	(ii)	Removal of the Open Elective course "Electronic Communication Systems", offered in semester VI as Open Elective-1 for MBA Tech (Electronics and Telecommunication Engineering).
	(iii)	Inclusion of the Open Elective course "Industrial Electronics", offered in semester VII as Open Elective-2 (Syllabus approved in AC conducted on 14th February 2020 for semester VI) for MBA Tech (Electronics and Telecommunication Engineering)
5		Consideration of recommendations made by the **Board of Studies in Computer Science and Engineering (Artificial Intelligence)** which was held on 28th August 2020 as per the following resolutions for forwarding the same to the **Academic Council** for its approval:-
	(i)	**Resolved to recommend to the Academic Council** with regard to the revision of the structure of the B Tech Computer Science and Engineering (Artificial Intelligence) to be made effective for the students admitted in the AY 2020-21 onwards as per Encl.-1 circulated with the agenda, with a suggestion that the structure be revised and the suggestions made by the members be incorporated in the syllabus. In view of the above, the Chairperson, **be authorized** to submit the revised documents directly to the **Academic Council** for further consideration.
	(ii)	**Resolved to recommend to the Academic Council** with regard to the introduction of the Teaching & Examination Scheme and Syllabi of Semester II of the B Tech Computer Science and Engineering (Artificial Intelligence) to be made effective for the students admitted in the AY 2020-21 onwards as per Encl.-2 circulated with the agenda, with a suggestion that the Teaching Scheme and Syllabi be revised and the suggestions made by the members be incorporated in the syllabus.
6		Consideration of recommendations made by the **Board of Studies in Computer Engineering** which was held on 21.08.2020 as per the following resolutions for forwarding the same to the **Academic Council** for its approval:-
	(i)	Revision in the curricula of B Tech in Computer Engineering by way of change in the Syllabus of "Artificial Intelligence" of Semester VI, in supersession of existing curricula, to be made effective for the students admitted in the AY 2018-19 onwards and D to D (Diploma to Degree) students admitted in the AY 2019-20 onwards
	(ii)	Revision in the curricula of B Tech in Computer Engineering by way of change in the Syllabus of "Software Engineering" of Semester VI, in supersession of existing curricula, to be made effective for the students admitted in the AY 2018-19 onwards and D to D (Diploma to Degree) students admitted in the AY 2019-20 onwards
	(iii)	Revision in the curricula of B Tech in Computer Engineering by way of change in the Syllabus of "Advanced Image Processing (Department Elective - I)" of Semester VI, in supersession of existing curricula, to be made effective for the students

		admitted in the AY 2018-19 onwards and D to D (Diploma to Degree) students admitted in the AY 2019-20 onwards
	(iv)	Removal of the elective course "Object Oriented Software Engineering" (Department Elective – I), offered in B Tech (Computer Engineering) from semester VI.
	(v)	Revision in the curricula of MBA Tech in Computer Engineering by way of introduction of Teaching & Examination Scheme and Syllabi of Semester VI in supersession of existing curricula, to be made effective for the students admitted in the AY 2018-19 onwards and D to D (Diploma to Degree) students admitted in the AY 2019-20 onwards
	(vi)	Shifting of the course "Advanced Computer Networks" (Department Elective-I), to be offered to MBA Tech (Computer Engineering) from Semester V to Semester VI, to be made effective for the students admitted from academic year 2019-20 onwards.
	(vii)	Shifting of the course "Advanced Web Programming" (Department Elective-I), to be offered to MBA Tech (Computer Engineering) from Semester V to Semester VI, to be made effective for the students admitted from academic year 2019-20 onwards.
	(viii)	Shifting of the course "Advanced Image Processing" (Department Elective-I), to be offered to MBA Tech (Computer Engineering) from Semester V to Semester VI, to be made effective for the students admitted from academic year 2019-20 onwards.
	(ix)	Removal of the elective course "Object Oriented Software Engineering" (Department Elective – I), offered in MBA Tech (Computer Engineering) from semester V.
	(x)	Introduction of the Syllabi and Teaching & Examination Scheme of the following Open Elective Courses, to be offered by the Computer Engineering Department for the students of all B Tech / MBA Tech programmes in Semester VI and Semester VII other than B Tech / MBA Tech (Computer Engineering), to be made effective for the students admitted in the AY 2018-19 onwards. 1. Artificial Intelligence 2. Machine Learning
	(xi)	Revision in the curricula of Master of Computer Application (MCA) by way of introduction of Teaching & Examination Scheme and Syllabi of Semester II, to be made effective for the students admitted in the AY 2020-21 onwards.
7		Consideration of recommendations made by the **Board of Studies in Computer Science and Engineering (Cyber Security)** which was held on 20.08.2020 _ as per the following resolutions for forwarding the same to the **Academic Council** for its approval:-

COMPUTER ENGINEERING DEPARTMENT

Minutes of the Meeting of Board of Studies (BoS) of Computer Engineering Department, which was held on 16th January 2021 at 10.00 AM on MS Teams online meeting platform.

The following members were present.

1. Dr. Alka Mahajan, Dean, MPSTME, NMIMS University.
2. Dr. Surya Durbha, Professor, IIT Bombay.
3. Dr. Jyoti Joglekar, Professor, KJSCOE, Vidya Vihar, Mumbai.
4. Mr. Manoj Sarode, Senior Consultant, Tata Consultancy Services, Mumbai.
5. Dr. Pravin Shrinath, HoD, Computer Engineering Department, MPSTME, Mumbai.
6. Dr. Seema Shah, Director, B.Tech. (Integrated) program, MPSTME.

Leave of absence was granted to the following member:

1. Dr. M. Sasikumar, Director, CDAC, Navi Mumbai.
2. Dr. Dhirendra Mishra, Professor, Computer Engineering Department, MPSTME.

The agenda of the meeting was taken into consideration as under: -

Item No		Particulars
1		**RESOLUTION:** **Resolved that** the minutes of the previous meeting held on 21st Aug, 2020, be confirmed.
2		**RESOLUTION:** **Resolved that** the action taken on the decision of the previous meeting held on 21st Aug, 2020 <u>be noted</u>.
3(A)	(i)	**RESOLUTION:** **Resolved to recommend to the Academic Council** with regard to revision in the curricula of **B Tech (Computer Engineering)** by way of introduction of Structure of Semester I to VIII in supersession of existing curricula, to be made effective for the students admitted from academic year 2021-22 and direct second year

		students admitted from the academic year 2022-23 onwards, be approved as per **(Encl. I)**.
	(ii)	**Resolved to recommend to the Academic Council** with regard to revision in the curricula of **B Tech and MBA Tech (Computer Engineering)** by way of introduction of Teaching & Examination Scheme of Semester I & II and the Syllabi of following courses are to be offered from academic year 2021-22 onwards in Semester I & II for all the B Tech and MBA Tech programs, be approved as per **(Encl. II)**. 1. Programming for Problem Solving (All Branches except CSBS, CSDS) 2. Data Structures and Algorithms (All branches except CSBS, CSDS, Mechanical, Civil and Chemical Engineering)
	(iii)	**Resolved to recommend to the Academic Council** with regard to revision in the curricula of **B Tech (Computer Engineering)** by way of introduction of Teaching & Examination Scheme of Semester VII &VIII and Syllabi of Semester VII in supersession of existing curricula, to be made effective for the students admitted in the AY 2018-19 onwards and D to D students admitted in the AY 2019-20 onwards, be approved as per **(Encl. III)**.
3(B)	(i)	**RESOLUTION:** **Resolved to recommend to the Academic Council** with regard to revision in the curricula of **MBA Tech (Computer Engineering)** by way of introduction of Structure of Semester I to VIII in supersession of existing curricula, to be made effective for the students admitted from academic year 2021-22 and direct second year students admitted from the academic year 2022-23 onwards, be approved as per **(Encl. IV)**.
	(ii)	**RESOLUTION:** **Resolved to recommend to the Academic Council** with regard to revision in the curricula of **MBA Tech (Computer Engineering)** by way of introduction of Teaching & Examination Scheme of Semester VII & VIII and Syllabi of Semester VII in supersession of existing curricula, to be made effective for the students

		admitted in the AY 2018-19 onwards and D to D students admitted in the AY 2019-20 onwards, <u>be approved</u> as per **(Encl. V)**
3(C)	(i)	**RESOLUTION:** **Resolved to recommend to the Academic Council** with regard to revision in the curricula of **B Tech (Computer Science and Business Systems)** by way of introduction of Teaching & Examination Scheme of Semester V & VI and Syllabi of Semester V in supersession of existing curricula, to be made effective for the students admitted in the AY 2019-20 onwards and D to D students admitted in the AY 2020-21 onwards, <u>be approved</u> as per **(Encl. VI)**

3(D)	(i)	**RESOLUTION:**
		
		Resolved to recommend to the Academic Council with regard to revision in the curricula of **BTech Integrated (Computer Engineering)** by way of introduction of Teaching & Examination Scheme of Semester I & II and Syllabi of following courses to be offered in Semester I & II for all the **BTech Integrated** programs in supersession of existing curricula under the proposed revision, to be made effective for the students admitted from academic year 2021-22 onwards, be approved as per **(Encl. VII)**.
		
		    1. Introduction to IT systems
		    2. Electrical and Computer Workshop

	(ii)	**RESOLUTION:** **Resolved to recommend to the Academic Council** with regard to revision in the curricula of **B Tech Integrated (Computer Engineering)** by way of introduction of Teaching & Examination Scheme of Semester VII to XII in supersession of existing curricula and introduction of Syllabi of Semester VII and VIII courses under the proposed revision, to be made effective for the students admitted from academic year 2018-19 onwards, be approved as per **(Encl. VIII)**.
3(E)	(i)	**RESOLUTION:** **Resolved to recommend to the Academic Council** with regard to introduction of the Syllabi and Teaching & Examination Scheme of the following Open

		Elective - II courses to be offered by the Computer Engineering Department for the students of all B Tech / MBA Tech program in Semester VII and VIII other than B Tech / MBA Tech (Computer Engineering), <u>be approved</u> as per **(Encl. IX)**. 1. **"Deep Learning"** 2. **"Introduction to Blockchain"**
3(F)	(i)	**RESOLUTION:** **Resolved to recommend to the Academic Council** with regard to revision in the curricula of **Master of Computer Application (MCA)** by way of introduction of Teaching & Examination Scheme of Semester – III & IV and Syllabi of Semester III courses in supersession of existing curricula, to be made effective for the students admitted in the AY 2020-21 onwards, be approved as per **(Encl. X)**. circulated with the agenda, with a suggestion that the Teaching & Examination Scheme be revised and the suggestions made by the members be incorporated in the syllabus. In view of the above, the Chairperson, **be authorized** to submit the revised documents directly to the **Academic Council** for further consideration.

Chairperson
Dean, Board of Studies

Minutes of the Meeting of Board of Studies (BoS) of Computer Engineering Department was held using MS Teams online platform at 2.00 PM on April 24th, 2021.

The following members were present:

1. Dr. Alka Mahajan, Dean, MPSTME, NMIMS University, Mumbai.
2. Dr. Surya Durbha, Professor, IIT Bombay.
3. Dr. Jyoti Joglekar, Professor, KJSCOE, Vidya Vihar, Mumbai.
4. Mr. Manoj Sarode, Senior Consultant, Tata Consultancy Services, Mumbai.
5. Dr. Pravin Shrinath, HoD, Computer Engineering Department, MPSTME, Mumbai.
6. Dr. Dhirendra Mishra, Professor, Computer Engineering Department, MPSTME.
7. Dr. Seema Shah, Director, B.Tech. (Integrated) program, MPSTME.

Leave of absence was granted to the following member:

1. Dr. M. Sasikumar, Director, CDAC, Navi Mumbai.

1. The members of BoSconfirmed the minutes of meeting of earlier Board of Studies (BoS) in Computer Engineering held on **16th January 2021**.

2. **The members of BoS considered and deliberated upon the revision in the curricula of B Tech and MBA Tech in Computer Engineering. They approved the following:**

   A. The revision of Teaching & Examination Scheme of Semester III and IV for the batch admitted in academic year 2020-21 and direct second year students will be admitted in the academic year AY 2021-22 onwards **(Encl. I).**

   B. The revision of Syllabi of the courses of Semester III and IV for the batch admitted in academic year 2020-21 and direct second year students will be admitted in the academic year 2021-22 onwards. **(Encl. II)**

   C. Revision in Teaching and Examination Scheme of Semester VII for the batch admitted in academic year 2018-19 and direct second year students admitted in the academic year 2019-20 onwards.

      - Renaming of 'Technical Internship Program (Minimum 6 Weeks)' to 'Technical Internship Program'.
      - Remove NUE in Teaching and Examination Scheme for the 'Project Phase – I'

   D. The revision of syllabi of the courses of Semester VIII of BTech and MBA Tech program for the batch admitted in academic year2018-19 and direct second year students admitted in the academic year 2019-20 onwards **(Encl. III).**

      The members of BoS suggested following changes:

i. **Digital Logic Design:** Introduce topic on "Registers" before introducing topic on "Counters".

ii. **Cloud Computing and IoT:** Reframe the syllabus to enable students to develop IoT based applications. Introduce topic on "cloud services to develop IoT applications", and different cloud platforms like "Amazon and Google cloud".

iii. **Cyber Security and Ethical Hacking:** following topics are suggested to include in the syllabus.

1. "data Encryption Standards" in Unit 2 along with "asymmetric encryption algorithms".

2. "end-to-end encryption system and how it preserves data privacy" and "non-malicious program errors".

iv. **Image and Video Analysis:**following topics are suggested to include in the syllabus.

1. "designing neural network framework for image and video applications".

2. "video summarization"

3. Classification Techniques for Video analysis

v. **Natural Language Processing:** suggested to incorporate topic on "Performance evaluation measures".

Action taken: The suggestionsare incorporated in Syllabus of the courses of Semester – VIII of BTech and MBATech program.

3. **The members of BoS considered and deliberated upon the introduction of the curricula of B Tech (Computer Science and Business Systems). They approved the following:**

A. Introduction of Teaching and Examination Scheme and Syllabi of the courses of Semester VI for the batch admitted in 2019-20 and direct second year students admitted in the academic year 2020-21 onwards. **(Encl. IV)**

4. **The members of BoS considered and deliberated upon the revision in the curricula of BTech(Integrated) in Computer Engineering. They approved the following:**

A. New Course structure of semester I to XII for the batch admitted in academic year 2021-22 onwards.

B. NewTeaching & Examination Scheme and Syllabi of Semester III for the batch admitted in academic year2020-21 onwards. **(Encl. V).**

- Introduce the course 'Python Programming'

C. The revision in the program name as specialization from "System Security" to "Cyber Security" for the batch admitted in academic year2018-19 onwards **(Encl. VII)**

D. The revision in the Teaching and Examination scheme of Semester – VIII for the batch admitted in academic year2018-2019 onwards.**(Encl. VIII)**

The members of BoS suggested following changes:

i. Evaluation of In-plant Training Phase Iismentioned as NUE (Non-University Examination).

Action taken: The suggestion is incorporated in Teaching Scheme and Examination scheme.

5. **The members of BoS considered and deliberated upon the revision in the curricula of newly proposed program of B Tech (Computer Science). They approved thefollowing:**

A. New Course structure of semester I to VIII for the batch admitted in academic year 2021-22 onwards.
B. Teaching & Examination Scheme and Syllabi of Semester I and II for the batch admitted in academic year 2021-22 onwards (First Year is common with B Tech Computer Engineering and taken from already approved Teaching & Examination Scheme and Syllabi in the last Academic Council).

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Dean, MPSTME
Chairperson, Board of Studies