

**M.M. INSTITUTE OF COMPUTER TECHNOLOGY & BUSINESS MANAGEMENT
MAHARISHI MARKANDESHWAR (DEEMED TO BE UNIVERSITY), MULLANA**
(Established under Section 3 of the UGC Act, 1956)
(Accredited by NAAC with Grade 'A++')

Report of Analysis of Feedback on Curriculum for the Academic Year 2021-2022

Feedback is vital part of teaching and learning process. The feedback committee of the institute collected feedback from different stakeholders in order to understand the requirement of Software industry. The collective feedback of all the stakeholders was analyzed and a consolidated report was discussed with the faculty members of the institute and then finally curriculum of BCA-3rd year has been revised w.e.f session 2022-23.

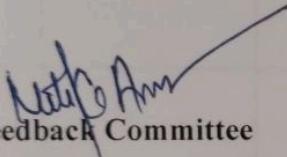
BCA-5 th Semester				
Sr. No.	Subject	Stakeholder(s)	Suggestions	Actions Taken
1.	BCA-501: Python Programming	Dr. Pooja Rani (Faculty)	Various important concepts related to functions are missing in the syllabus. Overriding methods is an important concepts related to class inheritance. It should be added in the syllabus.	Suggested topics are added in the subject.
		Rohit (BCA 3 rd yr Student)	Data Types and built in functions should be added in the subject.	As per the suggestions, topics are added in the subject.
2.	BCA-502: Mobile Application Development	Dr. Dalip (Faculty)	Designing and layout of the applications should be taught to the students for the better understanding.	Suggested topics are added in the subject.
		Neelima Trehan – (Industry Professional)	An Android Emulator should be introduced in the subject to develop and test the applications.	Topics related to Emulator Android Virtual Device are added in the subject.
3.	BCA-503: Statistical Methods	Dr. Rishu Arora (Faculty)	A course dealing with statistical concepts should be taught in the graduation as it is highly demanding in Data Handling now-a-days.	Subject was renamed as Statistical methods and topics related to data handling are added in the syllabus.
		Yogita - (Alumni)	Various topics related to statistics should be added in the subject to meet the industry requirement.	As per the suggestions, topics like central tendency, dispersion, and Statistical Forecasting are

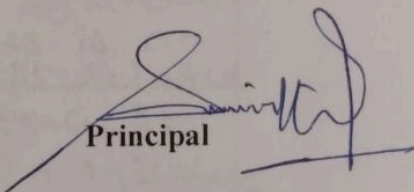
				added in the subject.
4.	BCA-504(a): Computer Graphics	Mrs. Nidhi Sharma (Faculty)	Now-a-days, computer graphics is a core technology in digital photography, film, video games, cell phone and computer displays, and many specialized applications, subject should be introduced in the curriculum.	A new subject Computer Graphics is introduced in the curriculum.
5.	BCA-504(b): System Simulation	Mr. Vivek Bhatnagar (Faculty)	Different types of models should be included in the syllabus.	Topic added in the subject.
		Shah Pritpal Singh- (Alumni)	Various discrete simulators should be introduced in the subject to give live examples to the students.	Chemical reactors, water reservoir system are added in the subject as per suggestion.
		Ms. Sahana Paul (Industry Professional)	Simulation of more than one server queues should also be introduced in the subject.	Topic Simulation of two- server queues is added in the subject.
6.	BCA-505(a): Software Project Management	Dr. Munishwar Rai (Faculty)	PERT, CPM, Different Charts depict the use of them in controlling and monitoring a project.	Suggested topics are added in the subject.
7.	BCA-505(b): E-Commerce	Md. Kaif (BCA 3 rd yr student)	Business models is very important topic to include in this subject.	As per suggestion, topic is added in the subject.
		Mrs. Aayushi (Faculty)	IT LAW provides the legal recognition for transaction carried out by means of electronic commerce when the buying and selling is included over Web so it's necessary to gain knowledge about IT Law to the students.	Cyber laws and various crimes are added in the subject.

BCA-6 th Semester				
Sr. No.	Subject	Stakeholder(s)	Suggestions	Actions Taken
1.	BCA-601: R Programming	Dr. Pooja Rani (Faculty)	R is widely used in data analysis. Therefore handling missing values should be introduced in the subject.	Suggested topics are added in the subject
		Sumit Kumar - BCA 3 rd yr Student	Students should know how to work with 2D and 3D graphics, So it should be included in the	Topics related to 2D and 3D graphics are

			syllabus.	added in the subject.
2.	BCA-602: Web Technologies	Mr. Gulbir Singh (Faculty)	Different CSS frameworks should be introduced in the subject to get the practical knowledge about the subject.	Suggested various frameworks are added in the subject.
		Yogita- (Aumni)	It is very important to know handling data with a complex structure or atypical data, So XML should be mandatory while studying web technologies.	Suggested topic related to XML are added in the subject.
		Mr. Aneesh Jain- (Industry Professional)	Students should be taught to work on Open-Source rapid development framework to use in building dynamic websites, Eg: codeigniter.	Codeigniter and its working is added in the subject.
3.	BCA-603: Cyber Security	Mrs. Nitika Arora (Faculty)	Advanced cryptographic algorithms should be introduced in the subject.	As per suggestions, AES and RC5 algorithms are added in the subject.
		Shah Pritpal Singh- (Alumni)	Hashing gives a more secure and adjustable method of retrieving data, so as per the demand hashing techniques should be introduced in the syllabus of the cyber security	MD5 and SHA are added in the subject.
4.	BCA-604(a): Cloud Computing	Mrs. Minakshi Sharma (Faculty)	Teachers must discuss recent concepts about role of cloud computing in different sectors to the students to that they should know the value of cloud computing in the market.	Suggested topics are added in the subject.
		Md. Kaif (BCA 3 rd Yr student)	Outline security benefits of different vendor offerings should be introduced in the syllabus.	Data Security, Application Security, Virtual Machine Security, Network Security topics are added in the subject.
		Sumit Kumar (BCA 3 rd yr Student)	Students should know different issues and policies imposed by government related to cloud.	Suggested topics are added in the subject.
5.	BCA-604(b): Internet of Things	Mrs. Rubika Walia (Faculty)	Study of various applications of IOT should be introduced in the subject to get the students a	Suggested topics are added in the subject.

			detailed knowledge about the subject.	
		Rohit (BCA 3 rd yr Student)	Various IOT architecture and models should be introduced in the syllabus.	Suggested topics are added in the subject.
		Shah Pritpal Singh (Alumni)	Raspberry Pi and its various models should be included in the subject.	Raspberry Pi is introduced in the subject.
6.	BCA-605(a): Design of Analysis & Algorithm	Mr. Aneesh Jain Industry Professional	As per the demand in the market, Design analysis & Algorithm should be introduced in the curriculum.	Suggested subject is introduced in the curriculum.
7.	BCA-605(b): Artificial Intelligence	Ms. Sahana Paul Industry Professional	AI jobs have jumped by almost 75% over the past four years and are poised to keep growing, So it must be introduced in the curriculum.	As per the suggestion, subject is introduced in the curriculum.


Feedback Committee


Principal

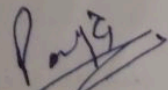
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FACULTY FEEDBACK ON SCHEME & SYLLABI

Name Dr. Pooja Rani

Designation Assistant Professor

Sr. No.	Class	Code/Subject	Suggestion
1.	BCA 5 th	BCA-501/ Python programming	various important concepts related to functions
2.			are missing in syllabus.
3.			overriding methods is an important concept related to class inheritance. It should be added in syllabus
4.	BCA 6 th	BCA-601/ R Programming	R is widely used in analysis. Therefore
5.			handling missing values should be introduced in
6.			the subject.
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 Signature

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STUDENT FEEDBACK ON SCHEME & SYLLABI

Name Rohit Roll No. 1319061
Class BCA Batch 2019-22

Sr. No.	Paper/Subject	Suggestions
1.	BCA-501(Python)	Datatypes and built in functions should be added in the
2.	BCA-604(IOT)	Various IOT architecture ^{subject,} and models should be introduced in the subject.
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Rohit
Signature

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FACULTY FEEDBACK ON SCHEME & SYLLABI

Name Dr. Dalip

Designation Asst Prof

Sr. No.	Class	Code/Subject	Suggestion
1.	BCA	Mobile Applications Development	Designing & layout of the applications should be taught to the students for the better understanding.
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Dalip
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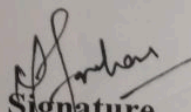
INDUSTRY PROFESSIONAL FEEDBACK ON SCHEME & SYLLABI

Name Neelima Trehan Designation Sr. Manager

Official Address Infogain, Gurugram

Contact No. 0120-2445744 Mail-Id neelima.trehan@infogain.org

Sr. No.	Class	Subject	Suggestion
1.	BCA	Mobile Application Development	An Android Emulator should be introduced in the subject to develop and test the applications.
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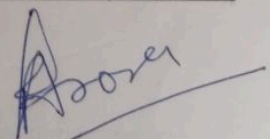

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FACULTY FEEDBACK ON SCHEME & SYLLABI

Name Dr. Rishu Anora Designation Assistant Professor.

Sr. No.	Class	Code/Subject	Suggestion
1.	BCA 5 th Sem	BCA-503: Statistical Methods	A Course dealing with statistical concepts should be taught in the graduation as it is highly demanding in Data Handling now-a-days.
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ALUMNI FEEDBACK ON SCHEME & SYLLABI

Name Yogita Batch 2017 - 2020
 Designation Software Developer
 Official Address Deloitte, Gurgaon.

Contact No. 9528154398 Mail-Id gogia.yogita19@gmail.com

Sr. No.	Class	Subject	Suggestion
1.	BCA	Statistical Methods.	Various topics related to
2.			Statistics should be
3.			added in the subject
4.			to meet industry
5.			requirement.
6.			
7.		Web Technologies	It is very important
8.			to know handling
9.			data with a complex
10.			structure of a typical data
			So, XML should be mandatory
			while studying web technologies.

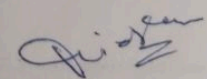
Yogita
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FACULTY FEEDBACK ON SCHEME & SYLLABI

Name NIDHI SHARMA Designation Assistant Professor

Sr. No.	Class	Code/Subject	Suggestion
1.	—	—	① Now a days Computer Graphics is a core
2.	/	/	Technology in digital
3.			photography, film, video
4.			games, cell phone and
5.			computer displays and
6.			many specialized applications, subject should be introduced in the curriculum.
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FACULTY FEEDBACK ON SCHEME & SYLLABI

Name Vivek Bhatnagar Designation Assoc. Professor

Sr. No.	Class	Code/Subject	Suggestion
1.	BCA-5th.	BCA-504 (b)	Different types of Models should be included in the syllabus
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Vivek
Signature

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ALUMNI FEEDBACK ON SCHEME & SYLLABI

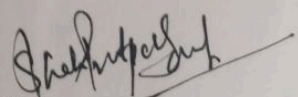
Name Shah Pritpal Singh Batch 1999-2002

Designation QA Manager

Official Address Seasia Infotech, Mohali

Contact No. 9034013179 Mail-Id Sp Singh@seasiainfotech.com

Sr. No.	Class	Subject	Suggestion
1.	BCA	System Simulation	Various discrete simulators should be introduced in the subject to give live examples to the students
2.			
3.			
4.	BCA	IOT	Raspberry pi and its various models should be included in the subject
5.			
6.	BCA	Cyber Security	Hashing gives a more secure and adjustable method of retrieving data, so as per the demand hashing techniques should be introduced in the syllabus of Cyber Security
7.			
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INDUSTRY PROFESSIONAL FEEDBACK ON SCHEME & SYLLABI

Name Ms. Sahana Paul Designation Sr. Associate

Official Address Global Logic, Noida, Uttar Pradesh.

Contact No. _____ Mail-Id Sahana.paul@globallogic.com.

Sr. No.	Class	Subject	Suggestion
1.	BCA	-	AI Jobs have jumped by almost 75% over the past four years and are poised to keep growing so, it must be introduced in the curriculum.
2.			
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5.	BCA	System Simulation	Simulation of more than one server queues should also be introduced in the subject.
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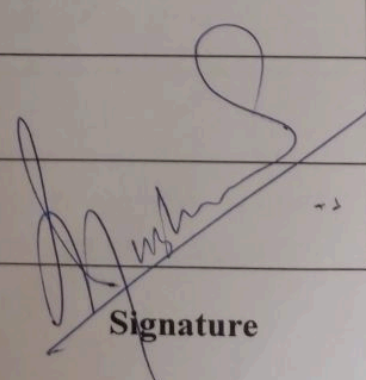
Sahana Paul
Signature

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FACULTY FEEDBACK ON SCHEME & SYLLABI

Name **Dr. Munishwar Rai** Designation **Professor**

Sr. No.	Class	Code/Subject	Suggestion
1.	BCA-5th	SPM	Kindly Add on the following topics:- Types of WBS. WBS Planning, Project schedule: Scheduling terminology and techniques, Scheduling Objectives, Building the project schedule, Network Diagrams: PERT, CPM, Bar Charts: Milestone Charts, Gantt Charts.
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STUDENT FEEDBACK ON SCHEME & SYLLABI

Name Md. Kaif Roll No. 1319091
Class B.C.A Batch 2019-22

Sr. No.	Paper/Subject	Suggestions
1.	BCA - e-commerce	Business models is a very important topic to include in
2.		the subject
3.	BCA - Cloud computing	On Line security Benefits from different vendors should be
4.		known to the students.
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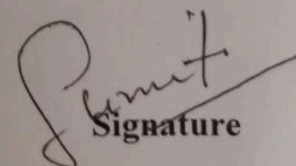
M. Kaif
Signature

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STUDENT FEEDBACK ON SCHEME & SYLLABI

Name Sumit Kumar Roll No. 1319080
Class B.C.A. Batch 2019-22

Sr. No.	Paper/Subject	Suggestions
1.	B.C.A. - Cloud Computing	Students should know different issues and policies imposed by Government related to Cloud.
2.		
2	BCA - R. Programming	Students should know how to work with 2D and 3D graphics.
4.		So it should be included in the syllabus.
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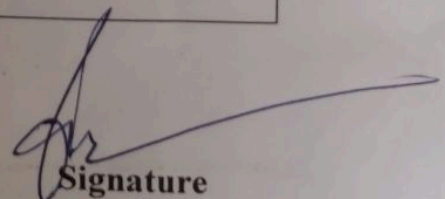
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FACULTY FEEDBACK ON SCHEME & SYLLABI

Name Mr. Gulbair Singh

Designation Asst Prof

Sr. No.	Class	Code/Subject	Suggestion
1.	B.A 6th	BCD 602: web	Different CSS framework should be introduced
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INDUSTRY PROFESSIONAL FEEDBACK ON SCHEME & SYLLABI

Name Mr. Aneesh Jain Designation Sr. Analyst.

Official Address Fiserv, Noida.

Contact No. _____ Mail-Id Aneesh.jain@fiserv.com.

Sr. No.	Class	Subject	Suggestion
1.	BCA		As Per Demand in the market Design Analysis
2.			subject should be
3.			introduced in the curriculum.
4.			
5.	BCA	WEB TECHNOLOGIES	Students should be taught to work on
6.			Open - source rapid development framework
7.			to use in building dynamic website
8.			Eg:- Codeigniter.

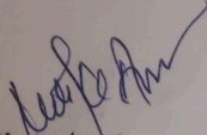
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FACULTY FEEDBACK ON SCHEME & SYLLABI

Name Nitika Arora Designation A.P.

Sr. No.	Class	Code/Subject	Suggestion
1.	BCA	Cyber security	Advanced Cryptographic algorithms should be introduced in the subject
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FACULTY FEEDBACK ON SCHEME & SYLLABI

Name Dr. Minakshi Sharma Designation Asst. Prof.

Sr. No.	Class	Code/Subject	Suggestion
1.	BCA	Cloud Computing	Teachers must discuss recent concepts about role of cloud computing in diff sectors to the students so that they could understand the value of cloud computing in market.
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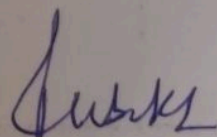
Minakshi Sharma
Signature

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FACULTY FEEDBACK ON SCHEME & SYLLABI

Name Rubika Walia Designation A.P.

Sr. No.	Class	Code/Subject	Suggestion
1.	BCA	IOT	Study of Various applications of IOT should be introduced in the subject to get the students a detailed knowledge about the subject.
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Signature

**MAHARISHI MARKANDESHWAR (DEEMED TO BE UNIVERSITY),
MULLANA (AMBALA)**

No. MMEC/2022/

September 21, 2022

Minutes of 17th meeting of Faculty of Engineering & Technology held on 20.9.2022 at 11.00 a.m. in the Seminar Hall of CSED, old Engg. Block, MMEC, Mullana.

The following members attended the meeting either physical or in a virtual manner as indicated below:-

S. No	Department	Name	Designation	S. No	Department	Name	Designation
1		Dr. Alakesh Manna	Prof. in Mech. Engg., PEC Univ., Chandigarh	23	Elect. & Comm. Engg	Mr. Rohit Lamba	Asst Professor
2		Dr. Ashok Kumar	Professor and Dean, FET	24	Electrical Engg.	Dr. Aman Ganesh	Professor
3		Dr. N.K. Batra	Dean Academic Affairs	25	Electrical Engg.	Mr. Gaurav Sharma	Asstt. Prof.
4		Dr. J.K. Sharma	Dean Students Welfare	26	Mechanical Engg.	Dr. Rajesh Khanna	Professor
5		Dr. Sumit Mittal	Principal, MMITCTBM (MCA)	27	Mechanical Engg.	Dr. Anish Kumar	Assoc. Prof.
6	Biotechnology	Dr. Anil Sharma	HOD, Biotech	28	Mechanical Engg.	Mr. Shaman Gupta	Asst Professor
7	Biotechnology	Dr. Neha Sharma	Professor	29	Chemistry Deptt.	Dr. Bhawna Pareek	HOD Chemistry
8	Biotechnology	Dr. Raj Singh	Professor	30	Chemistry Deptt.	Dr. Praveen Kumar Gupta	Professor
9	Biotechnology	Dr. Raman Kumar Garg	Assoc. Prof.	31	Chemistry Deptt.	Dr. Joginder Singh	Assoc. Prof.
10	Biotechnology	Dr. Diwakar Aggarwal	Asst Professor	32	Chemistry Deptt.	Dr. Nadeem Sharma	Asstt. Prof.
11	Civil Engg.	Dr. Vanita Rai Aggarwal	HOD, Civil Engg.	33	Physics Deptt.	Dr. Vandana Sharma	HOD, Physics
12	Civil Engg.	Dr. Baljit Singh	Professor	34	Physics Deptt.	Dr. Dixit Prasher	Assoc. Prof.
13	Civil Engg.	Mr. Sunil Chouhan	Asst Professor	35	Physics Deptt.	Dr. Ranjana Sharma	Asst Professor
14	Computer Sc.& Engg.	Dr. Sandip Kumar Goyal	Professor	36	Maths & Hum.	Dr. Deepak Gupta	HOD, Maths & Hum.
15	Computer Sc.& Engg.	Dr. Rajneesh Kumar Gujral	Professor	37	Maths & Hum.	Dr. Satish Kumar	Professor
16	Computer Sc.& Engg.	Dr. Sanjeev Kumar Rana	Professor	38	Maths & Hum.	Dr. Vishal Gupta	Professor
17	Computer Sc.& Engg.	Dr. Avinash Narottam Lal Sharma	Professor	39	Maths & Hum.	Dr. Parveen Aliawalia	Professor
18	Computer Sc.& Engg.	Dr. Kamal Prakash	Associate Professor	40	Maths & Hum.	Dr. Sharanpal Singh	Professor
19	Computer Sc.& Engg.	Dr. Satyaveer Singh	Asst Professor	41	Maths & Hum.	Dr. Shakuntala Singla	Assoc. Prof.
20	Elect. & Comm. Engg	Dr. Sharad Sharma	HOD, ECE	42	Maths & Hum.	Dr. Adesh Kumar Tripathi	Asst Professor
21	Elect. & Comm. Engg	Dr. Tarun Gulati	HOD, EE	43	MCA	Dr. Munishwar Rai	Professor
22	Elect. & Comm. Engg	Dr. Anil Garg	Associate Professor	44	MCA	Dr. Rattan Pal Singh Rana	Professor

Dr. Harish Sharma, Vice Chancellor, Dr. Rakesh Kumar (External Expert), Dr. Dushyant Gupta (External Expert), Dr. Neeraj Dilbaghi (External Expert), Prof. Rajinder Kumar, Registrar, Prof. Raman Gupta, CoE, Dr. Vishal Garg, Dr. Deepika Garg, Dr. Adesh Kumar Saini and Dr. V.K. Katiyar could not attend the meeting due to their prior engagements.

Dr. Ashok Kumar, Dean (FET) welcomed all the External Experts and Internal members of FET for attending the 17th Meeting of Faculty of Engg. & Tech. of MMDU.

Thereafter the following items were discussed as per the details mentioned below :-

17.1	The faculty noted that the minutes of the 16 th Meeting of FET were circulated on 23.7.2021 and as no comments have been received from any of the member on the said minutes of the 16 th Meeting of Faculty of Engineering & Technology held on 6.7.2021 and thus the minutes stands confirmed.
No.17.2	<u>Common for MMEC presented by Dean (Academics)</u>
17.2.1	Dr. N.K. Batra, Dean (Academics) informed that necessary action on the minutes on the 16 th meeting of FET pertaining to different deptts. were taken by the respective deptt. He also informed that each deptt. was directed to comply with the following observations of the external experts as mentioned in item No. 16.21. (i) Each deptt. should follow the similar format of designing/writing the contents of the syllabus of a particular subject. (ii) At number of place, the reference book and text books have been enlisted commonly. They should be separated out. (iii) It is important that each unit of the syllabus must indicate the approximate hours which are required to complete the contents. This aspect is missing in most of the cases.
17.2.2	Dr. NK Batra, Dean Academics explained that AICTE has issued the instructions for introduction of compulsory Course of 3-credits on Universal Human Values for all Engg. Programs and thus now the degree will be awarded to the Engg. Graduates after earning 163 credits as per the details in Annexure 17.2.2. On the basis of the syllabus notified for this subject by AICTE, MMDU has implemented the same syllabus as notified by AICTE with a common code for all branches from the academic year 2020-2024 onwards in the different semesters as approved by the respective BOS
17.2.3	Dr. N.K. Batra, Dean (Academics) informed that the revised Research Promotion Policy-2022 of MMDU notified on 8.8.2022 has been implemented in MMEC as per the Annexure 17.2.3. Dean (FET) also informed the salient feature of this revised policy and requested all the HODs to give it the wide publicity among the staff members, research scholars and PG/UG students so that the research becomes integral part of all the courses and target as envisaged in the document are achieved.
Item No.17.3	<u>Recommendation of Civil Engineering (BOS meeting held on 13.7.2022)</u>
	Dr. Vanita Aggarwal, Chairperson BOS of Civil Engg. presented the recommendations of BOS in Civil Engg. meeting held on 13.7.2022. After detailed deliberations, FET recommended the approval of the proposal of the BOS in Civil Engg. to the Academic Council as proposed from item No. 17.3.1 to 17.3.7
17.3.1	The list of Civil Engineering subjects on SWAYAM portal for the session July-Dec. 2022. Annexure- 17.3.1 (Page 01 to 01)
17.3.2	The Revised Scheme of B. Tech Civil Engineering for 3 rd to 8 th semester for students of Batch 2021-2025 onwards. Annexure-17.3.2 (Page 02 to 07)
17.3.3	The Syllabus of B. Tech Civil Engineering for 3 rd and 4 th semester for students of Batch 2021-2025 onwards. Annexure-17.3.3 (Page 08 to 27)
17.3.4	The Scheme of M. Tech. (Civil Engineering) with Specialization in Geotechnical Engineering for students of Batch 2022-2024 onwards. Annexure-17.3.4 (Page 28 to 30)
17.3.5	The Syllabus of M. Tech. (Civil Engineering) with Specialization in Geotechnical Engineering for students of Batch 2022-2024 onwards. Annexure-17.3.5 (Page 31 to 44)
17.3.6	The list of value added subjects for session 2021-22 onwards (Post facto). Annexure-17.3.6 (Page 45 to 45)

17.3.7	Minor changes in scheme (Universal Human Values subject added in 5 th Semester) of batch 2020-2024 only. Annexure-17.3.7 (Page 46 to 52)
Item No.17.4	<u>Recommendation of EE (BOS meeting held on 21.07.2022)</u> Dr. Tarun Gulati, Chairman BOS of Electrical Engg. presented the recommendations of BOS in Electrical Engg. meeting held on 21.7.2022. The faculty considered and after detailed deliberations resolved to recommend the proposal of the BOS in Electrical Engg. to the Academic Council as proposed for item No. 17.4.1 to 17.4.3.
17.4.1	To note minor changes in scheme due to introduction of the course of Universal Human Values subject added in 7 th Semester of batch 2020-2024 & in 4 th Semester 2021-2025 of B.Tech. Electrical Engineering as per AICTE recommendations. Annexure-17.4.1: (Pages 1-12)
17.4.2	The courses and their syllabi for Ph.D Course work of Electrical Engineering Deptt. Annexure-17.4.2: (Pages 13-20)
17.4.3	Value added course "PV Solar Workshop" from the session 2022-23 Annexure 17.4.3: (Page21)
Item No.17.5	<u>Recommendation of ECE (BOS meeting held on 28.7.2022)</u> Dr. Sharad Sharma, Chairman BOS of Electronics & Comm. Engg. presented the recommendations of BOS in Electronics & Comm. Engg. meeting held on 28.7.2022. The faculty considered and after detailed deliberations resolved to recommend the proposal of the BOS in Electronics & Comm. Engg. to the Academic Council as proposed in item No. 17.5.1.
17.5.1	To note minor changes in scheme due to introduction of the course of Universal Human Values subject added in 6 th Semester of batch 2020-2024 & in 4 th Semester 2021-2025 of B.Tech Electronics & Comm. Engg. as per AICTE recommendations. Annexure-17.5.1 (Pages 1)
Item No.17.6	<u>Recommendation of CSE (BOS meeting held on 19.07.2021, 28.10.2021, 29.01.2022 & 22.07.2022)</u> Dr. Sandip Goyal, Chairman BOS of Computer Sc. & Engg. presented the recommendations of BOS in Computer Sc. & Engg. meetings held on 19.07.2021, 28.10.2021, 29.01.2022 & 22.07.2022. The faculty considered and after detailed deliberations resolved to recommend the proposal of the BOS in Computer Sc. & Engg. to the Academic Council as proposed from item No. 17.6.1 to 17.6.26.
17.6.1	Following changes in the scheme of B.Tech. 7 th Semester (Computer Sc. & Engg.) (Batch 2019-2023 only). Annexure-17.6.1 (Page 1). i) Subject code for Business Intelligence is changed from BCSE-524 to BCSE-525. ii) Subject: (BCSE-525: Project-III) is changed to (BCSE-526: Project-IV). iii) In list of Elective-V, Internetworking Technologies-II subject is replaced by Programming Languages. iv) In list of Open Elective-II, subject code BCIV-084 is assigned to subject Rural Technology & Community Development, Subject codes of subjects Embedded Systems and Internet of Things are updated to BECE-531 & BECE-550 respectively and subject VLSI Design is replaced by subject (BT-401: Bioinformatics). v) In list of Open Elective-III, subject Wireless & Mobile Communication is replaced by subject (BECE-537: Mobile Communication & Networks), subject code of subject Control Systems is updated to BECE-524 and subject Managing innovation & Entrepreneurship is replaced by subject (BCIV-082: General Principles of Building Construction). vi) In list of Open Elective-IV, subject code of Digital Signal Processing is updated to BECE-517, subject code BCIV-085 is assigned to subject Infrastructure System-

	<p>Planning, subject Biomedical Electronics is replaced by subject (BELE-529: Measurements & Instrumentation), and subject Knowledge Management is dropped.</p> <p>vii) MOOC course / Training course allocation related instructions are updated.</p>
17.6.2	<p>Following changes in the scheme of B. Tech. 7th Semester (Computer Sc. & Engineering with specialization in Cloud Technology & Information Security) (Batch 2019-2023 only).</p> <p style="text-align: right;">Annexure-17.6.2 (Page 2)</p> <p>i) Subject Ethical Hacking is replaced with Information Security.</p> <p>ii) Subject: (BCSE-525: Project-III) is changed to (BCSE-526: Project-IV).</p> <p>iii) In list of Elective-V, subject Privacy and Security of Online Social Media Networks is renamed as Security and Privacy of Online Social Media Networks, subject Mobile Wireless and VOIP Security is renamed as Mobile Wireless and VoIP Security.</p> <p>iv) In list of Open Elective-II, subject code BECE-550 is assigned to subject Internet of Things, subject UI & UX is replaced by subject (BECE-531: Embedded Systems), subject (BCSE-551: Block Chain Technology) is replaced by subject (BT-401: Bioinformatics), new subject (BCIV-084:Rural Technology & Community Development) is added.</p> <p>v) New subject Open Elective-III is added in place of subjects (Artificial Intelligence, Professional Skills). The subjects included in the list are same as approved for 7th semester (CSE) under previous item.</p> <p>vi) New subject Open Elective-IV is added in place of subjects (Elective Lab based on PE, Ethical Hacking Lab). The subjects included in the list are same as approved for 7th semester (CSE) under previous item.</p> <p>vii) MOOC course / Training course allocation related instructions are updated.</p>
17.6.3	<p>Syllabi for departmental subjects of B. Tech. 7th semester (Computer Sc. & Engineering with specialization in Cloud Technology & Information Security) (Batch 2019-2023 only).</p> <p style="text-align: right;">Annexure-17.6.3 (Pages 3-9)</p> <p>i) Newly approved syllabus: Information Security, Elective-IV (Advanced Cloud Architecture, Cloud Security and Data Protection, Openstack), Elective-V (Security and Privacy of Online Social Media Networks, Server Security, Mobile Wireless and VoIP Security).</p> <p>ii) As remaining departmental subjects already existed in the scheme of previous batches with same/different code. So, no need to approve syllabi for these subjects.</p>
17.6.4	<p>Following changes in the scheme of B. Tech. 7th Semester (Computer Sc. & Engineering with specialization in Data Science) (Batch 2019-2023 only).</p> <p style="text-align: right;">Annexure-17.6.4 (Page 10).</p> <p>i) Subject: (BCSE-525: Project-III) is changed to (BCSE-526: Project-IV) and subject Advanced Big Data Analytics is moved to Elective-V with subject code BCSE-625.</p> <p>ii) In list of Open Elective-II, subject code BECE-550 is assigned to subject Internet of Things, subject UI & UX is replaced by subject (BECE-531: Embedded Systems), subject (BCSE-551: Block Chain Technology) is moved to Elective-IV and replaced by subject (BT-401: Bioinformatics), new subject (BCIV-084:Rural Technology & Community Development) is added.</p> <p>iii) New subject Open Elective-III is added in place of subjects (Advanced Big Data Analytics, Professional Skills). The subjects included in the list are same as approved for 7th semester (CSE) under previous item.</p> <p>iv) New subject Open Elective-IV is added in place of subjects (Advanced Machine Learning Lab, Advanced Big Data Analytics Lab). The subjects included in the list are same as approved for 7th semester (CSE) under previous item.</p> <p>v) MOOC course / Training course allocation related instructions are updated.</p>
17.6.5	<p>Syllabi for departmental subjects of B. Tech. 7th semester (Computer Sc. & Engineering with specialization in Data Science) (Batch 2019-2023 only).</p> <p style="text-align: right;">Annexure-17.6.5 (Pages 11-18).</p> <p>i) Newly approved syllabus: Advanced Machine Learning, Elective-IV (Big Data Analytics on Cloud, Real Time Data Processing, Data Analytics using SQL), Elective-</p>

	<p>V (Social Media Analytics using R, Predictive Analysis using Python, Data Visualization Techniques, Advanced Big Data Analytics).</p> <p>ii) As remaining departmental subjects already existed in the scheme of previous batches with same/different code. So, no need to approve syllabi for these subjects.</p>
17.6.6	<p>Syllabi for departmental subjects of B. Tech. 5th semester (Computer Sc. & Engineering) (Batch 2020-2024 only).</p> <p style="text-align: right;">Annexure-17.6.6 (Pages 19-24).</p> <p>i) Newly approved syllabus: PHP and its Framework, UI / UX Design, Object Oriented Modelling, PHP and its Framework Lab.</p> <p>ii) Modifications (more than 20%) in already existing syllabus: Javascript and its Framework, Javascript and its Framework Lab.</p> <p>iii) As remaining departmental subjects already existed in the scheme of previous batches with same/different code. So, no need to approve syllabi for these subjects.</p>
17.6.7	<p>Syllabi for departmental subjects of B. Tech. 5th semester (Computer Sc. & Engineering with specialization in Cloud Technology & Information Security) (Batch 2020-2024 only).</p> <p style="text-align: right;">Annexure-17.6.7 (Pages 25-26).</p> <p>i) Newly approved syllabus: Linux Administration, Linux Administration Lab, PHP and its Framework, PHP and its Framework Lab.</p> <p>ii) Modifications (more than 20%) in already existing syllabus: Javascript and its Framework, Javascript and its Framework Lab.</p> <p>iii) As remaining departmental subjects already existed in the scheme of previous batches with same/different code. So, no need to approve syllabi for these subjects</p>
17.6.8	<p>Syllabi for departmental subjects of B. Tech. 5th semester (Computer Sc. & Engineering with specialization in Data Science) (Batch 2020-2024 only).</p> <p style="text-align: right;">Annexure-17.6.8 (Page 27).</p> <p>i) Newly approved syllabus: Optimization Techniques Lab, PHP and its Framework, PHP and its Framework Lab.</p> <p>ii) Modifications (more than 20%) in already existing syllabus: Javascript and its Framework, Javascript and its Framework Lab.</p> <p>iii) As remaining departmental subjects already existed in the scheme of previous batches with same/different code. So, no need to approve syllabi for these subjects.</p>
17.6.9	<p>Minor change in the scheme of B. Tech 6th semester (Computer Sc. & Engineering, Computer Sc. & Engineering with Specialization in Cloud Technology & Information Security, Computer Sc. & Engineering with Specialization in Data Science) (Batch 2020-2024 only). This change involve addition of 1 new subject (HSMC-051: Universal Human Values) with 3 credits. Total credit value for entire semester changed from 20 to 23 and for entire degree changed from 160 to 163. Syllabus of this subject was also approved.</p> <p style="text-align: right;">Annexure-17.6.9 (Pages 28-34).</p>
17.6.10	<p>Minor change in the scheme of B. Tech 6th semester (Computer Sc. & Engineering, Computer Sc. & Engineering with Specialization in Cloud Technology & Information Security, Computer Sc. & Engineering with Specialization in Data Science) (Batch 2021-2025 only). This change involve addition of 1 new subject (HSMC-051: Universal Human Values) with 3 credits. Total credit value for entire semester changed from 19 to 22 and for entire degree changed from 160 to 163. Syllabus of this subject was also approved.</p> <p style="text-align: right;">Annexure-17.6.10 (Pages 35-41).</p>
17.6.11	<p>Minor change in the scheme of B. Tech 1st / 2nd semester (All Branches) (Batch 2022-2026 onwards). This change involve replacement of subject (BCSE-002: Business Processes) with (BCSE-005: IT Skills for Business). Syllabus of this subject was also approved.</p> <p style="text-align: right;">Annexure-17.6.11 (Pages 42-46).</p>
17.6.12	<p>Minor change in the scheme of B. Tech 3rd semester (Computer Sc. & Engineering, Computer Sc. & Engineering with Specialization in Cloud Technology & Information Security, Computer Sc. & Engineering with Specialization in Data Science) (Batch 2022-2026 onwards). This change involve addition of 1 new subject (HSMC-051: Universal Human Values) with 3 credits. Total credit value for entire semester changed from 24 to 27 and for entire degree changed from 160 to 163. Syllabus of this subject was also approved.</p>

	Annexure-17.6.12 (Pages 47-49).												
17.6.13	<p>i) As per AICTE issued guidelines and suggestions; CSE department has started following new specializations under B.Tech (CSE) course (For Batch 2022-26 onwards): a) Full Stack Development b) Big Data and Analytics</p> <p>ii) Entire Scheme (for 1st to 8th semester) has been approved. Since scheme & syllabus for B.Tech 1st year is common for all branches, so 1st year syllabi for these specializations will be same as used for other engineering branches.</p> <p style="text-align: right;">Annexure-17.6.13 (Pages 50-63).</p>												
17.6.14	<p>Following Value Added courses along with their syllabus :</p> <p style="text-align: right;">Annexure-17.6.14 (Pages 64-66).</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Course No.</th> <th>Course Name</th> <th>Duration (In Hours)</th> </tr> </thead> <tbody> <tr> <td>VA-CSE-01</td> <td>Digital Marketing</td> <td>16</td> </tr> <tr> <td>VA-CSE-02</td> <td>Programming Concepts Using Python</td> <td>16</td> </tr> <tr> <td>VA-CSE-03</td> <td>Essentials of Office Suite</td> <td>16</td> </tr> </tbody> </table>	Course No.	Course Name	Duration (In Hours)	VA-CSE-01	Digital Marketing	16	VA-CSE-02	Programming Concepts Using Python	16	VA-CSE-03	Essentials of Office Suite	16
Course No.	Course Name	Duration (In Hours)											
VA-CSE-01	Digital Marketing	16											
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VA-CSE-03	Essentials of Office Suite	16											
17.6.15	<p>List of courses which can be floated as open elective course to students of other engineering branches during session Aug – Dec 2022. These subjects already existed in the CSE scheme. So, no need to approve syllabi for these subjects.</p> <p style="text-align: right;">Annexure-17.6.15 (Page 67).</p>												
17.6.16	<p>SWAYAM / MOOC courses which can be opted by students (Batch 2019-2023, Batch 2020-2024, Batch 2021-2025 and Batch 2022-2026) under the category of Swayam courses. Also list of approved courses can be expanded. (For Session: July-Nov 2022)</p> <p style="text-align: right;">Annexure-17.6.16 (Page 68).</p>												
17.6.17	<p>SWAYAM / MOOC courses which can be opted by students (Batch 2019-2023, Batch 2020-2024 and Batch 2021-2025) under the category of Swayam courses. Also list of approved courses can be expanded. (For Session: Jan-May 2022)</p> <p style="text-align: right;">Annexure-17.6.17 (Page 69).</p>												
17.6.18	<p>Syllabi for departmental subjects of B. Tech. 8th semester (Computer Sc. & Engg) (Batch 2018-2022 only). Annexure-17.6.18 (Page 70-75).</p> <p>i) Newly approved syllabus: Cyber Security, Speech & Natural Language Processing, Advanced Algorithms, Quantum Computing, Agile Software Development, Real Time Systems.</p> <p>ii) New subject code with already approved syllabus: All remaining subjects.</p>												
17.6.19	<p>Following changes in the scheme of B. Tech. 6th Semester (Computer Sc. & Engineering) (Batch 2019-2023 only). Annexure-17.6.19 (Page 76).</p> <p>i) Compiler subject is replaced by subject Big Data & Analytics and its credits are changed from 4 to 3 by removing its tutorial.</p> <p>ii) Addition of new practical subject Big Data & Analytics Lab (BCSE-524) with 2 credits.</p> <p>iii) In list of Elective-II, subjects Big Data & Analytic, Internetworking Technologies-I and Software Testing are replaced by Subjects Python & its framework, Java & its framework, JavaScript & its Framework.</p> <p>iv) In list of Elective-II lab, subjects Big Data & Analytic Lab, Internetworking Technologies-I Lab and Software Testing Lab are replaced by Subjects Python & its framework Lab, Java & its framework Lab, JavaScript & its Framework Lab.</p> <p>v) Mooc course / Training course allocation related instructions are updated.</p> <p>vi) Total credits for entire semester changed from 19 to 21.</p> <p>vii) Total marks for entire semester changed from 900 to 1000.</p>												
17.6.20	<p>Syllabi for departmental subjects of B.Tech. 6th semester (Computer Sc. & Engg) (Batch 2019-2023 only). Annexure-17.6.20 (Pages 77-83).</p> <p>i) Newly approved syllabus: Python & its framework, Java & its framework, JavaScript & its framework, Python & its framework Lab, Java & its framework Lab, JavaScript & its framework Lab, Big Data & Analytics Lab.</p> <p>ii) As remaining departmental subjects already existed in the scheme of previous batches. So, no need to approve syllabi for these subjects.</p>												

17.6.21	Minor changes in the scheme of B. Tech 6 th semester (Computer Sc. & Engineering with specialization in Data Science) (Batch 2019-2023 only). Also, syllabi for departmental subjects of 6 th semester was approved. Annexure-17.6.21 (Pages 84-86).																
17.6.22	Minor changes in the scheme of B. Tech 6 th semester (Computer Sc. & Engineering with specialization in Cloud Technology & Information Security) (Batch 2019-2023 only). Also, syllabi for departmental subjects of 6 th semester was approved. Annexure-17.6.22 (Pages 87-92).																
17.6.23	Syllabi for departmental subjects of B. Tech. 4 th semester (Computer Sc. & Engineering, Computer Sc. & Engineering with Specialization in Cloud Technology & Information Security, Computer Sc. & Engineering with Specialization in Data Science) (Batch 2020-2024 only). Annexure-17.6.23 (Pages 100-116).																
17.6.24	Syllabi for departmental subjects of B. Tech. 3 rd and 4 th semester (Computer Sc. & Engineering, Computer Sc. & Engineering with Specialization in Cloud Technology & Information Security, Computer Sc. & Engineering with Specialization in Data Science) (Batch 2021-2025 onwards). Annexure-17.6.24 (Pages 117-145).																
17.6.25	List of courses which can be floated as open elective course to students of other engineering branches during session Jan – May 2022. These subjects already existed in the CSE scheme. So, no need to approve syllabi for these subjects. Annexure-17.6.25 (Page 146).																
17.6.26	Vision statement, Mission statement, Program Education Objectives & Program Specific Outcomes of CSE department. Annexure-17.6.26 (Page 147).																
Item No.17.7	<u>Recommendation of Biotechnology (BOS meeting held on 05.08.2022)</u> Dr. Anil Sharma, Chairman BOS of Biotechnology presented the recommendations of BOS in Biotechnology meeting held on 5.8.2022. The faculty considered and after detailed deliberations resolved to recommend the proposal of the BOS in Biotechnology to the Academic Council as proposed from item No. 17.7.1 to 17.7.3.																
17.7.1	Consideration and approval of the introduction of the new scheme of B.Sc. (Hons.) Biotechnology & syllabus of 1st and 2nd semester along with electives (July 2022-onwards) as per the NEP 2020 model scheme. Annexure-17.7.1 (Pages 1-24)																
17.7.2	To consider and approve the changes in the syllabi of the following courses:BBIO-505 (Genetics) of B.Tech. Biotechnology 3rd semester,BIO-538 (Bioinformatics) of B.Tech. Biotechnology 7th semester, MMIC-502 (Fundamentals of Microbiology) of M.Sc. Microbiology 1st semester, MMIC-518 (Biostatistics and Computers) of M.Sc. Microbiology 3rd semester, BBIT-525 (Bioinformatics) of B.Sc. (Hons.) Biotechnology 5th Semester, MBIO-506 (Biostatistics and Research Methodology) of M.Sc. Biotechnology 1st semester,MBIO-518 (Proteomics and Genomics) M.Sc. Biotechnology 3rd Semester, MBOT-520 (Plant cell, tissue and organ culture) of M.Sc. Botany 3rd Semester. Annexure-17.7.2 (Pages 1-19)																
17.7.3	To consider the introduction of the following value-added courses: Annexure-17.7.3(Pages1-8)																
	<table border="1"> <thead> <tr> <th>Sr. No.</th> <th>Name of Course</th> <th>Duration</th> <th>Start date of the course</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Entrepreneurship Development and Communication Skills BT-VA-001</td> <td>22 Hrs</td> <td>Offered from August,2022-onwards</td> </tr> <tr> <td>2</td> <td>Philosophy of Science, Communication, Knowledge & Spirituality BT-VA-002</td> <td>24 Hrs</td> <td>Offered from January,2023-onwards</td> </tr> <tr> <td>3</td> <td>Floriculture, Land Scaping and Gardening BT-VA-003</td> <td>20 Hrs</td> <td>Offered from January,2023-onwards</td> </tr> </tbody> </table>	Sr. No.	Name of Course	Duration	Start date of the course	1	Entrepreneurship Development and Communication Skills BT-VA-001	22 Hrs	Offered from August,2022-onwards	2	Philosophy of Science, Communication, Knowledge & Spirituality BT-VA-002	24 Hrs	Offered from January,2023-onwards	3	Floriculture, Land Scaping and Gardening BT-VA-003	20 Hrs	Offered from January,2023-onwards
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Item No.17.8	<p align="center"><u>Recommendation of Mechanical Engg. (BOS meeting held on 6.8.2022)</u></p> <p>Dr. NK Batra, Chairman BOS of Mechanical Engg. presented the recommendations of BOS in Mechanical Engg. meeting held on 6.8.2022. The faculty considered and after detailed deliberations resolved to recommend the proposal of the BOS in Mechanical Engg. to the Academic Council as proposed from item No. 17.8.1 to 17.8.3.</p>
17.8.1	To consider & approve the syllabi of 'Human Values HSMC-051' (For batch 2020-24 onwards in 6 th Semester) Annexure -17.8.1 (Pages 1-3)
17.8.2	To consider & approve the list of Swayam Course. Annexure -17.8.2 (Pages 1-1)
17.8.3	To consider & approve the list of Value Added Course Annexure -17.8.3 (Pages 1-1)
Item No.17.9	<p align="center"><u>Recommendation of MCA/BCA (BOS meeting held on 25.8.2022)</u></p> <p>Dr. Sumit Mittal, Prof. & Principal in MMICTBM (MCA) presented the recommendations of BOS in MCA/BCA meeting held on 25.8.2022. The faculty considered and after detailed deliberations resolved to recommend the proposal of the BOS in MCA/BCA to the Academic Council as proposed from item No. 17.9.1 to 17.9.11</p>
17.9.1	The new syllabi of BCA-3 rd year (5 th Sem. & 6 th Sem.) under Choice Based Credit Scheme (CBCS) for the batch 2020-23 w.e.f the session 2022-23 (Post Facto Approval). Annexure-17.9.1 (Pages 1-23)
17.9.2	The new scheme of BCA (NEP-2020) under Choice Based Credit Scheme (CBCS) from batch 2022-25 onwards w.e.f the session 2022-23. Annexure-17.9.2 (Pages 1-5)
17.9.3	The new syllabi of BCA-1 st year (1 st Sem. & 2 nd Sem.) [NEP-2020] under Choice Based Credit Scheme (CBCS) from batch 2022-25 onwards w.e.f the session 2022-23. Annexure-17.9.3 (Pages 1-19)
17.9.4	The scheme of BCA with specialization in Artificial Intelligence and Machine Learning (NEP-2020) under Choice Based Credit Scheme (CBCS) from batch 2022-25 onwards w.e.f the session 2022-23. Annexure-17.9.4 (Pages 1-4)
17.9.5	The scheme of BCA with specialization in Data Science [NEP-2020] under Choice Based Credit Scheme (CBCS) from batch 2022-25 onwards w.e.f the session 2022-23. Annexure-17.9.5 (Pages 1-4)
17.9.6	The scheme & syllabi of B.Sc Programming & Data Science-1 st Sem. [NEP-2020] under Choice Based Credit Scheme (CBCS) from batch 2022-25 onwards w.e.f the session 2022-23. Annexure-17.9.6 (Pages 1-11)
17.9.7	The scheme & syllabi of B.Sc Animation, VFX & Gaming-1 st Sem. [NEP-2020] under Choice Based Credit Scheme (CBCS) from batch 2022-25 onwards w.e.f the session 2022-23. Annexure-17.9.7 (Pages 1-11)
17.9.8	The minor changes in the scheme of MCA under Choice Based Credit Scheme (CBCS) from batch 2022-24 onwards w.e.f the session 2022-23. Annexure-17.9.8 (Pages 1-3)
17.9.9	The syllabi of Bridge Course-MCA-B202: Fundamentals of Mathematics from batch 2022-24 onwards w.e.f the session 2022-23. Annexure-17.9.9 (Pages 1-2)
17.9.10	The syllabi of the value added course VA-MCA-101: Machine Learning with Python w.e.f the session 2022-23. Annexure-17.9.10 (Pages 1)
17.9.11	The list of MOOC subjects for BCA & MCA students for the session 2022-23 (Odd Semester) under the category of SWAYAM Courses. Annexure-17.9.11 (Pages 1-2)
Item No. 17.10	<p align="center"><u>Recommendation of Physics Department. (BOS meeting held on 09.08.2022)</u></p> <p>Dr. Vandana Sharma, Chairperson BOS of Physics presented the recommendations of BOS in Physics meeting held on 9.8.22. The faculty</p>

	considered and after detailed deliberations resolved to recommend the proposal of the BOS in Physics to the Academic Council as proposed from item No. 17.10.1 to 17.10.3.
17.10.1	Inclusion of Dissertation in the Scheme of B.Sc Physics w.e.f. from 2022 onwards Annexure-17.10.1 (Pages 1-4)
17.10.2	Approval of value added courses (16 Hours each) (i) Basic Instrumentation Skills (ii) (ii) Radiation and Safety (iii) Introduction to Various Characterization Techniques (iv) Mathematical Foundation for Physics Annexure-17.10.2 (Page 1-5)
17.10.3	(i) To Approve the scheme of B.Sc. (Hons.) Physics, from 1 st to 8 th semester as per NEP-2020. w.e.f. the session 2022-23 (ii) To Approve the syllabi of B.Sc. (Hons.) Physics 1 st and 2 nd semester as per NEP-2020 w.e.f. the session 2022-23 Annexure 17.10.3 (page 1- 26)
Item No. 17.11	<u>Recommendation of Chemistry (BOS meeting held on 13.07.2022)</u> Dr. Bhawna Pareek, Chairperson BOS of Chemistry presented the recommendations of BOS in Chemistry meeting held on 13.7.2022. The faculty considered and after detailed deliberations resolved to recommend the proposal of the BOS in Chemistry to the Academic Council as proposed in item No. 17.11.1
17.11.1	(i) To Approve the scheme of B.Sc. (Hons.) Chemistry, B.Sc. (Medical/Non.Medical) from 1 st to 8 th semester as per NEP-2020. w.e.f. the session 2022-23 (ii) To Approve the syllabi of B.Sc. (Hons.) Chemistry, B.Sc. (Medical/Non.Medical) 1 st and 2 nd semester as per NEP-2020 w.e.f. the session 2022-23 Annexure 17.11.1 (page 1- 112)
Item No. 17.12	<u>Recommendation of Mathematics (BOS meeting held on (18.07.2022)</u> Dr. Deepak Gupta, Chairman BOS of Maths. & Hum. presented the recommendations of BOS in Mathematics meeting held on 18.7.2022. The faculty considered and after detailed deliberations resolved to recommend the proposal of the BOS in Mathematics to the Academic Council as proposed from item No. 17.12.1 to 17.12.5.
17.12.1	To Approve the scheme of B.Sc. (Hons.) Mathematics 1 st to 8 th semester as per NEP-2020. w.e.f. the session 2022-23 Annexure (17.12.1 page 1-4)
17.12.2	To Approve the syllabi of B.Sc. (Hons.) Mathematics 1 st and 2 nd semester as per NEP-2020 w.e.f. the session 2022-23 Annexure (17.12.2 page 5-25)
17.12.3	To Approve the modification in the scheme and Syllabi of M.Sc. Mathematics 1 st to 4 th semester w.e.f. the session 2022-23 Annexure (17.12.3 page 26-74)
17.12.4	To Approve the scheme and syllabi of M.Sc. Mathematics 1 st to 4 th Semester [online (OL) Mode]w.e.f. the session 2022-23. Annexure (17.12.4 page 75-123)
17.12.5	To Approve the syllabus of Value Added Course on Vedic Mathematics (MAT-601) open for all the students of this university w.e.f. the session 2022-23 Annexure (17.12.5 page 124-125)

Item No.	<u>Recommendation of Humanities (BOS meeting held on 01.08.2022)</u>
17.13	Dr. Deepak Gupta, Chairman BOS of Humanities presented the recommendations of BOS in Humanities meeting held on 1.8.2022. The faculty considered and after detailed deliberations resolved to recommend the proposal of the BOS in Humanities to the Academic Council as proposed from item No. 17.13.1 to 17.13.3
17.13.1	To Approve minor modification in the syllabi of B.Tech. I/II semester of English (BHUM-001) w.e.f. the session 2022-23 Annexure (17.13.1 page 1)
17.13.2	To Approve the syllabus of Hindi BHUM-013 1 st /2 nd semester as per NEP-2020 of the students of the technical colleges w.e.f. the session 2022-23 Annexure (17.13.2 page 2)
17.13.3	To Approve the syllabi of English (BHUM-011) and English Lab (BHUM-012) 1 st /2 nd semester as per NEP-2020 of the students of the technical colleges w.e.f. the session 2022-23 Annexure (17.13.3 page 3-4)

It was explained by Dean (FET) and Dean (Academics) that the recommendations from 17.14 to 17.21 as per the details given below pertains to the recommendations of the various DRC of individual BOS for the details of the title and supervisor for Ph.D. Scholars or Change of supervisors etc. The FET noted the same. However, the External Expert suggested that the same format for the name of the topic must be followed. All the BOS were advised to note this aspect clearly.

Item No.17.14 Mechanical Engg.

S. No.	Name of candidate	Title	Supervisor
1	Mr. Ashwani Sharma (Regn. No. 19-PhD-054)	Synergy of Lean Six Sigma and Industry 4.0 Tools to bring Quality Excellence in Indian Textile Industry	Dr. Bikram Jit Singh, Prof., Mechanical Engineering Deptt, MMEC, Mullana
2	Ms. Eisha Mehta Sharma (Roll No. 11209561)	Sustainable Deployment of 'AI' in Indian Automobile Supply Chains Through Six Sigma's Dmaic Approach	Dr. Bikram Jit Singh, Prof., Mechanical Engineering Deptt, MMEC, Mullana

Item No.17.15 - Computer Science & Engineering

Sr. No.	Student Name	Title	Supervisor/Co-Supervisor
1.	Monika Sharma 08-ECM-3303	Secure and Robust IoT Based Framework for Healthcare System	Dr. Amit Kumar Bindal, Associate Professor, CSE Department, MMEC
2	Priyanka 20-PhD-066	Machine Learning based Approach for Early Prediction of Risk during Pregnancy	Main Supervisor: Dr. Sonali Goyal, Asstt. Prof., CSE Deptt, MMEC Co-Supervisor: Dr. Ruby Bhatia, Professor & HoD, Obstetrics & Gynaecology Department, MMIMS&R, MM(DU), Mullana
3	Deepika Arora 08-ECM-3308	An Intelligent System for Prediction of Cardiovascular Disease	Main Supervisor: Dr. Avinash Sharma, Prof., CSE Dept, MMEC Co-Supervisor: Dr. Bimal K. Agrawal, Prof., Dept of Medicine, MMIMS&R, MM(DU), Mullana
4	Ritu Mishra 08-ECM-3314	A Secure and Robust Information Management Framework for Cloud in Collaborative Environment	Dr. Sandip Kumar Goyal, Professor, CSE Department, MMEC

5	Mandeep Kaur 20-PhD-065	Design of Trust Based Authentication Technique for Security in Cloud Computing	Dr. Prachi Garg, Associate Professor, CSE Department, MMEC
6	Vandana 21-PhD-095	An Efficient Framework for Emotion Mining from the Text using Emerging Technologies	Dr. Avinash Sharma, Professor, CSE Department, MMEC
7	Priyanka Bathla 21-PhD-092	Artificial Intelligence Based Prediction Model for Brain Stroke Disease	Dr. Rajneesh Kumar, Professor, CSE Department, MMEC

Item No.17.16 - Biotechnology

Sr. No	Student Name	Title	Supervisor/Co-Supervisor
1	Rahul Thakur	Analysis of metal induced toxicity in yeast model harboring human peroxiredoxins	Dr. Adesh Kumar Saini, Professor, Biotechnology, MMEC
2	Rupal Malik	Comparative inter-population study of different endogamous population groups of Haryana region	Dr. Anil K Sharma, Professor, Biotechnology Dr. Rajeev Kawatra, Asstt. Director, FSL, Madhuban, Karnal.
3	Ravi Kant Sharma	Evaluation of pro-inflammatory & anti-inflammatory salivary cytokine profiles in psoriasis patients – A Prospective study	Dr Ujjawal Sharma, Assoc.Prof., Biotech. Co-Supervisor: Dr Aneet Mahendra, Prof., Dermatology, MMIMSR Mullana
4	Ekta Sharma	In-vitro and in-vivo studies on obesity using plant based formulations	Prof. Ajay Kr. Gupta, Professor, Biotechnology
5	Kumar Preet	Studies on physiological, biochemical and molecular basis of salinity tolerance in Sugarcane	Dr. Nirmala Sehrawat, Asstt. Prof., Biotech. Dr. Pooja (Co-supervisor) Scientist, Plant Physiology, ICAR Sugarcane Breeding Institute Regional Centre, Karnal
6	Mukesh Kumar	A study on the antifungal activity of ethanomedicinal plants against human and phytopathogenic fungi	Dr Raj Singh, Professor, Biotechnology, MMEC
7	Monu Sharma	Simulated studies on degradation of azo dyes from textile effluents using mixed microbial culture	Dr. Raman Kumar, Associate Professor, Biotechnology Dr. Rajeev Vats, Director (Scientist-E), BIS NRO Chandigarh.
8	Sonu Sharma	Assessment of heavy metal bioremediation efficiency of microbial culture from industrial effluents	Dr. Raman Kumar, Associate Professor, Biotechnology, MMEC
9	Anjali	Synthesis, characterization and application of nanofertilizer to improve growth and yield of selected vegetables	Dr. Indu Sharma, Asstt. Professor Biotechnology, MMEC
10	Shallu	In silico and in vitro studies on exploration of antiproliferative and antiangiogenic potential of Onosmabraceatum	Dr. Hardeep Singh Tuli, Assistant Professor, Biotechnology, MMEC
11	Rachna	Production, characterization and assessment of microbial naringinase for debittering of citrus fruit juice	Dr. Mukesh Yadav, Assistant Professor, Biotechnology, MMEC
12	Paavan	Evaluation of Cr (VI) reduction from industrial effluents using indigenous microbial consortium isolated from contaminated sites	Dr. Raman Kumar, Associate Professor, Biotechnology, MMEC

13	Anshuman Rai	Diatoms as a nanomaterial for remediation of synthetic dyes associated with waste water	Dr. Anil K Sharma Professor, Biotechnology Dr. Rajeev Kawatra Asstt. Director, FSL, Madhuban, Karnal
14	Ms. Anju Rani	Formulation and Evaluation of topical herbal nano gel for accelerated chronic wound healing	Dr. Raman Kumar Assoc. Prof., Deptt of Biotech., MMEC Mullana. Dr. Satyendra Kumar Rajput, Prof. & Head, Deptt. of Pharmaceutical Scs, Gurukul Kangri University, Haridwar

Item No.17.17 - Physics

Sr. No.	Name of the Candidate	Title of Synopsis	Supervisor
1	Ms. Anju Rani (Regn.No.16-MMGS-9251)	SYNTHESIS CHARACTERIZATION AND PHOTOCATALYTIC APPLICATION OF DOPED TITANIUM OXIDE NANOSTRUCTURES	Supervisor: Dr.Suresh Kumar Assoc. Professor, Dept. of Physics, MMEC, Mullana Co-supervisor: Dr. R.L.Dhiman Asstt. Prof. Dept. of Physics, S.D. College (Lahore), Ambala
2	Mr.Shubham (Regn. No. 14-ECM-962)	Optical Properties of Solution Processed Pure and Doped Copper Oxide Nanostructures and Their Biological Applications	Dr.Ishan Choudhary (Asstt. Professor), Dept. of Physics, MMEC, Mullana
3	Mr.Aman Kumar(Regn. No. 21-Ph.D-087)	Study on the Light Harvesting Capability of Dye Sensitized Solar Cell by Utilizing Rare Earth Metal Modified ZnO Photoanode	Dr. Suresh Kumar, Assoc. Prof., Dept. of Physics, MMEC, MM(DU) Mullana
4	Ms. Amrita (Regn. No. 21- Ph.D6-086)	Structural, Morphological and Optical Studies of Nickel Oxide (NiO) Nanoparticles for Potential Applications	Dr. Dixit Prasher (Assoc. Professor), Dept. of Physics, MMEC, MM(DU) Mullana

Item No. 17.18 (A) - Electronics & Comm.. Engg.

Sr. No.	Name	Topic of Research	Supervisor
1	Ruchi Garg (07-ECM-1058)	Secure Range Free Localization Against Wormhole Attack in Wireless Sensor Networks	Dr. Tarun Gulati, Professor ECE Department, MMEC, MMDU, Mullana

Item No. 17.18 (B) –Electronics & Comm. Engg.

Sr. No	Name	Title	Previous Supervisor	New Supervisor
1	Rajinder Kumar (Regd.No.15- ECM-411)	An Efficient OBS Framework to Improve Bandwidth Utilization using Deep Learning.	Dr. Kapil Gupta	Dr.Karan Aggarwal, Assoc.Prof., ECE Deptt., MMEC, MMDU, Mullana
2	Anuj Gupta (Regd.No.09- PhD-028)	An Intelligent Approach to Forecast Solar Irradiance Component	Dr. Kapil Gupta	Dr Sharad Sharma, Professor, ECE Deptt., MMEC, MMDU, Mullana

Item No. 17.19 - Computer Applications

Sr. No.	Name	Topic of Research	Supervisor
1	RajanSaluja (21-Ph.D-104)	Design and Implementation of Student's Performance Model based on Machine Learning Algorithms	Dr.Munishwar Rai, Professor
2	Peerzada Hamid Ahmad (13-MCM-212)	A Cluster-Based Genetic Model to improve the access time of data using Machine Learning	Dr.Munishwar Rai, Professor
3	Deepak Pandey (21-Ph.D-105)	An Artificial Intelligence based Model to Predict the Outcome of Major League Baseball Match	Dr. Rajeev Gupta, Asstt. Professor

Item No. 17.20 - Civil Engineering

Sr. No.	Name of the Candidate	Topic	Name of Supervisor	Name of Co-Supervisor
1	Rahul Grover 21-Ph.D-052	Analysis of Rainfall Trend and Assessment of Climate Change	Dr. Siddhartha Sharma, Assistant Professor, CED, MMEC, Mullana (-
2	Parveen Kumar 21-Ph.D-051	Analysis of Tensile Strength and Dynamic Tensile Stress Values of Rock Materials	Dr. B.S. Walia, Professor, CED, MMEC, Mullana	-
3	Suminder Meerwal 21-Ph.D-053	Fire Resistance Analysis and Design of Reinforce Concrete Member	Dr. B.S. Walia, Professor, CED, MMEC, Mullana (Ambala)	Dr. Banti A. Gedam, Senior Scientist-E, Central Building Research Institute (CBRI), Roorkee
4	Sunil Chouhan 21-Ph.D-050	Performance Evaluation of PET Modified Bituminous Concrete Mixes with Addition of Industrial Waste Filler	Dr. Mukesh Saini, Associate Professor, CED, MMEC, Mullana (Ambala)	-
5	Vikas Kumar 11-ECM-1951	Design and Development of Different Cost Effective Physico-Chemical Cleanup Technologies for Sequestering Heavy Metal Ions from Industrial Contaminated Soil	Dr. Chadetrik Rout, Associate Professor, CED, MMEC, Mullana (Ambala)	-

Item No.17.21 - Deptt. of Chemistry

Sr. No	Name	Title	Supervisors
1	Satvinder (11209525)	GRAPHENE QUANTUM DOTS: SYNTHESIS, CHARACTERIZATION AND APPLICATIONS	Dr. Joginder Singh Associate Professor Department of Chemistry MMDU, Mullana
2	Lipika (11209527)	Bioinspired fluorine free surface coatings for multifunctional applications	Dr. Arun Kumar Singh Assistant Professor

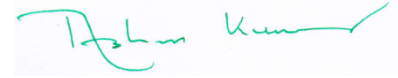
			Department of Chemistry MMDU, Mullana
3	Sarvjeet Kaur (11209528)	SYNTHESIS, CHARACTERISATION AND SPECTROSCOPIC ANALYSIS OF MOLECULAR CAPSULE AND THEIR ALLOSTERICALLY CONTROLLED BINDING BEHAVIOUR	Dr. Ashutosh Singh Assistant Professor Department of Chemistry MMDU, Mullana
4	Swati Ghangas (11209531)	STUDIES ON REVERSE OSMOSIS MEMBRANE BASED WATER TREATMENT SYSTEMS AND RECLAMATION OF REJECT WATER	Dr. Nirankar Singh Associate Professor Department of Chemistry MMDU, Mullana
5	Kusum (11209532)	SPECTROPHOTOMETRIC METHODS OF MICRODETERMINATION OF IRON AND CERIUM	Dr. Amita Garg Asstt. Prof. Deptt. of Chemistry, MMDU, Mullana
6	Sonia (11209533)	HETEROPOLYACID SALTS, THEIR APPLICATIONS AS POTENTIOMETRIC SENSOR AND CATALYST	Dr. Nadeem Sharma Assistant Professor Department of Chemistry MMDU, Mullana
7	Harjot Kaur (11209535)	FACILE SYNTHESIS ROUTE OF NANOCOMPOSITE FORMATION FOR ELECTROCATALYTIC DETECTION OF NEUROTRANSMITTERS	Dr. Samarjeet Singh Siwal Assistant Professor Department of Chemistry MMDU, Mullana
8	Savita (11209536)	SYNTHESIS, CHARACTERIZATION AND CATALYTIC PERFORMANCE OF POLYMER-ANCHORED HETEROGENEOUS COMPLEXES	Dr. Praveen Kumar Gupta Prof., Dept. of Chemistry MMDU, Mullana
9	Karamveer (11209564)	SYNTHESIS, CHARACTERIZATION AND APPLICATIONS OF CARBON-BASED NANOCOMPOSITE FOR ENERGY STORAGE MATERIALS	Dr. Samarjeet Singh Siwal Assistant Professor Department of Chemistry MMDU, Mullana
10	Amit Bhardwaj (11209568)	Plant-mediated green synthesis of metallic nanoparticles for photocatalytic and sorptive applications	Dr. Arun Kumar Singh Asst. Prof. Deptt. of Chemistry, MMDU, Mullana
11	Vivek Kumar (11209569)	Synthesis of Metal Complexes and Evaluation of their Anticancer Activity	Dr. Nivedita Agnihotri Assoc. Prof. Dept. of Chemistry, MMDU, Mullana
12	Manish Kumar (11209565)	SYNTHESIS, CHARACTERIZATION AND CATALYTIC APPLICATIONS OF HETEROPOLYACID SALTS FOR ESTERIFICATION AND TRANSESTERIFICATION REACTION	Dr. Nadeem Sharma Assistant Professor Department of Chemistry MMDU, Mullana
13	Saloni Kamboj (11209566)	SPATIO-TEMPORAL EXPLORATION OF HYDROCHEMISTRY OF FRESHWATER AQUIFERS IN AMBALA DISTRICT WITH SPECIAL REFERENCE TO HUMAN HEALTH	Dr. Nirankar Singh Associate Professor Department of Chemistry MMDU, Mullana
14	Kirti Mishra (11209567)	SYNTHESIS, CHARACTERIZATION AND APPLICATIONS OF NOBLE- METAL BASED MATERIALS FOR ELECTRO-OXIDATION OF ALCOHOLS	Dr. Samarjeet Singh Siwal Assistant Professor Department of Chemistry MMDU, Mullana
15	Ankit Garg (11209570)	STUDIES ON SYNTHESIS, CHARACTERIZATION AND BIOLOGICAL EVALUATION OF SCHIFF BASE METAL COMPLEXES	Dr. Jyoti Sharma Associate Professor Department of Chemistry MMDU, Mullana

Item No. 17.22

Any other item with the permission of the Chair.

Dr. Alakesh Manna, Prof. in Mech. Engg., PEC Univ., Chandigarh appreciated the efforts of MM (DU) for implementing the NEP-2020 in its various Graduate Programs from the academic year 2022-23 but observed that in some of the syllabi the reference books/text books have not been properly defined. All the Chairpersons of BOS were requested that in future the earlier instructions specifically notified on the basis of the minutes of 13th (item No. 13.24) & 16th (item No. 16.21) meeting of FET (Attached as Annexure 17.22) should be strictly followed by all concerned.

The meeting ended with a vote of thanks to the Chair.



Dean, Faculty of Engg. & Technology
(MMDU) and Director (MMEC)

CC :

1. Controller of Examination with hard copy of Annexures (Part I & II)
2. Dy. Registrar (Acad.) with hard copy of Annexures (Part I & II)