explained intuition behind the proposed Choice Based Credit System. The following salient features of the proposed curriculum were put forward before the members.

- Designed as per the CBCS and incorporating OBE Principles.
- Provides Students with at most flexibility in selection of the courses of their choice.
- Students are free to prepare their own Course grid for every semester from the Basket of courses subject to satisfying the pre-requisites for the courses selected and adhering to the Minimum and Maximum Credit requirement as per the Program Regulations.
- The students have an option to decide the pace of his/ her learning (The number of semesters to complete the program).
- The slot time table system provides the opportunity to the students to decide the time slot of the course and to select the faculty member among those who are offering the course.
- Each course shall have a course catalogue with the following details:
  - i) Prerequisites of the course
  - ii) Course Objectives
  - iii) Course Description
  - iv) Reference Resources.

The proposed course grids for all the 2021 B.Tech programs and few associated course catalogues were presented before the members (**Annexure CSE 12.6**).

**Resolution:** The members investigated the proposed grids and baskets at length. The same were accepted and approved with the following suggestions.

1. In the Cyber Security Discipline Elective basket, there is a 3-0-3 course Network Security (CSE 3097). It is suggested to add an associated lab course for the same
2. In the Discipline Elective General Basket, the course Programming in Python and its Applications (CSE 3092) has a credit structure of 1-4-3. The members suggested to relook the credit structure and make an attempt to increase the theory hours and if possible revise the credit structure to 2-2-3.
3. In the IT Infrastructure Discipline Elective basket, a course on Cloud Infrastructure Management may be included.

**Agenda SOE-CSE 12.6.2: To consider and approve the Proposed CBCS Course grid and the Course catalogues for the SOIS-CSE 2021 batch B.C.A Programs**

1. B.C.A [General]
2. B.C.A [Augmented Reality & Virtual Reality]
3. B.C.A [Gaming & Graphics]

The proposed CBCS course grids for all the 2021 B.C.A programs and few associated course catalogues were presented before the members (**Annexure CSE 12.6**).

**Resolution:** The proposals were accepted and approved with the following suggestions.

1. A course on NoSQL may be introduced.
2. In B.C.A Gaming and Graphics program, there is a Discipline Elective course Mobile Game development. This course may be considered as a Core course instead of Elective.

**Agenda SOE-CSE 12.6.3: To consider and approve the Proposed CBCS Course grid and the Course catalogues for the SOIS-CSE 2021 batch B.Sc. Programs**

1. B.Sc. [Data Science]

The proposed CBCS course grid for the 2021 B.Sc. [Data Science] program was presented before the members (**Annexure CSE 12.6**).

**Resolution:** The members approved the proposed Course grid with the following suggestion.

1. The proposed credit structure for the course Descriptive Statistics (BSD 1002) is 3-0-3. The same may be relooked and reduced to 2 credits.

**Agenda SOE-CSE 12.6.4: To consider and approve the Proposed Program Outcomes, CBCS Course grid and the Course catalogues for the SOE-CSE 2021 batch M.Tech Programs**

1. M.Tech [Artificial Intelligence]

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## 2. M.Tech [Data Science]

The proposed POs, CBCS course grids for the 2021 M.Tech programs and few associated course catalogues were presented before the members (**Annexure CSE 12.6**).

**Resolution:** The members approved the proposed Course grids with the following suggestions.

1. The members found the proposed number of Program Outcomes little high for Post Graduate programs and suggested to restrict the same to around five.
2. In School Core of the grids, the proposed credits for Project Dissertation is 24

Course Code	Course Title	Credits
PIP4002	Dissertation/ Internship - I	10
PIP4003	Dissertation/ Internship - II	14

The members opined that this is too high and recommended that the same should be reduced.

3. In most of the courses theory hours are very less. This may be relooked to maintain proper balance. Since graduate students from any discipline may join these M.Tech courses, there should be adequate time to build the background concepts before diving into the practical implementations.
4. The Program Core has a course Deep Neural Network (CSE 4017). The members suggested to design the course content in such a way to introduce the concept of Shallow ANNs in the beginning and then move to deep neural nets.
5. A course on Social Media/Network Analysis may be introduced.
6. The Discipline Elective course Soft Computing Techniques (CSE 4022) should not emphasize on Artificial Neural Networks as few other courses are covering the same.

### **Agenda SOE-CSE 12.7: To review the Feedback obtained on industry, students, faculty members and alumni on the proposed CBCS Course grid**

Presidency University has decided to introduce the concept of Flexible system in the Course offering within the 'Choice Based Credit System' as prescribed by UGC. The university has also adopted the Concept of "Outcome Based Education" as prescribed by the International/National Accreditation agencies to match out the specific needs of the Industry. In the context, feedback on the proposed CBCS

grid has been obtained from all the stakeholders like Industry experts, current students, faculty members and alumni. The obtained feedback were presented before the members.

**Agenda SOE-CSE 12.8: Any other matter with the permission of the Chair (Annexure CSE 12.8).**

**12.8.1: Ratification in eligibility criteria for M.Tech (AI and DS) programs**

The following ratification in the eligibility criteria for the M.Tech programs was presented before the members.

Programs	Existing Eligibility Criteria	Revised Eligibility Criteria
M.Tech AI M.Tech DS	Computer Science and Engineering/ Information Science and Engineering/ Information Science and Technology/ Information Technology	BE/B.TECH degree in any branch

**Resolution:** The proposed ratification is accepted and approved.

**12.8.2: Review and approval of the proposed inclusion of NASSCOM FutureSkills courses as Discipline Elective 1 (3-0-0-3) with a credit transfer of 3**

All the 2019 admitted students of CSE and CSE ALLIED need to compulsorily register and complete three courses as listed below from the certification program launched by NASSCOM FUTURESILLS PRIME in lieu of the 3 credits Points of DE 1. LTP will be 1-0-4-3 (**Annexure CSE 12.8**). The members were briefed about the same.

S. No	Course Name	Technology	Partner	Duration	Link- Course Details
1	Introduction to Cyber security Course	Cyber Security	Cisco	15 hours	<a href="https://futureskillsprime.in/course/cisco-netacad%E2%80%93introduction-to-cyber-security">https://futureskillsprime.in/course/cisco-netacad%E2%80%93introduction-to-cyber-security</a>
2	Cloud Practitioner Essentials	Cloud Computing	AWS	8 hours	<a href="https://futureskillsprime.edcast.com/insights/aws-cloud-masterclass">https://futureskillsprime.edcast.com/insights/aws-cloud-masterclass</a>

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3	Machine Learning - Linear Regression	Big Data Analytics	Analyttic a	23 hours	<a href="https://futureskillsprime.in/course/machine-learning-linear-regression">https://futureskillsprime.in/course/machine-learning-linear-regression</a>
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**Resolution:** The members approved the proposal.

### 12.8.3: Review and approval of the proposed registration of the 2019-2023 batch students for AIU-CII Smart Manager Program (15 Hours course) as a partial replacement of existing PP - I/UP-I

The members were presented with the following proposal

- The Course offered by the AIU – **CII Smart Manager Programme** is selected as partial replacement of PP-I/UP-I course for 2019 batch students. **CII Smart Manager Programme** is a job readiness program, designed to help young graduates differentiate themselves in the corporate world by acquiring key professional skills.
- Students shall take up AI-UC for one credit and Aptitude and coding training for 4 credits

#### Programme contents:

- Introduction to Business
- Campus to Corporate
- Professional Personality & Etiquette
- Managing Time and Stress
- Introduction to Finance
- Design Thinking and Creativity
- Emerging Technologies
- Ace Your Interview

**Resolution:** The proposal is unanimously accepted.

### 12.8.4: Introduction of the course Innovation Project-Arduino Using Embedded C in the first semester for B.Tech students of all disciplines from the academic year 2021-22

A course Innovative Projects - Arduino Using Embedded 'C' is introduced for the 1st semester of all branches during the academic year 2021-22. The corresponding course catalogue is presented before the members for due acceptance and approval (**Annexure CSE 12.8**).



**12.8.5: To ratify the proposal of offering of soft skills course of 3 credits and Coding Training of 2 credits for the 2018 admitted students in lieu of the 5 credits course of Professional Practice 1**

The 2018 batch B.Tech students were offered soft skills course of 3 credits and Coding Training of 2 credits in lieu of the 5 credit course Professional Practice 1. This members were requested for ratification of the same.

**Resolution:** The ratification is approved.

**12.8.6: To ratify the course contents of 2019-2020 academic year courses of various programs and semesters as approved by the BOS chairpersons based on the approval of the respective Departmental Academic Committees**

Based on the approval of DAC, the BOS has approved the detailed course content of 2019-2020 academic year courses runs across all programs.

**Resolution:** The ratification is approved.


As BOS meetings for all the departments are taking place, the Chairman has requested approval from the committee to incorporate modifications / alterations, if any, approved by the BOS committee of other departments for the existing courses offered in Computer Science and Engineering by other departments. The BOS Committee for Computer Science and Engineering has approved the proposal unanimously. The BOS Committee authorizes the Chairperson of the BOS to formulate a sub-committee for making any minor modifications required in the program curriculum and seek the approval in the next meeting.

The BOS Chairperson has conveyed that the decisions taken during the 12<sup>th</sup> meeting of BOS for Computer Science and Engineering will be implemented for 2021-2025, 2020-2024, 2019-2023, and 2018-2022 as early as possible wherever applicable. He has conveyed thanks to all the members and informed that the date of next BOS meeting will be notified soon.


The meeting ended with Vote of Thanks to the Chair.



Signature of Chairperson



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## **Annexure CSE 12.6.4.2**



# **PRESIDENCY UNIVERSITY**

Presidency University Act, 2013 of the Karnataka Act No. 41 of 2013 | Established under Section 2(f) of UGC Act, 1956

Approved by AICTE, New Delhi



## **School of Engineering**

### **Department of Computer Science and Engineering**

## **Master of Technology Degree**

### **Program Regulations and Curriculum 2021-2023**

### **M. Tech. (DATA SCIENCE)**

**2021-2023**



**M. TECH. [DATA SCIENCE]**

<b>SEMESTER GRID : 2021-2023</b>					
<b>SEM – 1</b>					
S. No.	COURSE CODE	COURSE NAME	CREDIT STRUCTURE		
			L	P	CREDITS
1	MAT6001	Advanced Engineering Mathematics	3	0	3
2	ENG5001	English for Employability	2	2	3
3	CSE5005	Artificial Intelligence	2	2	3
4	CSE5006	Knowledge Engineering and Expert Systems	3	0	3
5	CSE5007	Machine Learning Algorithms	2	2	3
6	CSEXX XX	Discipline Elective - I	3	0	3
7	CSEXX XX	Discipline Elective - II	3	0	3
8	SEM5001	Seminar – I	-	-	1
<b>TOTAL</b>			<b>18</b>	<b>6</b>	<b>22</b>
<b>SEM – 2</b>					
S. No.	COURSE CODE	COURSE NAME	CREDIT STRUCTURE		
			L	P	CREDITS
1	CSE6001	Deep Learning	2	2	3
2	CSE6002	Natural Language Processing Techniques	2	2	3
3	CSEXX XX	Discipline Elective - III	3	0	3
4	CSEXX XX	Discipline Elective - IV	3	0	3
5	CSEXX XX	Discipline Elective - V	3	0	3
6	XXXXX XX	Open Elective – I	3	0	3
7	XXXXX XX	Open Elective - II	3	0	3

  
 REGISTRAR  


8	SEM 5002	Seminar – II	-	-	1
<b>TOTAL</b>			<b>19</b>	<b>4</b>	<b>22</b>
<b>SEM – 3</b>					
S. No.	COURSE CODE	COURSE NAME	CREDIT STRUCTURE		
			L	P	CREDITS
1	PIP6001	Dissertation/ Internship - I	-	-	10
<b>SEM – 4</b>					
S. No.	COURSE CODE	COURSE NAME	CREDIT STRUCTURE		
			L	P	CREDITS
1	PIP6002	Dissertation/ Internship - II	-	-	14