Charotar University of Science & Technology
C.S. Patel Institute of Technology
Department of Mechanical Engineering

Year: 2015-16

Action taken report on feedback of Stakeholders on Curriculum

1. Advanced welding techniques is included in Manufacturing Processes-I offered in B.Tech programme. (Annexure I)
2. Friction topic is included in Dynamics of Machines offered in B.Tech programme. (Annexure I)
3. Composite Material topic is included in Material Engineering & Technology offered in B.Tech programme. (Annexure I)
4. "Composite Materials" is offered in seconder semester of M.Tech (AMT) as a programme elective. (Annexure I)
5. More Industrial visits are scheduled for B.Tech and M.Tech programmes. (Annexure II)
6. Wettability experiment is introduced in Fluid mechanics course.



Dr. Vijay Chaudhary,

Associate Professor & Head, MED, CSPIT

Annexure I

CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY (CHARUSAT)

FACULTY OF TECHNOLOGY & ENGINEERING

Department of Mechanical Engineering

3rd September, 2016

The meeting of the Board of Studies, Mechanical Engineering, Faculty of Technology and Engineering, Charotar University of Science and Technology (CHARUSAT) was held at September 3, 2016.

Following members were present:

Sr. No	Members		Signature
1.	**Dr. A A Shaikh**	Professor, Mechanical Engineering Department, SVNIT - Surat	–
2.	**Dr A. R. Srinivas**	Head Mechanical CAD centre, Space application centre, ISRO, Ahmedabad	
3.	**Mr. Hiten Patel**	Director, NLGEOM Engineering Services	
4.	**Vijay Chaudhary**	Head, Department of Mechanical Engineering, CSPIT	
5.	**Dr. Mayur Sutaria**	Associate Professor, Department of Mechanical Engineering, CSPIT	
6.	**Dattatraya Subhedar**	Assistant Professor, Department of Mechanical Engineering, CSPIT	
7.	**Gajanan Patange**	Assistant Professor, Department of Mechanical Engineering, CSPIT	
8.	**Kamlesh Chauhan**	Assistant Professor, Department of Mechanical Engineering, CSPIT	

Minutes – Meeting of Board of Studies
CHAMOS Matrusanstha Department of Mechanical Engineering

Date : September 03, 2016, Saturday
Time : 10:00 am
Venue : Department of Mechanical Engineering, CSPIT, CHARUSAT Campus

The meeting of the Board of Studies, Mechanical Engineering, Faculty of Technology and Engineering, Charotar University of Science and Technology (CHARUSAT) was held as per schedule.

Following members were present:

1.	Mr. Vijay Chaudhary	**Chairman;**	Associate Professor & Head, Department of Mechanical Engineering, CSPIT
2.	Dr A D Patel	**Member;**	Professor, Department of Mechanical Engineering, CSPIT
3.	Dr. Mayur Sutaria	**Member;**	Associate Professor, Department of Mechanical Engineering, CSPIT
4.	Mr. Dattatraya Subhedar	**Member;**	Assistant Professor, Department of Mechanical Engineering, CSPIT
5.	Mr. Gajanan Patange	**Member;**	Assistant Professor, Department of Mechanical Engineering, CSPIT
6.	Mr. Kamlesh Chauhan	**Member;**	Assistant Professor, Department of Mechanical Engineering, CSPIT
7.	Dr A. R. Srinivas	**Member;**	Head, Mechanical CAD centre, Space Application Centre, ISRO, Ahmedabad
8.	Mr. Hiten Patel	**Member;**	Director, NLGEOM Engineering Services

Initiation:
Chairman welcomed all the members of Board of Studies. The minutes of the tenth meeting of Board of Studies held on August 08, 2015 was summarized.

Agenda & Resolutions:-

Agenda - 1: For Discussion; To approve the teaching and examination scheme for all the semesters of B Tech program with CBCS scheme effective from 2016-17.

Proceedings - 1:
Teaching & examination scheme of B Tech program for all semester courses is discussed in detail. Programme electives are offered from third year onwards. In final year, a 2 credit "Seminar" course is incorporated. It will include seminar report writing and presentation on industrial training (minimum 15 days) underwent by the student at the end of the 6th semester; during semester break.

Resolution - 1:
The suggested changes are incorporated in the teaching & examination scheme of B Tech program with CBCS effective from 2016-17 and attached as an Annexure-I.

Agenda - 2: For Discussion; To approve the detailed syllabus for first year B Tech CBCS courses effective from 2016-17.

Proceedings - 2:
Following courses related to Mechanical Engineering are introduced in first year B.Tech effective from 2016-17. Course content of Workshop Practices is revised.

Course Code	Name of Course	Offered to
ME143	Basics of Civil & Mechanical Engineering	Civil/Electrical/Mechanical Engineering
ME144	Elements of Engineering	Computer/ IT/ E&C Engineering

The detailed syllabi for first year B Tech CBCS courses are attached herewith as an Annexure-II.

Agenda - 3: For Discussion; To approve the detailed syllabus for second year B Tech CBCS courses effective from 2017-18.

Proceedings - 3:
Syllabi for second year B Tech CBCS courses are discussed in detail. Course content in Mechanism & Machines, Manufacturing Process-I, Material Engineering & Metallurgy and Dynamics of Machines is revised.

Resolution - 3:
The suggested changes are incorporated in the syllabi of second year B Tech program with CBCS effective from 2017-18 and attached as an Annexure-III.

Agenda - 4: For Discussion; ; To approve the teaching and examination scheme for all the semesters of M. Tech program with CBCS scheme effective from 2015-16.

Proceedings - 4:
Several PG level university elective courses are offered by various Faculty/Department of CHARUSAT from academic year 2016-17. A new programme elective course 'ME768-Composite Materials' is offered in second semester of M Tech Advanced Manufacturing Technology.

Resolution - 4:
List of PG level university elective courses and syllabus of programme elective 'ME768-Composite Materials' along with revised teaching & examination scheme of M Tech AMT program are attached as an Annexure-IV.

Agenda - 5: For Discussion; Additional item(s) – Review of University Exam Question Papers, Examiner Panel, Placement Records, Result Analysis, NBA Accreditation Status, Synopsis submission and New programs.

Proceedings & Resolution - 5:

Review of University Exam Question Papers:

Members reviewed the examiner's feedback on university exam question papers and observed the topics in which student performance was not up to mark. Members also discussed about deviation in marks observed from predefined marks as per weightage of the units/topics in the university exam question paper. Examiner's feedback and Question Papers analysis report is attached herewith as an Annexure V.

Members suggested that assignments/tutorials containing numerical and analytical questions should be provided to the students. Members agrees that in the university exam question paper, around 10% deviation in marks as compared to predefined marks as per weightage of the units/topics in the course syllabus is allowed to account for uncertainty and to facilitate flexibility in the contents.

Examiner Panel:

New examiners are added in the exam panel. Details of existing examiners are also updated and attached as an Annexure VI.

Placement Records:

Placement statistics & packages offered for 2015-16 batch were presented (Annexure VII). To enhance the training and placement activities, aptitude test and mock practice of campus drive are being conducted for students.

Institute-industry interaction needs to be improved for enhancing training and placement activities and each faculty member is being involved in the institute-industry interaction.

Result Analysis:

Results of academic year 2014-15 & 2015-16 was compared & presented (Annexure VIII). As compared to previous year (2014-15), semester results of 1st, 2nd, 3rd years & 4th year had improved whereas semester results of 5th semester had declined marginally.

Analysis and feedback of make-up and remedial classes to improve the performance of students can be carried out to strengthen the same.

NBA Accreditation Status:

Department has applied for NBA re-accreditation and clear the pre-qualifier stage. Preparation of Self Assessment Report is under progress.

Synopsis submission:

PhD synopsis of Gajanan Patange, Ajay Patel, Kartik Patel and Dattatraya Subhedar has been approved during 2015-16.

New programs:

Department is planning to start M Tech program in Thermal Engineering in academic year 2018-19.

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

Vijay Chaudhary
Chairman
Date: 06/09/2016

CHANDUBHAI S. PATEL INSTITUTE OF TECHNOLOGY • CSPIT CHANGA

Annexure II

Charotar University of Science & Technology
C.S. Patel Institute of Technology
CHAMOS Matrusanstha Department of Mechanical Engineering

Details of Industrial Visit

Sr. No	Sem.	Place of Visit	Dates	No. of Students
1	1st (M.Tech)	Reliance Defence Engineering Limited, Pipavav Port, Dist-Amreli	16/09/2016	38
2	5th	IGTR-Ahmedabad CIPET-Ahmedabad	09/08/2016	140
3	3rd	Shree Vallabh Alloy Steel Castings, V.U.Nagar	14/09/2016 & 23/09/2016	113
4	4th	SPRERI, Vallabh Vidhyanagar	16/02/2017	120
5	6th	Madhur Dairy, Gandhinagar	12/04/2017	140
6	8th	Simarat Motors, Anand	07/04/2017	25

Head of Department

Charotar University of Science & Technology
C.S. Patel Institute of Technology
Department of Mechanical Engineering

Year: 2016-17

Action taken report on feedback of Stakeholders on Curriculum

1. University level electives were included in curriculum for interdisciplinary knowledge in B.Tech programme. (annexure I)
2. Industrial visits are increased and expert talks from industry personal are Conducted implemented for better exposure in subject knowledge. (annexure II)
3. Revision of syllabus has been done keeping academic and industry experts in loop.
4. New experiments are introduced in various subjects to enhance domain knowledge. Seminars are organized with industrial experts on relevant topics like hydraulic machines, corrosion, micro machining and central air conditioning etc.
5. Certain topics from the subject heat and mass transfer, kinematics of machine and dynamics of machines are amended in the curriculum based on the suggestions given by academic experts. (annexure I)
6. Courses such as metal casting technology, advanced materials, finite element methods and instrumentation and control are offered as an elective in B.Tech programme. (annexure I)
7. Software such as Solidworks, Fusion 360, Ansys etc. taught to students during laboratory sessions.
8. Material testing and characterization experiment is taught to B.Tech students during laboratory sessions.



Dr. Vijay Chaudhary,

Associate Professor & Head, MED, CSPIT

Annexure I

CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY (CHARUSAT)

FACULTY OF TECHNOLOGY & ENGINEERING

Department of Mechanical Engineering

26th August, 2017

The meeting of the Board of Studies, Mechanical Engineering, Faculty of Technology and Engineering, Charotar University of Science and Technology (CHARUSAT) was held at August 26, 2017.

Following members were present:

Sr. No	Members/Invitee		Signature
1.	Dr. A A Shaikh	Associate Professor, Mechanical Engineering Department, SVNIT - Surat	
2.	Dr. Piyush Gohil	Associate Professor, Mechanical Engineering Department, M S University - Baroda	
3.	Mr. Bhavin Bhatt	General Manager (Engineering), EIMCO ELECON (INDIA) LTD, Vallabh Vidyanagar	
4.	Dr. A D Patel	Professor, Department of Mechanical Engineering, CSPIT	
5.	Dr. Vijay Chaudhary	Head, Department of Mechanical Engineering, CSPIT	
6.	Dr. Mayur Sutaria	Associate Professor, Department of Mechanical Engineering, CSPIT	—
7.	Dattatraya Subhedar	Assistant Professor, Department of Mechanical Engineering, CSPIT	
8.	Dr. Gajanan Patange	Assistant Professor, Department of Mechanical Engineering, CSPIT	
9.	Kamlesh Chauhan	Assistant Professor, Department of Mechanical Engineering, CSPIT	

Minutes – Meeting of Board of Studies
CHAMOS Matrusanstha Department of Mechanical Engineering

Date : August 26, 2017, Saturday
Time : 10:00 am
Venue : Department of Mechanical Engineering, CSPIT, CHARUSAT Campus

The meeting of the Board of Studies, Mechanical Engineering, Faculty of Technology and Engineering, Charotar University of Science and Technology (CHARUSAT) was held as per schedule.

Following members were present:

1.	Mr. Vijay Chaudhary	**Chairman;**	Associate Professor & Head, Department of Mechanical Engineering, CSPIT
2.	Dr A D Patel	**Member;**	Professor, Department of Mechanical Engineering, CSPIT
3.	Mr. Dattatraya Subhedar	**Member;**	Assistant Professor, Department of Mechanical Engineering, CSPIT
4.	Mr. Gajanan Patange	**Member;**	Assistant Professor, Department of Mechanical Engineering, CSPIT
5.	Mr. Kamlesh Chauhan	**Member;**	Assistant Professor, Department of Mechanical Engineering, CSPIT
6.	Dr A. A. Shaikh	**Member;**	Associate Professor, Mechanical Engineering Department, SVNIT - Surat
7.	Dr. Piyush Gohil	**Member**	Associate Professor, Mechanical Engineering Department, M S University - Vadodara
8.	Mr. Bhavin Bhatt	**Invitee;**	General Manager, EIMCO ELECON (INDIA) LTD. - Vallabh Vidyanagar

Initiation:
Chairman welcomed all the members of Board of Studies. The minutes of the twelfth meeting of Board of Studies held on June 15, 2017 was summarized.

Agenda, Proceeding & Resolutions:-

Item – 13.01: For Discussion; To approve the teaching and examination scheme for all the semesters of B Tech program with CBCS scheme effective from 2016-17.

Proceedings – 13.01:
Teaching & examination scheme of B Tech program for all semester courses is discussed in detail. Programme electives are offered from third year onwards. In third year and final year,

"Industrial Training" courses are incorporated. It will include seminar report writing and presentation on industrial training underwent by the student at the end of the 4th & 6th semester; during semester break.

Resolution - 13.01:
The suggested changes are incorporated in the teaching & examination scheme of B Tech program with CBCS effective from 2016-17 and attached as an Annexure-I.

Item – 13.02: For Discussion; To approve the detailed syllabi for the university elective courses of second year B Tech CBCS effective from 2017-18.

Proceedings – 13.02:
Several UG level university elective courses are offered by various Faculty/Department of CHARUSAT from academic year 2017-18. Following courses related to Mechanical Engineering are introduced as university elective courses in second year B Tech CBCS effective from 2017-18.

Course Code	Name of Course	Semester offered
ME281	Engineering Drawing	3rd Semester
ME282	Material Science	4th Semester

Resolution – 13.02:
The detailed syllabi for the university elective courses of second year B Tech CBCS effective from 2017-18 are approved and attached herewith as an Annexure-II.

Item – 13.03: For Discussion; To approve the teaching scheme and detailed syllabus for third year B Tech CBCS courses effective from 2018-19.

Proceedings – 13.03:
Syllabi for third year B Tech CBCS courses are discussed in detail. Members suggested syllabus revision in Design Concept & Machine Drawing, Heat & Mass Transfer, Numerical & Statistical Methods, I.C. Engines, Refrigeration & Air Conditioning, Mechanical Measurement & Metrology. Metal Casting Technology, Advanced Material, Finite Element Methods and Instrumentation & Control are introduced as an elective course for first time.

Resolution – 13.03:
The suggested changes are incorporated in the syllabi of third year B Tech program with CBCS effective from 2018-19 and attached as an Annexure-III.

Item – 13.04: For Discussion; Additional item(s) – Review of University Exam Question Papers, Examiner Panel, Placement Records, Result Analysis, NBA Accreditation Status & OBE, Synopsis submission and SWAYAM online courses.

Proceedings & Resolution – 13.04:

Review of University Exam Question Papers:

Members reviewed the examiner's feedback on university exam question papers and observed the topics in which student performance was not up to mark. Members also discussed about deviation in marks observed from predefined marks as per weightage of the units/topics in the university exam question paper. Examiner's feedback and Question Papers analysis report is attached herewith as an Annexure IV.

Members suggested that assignments/tutorials containing numerical and analytical questions should be provided to the students. Members agrees that in the university exam question paper, around 10% deviation in marks as compared to predefined marks as per weightage of the units/topics in the course syllabus is allowed to account for uncertainty and to facilitate flexibility in the contents.

Examiner Panel:

New examiners are added in the exam panel. Details of existing examiners are also updated and attached as an Annexure V.

Placement Records:

Placement statistics & packages offered for 2016-17 batch were presented (Annexure VI). To enhance the training and placement activities, aptitude test and mock practice of campus drive are being conducted for students.

Institute-industry interaction needs to be improved for enhancing training and placement activities and each faculty member is being involved in the institute-industry interaction.

Result Analysis:

Results of academic year 2016-17 was presented (Annexure VII). The members deliberated on the courses which were having more than 10% failure. Following suggestions were given to improve the results in future.

Continuous Evaluation of the students can be done by taking quiz's, unit tests, seminars, group activities etc. to evaluate their conceptual understanding and analytical skills. Analysis and feedback of make-up and remedial classes to improve the performance of students can be carried out to strengthen the same.

NBA Accreditation Status & Outcome Based Education:

Department has applied for NBA re-accreditation and clear the pre-qualifier stage. Preparation of Self Assessment Report is under progress. Department has already implemented Outcome Based Education system.

Synopsis submission:

Department of Mechanical Engineering, Faculty of Technology & Engineering received synopsis of research scholar during 2016 - 2017. The details of synopsis submission are attached as an Annexure VIII.

Synopsis & panel of referees of research scholars are placed before the BoS members. Members approved the synopsis & panel of referees.

SWAYAM online courses:
Chairman briefed about the university stand towards digital initiative for higher education. SWAYAM online courses are to be identified, which can be offered to the students of Mechanical Engineering and as well seek transfer of credits.

Presently, four courses of Mechanical Engineering are offered by SWAYAM. The content of these courses are compared with existing courses offered by the department as shown in Annexure IX. Comparison of courses shows that it is not possible to offer the SWAYAM course for transfer of credits as on now. We can opt the SWAYAM courses in future.

The meeting ended with a vote of thanks by the Chairman.

Vijay Chaudhary
Chairman
Date: 26/08/2017

CHANGA S. PATEL INSTITUTE OF TECHNOLOGY • CSPIT CHANGA

Annexure III

(Item – 14.04)

Proposed Teaching and Examination Scheme

for

M Tech Thermal Engineering
(CBCS)

Effective From

2018-19

CHAROTAR UNIVERSITY OF SCIENCE & TECHNOLOGY (CHARUSAT)

TEACHING & EXAMINATION SCHEME FOR B TECH PROGRAMME IN MECHANICAL ENGINEERING (CBCS)

Level	Course Code	Course Title	Teaching Scheme				Examination Scheme				
			Contact Hours			Credit	Theory		Practical		Total
			Theory	Practical	Total		Internal	External	Internal	External	
Level 3	HS124A	Professional Communication	2		2	2	0	0	30	70	100
	MA34X	Numerical & Statistical Methods	3	2	5	4	30	70	25	25	150
	ME341	Design Concepts & Machine Drawing	4	2	6	5	30	70	25	25	150
	ME342	Heat & Mass Transfer	4	2	6	5	30	70	25	25	150
	ME343	Mechanical Vibrations	3	2	5	4	30	70	25	25	150
	ME37X	Programme Elective - I	3	2	5	4	30	70	25	25	150
					29	24					850
	HS125A	Society, Governance & International Studies	2		2	2	25	25	25	25	100
	ME344	Refrigeration and Air Conditioning	3	2	5	4	30	70	25	25	150
	ME345	Mechanical Measurement & Metrology	3	2	5	4	30	70	25	25	150
	ME346	Dynamics of Compressible Fluid	4	2	6	5	30	70	25	25	150
	ME347	Design of Machine Elements-I	3	0	3	3	30	70	0	0	100
	ME348	Production Technology	3	2	5	4	30	70	25	25	150
	ME37X	Programme Elective - II	3	0	3	3	30	70	0	0	100
					29	25					900

Annexure II

Charotar University of Science & Technology
C.S. Patel Institute of Technology
CHAMOS Matrusanstha Department of Mechanical Engineering

Details of Industrial Visit

Sr. No	Sem.	Place of Visit	Dates	No. of Students
1	5th	IGTR-Ahmedabad CIPET-Ahmedabad	21/09/2017	150
2	3rd	G & L Profiles and Equipments Pvt. Ltd., Vadodara	12/10/2017	130
3	1st M. Tech	ISRO- Ahmedabad	07/10/2017	22
4	4th	SPRERI, Vallabh Vidhyanagar	15/02/2018	120
5	8th	Wanakbori Thermal Power Station, Wanakbori.	14/03/2018	120

Details of Expert talk

Sr. No.	Name of Expert	Background	Topics Covered	Target Audience	Dates
1	Mr. R.V. Sahastrabuddhe	committee member of ISHRAE	Basics of Central Air Conditioning System	B.tech 4th & 6th sem	09/08/2017
2	Mr. Jigar R. Patel	Invent India Innovation Pvt. Ltd., Ahmadabad	IPR & Patent Issues	M.tech & faculty members	14/10/2017
3	Prof. Rohit Bhatt	BVM Engineering College	Isometric View & Isometric Projection View	FYCE,FYIT (DEPSTAR)	12/02/2018
4	Prof. Rohit Bhatt	BVM Engineering College	Isometric View & Isometric Projection View	FYCE (CSPIT)	13/02/2018
5	Prof. Rohit Bhatt	BVM Engineering College	Isometric View & Isometric Projection View	FYIT (CSPIT)	15/02/2018
6	Prof. Rohit Bhatt	BVM Engineering College	Isometric View & Isometric Projection View	FYEC (CSPIT) & FYCSE (DEPSTAR)	19/02/2018

Charotar University of Science & Technology
C.S. Patel Institute of Technology
CHAMOS Matrusanstha Department of Mechanical Engineering

7	Prof Ila Jha	G H Patel College of Engineering & Technology	Imperfections in Solids	SYME (CSPIT)	06/03/2018
8	Prof K D Bhatt	BVM Engineering College	Corrosion and degradation of metals	SYME (CSPIT)	07/03/2018
9	Mr. Darshan Shah	D-vivid consulting company	Career Guidance & How to Enhance your Profile for USA & Canada Application (Master Program")	SYME (CSPIT),TYME (CSPIT),Final Year	27/03/2018
10	Dr. Pankaj Gohil	Sarvajanik College of Engineering & Technology, Surat	Introduction to Hydraulic Turbines and Pumps	TYME	29/01/18
11	Dr. Sanket Bhavsar	G H Patel College of Engineering & Technology	Micro machining techniques	M.Tech (CAD/CAM & AMT)	08/03/2018
12	Mr. Rajan Shah	Forbes Marshall Pvt.Ltd. Ahmedabad	Energy Efficiency Opportunities in India & Role of Mechanical Engineers	Prefinal year students	07/04/2018



Head of Department

Charotar University of Science & Technology
C.S. Patel Institute of Technology
Department of Mechanical Engineering

Year: 2017-18

Action taken report on feedback of Stakeholders on Curriculum

1. Various components of continues evaluation system viz. unit test, surprise test, quiz, seminar, assignments, case studies and MOOC's courses and activities like mini projects, presentations are implemented in various subjects.
2. 3D printer for prototype development is acquired for the project work.
3. Practical hours are introduced in Mechanisms & Machines in B.Tech Programme.
4. Summer internships is introduced for second and third year B.Tech students. (Annexure I)
5. Micro scale heat transfer topic is added in advanced heat transfer subject. (Annexure I)
6. Non-traditional optimization techniques is included in curriculum of Optimization Techniques. (Annexure I)
7. Department also developed industry academic linkages under UIIC to provide technical platforms to the students and faculty members for the enhancement of the knowledge. (Annexure II)
8. FESTO- Center of excellence laboratory has been developed for Industrial Automation area.
9. Certification course on Solidworks is organized for B.tech students. (Annexure III)



Dr. Vijay Chaudhary,

Associate Professor & Head, MED, CSPIT

Annexure I

CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY (CHARUSAT)

FACULTY OF TECHNOLOGY & ENGINEERING

Department of Mechanical Engineering

July 28, 2018

The meeting of the Board of Studies, Mechanical Engineering, Faculty of Technology and Engineering, Charotar University of Science and Technology (CHARUSAT) was held at July 10, 2018.

Following members were present:

Sr. No	Members/Invitee		Signature
1.	**Dr. Vikas J Lakhera**	Professor, Mechanical Engineering Department, Nirma University, Ahemdabad	
2.	**Dr. Piyush Gohil**	Associate Professor, Mechanical Engineering Department, M S University - Baroda	
3.	**Mr. Hiten Patel**	Project Manager (CAE-IDVT), L&T Technology Services Limited, Vadodara.	—
4.	**Mr. Bhavin Bhatt**	General Manager (Engineering), EIMCO ELECON (INDIA) LTD, Vallabh Vidyanagar	
5.	**Dr. A D Patel**	Professor, Department of Mechanical Engineering, CSPIT	
6.	**Dr. Vijay Chaudhary**	Head, Department of Mechanical Engineering, CSPIT	
7.	**Dr. Mayur Sutaria**	Associate Professor, Department of Mechanical Engineering, CSPIT	
8.	**Dr. Dattatraya Subhedar**	Assistant Professor, Department of Mechanical Engineering, CSPIT	—
9.	**Dr. Gajanan Patange**	Assistant Professor, Department of Mechanical Engineering, CSPIT	
10.	**Dr. Kamlesh Chauhan**	Assistant Professor, Department of Mechanical Engineering, CSPIT	

Minutes – Meeting of Board of Studies
CHAMOS Matrusanstha Department of Mechanical Engineering

Date : July 28, 2018, Saturday
Time : 10:00 am
Venue : Department of Mechanical Engineering, CSPIT, CHARUSAT Campus

The meeting of the Board of Studies, Mechanical Engineering, Faculty of Technology and Engineering, Charotar University of Science and Technology (CHARUSAT) was held as per schedule.

Following members were present:

1.	Dr. Vijay Chaudhary	**Chairman;**	Associate Professor & Head, Department of Mechanical Engineering, CSPIT
2.	Dr A D Patel	**Member;**	Professor, Department of Mechanical Engineering, CSPIT
3.	Dr. Mayur Sutaria	**Member;**	Associate Professor, Department of Mechanical Engineering, CSPIT
4.	Dr. Gajanan Patange	**Member;**	Assistant Professor, Department of Mechanical Engineering, CSPIT
5.	Dr. Kamlesh Chauhan	**Member;**	Assistant Professor, Department of Mechanical Engineering, CSPIT
6.	Dr. Piyush Gohil	**Member;**	Associate Professor, Mechanical Engineering Department, M S University - Vadodara
7.	Dr. Vikas J Lakhera	**Member;**	Professor, Mechanical Engineering Department, Nirma University - Ahemdabad
8.	Mr. Bhavin Bhatt	**Member;**	General Manager, EIMCO ELECON (INDIA) LTD. - Vallabh Vidyanagar

Initiation:
Chairman welcomed all the members of Board of Studies. The minutes of the fourteenth Board of Studies meeting held on February 10, 2018 was summarized.

Agenda, Proceeding & Resolutions:-

Item – 15.01: For Discussion; To approve the teaching scheme and syllabus for fourth year B Tech CBCS courses effective from 2019-20.

Proceedings – 15.01:
Teaching scheme and syllabus for fourth year B Tech program is discussed in detail. In fourth year, a "Summer Internship" course is incorporated. It will include report writing and presentation on

internship underwent by the student at the end of the 6th semester; during semester break. In addition, various courses are introduced in the fourth year of B Tech program.

Resolution - 15.01:
The suggested changes are incorporated in the teaching scheme and syllabus for fourth year B Tech CBCS courses effective from 2019-20 and attached as an Annexure-I.

Item – 15.02: For Discussion; To approve the teaching scheme and syllabus of M Tech Thermal Engineering (CBCS) program effective from 2018-19.

Proceedings – 15.02:
Teaching scheme and syllabus for M Tech Thermal Engineering is discussed in detail. Summary is given below.

Sr. No.	Course (M.Tech Thermal Engg.)	Suggestions
1.	Advanced Heat & Mass Transfer	• Advanced Heat & Mass Transfer course should be in First Semester, as it is core fundamental subject for Thermal Engineering study. • Include the contents on micro scale energy transport.
2.	Energy Economics & Management	Energy Economics & Management course should be in Second Semester.
3.	Design of Heat Exchanger	The course on Design of Heat Exchanger must be compulsory instead of Elective, as it is essential in many thrust areas of research.
4.	Steam & Gas Turbine	Can be offer as Elective course as basic topics on Steam & Gas Turbine are covered in B Tech curriculum.

Resolution – 15.02:
The suggested changes are incorporated in the teaching scheme and syllabus of M Tech Thermal Engineering (CBCS) program effective from 2018-19 and attached as an Annexure-II.

Item – 15.03: For Discussion; To approve the teaching and examination scheme for all the semesters of B Tech program with CBCS scheme effective from 2018-19 batch.

Proceedings – 15.03:
Teaching and examination scheme for all the semesters of B Tech program is discussed in detail. Total credits of B Tech Mechanical Engineering program is revised to 192.

Following revisions in B Tech program are proposed:

- In 1st semester, course content of 'Engineering Physics are revised
- In 3rd semester, practical hours for the course 'Mechanisms & Machines' are incorporated.
- In 7th semester, theory contact hours of the courses 'Quality Engineering & Assurance' and 'Design of Machine Elements-II' are revised from 4 to 3.

- In 8th semester, course content of Optimization Techniques' are revised.

Resolution – 15.03:
The suggested changes are incorporated in the teaching and examination scheme for all the semesters of B Tech program with CBCS scheme effective from 2018-19 batch and attached as an Annexure-III.

Item – 15.04: For Discussion; To approve the teaching scheme and syllabus for second year of B Tech program with CBCS scheme effective from 2018-19 batch.

Proceedings – 15.04:
Teaching scheme & syllabus for second year of B Tech program is discussed in detail. In 3rd semester, practical hours for the course 'Mechanisms & Machines' are incorporated.

Resolution – 15.04:
The suggested changes are incorporated in the teaching scheme and syllabus for second year of B Tech program with CBCS scheme effective from 2018-19 batch and attached as an Annexure-III.

Item – 15.05: For Discussion; To approve the PhD synopsis of research scholars.

Proceedings – 15.05:
Department of Mechanical Engineering, Faculty of Technology & Engineering has received following synopsis of research scholar during 2017-18.

Sr. No	Research Scholar	Research Topic
1	Rajeshkumar Bhanuprasad Choksi (12DRME002)	Development of a novel framework based on empirical parameters to predict and optimize performance of cost based KWU designed power generating units
2	Saurabhkumar Bharatkumar Dikshit (12DRME013)	Spray characterization study of liquid fuel atomizer
3	Nimit M. Patel (13DRME003)	Simulation & optimization of multihole nozzles in combustion chamber using CNG as a fuel and validation on diesel engine
4	Vyomesh R.Buch (14DRME001)	Investigations of metal oxide films for optical and electrochromic properties

Synopsis & panel of referees of research scholars are placed before the BoS members.

Resolution – 15.05:
Board of Studies members approved the synopsis & panel of referees of Research Scholar(s) for further process.

Item – 15.06: For Discussion; To approve the revisions in teaching and examination scheme for 4th and 5th semesters of B Tech program with CBCS scheme effective from 2017-18 batch.

Proceedings – 15.06:

In connection with 3rd semester course on 'Engineering Mathematics – III' (MA 241), the course on 'Numerical & Statistical Methods' (MA248) is suggested to be offered in 4th semester instead of 5th semester. In addition, the 'Thermal Engineering' course is to be offered in 5th semester instead of 4th semester.

Resolution – 15.06:
The suggested changes are incorporated in the teaching & examination scheme of B Tech program with CBCS effective from 2017-18 batch and attached as an Annexure-IV.

Item – 15.07: For Discussion; Additional item(s) – Examiner Panel, Review of University Exam Question Papers, Placement Records, Result Analysis, NBA Accreditation Status, Innovation in Pedagogy, Research Funding.

Proceedings & Resolution – 15.07:

Examiner Panel:
New examiners for UG & PG programs are added in the exam panel. Details of existing examiners are also updated and attached as an Annexure V.

Review of University Exam Question Papers:
Quality Assessment of University Exam Question Papers is carried out by following measures.

- Mapping of questions with course outcomes.
- Bloom's Taxonomy is followed while drawing the question papers.
- Attainment of course outcomes are analyzed after each examination.
- Evaluation of the question paper also involves parameters like clarity of question paper, grammar with language, syllabus coverage, and overall quality.

Members discussed about deviation in marks observed from predefined marks as per weightage of the units/topics in the university exam question papers. Question papers analysis report is attached herewith as an Annexure VI.

Members agrees that in the university exam question paper, around 10% deviation in marks as compared to predefined marks as per weightage of the units/topics in the course syllabus is allowed to account for uncertainty and to facilitate flexibility.

Placement Records:
Placement statistics & packages offered for 2017-18 batch were presented (Annexure VII). To enhance the training and placement activities, aptitude test and mock practice of campus drive are being conducted for students. In addition 'Summer Internship' for the student is made mandatory at the end of the 4th & 6th semester; during semester break. It will include report writing and presentation on industrial training underwent by the student.

Institute-industry interaction needs to be improved for enhancing training and placement activities and each faculty member is being involved in the institute-industry interaction.

Result Analysis:

Results of academic year 2017-18 was presented (Annexure VIII). The members deliberated on the courses having more than 10% failure. Following suggestions were given to improve the results in future.

Members suggested that assignments/tutorials containing numerical and analytical questions should be provided to the students. Continuous Evaluation of the students can be done by taking quiz's, unit tests, seminars, group activities etc. to evaluate their conceptual understanding and analytical skills. Analysis and feedback of make-up and remedial classes to improve the performance of students can be carried out to strengthen the same.

NBA Accreditation Status:

Department has applied for NBA re-accreditation and clear the pre-qualifier stage. Self Assessment Report is almost completed & it will be submitted soon.

Pedagogy:

Classroom & Laboratory presentations, Mini projects, Group discussion, Online test using CTS-iLearn platform, Quiz etc. was introduced as a part of continuous evaluation system. Faculties are enrolled as a mentor for many NPTEL online courses to help the students.

Research Funding:

During academic year 2017-18, following research projects are ongoing in the mechanical engineering.

Sr. No	Funding Agency	Project Description	Project PI & Co-PI	Project Period	Amount (Rs. in Lakhs)
1	Research Promotion Scheme (RPS) of AICTE	Time-varying Performance Evaluation of Boundary Mould Elements (Feed-aids) for Effective Application of CAD and Simulation Technologies in Indian Foundries	Dr. Mayur Sutaria	Sept. 2015 to Aug. 2018	15.88
2	Technology Systems Development Programme (TSDP) Scheme of DST	SMART (Sustainable Metal casting using Advanced Research and Technology) Foundry 2020	Dr. Mayur Sutaria	Sept. 2016 to Aug. 2019	60.40
3	DAE (Department of Atomic Energy)	Design and development of CDL for 42 GHZ/200KW/3sec gyrotron for startup study in tokmok aditya	Maulik Shah & Axat Patel	Aug. 2018 to Aug. 2019	14.65

The meeting ended with a vote of thanks by the Chairman.

Dr. Vijay Chaudhary
Chairman
Date: 03/08/2018

CHANDUBHAI S. PATEL INSTITUTE OF TECHNOLOGY • CSPIT CHANGA

Annexure II

Charotar University of Science & Technology
C.S. Patel Institute of Technology
CHAMOS Matrusanstha Department of Mechanical Engineering

Industry academic linkages for year 2018-19

Sl. No.	Title of the collaborative activity	Name of the collaborating agency with contact details	Name of the participant	Duration	Nature of the activity
1	Research Project	Telematrix Engineers & Consultant, Vithal Udyognagar, Vallabh Vidyanagar, Vitthal Udyognagar INA, Gujarat 388345. Mo. - 9824169394 (Mr. Ruchir Patel)	Damor Parth Bachubhai	1 Year	Research
2	Research Project	L &T, Vadodara	Jiva Ishrar	1 Year	Research
3	Research Project	IDMC Limted, Anand	Divyaraj R. Chauhan	1 Year	Research
7	Research Project	Rhino industries	Kalarav N Bhavsar	1 Year	Research
8	Research Project	SAC-ISRO, Ahmedabad	Desai Abhi	1 Year	Research
9	Research Project	SAC-ISRO, Ahmedabad	Dr Dipal Patel	1 Year	Research
10	Academic Development of Faculty	Garden Silk Mills Ltd., Surat Phone : 02222873117	Gaurang Patel	2 Weeks	Industrial Training
11	Academic Development of Faculty	Tirupati Polymers, Rajkot Phone : 9727459688	Madhav Oza	2 Weeks	Industrial Training
12	Academic Development of Faculty	Oswal Machinery, Anand Phone : 02892216115	Vikas Panchal	2 Weeks	Industrial Training
			Sujal Dadhaniya	2 Weeks	Industrial Training
13	Academic Development of Faculty	Sawant Agrotech, Hingoli Phone : 9028007001	Gajanan Patange	2 Weeks	Industrial Training
14	Academic Development of Faculty	L&T Power, Vadodara	Satayu Travadi	2 Weeks	Industrial Training
15	Academic Development of Faculty	Fluid Tech systems, Ahmedabad Phone : 07922900200	Harmish Bhatt	1 Week	Industrial Training
			Rugnesh Patel	1 Week	Industrial Training
16	Academic Development of Students	ACS-Automation & control system	Dipt Patel	4 weeks	Industrial Training
			Desai Monish Ritesh	3 weeks	Industrial Training
			Bhavsar Rutvik Manishbhai	2 weeks	Industrial Training
17	Academic Development of Students	Adani Port and Special Economic Zone	Shah Saumil Mitul	4 weeks	Industrial Training
			Raycha Ishit Maheshbhai	4 weeks	Industrial Training
			Trivedi Devashish Pradeep	4 weeks	Industrial Training
			Vaidya Manan Jayeshkumar	4 weeks	Industrial Training
18	Academic Development of Students	Akshar engineering works	Vyas Dhruv Sanjaykumar	3 weeks	Industrial Training

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			Patel Kavit Rakeshbhai	3 WEEKS	Industrial Training
19	Academic Development of Students	Aluminium Bahrain (Alba)	Axay Gandhi	4 weeks	Industrial Training
20	Academic Development of Students	AMBICODE SYSTEMS PVT LTD	Prajapati Abhishek Mukeshkumar	3 weeks	Industrial Training
21	Academic Development of Students	AmulFed Dairy	Agnihotri Japagna Niranjan	3 weeks	Industrial Training
22	Academic Development of Students	ARIHANT FABRICATION	Thakkar Harshil Prafulchandra	2 weeks	Industrial Training
23	Academic Development of Students	Banco Products (INDIA) Ltd.	Rabari Vishnu Balkrishna	2 weeks	Industrial Training
24	Academic Development of Students	Batliboi Ltd.	Gaywala Meet Piyushkumar	2 weeks	Industrial Training
25	Academic Development of Students	Bayer Vapi Pvt LTD	Soni Darshan Bhaskar	4 weeks	Industrial Training
26	Academic Development of Students	BHAGAT TEXTILE ENGINEERS	Babariya Rutvik Atulbhai	2 weeks	Industrial Training
27	Academic Development of Students	Bhagyarekha Enginners pvt ltd.	Naik Rikin Nirajbhai	2 weeks	Industrial Training
28	Academic Development of Students	Bosch Rexroth (India) Pvt. Ltd., Ahmedabad	Dhrumil Karavadiya	2 weeks	Industrial Training
			Patel Raj	2 weeks	Industrial Training
29	Academic Development of Students	CAPTAIN TECHNOCAST LTD.	Bhuva Vaibhav Hiteshbhai	3 weeks	Industrial Training
30	Academic Development of Students	CarTech	Shah Tanmay Tusharbhai	2 weeks	Industrial Training
31	Academic Development of Students	Central Mechanical Engineering Research Insitute [CSIR-CMERI,Duragpur]	Vashu Bamania	7 weeks	Industrial Training
32	Academic Development of Students	Chaitanya-Arts	Abhay Jethwa	7 weeks	Industrial Training
33	Academic Development of Students	D.K.Shah NDT training institute	Jani Aastha Nimesh	7 weeks	Industrial Training
34	Academic Development of Students	Dharma marine	Jasoliya Mihir Dineshbhai	3 weeks	Industrial Training
			Kokadiya Mohit Sachanand	3 weeks	Industrial Training
			Nirmal Harsh Dipakbhai	3 weeks	Industrial Training
35	Academic Development of Students	Diesel loco care centre, Sabarmati	Dave Dhruv Girinbhai	3 weeks	Industrial Training
			Rajput Sunny Sanjaysingh	3 weeks	Industrial Training
36	Academic Development of Students	Dosepack LLP	Pruthvi Patel	6 weeks	Industrial Training
37	Academic Development of Students	Elecon company	Patel Manan Sunilbhai	6 weeks	Industrial Training
			Patel Janmesh Udaybhai	3 weeks	Industrial Training

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			Patel Vikaskumar Nileshbhai	6 weeks	Industrial Training
			Suthar Ronak Kalpeshbhai	6 weeks	Industrial Training
			Dave Canon Nikunjkumar	6 weeks	Industrial Training
			Patel Dhruv Vinodchandra	3 WEEKS	Industrial Training
			Patel Nachiket Atulbhai	3 WEEKS	Industrial Training
38	Academic Development of Students	Elite Techno Groups	Trivedi Rutvik Janakbhai	1 weeks	Industrial Training
39	Academic Development of Students	Express Engineering solution	Murtaza Firoz Patrawala	5 weeks	Industrial Training
40	Academic Development of Students	Fuse India	Shubham Kamleshbhai Patel	3 weeks	Industrial Training
			Shah Bhavarth Hareshbhai	2 weeks	Industrial Training
			Gohel Ashutosh Dineshbhai	2 weeks	Industrial Training
41	Academic Development of Students	G4 enterprise	Bhadiyadra Meet Rajeshbhai	2 weeks	Industrial Training
			Hirpara Dishantkumar Dipakbhai	2 weeks	Industrial Training
42	Academic Development of Students	Gautam Technocast	Gosai Ravindra Bhanupuri	6 weeks	Industrial Training
43	Academic Development of Students	GMM pfaudler	Tripathi Ketan Jayendra	6 weeks	Industrial Training
			Shah Vishesh Sunilbhai	5 weeks	Industrial Training
			Vaghela Bhavinkumar Ambalal	5 weeks	Industrial Training
44	Academic Development of Students	GSRTC workshop bhuj	Maheshwari Mayur Aasmal	3 weeks	Industrial Training
			Jitesh Pindoriya	3 weeks	Industrial Training
45	Academic Development of Students	Gujarat Fluorochemicals Limited	Pandya Rutvik Alkesh	2 weeks	Industrial Training
46	Academic Development of Students	HEATEX INDUSTRIES LIMITED	Jariwala Hardik Kanaiyalal	2 weeks	Industrial Training
47	Academic Development of Students	Heattrans equipments ltd	Patel Purak Rajesh	3 weeks	Industrial Training
48	Academic Development of Students	Honda Cars india ltd.	Amogh Sharma	8 weeks	Industrial Training
49	Academic Development of Students	Hubergroup India Private Limited	Desai Parva Devang	2 weeks	Industrial Training
			Vaidik H Mishra	2 weeks	Industrial Training
50	Academic Development of Students	IDEAL Sheet metal stampings & pressing PVT. LTD.	Bhamare Monil Mahendra	2 weeks	Industrial Training
51	Academic Development of Students	IGTR AHMEDABAD	Amaliyar Chiragkumar Maheshbhai	2 weeks	Industrial Training
			Ameta Abhishek Shivnarayanbhai	2 weeks	Industrial Training

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52	Academic Development of Students	IRB Infrastructure Developers LTD	Patel Rutvik Sumanbhai	3 weeks	Industrial Training
53	Academic Development of Students	J-TECH SOLUTION	Patel Sarvam Dharmendrakumar	3 weeks	Industrial Training
54	Academic Development of Students	J.B.Metal products	Zala Vishwrajsinh Anirudhsinh	2 weeks	Industrial Training
55	Academic Development of Students	Jasco Pump Pvt. Ltd.	Chavda Hetanshu Bipinbhai	3 weeks	Industrial Training
			Kapoor Aman Piyush	3 weeks	Industrial Training
			Anuj Nair	3 WEEKS	Industrial Training
56	Academic Development of Students	Jay metal Pvt LTD	Bhakhar Niral Bharatbhai	2 weeks	Industrial Training
			Desai Nirav Sureshbhai	2 weeks	Industrial Training
			Kansariwala Nishant Manojkumar	2 weeks	Industrial Training
			Lethwala Raghav Bansikumar	2 weeks	Industrial Training
57	Academic Development of Students	Kabra Extrusion technik ltd.	Darshit Kansara	3 weeks	Industrial Training
			Patel Keval Harish	2 weeks	Industrial Training
			Patel Kishan Devendra	2 weeks	Industrial Training
58	Academic Development of Students	Kaizan Solutions	Jahangir Pathan	2 weeks	Industrial Training
			Shah Preet Bhaveshkumar	2 weeks	Industrial Training
59	Academic Development of Students	Kataria Automobiles Pvt. Ltd.	Patel Hardik Nileshbhai	2 weeks	Industrial Training
			Patel Dhvanil	2 weeks	Industrial Training
60	Academic Development of Students	KHS machinery pvt. ltd.	Mehta Kirtan Chaitanya	4 weeks	Industrial Training
61	Academic Development of Students	L&T power	Marathe Abhishek Ashutosh	2 weeks	Industrial Training
62			Ujjwal Sanjay Batra	2 weeks	Industrial Training
			Ajay Bhandari	2 weeks	Industrial Training
			Boda Bhautik	2 weeks	Industrial Training
			Chavda Sahil M	2 weeks	Industrial Training
			Ayush Dalwadi	2 weeks	Industrial Training
			Rishi Desai	2 weeks	Industrial Training
			Rudra Desai	2 weeks	Industrial Training
			Priyanshu Dhruve	2 weeks	Industrial Training
			Tanmay Divawala	2 weeks	Industrial Training
			Ronak Gajipara	2 weeks	Industrial Training

			Umang Gandhi	2 weeks	Industrial Training
			Gohil Aditya	2 weeks	Industrial Training
			Virajsinh K Gohil	2 weeks	Industrial Training
			Sarthak Gosain	2 weeks	Industrial Training
			Manoj Gupta	2 weeks	Industrial Training
			Shivam Gupta	2 weeks	Industrial Training
			Hirapara Jay R.	2 weeks	Industrial Training
			Jani Dhruv Kumar	2 weeks	Industrial Training
			Elish V. Jariwala	2 weeks	Industrial Training
			Dhruvin Jethwa	2 weeks	Industrial Training
			Rajan A Kadchha	2 weeks	Industrial Training
			Dhairya Kagtada	2 weeks	Industrial Training
			Jay Kesaria	2 weeks	Industrial Training
			Nayan N Khandekha	2 weeks	Industrial Training
			Nandan Khatediya	2 weeks	Industrial Training
			Vishal Kumar	2 weeks	Industrial Training
			Makadiya Darshit Bharatbhai	2 weeks	Industrial Training
			Darshan Malaviya	2 weeks	Industrial Training
			Nidhi Mallapur	2 weeks	Industrial Training
			Ravi Mangukiya	2 weeks	Industrial Training
			Bhavya Mavani	2 weeks	Industrial Training
			Bhargav Mishra	2 weeks	Industrial Training
			Abhi Naik	2 weeks	Industrial Training
			Hetang H. Naik	2 weeks	Industrial Training
			Karthik Nair	2 weeks	Industrial Training
			Vatsal Nair	2 weeks	Industrial Training
			Nakrani Rajen K.	2 weeks	Industrial Training
			Parth Nathani	2 weeks	Industrial Training
			Nagajan Odedra	2 weeks	Industrial Training
			Gurmit Singh	2 weeks	Industrial Training

			Darshraj H Parmar	2 weeks	Industrial Training
			Harshit Parmar	2 weeks	Industrial Training
			Parmar Mayur J.	2 weeks	Industrial Training
			Akash J Patel	2 weeks	Industrial Training
			Patel Apurv Devangbhai	2 weeks	Industrial Training
			Harsh Patel	2 weeks	Industrial Training
			Patel Harsh Nitinkumar	2 weeks	Industrial Training
			Jash Patel	2 weeks	Industrial Training
			Jimesh D. Patel	2 weeks	Industrial Training
			Karan Patel	2 weeks	Industrial Training
			Khamir Patel	2 weeks	Industrial Training
			Patel Lav V.	2 weeks	Industrial Training
			Nisarg Patel	2 weeks	Industrial Training
			Parth A Patel	2 weeks	Industrial Training
			Parv Patel	2 weeks	Industrial Training
			Priyank Patel	2 weeks	Industrial Training
			Rohan Patel	2 weeks	Industrial Training
			Shrey Patel	2 weeks	Industrial Training
			Shreyash Patel	2 weeks	Industrial Training
			Tejaskumar J. Patel	2 weeks	Industrial Training
			Vraj Patel	2 weeks	Industrial Training
			Vraj N Patel	2 weeks	Industrial Training
			Fardeen Khan	2 weeks	Industrial Training
			Naitik Piprotar	2 weeks	Industrial Training
			Nikunj Prajapati	2 weeks	Industrial Training
			Rohna Prajapati	2 weeks	Industrial Training
			Amar Raiyani	2 weeks	Industrial Training
			Avinash Sasi	2 weeks	Industrial Training
			Keyur Savaliya	2 weeks	Industrial Training
			Dhrumin Shah	2 weeks	Industrial Training

			Jaiti Shah	2 weeks	Industrial Training
			Shah Jaivik	2 weeks	Industrial Training
			Jay Shah	2 weeks	Industrial Training
			Parshwa Shah	2 weeks	Industrial Training
			Tanay Shah	2 weeks	Industrial Training
			Faizal Sheth	2 weeks	Industrial Training
			Mithil Sheth	2 weeks	Industrial Training
			Gaurav Singh	2 weeks	Industrial Training
			Jigar Soni	2 weeks	Industrial Training
			Shivang Soni	2 weeks	Industrial Training
			Vishvesh Soni	2 weeks	Industrial Training
			Vikas Thanki	2 weeks	Industrial Training
			Yogesh Tharani	2 weeks	Industrial Training
			Tirgar Jinendra	2 weeks	Industrial Training
			Vaisvik Vaghela	2 weeks	Industrial Training
			Yogesh Patel	2 weeks	Industrial Training
			Patel Shivans	2 weeks	Industrial Training
			Omkar Mushriff	2 weeks	Industrial Training
			Desai Urvilkumar Yogeshbhai	2 weeks	Industrial Training
			Meghal Patni	2 weeks	Industrial Training
			Harshil A Pandit	2 weeks	Industrial Training
			Harsh N Patel	2 weeks	Industrial Training
			Krutang Dhorajia	2 weeks	Industrial Training
			Tirth Darji	2 weeks	Industrial Training
			Rohit Nileshkumar Dahyabhai	2 weeks	Industrial Training
			Manan Dhameliya	2 weeks	Industrial Training
			Nishit Parmar	2 weeks	Industrial Training
			Siddharth Sodha	2 weeks	Industrial Training
			Doshi Rohan Mulesh	2 weeks	Industrial Training
			Aliasgar Halepotra	2 weeks	Industrial Training

			Sharma Vrushank	2 weeks	Industrial Training
			Deep Kamani	2 weeks	Industrial Training
			Harsh Dave	2 weeks	Industrial Training
			Ghanchi Amit A	2 weeks	Industrial Training
			Parmar Kiran A.	2 weeks	Industrial Training
			Nishit Joshi	2 weeks	Industrial Training
			Aman Rochani	2 weeks	Industrial Training
			Kuldeep Soni	2 weeks	Industrial Training
			Desai Dhruv	2 weeks	Industrial Training
			Raj Dipaksinh Desai	2 weeks	Industrial Training
			Tejas Doshi	2 weeks	Industrial Training
			Mahavadiya Vishal	2 weeks	Industrial Training
			Patel Nikhilkumar Maheshbhai	2 weeks	Industrial Training
			Kush Bhakta	2 weeks	Industrial Training
			Modha Pinak Jagdishbhai	2 weeks	Industrial Training
			Abhisekh Singh	2 weeks	Industrial Training
			Hansora Pratik H	2 weeks	Industrial Training
			Gori Mahendra	2 weeks	Industrial Training
			Devarsh Soni	2 weeks	Industrial Training
			Joshi Chetan Bhavyesh	2 weeks	Industrial Training
			Vraj R Patel	2 weeks	Industrial Training
			Yash A. Shah	2 weeks	Industrial Training
			Pandya Yash A	2 weeks	Industrial Training
			Bhavik Kotecha	2 weeks	Industrial Training
			Parth R Patel	2 weeks	Industrial Training
			Nihar Vaghasiya	2 weeks	Industrial Training
			Patdiya Hiten R	2 weeks	Industrial Training
			Pathak Meet Vipulkumar	2 weeks	Industrial Training
			Miraj Akbari	2 weeks	Industrial Training
63	Academic Development of Students	L&T Technology Services Pvt. LTD.	Soni Dhwanil Kamleshbhai	6 weeks	Industrial Training

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64	Academic Development of Students	Larsen & Toubro Limited Defence IC	Sharma Nidhip Sandeep	5 weeks	Industrial Training
65	Academic Development of Students	LEISTUNG ENGINEERING	Chhatbar Pruthvesh Parthiv	4 weeks	Industrial Training
66	Academic Development of Students	LINDE ENGINEERING INDIA PVT. LTD.	Patel Bidhin Bhupendra	2 weeks	Industrial Training
67	Academic Development of Students	M. Square automobile Pvt. ltd.	Chavda Param Himanshu	7 weeks	Industrial Training
68	Academic Development of Students	Mahindra Vehicle Manufacturer Ltd.	Jagrut Desai	4 weeks	Industrial Training
69	Academic Development of Students	MAKSON MACHINES PVT. LTD	Panchal Jaynil Jaysukhbhai	3 weeks	Industrial Training
70	Academic Development of Students	Mehsana Dairy and Food Products Ltd.	Patel Kush Jayantibhai	2 weeks	Industrial Training
			Patel Mahipal Kiritbhai	2 weeks	Industrial Training
			Patel Jaimin Rajanikant	2 WEEKS	Industrial Training
71	Academic Development of Students	MGM&CO.	Vadodariya Darshan Shaileshkumar	2 weeks	Industrial Training
72	Academic Development of Students	Molex	Rao Krupam Rajan	1 weeks	Industrial Training
			Tanwar Pratik Ashokbhai	1 weeks	Industrial Training
73	Academic Development of Students	Ms. Bajrang eng. works	Amipara Nevil Mansukhbhai	5 weeks	Industrial Training
74	Academic Development of Students	Navjivan hyundai pvt ltd	Singh Apurva Sushil	2 weeks	Industrial Training
75	Academic Development of Students	Nayara Energy Ltd	Mody Yash Shitalkumar	4 weeks	Industrial Training
76	Academic Development of Students	New Age Industries	Daftary Adit Jiteshbhai	4 weeks	Industrial Training
77	Academic Development of Students	nexa polyplast	Nandaniya Bhargav Atulbhai	3 weeks	Industrial Training
78	Academic Development of Students	NHB ball and roller LTD	Patel Siddharth Dhansukhbhai	3 weeks	Industrial Training
79	Academic Development of Students	Nixynova motoren pvt. Ltd.	Mehta Meha Vipulbhai	1 weeks	Industrial Training
			Mehta Mahir Vipulbhai	1 weeks	Industrial Training
80	Academic Development of Students	ONGC	Pratik D. Shah	4 weeks	Industrial Training
	Academic Development of Students	ONGC	Pratik Parekh	4 weeks	Industrial Training
81	Academic Development of Students	ONGC LTD	Rahul Rawal	3 weeks	Industrial Training
82	Academic Development of Students	Pakona Engineers pvt.ltd	Chhatriwala Akshar Vijaybhai	2 weeks	Industrial Training

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83	Academic Development of Students	PEARL MANUFACTURE	Makadia Karankumar Rakeshbhai	3 weeks	Industrial Training
84	Academic Development of Students	Poonam Eng. Works	Arora Ronak Sudhir	4 weeks	Industrial Training
85	Academic Development of Students	Power build	Suthar Manthan Vinodkumar	6 weeks	Industrial Training
			Dave Harshkumar Shaileshkumar	5 weeks	Industrial Training
86	Academic Development of Students	PPI PUMPS PVT.LTD.	Patel Dharmikkumar Girishbhai	3 weeks	Industrial Training
			Patel Viraj Riteshbhai	3 weeks	Industrial Training
			Dave Vraj	3 weeks	Industrial Training
87	Academic Development of Students	Prasad GWK Cooltech PVT. LTD.	Umang Patel	2 weeks	Industrial Training
			Patel Maurin Jashvantbhai	3 weeks	Industrial Training
88	Academic Development of Students	Preci-tech Enginnering	Vegad Urvesh Jagdish	7 weeks	Industrial Training
89	Academic Development of Students	Prime consultants and engineers	Mohit Kachchhi	2 weeks	Industrial Training
90	Academic Development of Students	RAJPUTANA CUSTOM MOTORCYCLE	Preet Desai	6 weeks	Industrial Training
91	Academic Development of Students	Ravindra oil industries	Kalsariya Kevalkumar Manojbhai	3 weeks	Industrial Training
92	Academic Development of Students	RBD Engineers and Pvt.Ltd.	Baria Rahulkumar Pratapsinh	2 weeks	Industrial Training
93	Academic Development of Students	Real Engineering Works	Soni Prakhar Dhaval	4 weeks	Industrial Training
94	Academic Development of Students	RELIANCE INDUSTRIES LIMITED - VADODARA	Amin Mihir Hareshkumar	3 weeks	Industrial Training
			Shah Meet Mineshkumar	3 weeks	Industrial Training
			Solanki Devansh Bhagirath	4 weeks	Industrial Training
			Naik Hetav Milan	3 weeks	Industrial Training
95	Academic Development of Students	Rupa associate	Shah Jainam Nishant	3 weeks	Industrial Training
96	Academic Development of Students	Sahjanad laser	Sohaliya Vaishal Shashikantbhai	2 weeks	Industrial Training
97	Academic Development of Students	Satyay technocast pvt. ltd.	Sakhiya Pritesh Nileshbhai	2 weeks	Industrial Training
98	Academic Development of Students	SCHAEFFLER INDIA LIMITED	Thakkar Nitin Vinodbhai	2 weeks	Industrial Training
99	Academic Development of Students	SHREE BHAVNAGAR D.C.M.P.U LTD (SARVOTTAM DAIRY)	Panchal Jaynil Jaysukhbhai	2 weeks	Industrial Training
100	Academic Development of Students	Shree ram engineering	Kanani Tirth	4 weeks	Industrial Training

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101	Academic Development of Students	SICGIL Industrial Gases LTD	Patel Romilkumar Siddharthkumar	4 weeks	Industrial Training
			Patel Shivam Mukeshbhai	4 weeks	Industrial Training
			Vidhyarthi Maharshi Hemantkumar	4 weeks	Industrial Training
			Shah Ruchit Jagdeep	4 weeks	Industrial Training
102	Academic Development of Students	SPX FLOW TECHNOLOGY	Chand Mohemmed Aftabalam	2 weeks	Industrial Training
			Patel Ishan Amish	4 weeks	Industrial Training
103	Academic Development of Students	Suryamani Glassed Steel Equipment Pvt Ltd	Patel Pranav Kalpesh	3 weeks	Industrial Training
104	Academic Development of Students	Tata Chemicals	Jishnu Padh	4 weeks	Industrial Training
105	Academic Development of Students	Techno Design pvt Ltd.	Sharma Piyush Navalkant	3 weeks	Industrial Training
			Patel Meet Kiritkumar	3 weeks	Industrial Training
106	Academic Development of Students	THERMAX LIMITED	Shah Parth H.	3 weeks	Industrial Training
107	Academic Development of Students	Western railway	Ladani Harsh Jaysukhkumar	2 weeks	Industrial Training
			Makwana Meet Ashokkumar	2 weeks	Industrial Training
108	Academic Development of Students	Western Refrigeration	Shah Jainam Pareshbhai	6 weeks	Industrial Training
109	Academic Development of Students	Windsor Machines LTD.	Patel Dhruvish Yogenkumar	4 weeks	Industrial Training
			Patel Harshil Minesh	2 weeks	Industrial Training
110	Academic Development of Students	Yogesh Engineering Works	Dudani Harsh Girishkumar	3 weeks	Industrial Training



Head of Department

Annexure III

CHARUSAT
CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY

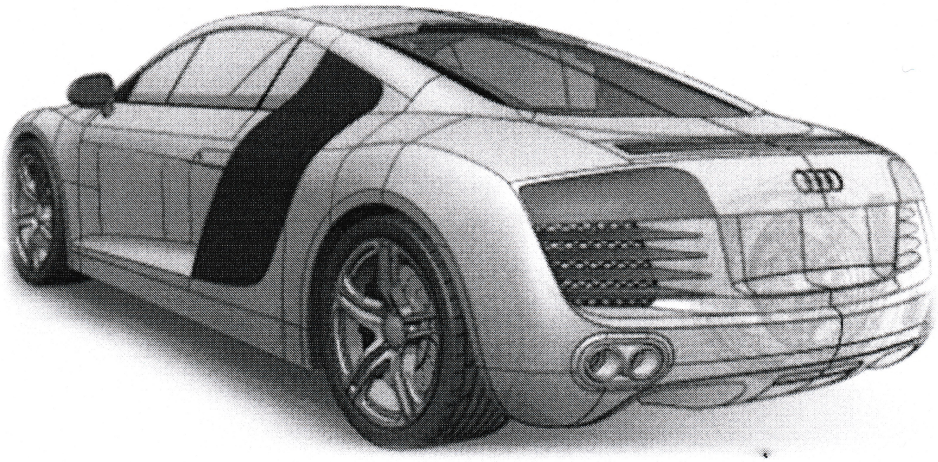
CHANDUBHAI S. PATEL INSTITUTE OF TECHNOLOGY
CHAMOS MATRUSANSTHA DEPARTMENT OF MECHANICAL ENGINEERING

A

Certificate Course

on

SOLIDWORKS



SOLIDWORKS® 3D CAD software shortens product development time and reduces design cost. Communicate to the designers better with 3D CAD. Save time & money with SOLIDWORKS 3D. In mechanical engineering, you might use it to create manufacturing processes as well as to design motor parts, robots and other innovative objects. It can also be useful for student projects.

CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY
CHANDUBHAI S. PATEL INSTITUTE OF TECHNOLOGY
CHAMOS Matrusanstha Department of Mechanical Engineering

Course objectives:

- Training for different modules of SOLIWORKS.
- Understand the real-world problems in drafting.
- Appear and clear the CSWA Exam.

Course Syllabus:

SR. NO.	TOPICS	DURATION
1.	Introduction to Solidworks and CSWA	2 hours
2.	Fundamentals of CAD Design and Industrial Drawings	2 hours
3.	Introduction to the Software and its various tools	2 hours
4.	Basic Part Modeling	10 hours
5.	Basic Assembly Modelling	10 hours
6.	Basic Assembly Modelling & documentation	02 hours
7.	Solidworks Documentation & Problem solving for exam	02 hours
	CSWA CERTIFICATE EXAM	03 hours

Course outcomes:

- Student have hands-on experience of Solidworks software.
- Directly interact with live industrial demands for CAD.
- The international certification helps students in placement drive.

Course Duration: 15 Days (January 2019 to June 2019)

Dr. Vijay Chaudhary
HOD, MED

Charotar University of Science & Technology
C.S. Patel Institute of Technology
Department of Mechanical Engineering

Year: 2018-19

Action taken report on feedback of Stakeholders on Curriculum

1. Department have started offering number of electives throughout the B.Tech programme. (Annexure I)
2. Department have been developing laboratories with modern equipment's to enhance the practical knowledge or students.
3. Department have purchased the range of technical software to the nurture technical skills of the students in the field of Mechanical design.
4. Course content of Mechanisms & Machines and Dynamics of Machines are revised in B.Tech programme. (Annexure I)
5. Credits of Project Phase-II is increased.
6. New elective subjects have been introduced in Final year B.Tech programme. (Annexure I)
7. Certain topics like cooling load calculation, refrigeration system components, combined loading situations in machine parts amended in the curriculum based on the suggestions given by academic experts. (Annexure I)
8. Course content in Engineering Graphics was revised. (Annexure I)
9. Faculties are advised to conduct remedial classes for students who face difficulty in particular subject.



Dr. Vijay Chaudhary,

Professor & Head, MED, CSPIT

Annexure I

CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY (CHARUSAT)

FACULTY OF TECHNOLOGY & ENGINEERING

Department of Mechanical Engineering

Aug. 31, 2019

The meeting of the Board of Studies, Mechanical Engineering, Faculty of Technology and Engineering, Charotar University of Science and Technology (CHARUSAT) was held at August 31, 2019.

Following members were present:

Sr. No	Members/Invitee		Signature
1.	Dr. P M George	Professor, Mechanical Engineering Department, BVM Engg. College, V. V. Nagar	
2.	Dr. Vikas J Lakhera	Professor, Mechanical Engineering Department, Nirma University, Ahemdabad	
3.	Dr. Piyush Gohil	Associate Professor, Mechanical Engineering Department, M S University - Baroda	
4.	Mr. Sambhaji D. Kudale	Sr. Manager, Corporate Internal Audit, JSW Steel Limited, Mumbai	
5.	Dr. A D Patel	Professor, Department of Mechanical Engineering, CSPIT	
6.	Dr. Vijay Chaudhary	Head, Department of Mechanical Engineering, CSPIT	
7.	Dr. Mayur Sutaria	Associate Professor, Department of Mechanical Engineering, CSPIT	
8.	Dr. Dattatraya Subhedar	Assistant Professor, Department of Mechanical Engineering, CSPIT	
9.	Dr. Gajanan Patange	Assistant Professor, Department of Mechanical Engineering, CSPIT	
10.	Dr. Kamlesh Chauhan	Assistant Professor, Department of Mechanical Engineering, CSPIT	

Minutes – Meeting of Board of Studies
CHAMOS Matrusanstha Department of Mechanical Engineering

Date : August 31, 2019, Saturday
Time : 10:00 am
Venue : Department of Mechanical Engineering, CSPIT, CHARUSAT Campus

The meeting of the Board of Studies, Mechanical Engineering, Faculty of Technology and Engineering, Charotar University of Science and Technology (CHARUSAT) was held as per schedule.

Following members were present:

1.	Dr. Vijay Chaudhary	**Chairman;**	Associate Professor & Head, Department of Mechanical Engineering, CSPIT
2.	Dr A D Patel	**Member;**	Professor, Department of Mechanical Engineering, CSPIT
3.	Dr. Mayur Sutaria	**Member;**	Associate Professor, Department of Mechanical Engineering, CSPIT
4.	Dr. Gajanan Patange	**Member;**	Assistant Professor, Department of Mechanical Engineering, CSPIT
5.	Dr. Kamlesh Chauhan	**Member;**	Assistant Professor, Department of Mechanical Engineering, CSPIT
6.	Dr. P M George	**Member;**	Professor, Mechanical Engineering Department, BVM Engg. College, Vallabh Vidyanagar
7.	Dr. Piyush Gohil	**Member;**	Associate Professor, Mechanical Engineering Department, M S University - Vadodara
8.	Dr. Vikas J Lakhera	**Member;**	Professor, Mechanical Engineering Department, Nirma University - Ahemdabad
9.	Mr. Sambhaji D. Kudale	**Member;**	Sr. Manager, Corporate Internal Audit, JSW Steel Limited, Mumbai

Initiation:
Chairman welcomed all the members of Board of Studies. The minutes of the fourteenth Board of Studies meeting held on July 28, 2018 was summarized.

Agenda, Proceeding & Resolutions:-

Item – 16.01: For Discussion; To approve the teaching and examination scheme for all the semesters of B Tech program and detailed syllabus of 1st & 2nd year with CBCS scheme effective from 2019-20 batch.

Proceedings – 16.01:
Teaching and examination scheme for all the semesters of B Tech program is discussed in detail. Total credits of B Tech Mechanical Engineering program is revised to 176.

Following revisions in B Tech program are proposed:

- In 1st year, teaching scheme and content of 'Engineering Graphics', 'Basics of Civil & Mechanical Engineering', 'Basics of Electronics & Electrical Engineering', 'Engineering Mathematics-II' and 'Elements of Engineering' courses are revised.
- In 2nd year, teaching scheme and content of 'Mechanisms & Machines' and 'Dynamics of Machines' courses are revised.
- In 2nd year, following two additional university elective courses are introduced for B Tech programs:
    1) PD261: Astrophysics, Space and Cosmos-1 (For UG Semester-3)
    2) PD262: Astrophysics, Space and Cosmos-2 (For UG Semester-4)
- In 3rd & 4th year, comprehensive and contemporary elective courses are introduced for providing more choices to the students.
- Courses on Entrepreneurship, Constitution of India, IPR, Waste Management, and Safety can be introduced as university elective.
- In 4th year, provision of full semester 'Project' is introduced to have better industry exposure.

Resolution - 16.01:
The suggested changes are incorporated in the teaching scheme and syllabus for 1st & 2nd year B Tech CBCS courses effective from 2019-20 intake and attached as an Annexure-I.

Item – 16.02: For Discussion; To approve the teaching scheme and syllabus for third year of B Tech program with CBCS scheme effective from 2018-19 batch.

Proceedings – 16.02:
Teaching scheme & syllabus for third year of B Tech program is discussed in detail. In 5th semester, practical hours for the elective course 'Instrumentation & Control' are incorporated.

Resolution – 16.02:
The suggested changes are incorporated in the teaching scheme and syllabus for third year of B Tech program with CBCS scheme effective from 2018-19 batch and attached as an Annexure-II.

Item – 16.03: For Discussion; To approve the teaching scheme for all the semesters of M Tech (CBCS) programs effective from 2019-20 batch.

Proceedings – 16.03:
Teaching and examination scheme for all the semesters of M Tech programs is discussed in detail. A total credit of M Tech Engineering programs is revised to 90.

Following revisions in M Tech programs (CAD/CAM, Advanced Manufacturing Technology & Thermal Engineering) are proposed:

- In 4th semester, credit of course 'Project Phase - II' is revised to 18 for all M Tech programs.
- In 1st year, following two additional university elective courses are introduced for M Tech programs:
    1) PD261: Astrophysics, Space and Cosmos-1 (For PG Semester-1)

2) PD262: Astrophysics, Space and Cosmos-2 (For PG Semester-2)

- In 1st semester, a program elective course on 'Industry 4.0 & Industrial IoT' is introduced in M Tech CAD/CAM and M Tech Advanced Manufacturing Technology.

Resolution – 16.03:
The suggested changes are incorporated in the teaching and examination scheme of M Tech programs effective from 2019-20 batch and attached as an Annexure-III.

Item – 16.04: For Discussion; To approve the PhD synopsis of research scholars.

Proceedings – 16.04:
Department of Mechanical Engineering, Faculty of Technology & Engineering has received following synopsis of research scholar during 2018-19.

Sr. No	Research Scholar	Research Topic
1	Jagdish S Talpada (12DRME015)	Experimental & numerical analysis of solar powered absorption refrigeration system using nano-refrigerant and organic liquid.
2	Patel Dipal M (14DRME010)	Mechanical design, fabrication and characterization of Magnetorheological fluid based damper
3	Ayar Vivek S (16DRME001)	Investigation on AlSi5Cu3/TiB2 composites: process parameters and heat treatment
4	Patel Jaksankumar D (14DRME002)	Optimization of wire cut EDM process parameter using multi criteria decision method.
5	Sagar R Choksi (13DRME005)	Mechanical characterization & modelling of unidirectional fiber reinforced polymeric composites.

Synopsis & panel of referees of research scholars are placed before the BoS members.

Resolution – 16.04:
Board of Studies members approved the synopsis & panel of referees of Research Scholar(s) for further process.

Item – 16.05: For Discussion; Additional item(s) – Review of University Exam Question Papers, Placement Records, Result Analysis, Preparation related to NBA & NAAC, and Innovation in Pedagogy.

Proceedings & Resolution – 16.05:

Review of University Exam Question Papers:
Quality Assessment of University Exam Question Papers is carried out by following measures.

- Mapping of questions with course outcomes.
- Bloom's Taxonomy while drawing the question papers.
- Attainment of course outcomes are analyzed after each examination.
- Evaluation of the question paper also involves parameters like clarity of question paper, grammar with language, syllabus coverage, and overall quality.

Members discussed about deviation in marks observed from predefined marks as per weightage of the units/topics in the university exam question papers. Question papers analysis report is attached herewith as an Annexure IV.

Members agrees that in the university exam question paper, around 10% deviation in marks as compared to predefined marks as per weightage of the units/topics in the course syllabus is allowed to account for uncertainty and to facilitate flexibility.

Placement Records:

Placement statistics & packages offered for 2018-19 batch were presented (Annexure V). To enhance the training and placement activities, aptitude test and mock practice of campus drive are being conducted for students. In addition, 'Summer Internship' for the student is made mandatory at the end of the 4th & 6th semester; during semester break. It will include report writing and presentation on industrial training underwent by the student.

Institute-industry interaction needs to be improved for enhancing training and placement activities and each faculty member is being involved in the institute-industry interaction.

Result Analysis:

Results of academic year 2018-19 was presented (Annexure VI). The members deliberated on the courses having more than 10% failure. Following suggestions were given to improve the results in future.

Members suggested that assignments/tutorials containing numerical and analytical questions should be provided to the students. Continuous Evaluation of the students can be done by taking quiz's, unit tests, seminars, group activities etc. to evaluate their conceptual understanding and analytical skills. Analysis and feedback of make-up and remedial classes to improve the performance of students can be carried out to strengthen the same. A bridge course for Diploma to Degree students can be introduced to improve the performance of students.

Preparation related to NBA & NAAC Status:

Department has submitted NBA Self Assessment Report (SAR) for Tier – II for re-accreditation in October 2018. Being a state university we have to apply for NBA in Tier – I, hence its preparation is ongoing. The department conducted self-evaluation for NAAC criteria and areas of improvements are identified.

Pedagogy:

Classroom & Laboratory presentations, Mini projects, Group discussion, Online test, Quiz etc. was introduced as a part of continuous evaluation system. Faculties are enrolled as a mentor for many SWAYAM/NPTEL online courses to help the students. In addition, use of ICT and Google Class-rooms for learning is integrated in regular classes.

The meeting ended with a vote of thanks by the Chairman.

Dr. Vijay Chaudhary
Chairman
Date: 31/08/2019

CHANDUBHAI S. PATEL INSTITUTE OF TECHNOLOGY • CSPIT CHANGA

Charotar University of Science & Technology
C.S. Patel Institute of Technology
Department of Mechanical Engineering

Year: 2019-20

Action taken report on feedback of Stakeholders on Curriculum

1. Hydraulic and pneumatics course is added as an elective subject. (Annexure I)
2. Course content of Heat & Mass Transfer is modified. (Annexure I)
3. New course "Noise & Vibration" is introduced as an elective in third year. (Annexure I)
4. Various case studies are introduced in Metrology & Quality Control. (Annexure I)



Dr. Vijay Chaudhary,

Professor & Head, MED, CSPIT

Annexure I

Minutes – Meeting of Board of Studies
CHAMOS Matrusanstha Department of Mechanical Engineering

Date : July 04, 2020, Saturday
Time : 9:30 am
Venue : Department of Mechanical Engineering, CSPIT, CHARUSAT Campus (Online Meeting)

The online meeting of the Board of Studies, Mechanical Engineering, Faculty of Technology and Engineering, Charotar University of Science and Technology (CHARUSAT) was held as per schedule.

Following members were present:

1.	Dr. Vijay Chaudhary	**Chairman;**	Professor & Head, Department of Mechanical Engineering, CSPIT
2.	Dr A D Patel	**Member;**	Professor, Department of Mechanical Engineering, CSPIT
3.	Dr. Mayur Sutaria	**Member;**	Professor, Department of Mechanical Engineering, CSPIT
4.	Dr. Gajanan Patange	**Member;**	Associate Professor, Department of Mechanical Engineering, CSPIT
5.	Dr. Kamlesh Chauhan	**Member;**	Associate Professor, Department of Mechanical Engineering, CSPIT
6.	Dr. P M George	**Member;**	Professor, Mechanical Engineering Department, BVM Engg. College, Vallabh Vidyanagar
7.	Dr. Piyush Gohil	**Member;**	Associate Professor, Mechanical Engineering Department, M S University - Vadodara
8.	Dr. Vikas J Lakhera	**Member;**	Professor, Mechanical Engineering Department, Nirma University - Ahemdabad
9.	Mr. Sambhaji D. Kudale	**Member;**	Sr. Manager, Corporate Internal Audit, JSW Steel Limited, Mumbai

Initiation:
Chairman welcomed all the members of Board of Studies. The minutes of the sixteenth Board of Studies meeting held on August 31, 2019 was summarized.

Agenda, Proceeding & Resolutions:-

Item – 17.01: For Discussion; To review and approve the teaching & examination scheme and syllabus for 5th & 6th semesters (third year) of B Tech program with CBCS scheme effective from 2019 admission batch.

Proceedings – 17.01:
Teaching & examination scheme with syllabus for third year of B Tech program is discussed in detail. Following revisions for third year of B Tech program are proposed:

- In the course of "Heat and Mass Transfer" (ME342), topic on "Finite difference method for solution of heat conduction problems" should be added in Conduction section. In Boiling and Condensation section, include "Boiling curve and modes of Pool Boiling, Flow Boiling" topic. In Heat Exchangers section, include "Designation of Shell & Tube Heat Exchangers as per TEMA" topic.
- The topic of Cryogenics, which is at present in "Thermal Engineering" (ME350) course, may be placed in the "Refrigeration & Air Conditioning" (ME344) course.
- Various case studies on Quality techniques/philosophies should be included in the course "Metrology & Quality Control" (ME352).
- In the elective course "Noise and Vibration" (ME378), topics related to strategies to control Noise, Vibration, Sound and Harshness should be incorporated.
- In third year, comprehensive and contemporary elective courses are introduced for providing more choices to the students.
- In the pool of electives, course on "Micro-Fluidics" & "E-vehicles" may be introduced.

Resolution – 17.01:
The suggested changes are incorporated in the teaching & examination scheme and syllabus for third year of B Tech program with CBCS scheme effective from 2019 admission batch and attached as an Annexure-I.

Item – 17.02: For Discussion; To review and approve the teaching & examination scheme of 7th & 8th semesters (fourth year) of B Tech program with CBCS scheme applicable for 2018-19 admission batch.

Proceedings – 17.02:
Teaching & examination scheme of 7th & 8th semesters (fourth year) of B Tech program is discussed in detail. No major modifications are required in the teaching scheme & syllabus.

Resolution – 17.02:
The teaching & examination scheme for final year of B Tech program with CBCS scheme applicable for 2018-19 admission batch and attached as an Annexure-II.

Item – 17.03: For Discussion; To review and approve the teaching and examination scheme of B Tech program and detailed syllabus of 1st year with CBCS scheme for 2020-21 admission batch.

Proceedings – 17.03:
Teaching and examination scheme for 1st year of B Tech program for 2020-21 admission batch is discussed in detail. Following revisions in B Tech program are proposed:

- In 1st year, teaching scheme and content of "Engineering Physics" (PY141.01) course is revised. The course is divided in two semesters of first year (PY142 & PY143) and the pedagogy is revised from theory mode to practical mode.
- In 1st year, course structure and syllabus of "Environmental Sciences" course (CL142.01/CL142A.01) (which is being offered across the University in practical mode during odd and even semesters) is modified and new course code (CL144A/CL144B/CL144C) is provided.

- The course structure of the Humanities & Social Sciences (HSS) courses for the academics year 2020-21 for BTech & MTech programs are revised.

Resolution - 17.03:
The suggested changes are incorporated in the teaching scheme and syllabus for 1st year B Tech CBCS courses effective from 2020-21 intake and the revised course structure of the Humanities & Social Sciences (HSS) courses for the academics year 2020-21 for BTech program are attached as an Annexure-III.

Item – 17.04: For Discussion; To approve the updates in M Tech (CBCS) programs.

Proceedings – 17.04:
Looking to the need and demand, the MTech CAD/CAM program is discontinued from the academic year 2020-21. For online theory classes of ongoing MTech programs, MOOC's resources (NPTEL/SWAYAM) were identified for the each course and its mapping with existing syllabus is carried out.

Teaching and examination scheme of M Tech programs (Advanced Manufacturing Technology & Thermal Engineering) is discussed in detail and the course structure of the Humanities & Social Sciences (HSS) courses for the academics year 2020-21 for MTech programs are revised.

Resolution – 17.04:
The updates are incorporated in the teaching and examination scheme of M Tech programs and related MOOC's resources are attached as an Annexure-IV.

Item – 17.05: For Discussion; Analysis of end semester results of the students.

Proceedings – 17.05:
End semester results for the academic year 2019-20 was presented. Following suggestions were given to improve the results in future.

Members suggested that assignments/tutorials containing numerical and analytical questions should be provided to the students. Analysis and feedback of make-up and remedial classes to improve the performance of students can be carried out. A bridge course for Diploma to Degree students can be introduced to improve the performance of students.

Resolution – 17.05:
End semester result analysis for the academic year 2019-20 is attached as an Annexure-V.

Item – 17.06: For Discussion; Analysis of campus placement and its related activities.

Proceedings – 17.06:
Placement statistics & packages offered for 2019-20 batch were presented. To enhance the training and placement activities, aptitude test and mock practice of campus drive are being conducted for students. In addition, 'Summer Internship' for the student is made mandatory at the end of the 4th & 6th semester; during semester break. It will include report writing and presentation on industrial training underwent by the student.

Members suggested that "Psychometric Test" of each student should be conducted. This tool is used to understand which career field is suitable for a student or it can also be used to gauge whether a person is fit for a particular job role.

Institute-industry interaction needs to be improved for enhancing training and placement activities and each faculty member is being involved in the institute-industry interaction.

Resolution – 17.06:
Placement records and its related activities are attached as an Annexure-VI.

Item – 17.07: For Discussion; Additional item(s) – Review of University Exam Question Papers, OBE and Preparation related to NBA & NAAC, Innovation in Pedagogy, Research Activities and Feedback from stakeholders, Minor specialization in emerging area.

Proceedings & Resolution – 17.07:

Review of University Exam Question Papers:
Quality Assessment of University Exam Question Papers is carried out by following measures.

- Mapping of questions with course outcomes.
- Bloom's Taxonomy while drawing the question papers.
- Attainment of course outcomes are analyzed after each examination.
- Evaluation of the question paper also involves parameters like clarity of question paper, grammar with language, syllabus coverage, and overall quality.

Members discussed about deviation in marks observed from predefined marks as per weightage of the units/topics in the university exam question papers. Question papers analysis report is attached herewith as an Annexure VII.

Members agrees that in the university exam question paper, around 10% deviation in marks as compared to predefined marks as per weightage of the units/topics in the course syllabus is allowed to account for uncertainty and to facilitate flexibility.

Outcome Based Education & Preparation related to NBA & NAAC:
First Cycle of NAAC accreditation completes in May 2021 and we are in process of preparing SSR for 2nd cycle. As per the guidelines of NAAC, NBA and other accreditation bodies implementation of OBE is mandatory. With this background, University level committee is formed to ensure facilitation and implementation of Outcome Based Education across all institutes/Departments.

Mechanical Engineering department has already implemented Outcome Based Education (OBE) system. University level committee is requested to review Vision, Mission, Program Educational Objectives (PEOs), Program Outcomes (POs) and Course Outcomes (COs) for the department. As per the suggestions from committee some modification in the Vision, Mission and PEOs of the department. Committee members also suggested to revise course outcomes of few courses.

The mapping of course outcomes with Program Outcomes of all the courses was completed. For next phase of work, the attainment of POs based on exam will be carried out. For the above revisions feedback from various stakeholders were also considered.

Modifications in Vision, Mission & PEOs are reviewed and approved by the members and attached as an Annexure VIII.

Innovation in Pedagogy:

Classroom & Laboratory presentations, Mini projects, Group discussion, Online test, Quiz etc. was introduced as a part of continuous evaluation system. Faculties are enrolled as a mentor for many SWAYAM/NPTEL online courses to help the students. During COVID-19 pandemic, faculties uses various online meeting platforms for conducting theory classes and Google classroom platform for examination & evaluation. For the coming academic year (2020-21), Microsoft Team platform will be used for online teaching and continuous evaluation.

Research Activities:

During academic year 2019-20, following research projects are submitted to the SERB - Teachers Associateship for Research Excellence (TARE) scheme. This scheme aims to facilitate mobility of faculty members to carryout research work in an established public funded institution such as IITs, IISc, IISERS, National Institutions. Research work will be carried out in such a manner to ensure that PI continue to work in the host institute as well as his / her parent institute on mutually agreed terms between the PI and Mentor. Following research projects are submitted in TARE scheme.

Sr. No.	Topic	Faculty Member	Mentor
1	Magneto rheological elastomer as a delamination suppression technique during drilling of CFRP	Mr. Punit Patel	Dr. Inderdeep Singh, IIT - Roorkee
2	Fabrication & Tribological Studies of Nylon 6-B_2O_3 and Nylon 6-MoO_3 self-lubricated polymer Composites	Mr. Kawaljit Randhawa	Dr. Pijush Kanti Mandal, Plastic Engineering Department, Central Institute of Plastic Engineering & Technology - Ahmedabad

The ongoing research projects (2019-20) in the mechanical engineering department are attached as an Annexure IX.

Feedback from final year passing out students:

The online feedback for various criteria viz. academics, curricular & extra-curricular activities, administration, curriculum, training & placement and teaching learning was taken from 8th semester passing out students. Feedbacks were analysed, reviewed & action taken plan was discussed. The detail report of feedback is attached herewith as an Annexure X.

Minor specialization in emerging area:

AICTE allow Under Graduate Degree Courses in EMERGING AREAS as specialization from the same Department. The minimum additional Credits for such Courses shall be in the range of 18-20 and the same shall be mentioned in the degree, as specialization in that particular area.

The students have the flexibility of earning a Hons./Minor in a specialised domain offered by the Department of Mechanical Engineering by earning 18 additional credits.

The Hons./Minor programme offered from the fourth semester onwards is may be in Industrial Automation, Surface Engineering, Robotics, Artificial Intelligence, Additive Manufacturing, E-Vehicles etc.

Members appreciated and recommended that the Hons./Minor Specialization in emerging areas should be offered in order to enhance placement and students admissions in future.

The meeting ended with a vote of thanks by the Chairman.

Dr. Vijay Chaudhary
Chairman
Date: 10/07/2020

CHANDUBHAI S. PATEL INSTITUTE OF TECHNOLOGY • CSPIT CHANGA