



harshada jadhav &lt;harshadajadhav32@gmail.com&gt;

**Fwd: Meeting of the BoS**

1 message

Nikita Malore <nik.malore007@gmail.com>  
 To: harshadajadhav32@gmail.com

Tue, Mar 15, 2022 at 12:26 PM

----- Forwarded message -----

From: YS Mahajan &lt;ysmahajan@dbatu.ac.in&gt;

Date: Mon, Mar 14, 2022, 4:34 PM

Subject: Fwd: Meeting of the BoS

To: Nikita Malore &lt;nik.malore007@gmail.com&gt;, AR Chavan &lt;archavan@dbatu.ac.in&gt;, YS Mahajan &lt;ysmahajan@dbatu.ac.in&gt;

----- Forwarded message -----

From: PV VijayBabu &lt;pvvijaybabu@dbatu.ac.in&gt;

Date: Sat, Jan 28, 2017 at 11:43 PM

Subject: Re: Meeting of the BoS

To: vrpotwardhan &lt;vrpotwardhan@hotmail.com&gt;, VS Sathe &lt;vssathe@dbatu.ac.in&gt;, VP Jawanjai &lt;vpjawanjai@dbatu.ac.in&gt;, YS Mahajan &lt;ysmahajan@dbatu.ac.in&gt;, AR Chavan &lt;archavan@dbatu.ac.in&gt;, &lt;Rajendra.Narkhede@gexcon.com&gt;, SB Bodekar &lt;sbodekar@dbatu.ac.in&gt;, sonali chaudhari &lt;svchaudhari@dbatu.ac.in&gt;

Dear Members/invitees,

Please find herewith attachments of 2nd, 3rd and final year B.Tech proposed syllabi to be discussed and finalised during the meeting of BoS to be held on 30th January 2017. Members who are unable to attend the meeting may send their comments/suggestions by email.

With regards,

Dr.P.V.Vijay Babu  
 DBATU, Lonere

On Fri, Jan 13, 2017 at 4:13 PM, PV VijayBabu <pvvijaybabu@dbatu.ac.in> wrote:  
 Dear Members and Invitees,

Meeting of the Board of Studies (BoS) in Chemical and Petrochemical Engineering will be held on 30th January 2017 at 11.30 AM in Analytical Lab of Chemical Engineering Department. You are hereby requested to make it convenient to attend the meeting. The syllabi of B.Tech Chemical and Petrochemical Engineering will be discussed and final proposal will be decided. during the meeting. M.Tech Chemical Engineering syllabus will also be reviewed during meeting.

3/15/22, 2:50 PM





Gmail - Fwd: Meeting of the BoS

Dr.P.V.Vijay Babu  
Head, Chemical Engineering

—  
Dr. Yogesh S. Mahajan  
Dept. of Chemical Engineering,  
Dr. B. A. Technological University, Lonere  
Tal. Mangaon, Dist. Raigad, Maharashtra - 402 103  
(Mobile - 09421939941 / 9923188748)

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4 attachments

-  B.Tech Chemical Engineering New Syllabus - 2016-17 (2nd year).docx  
40K
-  B.Tech Chemical Engineering New Syllabus - 2016-17 (3rd year).docx  
57K
-  B.Tech Chemical Engineering New Syllabus - 2016-17 (Final year).docx  
41K
-  M.Tech (Chemical) Course Structure-revised 2016 (for EC).doc  
154K



25.09.2018

**Minutes of the meeting of Board of Studies (BoS) in Chemical Engineering, Petrochemical Engineering, Biochemical Engineering and Biotechnology**

A meeting of the BoS in the Chemical Engineering, Petrochemical Engineering, Biochemical Engineering and Biotechnology was held as detailed below:

- Day and Date: Tuesday, 25th September, 2018
- Venue and Timing: Analytical Laboratory, 11.00 am
- Agenda:
  - The subject codes and
  - list of paper setter, evaluator and moderator for Winter 2018 examination.
  - Any other point with the permission of the chair

The following points were discussed:

1. The subject codes:  
Most of the subject codes are the same as assigned previously, except for a few changes as per the directives from the Examination Section. The same was changed and as such the coding is listed as appendix for reference.
2. List of paper setter, evaluator and moderator for Winter 2018 examination.:  
The list of paper setter, evaluator and moderator for Winter 2018 examination was prepared and the same is attached here for reference as appendix.
3. Certain points were raised by Dr. S. Guhe of JNEC, Aurangabad and these were discussed at length in the meeting as follows:
  - a. By mistake, the course code BTCHL308 was assigned to two labs of different Courses namely "Fluid Flow Operation Lab" and "Mechanical Operations Lab". Each lab has 1 Credit and both courses are important for Chemical Engineering discipline.

BTCHL308	Fluid Flow Operations Lab
BTCHL308	Mechanical Operations Lab
BTCHL309	Field Training / Internship/Industrial Training Evaluations

This mistake is rectified by assigning two different codes to these labs as follows (the changed codes are as follows):



BTCHL308	Fluid Flow Operations Lab
BTCHL309	Mechanical Operations Lab
BTCHL310	Field Training / Internship/Industrial Training Evaluations

Everything else remains the same.

- o Mini Project -II in Semester IV. Is it continuation of Mini Project-I or totally independent activity/hand:  
The committee resolved the same as follows: The mini project II can be continuation of the Mini Project I. But this is not necessary, it can be independent as well.
- o End Semester Exam for both Mini Project I & II worth 40 Marks. Is it viva conducted by External Examiner or is it by Internal Assessment.  
The committee resolved the same as follows: The viva can be conducted as per the rules meaning that appropriate examiner may be called for the purpose.
- o How CA worth 60 Marks will be conducted.  
The committee resolved the same as follows: CA for mini project is through the progress of the students throughout the duration i. e., the semester and the assessment can be done through proper records.
- o Could we have previous exam Question Papers on DrBATU web page: The University examination for IIIrd semester is conducted for the first time for the new syllabus and hence previous question papers are not available.

#### Appendix I List of Examiners, M. Tech. in Chemical Engineering

Sr. No.	Subject Code	Name of subject	Name of Examiners
1	MTCH101	Advanced Momentum Transfer	1) Prof. U. S. Patil, PVPIT, 2) Dr. Mahajan Yogesh S.
2	MTCH102	Elective I (Advanced Heat Transfer)	1) Prof. Ravindra Uppin 2) Prof. A. D. Patil, PVPIT,
3	MTCH103	Advanced Reaction Engineering	1) Prof. (Mrs) S. S. Metkar 2) Prof. V. S. Pore, PVPIT,
4	MTCH104	Thermodynamics of Phase Equilibria	1) Prof. Ravindra Uppin 2) Prof. S. Y. Pawar, PVPIT,
5	MTCH105	Elective II Process Intensification: Bioprocess Engineering:	1) Prof P. B. Dhanke, PVPIT, 1) Prof. A. R. Chavan
6	MTCH106	Communication Skills	1) Prof. A. P. Shesh 2) Prof. Sarjerao Narwade, PVPIT,
7	MTCH107	Computational Lab I	1) Dr. V. S. Sathe

**Appendix II List of Examiners, B. Tech. in  
Chemical / Petrochemical Engineering**

Sr. No.	Subject Code	Name of Subject	Chairman	Papersetter/Evaluator
1	BTCHC301	Engineering Mathematics III	Dr. B. B. Singh	1)Dr. G. C. Lomate 2. Dr. B. B. Singh
2	BTCHC302	Chemical Process Calculations	Prof. V. P. Jawanjal	1)Prof. P. V. Vijay Babu 2)Prof. N. V. Ghasghase 3)Prof. M. V. Pople
3	BTCHC303	Fluid Flow Operations	Prof. A. R. Chavan	1)Prof. P. V. Vijay Babu 2) Prof. U. S. Patil 3) Prof. V. A. Gite
4	BTCHC304	Mechanical Operations	Dr. V. S. Sathe	1)Prof. S. S. Metkar 2)Prof. S. U. Dhongade 3)Dr. S. L. Bhagat 4)Prof. M. R. Gaonkar
5	BTBSC305	Advanced Engineering Chemistry	Prof. H. A. Mujawar	1)Dr. P. B. Lokhande 2)Dr. Dipti Patil 3)Dr. L. D. Chavan
6	BTOE306 Elective I			
	BTCHE306 A	Green Technology	Prof P. V. VijayBabu	1)Dr. S. L. Bhagat
	BTCHE306 B	Renewable Energy Sources	Prof P. V. VijayBabu	1)Prof. S. D. Yadav 2)Prof. A. D. Patil 3) Prafulli Mahakal
	BTCHE306 C	Nanotechnology	Not offered presently.	
	BTCHE306 D	Materials for Engineering Applications	Prof P. V. VijayBabu	1)Prof Siddhesh Palande

### Appendix III List of Subjects with Codes

#### Sem. III

1	BTBSC301	Engineering Mathematics -III
2	BTCHC302	Chemical Process Calculations
3	BTCHC303	Fluid Flow Operations
4	BTCHC304	Mechanical Operations
5	BTBSC305	Advanced Engineering Chemistry
6	BTOE306 Elective I	
	BTCHE306A	Green Technology
	BTCHE306B	Renewable Energy Sources
	BTCHE306C	Nanotechnology
	BTCHE306D	Materials for Engineering Applications
7	BTCHM 307	Mini Project I
8	BTCHL 308	Fluid Flow Operations Lab
9	BTCHL 309	Mechanical Operations Lab
10	BTCHF 310	Field Training / Internship/Industrial Training Evaluations

There is one slight change in the evaluation scheme i. e., in the End Sem Examination (ESE) of

BTCHF310	Field Training / Internship/Industrial Training Evaluations
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the previously mentioned marks are 100 and total credits are 1. The same need to be changed to ESE 50 marks and credits remain 1.

### Sem IV

1	BTCHC401	Numerical Methods in Chemical Engineering
2	BTCHC402	Chemical Engineering Thermodynamics I
3	BTCHC403	Heat Transfer Operations
4	BTHM3401	Basic Human Rights
5	BTID405	Product Design Engineering
6	BTCHC406	Strength of Materials
7	BTCHM407	Mini Project II
8	BTCHL408	Heat Transfer Operations Lab
9	BTCHL409	Programming Languages Lab
10	BTCHL410	Advanced Engineering Chemistry Lab
11	BTCHF411	Field Training / Internship/Industrial Training (minimum 4 weeks which can be completed partially in first semester and second Semester or in at one time.)

**There is one slight change in the evaluation scheme i. e., in the End Sem. Examination (ESE) of**

BTCHF411	Field Training / Internship/Industrial Training Evaluations
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**the previously mentioned marks are 100 and total credits are 1. The same need to be changed to ESE 50 marks and credits remain 1.**



**Dr. Babasaheb Ambedkar Technological University, Lonere**  
 Proposed Teaching and Examination Scheme for M. Tech. Chem. Engg. (July 2017 onwards)

Sr. No.	Subject Code and Name	Scheme			Credits	Examination Scheme				
		L	P	T		Theory		CA	PR/OR	TOTAL
						Theory	Test			
<b>First Semester</b>										
1	MCH 101, Advanced Momentum Transfer	3	-	1	4	60	20	20	-	100
2	MCH 102, Elective - I	3	-	-	3	60	20	20	-	100
3	MCH 103, Advanced Reaction Engineering	3	-	1	4	60	20	20	-	100
4	MCH 104, Thermodynamics of Phase Equilibria	3	-	1	4	60	20	20	-	100
5	MCH 105, Elective - II	3	-	-	3	60	20	20	-	100
6	MCH 106, Communication Skills	2	-	-	2	-	-	25	25	50
7	MCH 107, Computational Lab - I	-	3	-	2	-	-	25	25	50
<b>Total for Semester 1</b>		<b>17</b>	<b>3</b>	<b>3</b>	<b>22</b>	<b>300</b>	<b>100</b>	<b>150</b>	<b>58</b>	<b>600</b>
<b>Second Semester</b>										
1	MCH 201, Advanced Mass Transfer Operations	3	-	1	4	60	20	20	-	100
2	MCH 202, Advanced Separation Techniques	3	-	-	3	60	20	20	-	100
3	MCH 203, Elective - III	3	-	-	3	60	20	20	-	100
4	MCH 204, Elective - IV	3	-	-	3	60	20	20	-	100
5	MCH 205, Seminar	-	4	-	2	-	-	50	50	100
6	MCH 206, Open Elective**	3	-	-	3	60	20	20	-	100
7	MCH 207, Mini Project / Computational Lab. - II	-	4	-	2	-	-	50	50	100
<b>Total for Semester 2</b>		<b>18</b>	<b>6</b>	<b>1</b>	<b>20</b>	<b>300</b>	<b>120</b>	<b>220</b>	<b>100</b>	<b>700</b>



Third Semester										
1	MCH 301, Project Management and Intellectual Property Rights	-	-	-	2	-	-	50	50	100
2	MCH 302, Project Work (Stage-I)	-	-	-	10	-	-	50	50	100
3	Total for Semester 3	-	-	-	12	-	-	100	100	200

Fourth Semester										
1	MCH 401, Project Work (Stage-II)	-	-	-	20	-	-	100	100	200
2	Total for Semester 4	-	-	-	20	-	-	100	100	200

### GRADUATE ATTRIBUTES

The Graduate Attributes are the knowledge, skills and attitudes which the students have at the time of graduation. These attributes are generic and are common to all engineering programs. These Graduate Attributes are identified by National Board of Accreditation.

1. **Scholarship of Knowledge:** Acquire in-depth knowledge of specific discipline or professional area, including wider and global perspective, with an ability to discriminate, evaluate, analyze and synthesize existing and new knowledge, and integration of the same for enhancement of knowledge.
2. **Critical Thinking:** Analyze complex engineering problems critically, apply independent judgment for synthesizing information to make intellectual and/or creative advances for conducting research in a wider theoretical, practical and policy context.
3. **Problem Solving:** Think laterally and originally, conceptualize and solve engineering problems, evaluate a wide range of potential solutions for these problems and arrive at feasible, optimal solutions after considering public health and safety, cultural, societal and environmental factors in the core areas of expertise.
4. **Research Skill:** Extract information pertinent to unfamiliar problems through literature survey and experiments, apply appropriate research methodologies, techniques and tools, design, conduct experiments, analyze and interpret data, demonstrate higher order skill and view things in a broader perspective, contribute individually/in group(s) to the development of scientific/technological knowledge in one or more domains of engineering.
5. **Usage of modern tools:** Create, select, learn and apply appropriate techniques, resources, and modern engineering and IT tools, including prediction and modeling, to complex engineering activities with an understanding of the limitations.
6. **Collaborative and Multidisciplinary work:** Possess knowledge and understanding of group dynamics, recognize opportunities and contribute positively to collaborative-multidisciplinary scientific research, demonstrate a capacity for self-management and teamwork, decision-making based on open-mindedness, objectivity and rational analysis in order to achieve common goals and further the learning of themselves as well as others.
7. **Project Management and Finance:** Demonstrate knowledge and understanding of engineering and management principles and apply the same to one's own work, as a member and leader in a team, manage projects efficiently in respective disciplines and multidisciplinary environments after consideration of economical and financial factors.

8. **Communication:** Communicate with the engineering community, and with society at large, regarding complex engineering activities confidently and effectively, such as, being able to comprehend and write effective reports and design documentation by adhering to appropriate standards, make effective presentations, and give and receive clear instructions.
9. **Life-long Learning:** Recognize the need for, and have the preparation and ability to engage in life-long learning independently, with a high level of enthusiasm and commitment to improve knowledge and competence continuously.
10. **Ethical Practices and Social Responsibility:** Acquire professional and intellectual integrity, professional code of conduct, ethics of research and scholarship, consideration of the impact of research outcomes on professional practices and an understanding of responsibility to contribute to the community for sustainable development of society.
11. **Independent and Reflective Learning:** Observe and examine critically the outcomes of one's actions and make corrective measures subsequently, and learn from mistakes without depending on external feedback.

### PROGRAM EDUCATIONAL OBJECTIVES

PEO1	Pursue successful industrial, academic and research careers in specialized fields of Chemical Engineering.
PEO2	Apply the knowledge of advanced topics in Chemical Engineering to meet contemporary needs of industry and research.
PEO3	Use modern software tools for design of processes and equipment.
PEO4	Identify issues related to ethics, society, safety, energy and environment in the context of Chemical Engineering applications.
PEO5	Pursue self-learning to remain abreast with latest developments for continuous professional growth.

**PROGRAM OUTCOMES:** At the end of the program, the student will be able to:

PO1	Model chemical engineering processes including multi-component mass transfer, multi-phase momentum transfer and multi-mode heat transfer from advanced engineering perspective.
PO2	Apply modern experimental, computational and simulation tools to address the challenges faced in chemical and allied engineering industries.
PO3	Implement techniques for minimizing cost and energy requirements in chemical plants.
PO4	Design measures to take care of environment, health and safety issues pertaining to chemical industries.
PO5	Communicate effectively and demonstrate leadership skills
PO6	Carry out research work independently and innovate novel processes and products
PO7	Practice professional ethics
PO8	Pursue life-long learning as a means of updating knowledge and skills



## Minutes of the meeting of Board of Studies

A meeting of the board of studies for department of Chemical and Petrochemical Engineering was arranged on 14-1-2019. The following members were present.

- 1) Prof. Sudhir Yadav, JNEC, Aurangabad
- 2) Dr. Y. S. Mahajan
- 3) Dr. A. R. Chavan
- 4) Dr. (Mrs) Sonali Mhatre

The following points were discussed in the meeting.

- 1) The first year and second year syllabus structure for Chemical Engineering and Petrochemical Engineering which was already approved was discussed and the corrections were incorporated.
- 2) The third year and fourth year syllabus for both the departments was discussed in detail and the course structure was prepared keeping in mind by the comments received from all the sources. The course was prepared according to the prescribed rules and regulations.
- 3) The discussion was done on various electives to be offered, about the final year project and the newly introduced six month industry project for eighth semester students which is kept as optional for them.

The meeting ended with thanks to Chair.



## **Minutes of the meeting of Board of Studies (BoS) in Chemical Engineering, Petrochemical Engineering, Biochemical Engineering and Biotechnology**

An online meeting (on platform Zoom) of the BoS in the Chemical Engineering, Petrochemical Engineering, Biochemical Engineering and Biotechnology was held as detailed below:

- Day and Date: Tuesday, 26<sup>th</sup> July, 2020
- Agenda:
  - 1) Finalization about proposed syllabus and course structure for new students admitted to Chemical/Petrochemical starting from year 2020-21
  - 2) Finalization of Major and Minor courses
  - 3) Any other relevant point

The following teachers attended the meeting

Faculty from Dr. BATU, Lonere

- 1) Prof. P. V. VijayBabu
- 2) Prof. V. P. Jawanjaj
- 3) Prof. A. R. Chavan
- 4) Prof. (Mrs) S. S. Metkar
- 5) Prof.(Mrs) Sonali Mhatre

Prof. Y. S. Mahajan had network problems to attend meeting but he provided valuable suggestions in offline mode.

Faculty from Affiliated Colleges:

- 1) Prof. Unmesh Patil
- 2) Prof. Sadanand Gube
- 3) Prof. S. Khot

Leave of absence was granted to all those who could not attend the meeting. Dr. A. R. Chavan, Head, Chemical Engineering welcomed all other faculty members and briefed about the agenda of the meeting.

The following points were discussed:


1. The first agenda point was about finalization of new syllabus and course structure proposed for students taking admission to first year BTech(Chemical) in year 20-21 for all four years. All the members showed satisfaction about most of the things. The discussion was mainly about Major and Minor courses in the Syllabus.
2. Prof Chavan showed the proposed major and minor courses for Chemical Engineering. About minor courses, Prof. VijayBabu suggested Heat Transfer should be in fifth semester instead of seventh semester. The members agreed over this. The correction is done as shown in attached file. Prof. Chavan Showed corrections over the major and minor courses not included in previous BoS meeting. This was done for



odd-even balances for the students. The members agreed over the inclusion of new subjects as shown in attached file. Now the documents can go to AC approval (if needed) in its present form.

3. Prof (Mrs) S. S. Metkar presented the syllabus and course structure for Petrochemical Engineering and as there was no significant changes over the previous BoS meeting (19/6/2020), the members suggested that now the syllabus and course structure should be sent to AC approval (if needed) in its present form.
4. Prof. Sadanand Guhe and Prof. Unmesh Patil suggested some corrections in the syllabus. Prof. Guhe expressed that syllabus of Process flowsheeting laboratory in upcoming final year syllabus needs minor changes in terms of software requirement. Prof. Chavan opined that already final year syllabus has been uploaded after approval from previous BoS meeting. So if possible only, the changes can be done by requesting to Dean academic. The required change is shown in attached file. Prof. Patil suggested that for the new syllabus, seminar and miniproject should be of 2 hours instead of 4 hours. Prof. Chavan opined that the guidelines had already come for this and if possible in future, the corrections can be done.

The meeting ended with thanks to Chair.

  
CDr. A.R. Ghossein )  
Head  
Dept of Chemical Engg



# Dr. Babasaheb Ambedkar Technological University

(Established by Government of Maharashtra and Governed by  
Dr. Babasaheb Ambedkar Technological University Act No. XXIX of 2014  
[www.dbatu.ac.in](http://www.dbatu.ac.in)

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## **Minutes of the meeting of Board of Studies (BoS) in Chemical Engineering, Petrochemical Engineering, Biochemical Engineering and Biotechnology**

An online meeting (on platform Zoom) of the BoS in the Chemical Engineering, Petrochemical Engineering, Biochemical Engineering and Biotechnology was held as detailed below:

- Day and Date: Thursday, 18<sup>th</sup> January, 2022 Time : 6.30 pm
- Agenda:
  - 1) Online courses for fourth, sixth and eighth semester of BTech (Chemical/Petrochemical) Engineering
  - 2) Planning for syllabus modification/revision (if any) for AY 2022-23
  - 3) Any other point with the permission of Chair

The following teachers attended the meeting

Faculty from Dr. BATU, Lonere

- 1) Prof. P. V. Vijay Babu
- 2) Prof. V. P. Jawanjal
- 3) Prof. A. R. Chavan
- 4) Prof. (Mrs) S. S. Metkar

Faculty from Affiliated Colleges:

- 1) Prof. Unmesh Patil (PVPIT, Sangli)
- 2) Prof. S. L. Bhagat (PVPIT, Sangli)

Prof. V. S. Sathe and Prof. Y. S. Mahajan of Dept of Chemical Engg, Dr. BATU, Lonere could not attend the meeting.

Prof. A. R. Chavan, HoD, Chemical Engineering of Dr. Babasaheb Ambedkar Technological University, Lonere welcomed all other faculty members and briefed about the agenda of the meeting.

The following points were discussed:

1. The first agenda point was about finalization of online courses for even semester of BTech (Chemical/Petrochemical) Engg for fourth, sixth and eighth semester of AY 2021-22. The courses suggested for this are NPTEL courses mentioned in the course structure and syllabus of both departments. Dr. A. R. Chavan presented online courses for Chemical Engineering department. One course for fourth semester, one course for sixth semester and few courses were suggested for eighth semester as per the curriculum. The

students and the respective departments have been given flexibility of choice of courses for eighth semester. All the members showed satisfaction about most of the things.

Prof(Mrs) Sangeeta Metkar similarly presented online courses for BTech(Petrochemical Engg). The members showed satisfaction over this. The details of the online courses are shown in the attached files separately.

2. Prof Chavan opined that the for AY 2022-23, the syllabus modification/revision can be done, if needed, especially for third year BTech(Chemical/Petrochemical) Engineering. For this, the faculty members should find if any modifications are needed and present before next BoS meeting(if possible) before commencement of next academic year. He also opined that the present overall syllabus needs changes e.g. better CO/PO mapping and etc. and it should be done in next few months as a teamwork of all faculty members. All other members agree over this.

The meeting ended with thanks to Chair.

Dr. A. R. Chavan  
Head, Dept of Chemical Engg

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY LONERE  
ELECTRICAL ENGINEERING DEPARTMENT

Date: November 26, 2018

Minutes of meeting

An urgent meeting of Board of Studies was held on 26 November 2018 at office of Electrical Engineering department.

Following members were present,

1. Prof. D B Talange
2. Prof. B N Chowadary

Leave of absence was granted to Prof. M Shankar

3. Prof. S. L. Nalbalwar (Special Invited)
4. Prof. K. Vadirajacharya

Following points were discussed

1. To review and confirm minutes of previous meeting.  
Minutes of previous meeting were read and confirmed.
2. To discuss and finalize subject code of second year subjects of B.Tech. Electrical Engineering (Electronics and Power) / Electrical & Electronics Engg / Electrical & Power Engg

Structure and syllabus of second year B Tech Electrical Engineering (Electronics and Power) Electrical & Electronics Engg Electrical & Power Engg was discussed and finalized to follow the structure and syllabus of B Tech Electrical engineering with enhanced department electives to suit the need of branch specialization.

Detail structure of the course is attached as appendix-I

Meeting was ended with vote of thanks to chair

1. Prof. D B Talange    2. Prof. B N Chowadary    3. Prof. S. L. Nalbalwar    4. Prof. K. Vadirajacharya





Date: 19/11/2019.

To,  
Dean Academics,  
Dr. BATU, Lonere.


Subject: - Approval for Electrical Engineering Department Board of Study Member....

Dear Sir,

With reference to above subject I am hereby submitting you the following list of the new members along with their bio-data for your review and approval.

Sr. No.	Name of new member	Post hold	Working Organisation	Working experience
01	DR. FARUK KAZI	Professor and Head, Electrical Engg. Dept.	V.JTI, Mumbai	30 yr. approx.
02	Dr. U. V. Patil	Dean Academics, Associate Professor, Electrical Engg. Dept.	Government College of Engineering, Karad.	24 yr.
03	Dr. A. N. Sarwade	Associate Professor.	Sinhgad College of Engineering Pune	21yr.
04	Mr. Y. S. Kalekar	Dy. Manager (Exports)	Shreem Electric Ltd. Jaysingpur	24 yr.

With this letter I am requesting to you to approve these renowned and experienced personality in the field of academics and industries of electrical engineering. If this approval is done on the priority basis so that a meeting of the member will be arranged for the new syllabus finalization. Thanks and regards.


  
19/11/2019  
Prof. Satarkar M. F. A. R.  
Head Electrical Engg. Dept.  
DBATU-Lonere.



Enclosed: Four Bio-data of the members.

Recommended for  
approval as invited  
member on BOS  
of EED

  
Dean Academics

  
REGISTRAR  
Dr. Babasaheb Ambedkar Technological University,  
LONERE 402 103

Date: 19/11/2019.


Submission: Approval for special invited member for Board of Study meeting.

Subject: - As per the directives of Dean Academics.

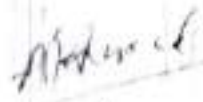
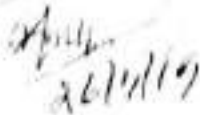
With reference to above subject a meeting of Board of Study was going to be held on 3<sup>rd</sup> December, 2019(tentatively). I am hereby submitting you the following list of the members for your approval.

Sr. No.	Name of new member	Post hold	Working Organisation	Working experience
01	DR. FARUK KAZI	Professor and Head, Electrical Engg. Dept.	V.JTI, Mumbai	30 yr. approx.
02	Dr. U. V. Patil	Dean Academics, Associate Professor, Electrical Engg. Dept.	Government College of Engineering, Karad.	24 yr.
03	Dr. A. N. Sarwade	Associate Professor,	Sinhgad College of Engineering Pune	21yr.
04	Mr. Y. S. Kalekar	Dy. Manager (Exports)	Shreem Electric Ltd. Jaysingpur	24 yr.

You are here by requested to approve the same.

  
Prof. Satarkar M. F. A. R.  
Head Electrical Engg. Dept.  
DBATU-Lonere.

To,  
Honble Vice Chancellor  
DR. B.A.T. Univ. Lonere.

  
  
26/11/19



Enclosed: Recommendation letter of Dean Academics.

  
**REGISTRAR**  
Dr. Babasaheb Ambedkar Technological University  
LONERE 402 103  
Tal. Mangaon Dist. Raichur (Maharashtra)



**DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY LONERE**  
**ELECTRICAL ENGINEERING DEPARTMENT**

Agenda of meeting

Date: January 23, 2020.

A Board of Studies meeting was held on January 23, 2020 in the Electrical Engineering department of the Dr. Babasaheb Ambedkar Technological University, Lonere at Faculty development center at 10.30 am for the curriculum designing for the B.Tech. Electrical Engineering, B. Tech. Instrumentation Engineering and B Tech. Electrical and Instrumentation Engineering, for 2021 batches.

Following members were present.

1. Prof. D. N. Sonawane
2. Prof. B.N. Chaudhuri
3. Prof. A. N. Sarawade (Special Invitee)
4. Prof. M. F. A. R. Satarkar
5. Prof. K. Vadrajacharya

Prof. P. K. Katti, Prof. S. D. Agashe, Mr. S. Vide, Prof. U. V. Patil (Special Invitee), Prof. Faruk Kazi (Special Invitee), Mr. Y. S. Kalekar (Special Invitee) were absent for the meeting.

Following representative of different affiliated institute were present for the meet

Sr. No.	Name	Institute
01	V. Santosh Kumar	N.K Orchid CoE
02	Prasad Patil.	N.K Orchid CoE
03	Sandip Ushkewar	College SVKM'S Inst. Of Tech.
04	Kishor Shinde	YSPM's YTC Satara
05	B. M. Nayak	AGCE Satara
06	S. M. Pawar	DIET Satara

1. The main agenda for the meeting was development of course structure and detail syllabus contains of the B Tech Electrical engineering, Instrumentation engineering and Electrical and Instrumentation Engineering courses for 2021.
2. Modification of syllabus of subject control system, for current semester of B Tech Third year VI semester electrical engineering course.
3. Approval for elective VIII subject of semester VI B Tech Electrical Engineering which are not available online.

Meeting was ended with vote of thanks to chair

Prof. D. N. Sonawane

Prof. B.N. Chaudhuri

Prof. A. N. Sarawade

Prof. M.F. A. R. Satarkar

Prof. K. Vadrajacharya



**REGISTRAR**  
Dr. Babasaheb Ambedkar Technological University  
LONERE 402 103  
Tal Mangaon, Dist. Raigad, (Maharashtra)

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE

BTEEC 601 CONTROL SYSTEM (IY SEM VI)

Teaching Scheme

Lectures Theory: 03 hrs / Week

Tutorial: 01 Hr / Week

Credit: 04

Examination Scheme

Internal Assessment: 20 Marks

Mid-Sem Exam Test: 20 Marks

End Sem Exam: 60 Marks

Course Syllabus:

Prerequisite	Network analysis and synthesis, numerical methods and C programming	
Course outcome	To know different basic concepts and components of a control system To derive transfer functions of basic control system components To perform stability analysis using time domain and frequency domain response on a given system To design and analyze PID controller To understand and analyze state variable technique	
Unit	Contents	Contact Hrs.
1	<b>Introduction:</b> Concept of open & closed loop control system. Transfer Function: a) Concept of system: physical system, Physical model, Linear and nonlinear systems, Time variant and invariant system. b) Equations of physical systems (Mass-Spring-Dashpot system, R-L-C series & parallel circuit) transfer function. Procedure of obtaining transfer function.	6
2	<b>Block diagrams and Signal flow graphs:</b> a) Block diagram, Block Diagram reduction, and Numerical examples. b) Signal flow graph: Mason's gain formula for deriving overall transfer function of systems. Feedback characteristics of control system: Concept of negative and positive feedback. Sensitivity of the system to parameter variation, using negative and positive feedback	6
3	<b>Time domain analysis:</b> Typical test signals, Time domain specifications, Steady state response, Types of system, Steady state error constants and steady state error. Numerical examples, transient response, Numericals. Concept of stability, Determination of stability by Routh - Hurwitz criterion.	6
4	<b>Frequency domain analysis:</b> Introduction to frequency response. Advantages of frequency domain analysis, Polar plots, Numericals, Bode plots, Principle of argument, Nyquist criterion, Relative stability from Nyquist criterion, Numericals. Definition of Root Locus, Construction of root locus, and Stability from root locus plots, Root counters, Effect of addition of poles & zeros on root locus plots.	6





5	<p><b>PID controllers:</b> Introduction to Proportional (P), Integral (I) &amp; Derivative (D) controller individual effect on overall system performance. P-P &amp; PID control and effect on overall system performance. Numerical examples</p>	6
6	<p><b>State Variable Technique</b> Concept of state &amp; state variable, State Variable Analysis: Different forms of state variable representations (Phase, physical &amp; canonical form), Concept of diagonalization. Obtaining state equations from transfer function representation and vice versa. solution of state equations, State transition matrix (STM). Methods of finding STM, Power series method, Laplace transform method, Cayley Hamilton method, Controllability &amp; observability of linear system. Kalman's test.</p> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. Ogata K., 'Modern control Engineering', Prentice Hall</li> <li>2. Kuo B. C., 'Automatic Control System' Prentice Hall</li> <li>3. Nagrath I. J., Gopal M., 'Control System Engineering' Willey Eastern.</li> <li>4. Gopal M., 'Control System (Prentice Hall Of India),</li> </ol>	7



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**DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY LONERE  
ELECTRICAL ENGINEERING DEPARTMENT**

Date: September 28, 2018

Minutes of meeting

A first meeting of Board of Studies 2018-19 was held on September 27, 2018 at office of Electrical Engineering department.

Following members were present:

- |                         |                            |
|-------------------------|----------------------------|
| 1. Prof. S.D. Aghase    | 5. Prof. M Shankar         |
| 2. Prof. N.D. Sonawane  | 6. Prof. P.K. Katti        |
| 3. Prof. D.B. Talange   | 7. Prof. K. Vadirajacharya |
| 4. Prof. B.N. Chowadary |                            |

Leave of absence was granted to Prof. R.M. Nagarale ~~Nagarale~~

As it was the first meeting of board, the meeting started with the introduction of each member following points were discussed

1. **To review and confirm minutes of previous meeting.**  
Minutes of previous meeting were read and confirmed. Committee expressed thanks to all members for their contributions in earlier board.

2. **To finalize the subject code of second year and third year subjects.**  
The subject code for all the subjects of second year in Electrical engineering, Instrumentation engineering and Electrical and Instrumentation engineering were discussed at length and proposed as given in Annexure-I

3. **To finalize the names of paper setter, evaluator and moderator for winter 2018 examination**  
As per email instruction from Hon'ble Vice Chancellor Prof. B. N. Chowadary was nominated as BoS representative on Board of examination.  
Based on data available with the committee a team of subject chairman and two examiner were proposed for each subject and tentative list is enclosed as Annexure-II

4. **Any other matter with permission of chair**  
1. **To discuss and give recommendations on Teacher Students Examiner Manual**  
As per email request from CoE dated 24 September a discussion on Teacher Student Examiner Manual was made on available model manuals.  
The committee differed this recommendation to next meeting as it is related with Cos and POs of each subject and needs detail discussions. Final format and the guidelines for the said manual be finalized depending upon the department curriculum in the next meeting.

2. **To confirm draft syllabus of B. Tech Instrumentation.**  
As per the email from CoE Ambergai the draft syllabus of B.Tech Electrical and Instrumentation Engineering was discussed and recommended for placing it in forthcoming AC for necessary approval.

3. **To Nominate invited members on the board**  
Based on expertise and requirement of the board the committee recommends following nominations as invited members

- |                        |  |
|------------------------|--|
| 1. Prof. S.D. Aghase   | Prof and Head Instrumentation Engineering CoE Pune |
| 2. Prof. P.K. Katti    | Prof in Electrical Eng DBATU Lonere                |
| 3. Prof. D.N. Sonawane | Professor in Instrumentation engg CoE Pune         |
| 4. Mr. Sudhakar Vide   | Asst Vice President Reliance Energy Ltd Mumbai     |

Meeting was ended with vote of thanks to chair

  
 1 Prof. B.N. Chowadary    4 Prof. K. Vadirajacharya

- |                       |                        |                         |                            |
|-----------------------|------------------------|-------------------------|----------------------------|
| 1. Prof. D.B. Talange | 2. Prof. M. Shankar    | 3. Prof. B.N. Chowadary | 4. Prof. K. Vadirajacharya |
| 5. Prof. S.D. Aghase  | 6. Prof. D.N. Sonawane | 7. Prof. P.K. Katti     |                            |

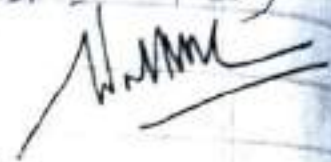






Second meeting BOS Electrical Engineering  
2018-19 was scheduled on 26/11/18  
Following members were present-

1. Prof. D. B. Talenge
2. Prof. B. W. Chowdary
3. Prof. K. Vardivarasacharys (Chairman)
4. Prof. S. L. Khalbatwar (Sp. Invitee)



Minutes of meeting enclosed



DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY LONERE  
ELECTRICAL ENGINEERING DEPARTMENT

Date: November 26, 2018

Minutes of meeting

An urgent meeting of Board of Studies was held on 26 November 2018 at office of Electrical Engineering department.

Following members were present,

1. Prof. D B Talange
2. Prof. B N Chowadary

Leave of absence was granted to Prof. M Shankar

3. Prof. S.L. Nalbalwar (Special Invitee)
4. Prof. K Vadirajacharya

Following points were discussed

1. To review and confirm minutes of previous meeting.  
Minutes of previous meeting were read and confirmed.
2. To discuss and finalize subject code of second year subjects of B.Tech. Electrical Engineering (Electronics and Power)/ Electrical & Electronics Engg / Electrical & Power Engg

Structure and syllabus of second year B.Tech. Electrical Engineering (Electronics and Power)/ Electrical & Electronics Engg / Electrical & Power Engg was discussed and finalized to follow the structure and syllabus of B.Tech. Electrical engineering with enhanced department electives to suit the need of branch specialization.

Detail structure of the course is attached as appendix-I

Meeting was ended with vote of thanks to chair

1. Prof. D B Talange      2. Prof. B N Chowadary      3. Prof. S.L. Nalbalwar      4. Prof. K Vadirajacharya





21<sup>st</sup> meeting of BOS held on 21/7/16

A meeting BOS in Electrical Engg was held on 21/7/16 to discuss & decide following points

1. To confirm Syllabus content of first year BEE

2. To confirm Structure of 2<sup>nd</sup> to 4<sup>th</sup> sem B.Tech Electrical Engg course

3. Any other point

1. Dr. K. Vadivajalaya chairman K. Vadiva

2. Dr. D.B. Telang Expert

3. Dr. P.K. Kathi member

Dr. V.L. Suman & Dr. V.N. Bapat expressed inability to attend the meeting

Following points were discussed & finalized

Point - 1

Finalisation of Syllabus content of first year BEE

1. Proposed first year structure was placed discussed in the meeting.

poi

2. The two subjects namely Basic Electrical Engineering and Energy and Environmental Engineering contents were discussed



discussed and approved.

The details of Energy and Environmental  
Engg contents were discussed and  
found suitable as per the guidelines.

3. The Structures for Second year  
third year and final year <sup>Credits</sup> were deliberated  
with respect to number of credits, core  
and elective. Following observations were  
made and recommended.

1. Each year

(i) Second year

Year	Core Subjects	Elective	Credits
II	9	2	47
III	8	5	49
IV	4	5	51
I			55
			<hr/> 202

Further, the complete structure as  
recommended will be put up to  
academic Council. T

The detail content of compulsory  
and elective subject need to be prepared  
and put up in the next meeting

meeting ended with vote of  
thanks to chair.

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERGE  
Department of Electrical Engineering



**Syllabus of Basic Electrical Technology  
And  
Structure of  
Second to Final year  
B. Tech Electrical Engineering Course**



# SYLLABUS OF BASIC ELECTRICAL TECHNOLOGY

## Unit-1. Elementary Concepts:

Prerequisite: Concept of Potential difference, Current and resistance, Ohm's law, effect of temperature on resistance, resistance temperature coefficient, insulation resistance. SI units of work Power and Energy. Conversion of energy from one form to another in electrical and thermal systems.

## Unit 2. D. C. Circuits (Only Independent sources)

Kirchhoff's law, ideal and practical voltage and current sources, Mesh and Nodal analysis (Super node and super Mesh excluded). Source transformation. Star delta transformation. Superposition theorem, Thevenin's theorem Norton's theorem, maximum power transfer theorem (Source transformation not allowed for superposition theorem, Mesh and Nodal analysis).

**Unit. 3. A.C. Fundamentals:** Sinusoidal voltage and currents, their mathematical and graphical representation, concept of cycle period, frequency, instantaneous, peak, average, r.m.s. values, peak factor, and form factor, phase difference, lagging, leading and in phase quantities and phasor representation. Rectangular and polar representation of phasors.

Study of S.C circuits of pure resistance, inductance and capacitance and corresponding voltage- current phasor diagrams, voltage – current and power waveforms.

## Unit.4. Single phase and poly phase A. C. circuits:

- A) Single phase AC Circuits: Study of series and parallel R-L, R-C, R-L-C circuits, concept of impedance and admittance for different combinations, wave form and relevant voltage current phasor diagrams. Concept of active, reactive, apparent, complex power and power factor, resonance in series and parallel RLC circuit. Q- factor and band width
- B) Polyphase AC circuits: Concept of three phase supply and phase sequence. Balanced and unbalanced loads voltage current and power relations in three phase balance star and delta loads and their phasor diagrams.

## Unit.5. Electromagnetism:

A) Magnetic effect of electrical current cross and dot convention, right hand thumb rule and cork screw rule, nature of magnetic field of long straight conductor, concepts of solenoid and toroid. Concepts of m.m.f, flux, flux density, reluctance, permeability and field strength, their units and relationship. Simple series and parallel magnetic circuits. , comparison between electrical and magnetic circuits , force on current carrying conductor placed in magnetic field, Fleming's left hand rule.

B) Faraday's law of electromagnetic induction, Fleming's right hand rule, statically and dynamically induced EMF's self and mutual inductance coefficient of coupling, energy stored in magnetic field.

C) Introduction to electrical AC DC Machines: Principles of operation and applications.

## Unit.6. Single phase transformer and electrostatics:

- A) Single phase transformers: Construction, principle of working, e.m.f equations, voltage and current ratios, losses, definition of regulation and efficiency, determination of these by direct loading method. Descriptive treatment of autotransformer.



## TEACHING & EVALUATION SCHEME ELECTRICAL ENGINEERING

### III SEMESTER.

Course Code	Course Name	Teaching Scheme			Evaluation Scheme					Credits
		L	P	T	Int	MSE	ESE	TW	Pr/OR	
MAL301	Engineering Mathematics-III	3	0	1	20	20	60	-	-	4
EEL302	Network Analysis and Synthesis	3	0	1	20	20	60	-	-	4
MEL303	Fluid Mechanics and Thermal Engineering	3	0	0	20	20	60	-	-	3
EEL304	Measurement and Instrumentation	4	0	0	20	20	60	-	-	4
EEL305	Engineering Economics	2	0	0	20	20	60	-	-	2
EEL306	Elective -I	4	0	0	20	20	60	-	-	4
EEP307	Network Analysis and Synthesis Lab	0	2	0	-	-	-	25	25	1
EEP308	Measurement and Instrumentation Lab	0	2	0	-	-	-	25	25	1
EET309	Industrial Training	-	-	-	-	-	-	25	25	1
EEE310	NSS/NCC/Sports/ Arts	-	-	-	-	-	-	-	-	-
	TOTAL	19	04	02	120	120	360	75	75	24

### IV SEMESTER.

Course Code	Course Name	Teaching Scheme			Evaluation Scheme					Credits
		L	P	T	Int	MSE	ESE	TW	Pr/OR	
EEL401	Electrical Machine-I	3	0	1	20	20	60	-	-	4
EEL402	Power System-I	3	0	1	20	20	60	-	-	4
EEL403	Electrical Installation and Estimation	3	0	0	20	20	60	-	-	3
EEL404	Numerical Methods and Programming	3	0	0	20	20	60	-	-	3
EEL405	Elective -II	4	0	0	20	20	60	-	-	4
EEL406	Elective -III	3	0	0	20	20	60	-	-	3
EEP408	Electrical Machine-I Lab	0	2	0	-	-	-	25	25	1
EEP409	Numerical Methods and Programming Lab	0	2	0	-	-	-	25	25	1
EEE410	NSS/NCC/Sports/ Arts	-	-	-	-	-	-	-	-	-
	TOTAL	19	04	02	120	120	360	50	50	23

## TEACHING & EVALUATION SCHEME ELECTRICAL ENGINEERING

### V Semester

Course Code	Course Name	Teaching Scheme			Evaluation Scheme					Credits
		L	P	T	Int	MSE	ESE	TW	Pr/OR	
EEL501	Electrical Machine-II	3	0	1	20	20	60	-	-	4
EEL502	Power System-II	3	0	0	20	20	60	-	-	3
EEL503	Control System-I	3	0	0	20	20	60	-	-	3
EEL504	Microprocessor and micro Controller	3	0	1	20	20	60	-	-	4
EEL505	Human Rights	2	0	0	20	20	60	-	-	2
EEL506	Elective-IV	3	0	0	20	20	60	-	-	3
EEL507	Elective-V	3	0	0	20	20	60	-	-	3
EEL508	Electrical Machine-II Lab	0	2	0	-	-	-	25	25	1
EEL509	Power System-II Lab	0	2	0	-	-	-	25	25	1
EEL510	Microprocessor and micro Controller Lab	0	2	0	-	-	-	25	25	1
EEL511	Industrial Training	-	-	-	-	-	-	25	25	1
TOTAL		20	06	02	140	140	420	100	100	26

### VI semester

Course Code	Course Name	Teaching Scheme			Evaluation Scheme					Credits
		L	P	T	Int	MSE	ESE	TW	Pr/OR	
EEL601	Control System-II	3	0	1	20	20	60	-	-	4
EEL602	Principles of Electrical Machine Design	3	0	1	20	20	60	-	-	4
EEL603	Power Electronics	3	0	0	20	20	60	-	-	3
EEL604	Elective-VI	3	0	0	20	20	60	-	-	3
EEL605	Elective-VII	3	0	0	20	20	60	-	-	3
EEL606	Elective-VIII	3	0	0	20	20	60	-	-	3
EEL607	Control System-II Lab	0	2	0	-	-	-	25	25	1
EEL608	Principles of Electrical Machine Design Lab	0	2	0	-	-	-	25	25	1
EEL609	Power Electronics Lab	0	2	0	-	-	-	25	25	1
TOTAL		18	04	02	120	120	360	75	75	23



## TEACHING & EVALUATION SCHEME ELECTRICAL ENGINEERING

### VII Semester

Course Code	Course Name	Teaching Scheme			Evaluation Scheme					Credits
		L	P	T	Int	MSE	ESE	TW	Pr/OR	
EEL701	Controlled Drives	4	0	0	20	20	60	-	-	4
EEL702	Power system modeling and Analysis	4	0	0	20	20	60	-	-	4
EEL703	Elective-IX	3	0	0	20	20	60	-	-	3
EEL704	Elective-X	3	0	0	20	20	60	-	-	3
EEP705	Controlled Drives Lab	0	2	0	-	-	-	25	25	1
EEP706	Power system modeling and Analysis Lab	0	2	0	-	-	-	25	25	1
EEP707	Seminar	0	2	0	-	-	-	25	25	4
EEP708	Project Phase-I	0	2	0	-	-	-	25	25	6
EET709	Industrial Training	0	0	0	-	-	-	25	25	1
	TOTAL	14	08	00	80	80	240	125	125	27

### VIII Semester

Course Code	Course Name	Teaching Scheme			Evaluation Scheme					Credits
		L	P	T	Int	MSE	ESE	TW	Pr/OR	
EEL801	Electrical Utilization	4	0	0	20	20	60	-	-	4
EEL802	High Voltage Engineering	4	0	0	20	20	60	-	-	4
EEL803	Elective-XI	3	0	0	20	20	60	-	-	3
EEL804	Elective-XII	3	0	0	20	20	60	-	-	3
EEP805	Electrical Utilization Lab	0	2	0	-	-	-	25	25	1
EEP806	High Voltage Engineering Lab	0	2	0	-	-	-	25	25	1
EEP807	Project Phase-II	0	4	0	-	-	-	50	50	8
	TOTAL	18	08	00	80	80	240	100	100	24



22<sup>nd</sup> meeting of BOS held on 16/8/2016  
Venue: EED College of Engineering Pune.

A meeting of BOS in Electrical Engineering was held on 16<sup>th</sup> August 2016 at EED, CoE Pune to discuss following points

1. To confirm Structure of M.Tech (EPS)
2. To confirm the Syllabus content of M.Tech (EPS)
3. Any other point: R.C. member proposal.

4. Any other point

Following members were present

1. Dr. K. Vadirajacharya Chairman
2. Dr. D.B. Talange Expert
3. Dr. P.K. Katti member.

Sri. V.L. Sonawane & Dr. V.N. Bapat expressed their inability to attend the meeting

Following points were discussed and confirmed.

1. Minutes of previous meeting were read & confirmed
2. Structure of M.Tech (EPS): The structure for M.Tech 2016-17 proposed, was discussed and agreed

3. The Syllabus content for Sem-I and Sem-II along with the details for elective and core subjects were discussed in detail and agreed to incorporate suggested minor modification by the members Dr. V.N. Bapat, Sri Sonawane V.L. by email

4. The names of proposed RC member were placed for consideration, the same was recommended.

ended with votes thanks to chair



23 meeting of Board of Studies in Elect Engg

Venu: EED DBATU Lonere

A meeting Bos in Elect Engg is held on 11 Dec  
at EED Lonere to discuss following

Points

1. To review and confirm minutes of previous meeting
2. To review draft Syllabus of III Semester
3. To review draft Syllabus of IV Semester
4. Any other point

Following members were present

1 Prof. D.B. Telang

2 Prof. P.K. Katti

3 Prof. K. Vedarajalingam

Following points were discussed & confirmed

1. The absence of Prof V. N. Bapat Sri G. Das & Mr V. L. Sawarne was considered and approved.
2. Minutes of previous meeting were read and confirmed
3. The syllabus content of III Semester were discussed. Attempt may be made to make the credit of 40% Elective as per institutional common structure
4. Elective Human Values may be redrafted for Human Values and Life Ethics.
5. A suitable course on Renewable Energy
6. Signature Systems Elective can be shifted to III Sem to be included

24<sup>th</sup> meeting of BOS in Electrical Engg.

Venue: Electrical Engineering Dept

A meeting of BOS in Electrical Engg is held in Electrical Engg Dept on 23/11/17. Following members were present

1. Prof D. B. Talange
2. Prof P. K. Katti
3. Prof K. Vedivasaichan.

Absence of SV:

Following points were discussed

- Enclosed sheet.



DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY LONERE  
ELECTRICAL ENGINEERING DEPARTMENT

Date: January 23, 2017

Minutes of meeting

A meeting of Board of Studies was held on January 23, 2017 at office of Electrical Engineering department.

Following members were present:

1. Prof. D. B. Talange *Talange*
2. Prof. K. Vadirajacharya
3. Prof. P.K.Katti

Leave of absence was granted to following members.

1. Prof. V. N. Bapat
2. Mr. V.L. Sonavane
3. Mr. G.K. Das
4. Dr. U.V. Patil

Following points were discussed:

1. To review and confirm minutes of previous meeting:

Minutes of previous BOS meeting held on 11<sup>th</sup> December 2016 were read and confirmed

2. To review drafts of syllabus of III Year

The draft syllabus was revived and following changes were suggested:

- EEL502 Power System-II Unit-6 to be added with introduction to Power Quality covering- def. causes, affects, standards and mitigation methods.
- EEL 506 Elective IV.1 Industrial Automation is to be replaced with Illumination engineering.
- EEL 507 elective V.1 is to be replaced with new subject "Electrical Mobility"
- Elective VII-1 Digital and numerical protection is to be added suitably

3. To review drafts of syllabus of IV Year:

- Elective X-2 Advance Instrumentation Zigbee, AMI Net metering is to be added in unit 6.
- Elective 704 X.3 SPEM Unit is to be modified by adding BLDC motor and its control suitably.
- Elective- XI.1 Introduction to Power System Component s is to be replaced with new subject "Smart grid design and analysis"
- Elective-XI.3 Advance Control systems- Sliding mode control is to be added suitably

4. Any other matter with permission of the Chair:

- Review of II Year syllabus:
- Elective-I Engineering material - Content is to be revived as per BOS physics but the title will be "Electrical Engineering Material"
- Electrical Machine -I and Electrical Machine -II is to be revived and synchronous machines is to be added suitably.
- EEL 405-2 Digital Electronics is to be replaced with "Analog and digital Electronics" the content should be revised accordingly.
- Eel 406. Elective-III.2. INCS 5 unit is to be replaced with energy storage devices.

All open elective is to be matched with other department for confirmation and avoiding repetition.

Adequate pre requisite is to be verified for each open elective.

Meeting ended with vote of thanks to chair

1. Prof. K. Vadirajacharya *K. Vadiraj*  
Chairman
2. Prof. D.B. Talange *Talange*  
Subject Expert
3. Prof. P.K. Katti  
Member

Administrative Committees

**DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY LONERE**  
**ELECTRICAL ENGINEERING DEPARTMENT**

Date: 9-4-2017

**NOTICE**

Sub: Notice for Twenty fifth meeting of Board of Studies

The Twenty fifth meeting of board of studies shall be held as per following details.

Date: 12 April, 2017

Time: 11.00 A.M.

Venue: EED Govt College of Engg Pune

Agenda for the meeting:

1. To review and confirm minutes of previous meeting
2. To review drafts of syllabus of M. Tech (EPS)
3. To review drafts of syllabus of M. Tech (EDC)
4. Any other matter with permission of the Chair

All members are requested to make it convenient to attend the meeting.

  
Chairman

(Dr. K. Vadirajacharya)

BoS Electrical Engg

To,

Member

BoS Electrical engg

Administrative Committees



DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY LONER  
ELECTRICAL ENGINEERING DEPARTMENT

Date: 5 July 2017

Submission:

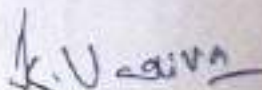
Subject: Approval for expansion of Board of Studies Committee.

Ref: Discussion in HoDs meeting

With above subject and reference it is proposed to expand Board of Studies in Electrical Engineering board with following members for preparation of curriculum of B. Tech ( Instrumentation Engg )

S.No	Name	Qualification	Post held	Organization
01	Prof. S. D. Agashe	M.E. Ph.D	Professor in Instrumentation and Control	College of Engg Pune
02	Prof. D. N. Sonawane	M.E. Ph.D	Associate Professor in Instrumentation and Control	College of Engg Pune
03	Dr. S. S. Sunder rajan	M.E. Ph.D	CEO	Altius technologies private limited pune

You are hereby requested to approve the same

  
Prof. K. Vadirajacharya  
Head of Dept

To, Hon'ble Vice Chancellor  
DBATU Lonere



Date: 5 July 2017



DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY LONERE  
**ELECTRICAL ENGINEERING DEPARTMENT**

Date: 03-01-2018

**NOTICE**

Sub: Notice for Twenty seventh meeting of Board of Studies

The Twenty Seventh meeting of board of studies shall be held as per following details.

Date: 11<sup>th</sup> January 2018

Time: 11.00 A.M.

Venue: EED DBATU Lonere

Agenda for the meeting:

1. To review and confirm minutes of previous meeting.
2. To confirm draft syllabus of B. Tech Instrumentation
3. To confirm review draft syllabus of Basic Electrical Engineering
4. Any other matter with permission of the Chair

*L. M.Tech Admission Matrix*

All members are requested to make it convenient to attend the meeting.

Sd/ Chairman

(Dr. K. Vadirajacharya)

BoS Electrical Engg

To,

Member

BoS Electrical engg

Administrative Committees

**Minutes of meeting of BoS (Electrical Engineering) held on August 11, 2020 at 3.00pm through GOOGLE MEET online platform.**

The BoS (Electrical Engineering) Meeting was held on August 11, 2020 at 3.00 pm through GOOGLE MEET online platform. The Meeting was attended by:

- |   |          |
|---|----------|
| 1. Prof.(Dr.)S.M.Barave, Head Electrical Engg Dept. MIT, Aurangabad     | Chairman |
| 2. Prof.(Dr.)N.J.Patil, Principal, D.N.Patel CoE, Shahda                | Member   |
| 3. Prof. B.Venkatesha Perumal, Head Electrical Engg Dept. NIT, Suratkal | Member   |
| 4. Dr. M.A.Chaudhari, Head Electrical Engg Dept. VNIT, Nagpur           | Member   |

The following member was absent for the meeting

Prof. H.Satarkar, Head Electrical Engg Dept., DBATU, Lonere.

At the onset, the Chairman welcomed all the BoS members to the meeting and placed the agenda for deliberation of the members.

Before taking the formal agenda, it was unanimously decided to take it on record, to thanks Hon. Vice Chancellor, for giving an opportunity to work as Chairman/Member on Board-of-Studies of Electrical Engineering.

**Agenda 1: To consider and approve the structure and syllabus of Forth Year for the B.Tech program. (year 2020-21)**

- Electrical and allied branches (Electrical Engineering / Electrical Engineering (Electronics and Power)/ Electrical & Electronics Engg / Electrical & Power Engineering)
- Electrical and Instrumentation Engineering
- Instrumentation Engineering

The Chair presented the syllabus of final year to all members for discussion.

After the discussion and corrections, it was unanimously decided to accept the syllabus of Final Year Engg., for academic year 2020-21.

The copy of syllabus is attached for your reference.

Hon. Dean is requested to present the syllabus in Academic Council for final approval.

Thanks and Regards.



Chairman  
Board of Studies - Electrical Engineering.

REGISTRAR  
Dr. Babasaheb Ambedkar Technological University  
LONERE 402 103  
Tal. Mangion, Dist. Raigad, Maharashtra



**Minutes of meeting of BoS (Electrical Engineering) held on 17<sup>th</sup> Sept, 2020 at 5.00pm through GOOGLE MEET online platform.**

The BoS (Electrical Engineering) Meeting was held on 17<sup>th</sup> Sept. 2020 at 5.00 pm through GOOGLE MEET online platform. The Meeting was attended by:

1. Prof.(Dr.)S.M.Badave, Head Electrical Engg Dept. MIT, Aurangabad	Chairman
2. Prof.(Dr.)N.J.Patil, Principal, D.N.Patel CoE, Shahda	Member
3. Prof. B.Venkatesha Perumal, Head Electrical Engg Dept. NIT, Suratkal	Member

The following member were absent for the meeting

Prof. H.Satarkar, Head Electrical Engg Dept., DBATU, Lonere.

Dr. M.A.Chaudhari, Head Electrical Engg Dept. VNIT, Nagpur

At the onset, the Chairman welcomed all the BoS members to the meeting and placed the agenda for deliberation of the members.

**Agenda :**

*To finalize the online courses available on SWAYAM/NPTEL or any other MOOC platform, that can be mapped upto 70% with odd semester courses of B.Tech program, from the year 2020-21.*

After the discussion, it was unanimously decided that, following courses are relevant upto 70% to the *odd semester courses of B.Tech program.*

Sr.No.	Course Code	Name of Subject as per Curriculum	Semester
1	BTEEE305	(A)Electrical Engineering Material	III
2	BTEEOE506	(A)Electrical Mobility	V

Hon. Dean is requested to present these courses in Academic Council for final approval.

Thanks and Regards.

Encl: Course details which can be uploaded on site



*B. S. Patil*  
Chairman  
Board of Studies- Electrical Engineering.

*M. J.*  
**REGISTRAR**  
Dr. Babasaheb Ambedkar Technological University,  
LONERE 402 103  
Tal. Mangaon, Dist. Raigad, (Maharashtra)



**Minutes of meeting of BoS (Electrical Engineering) held on 16<sup>th</sup> Jan, 2021 at 3.00pm through GOOGLE MEET online platform.**

The BoS (Electrical Engineering) Meeting was held on 16<sup>th</sup> Jan 2021 at 3.00 pm through GOOGLE MEET online platform. The Meeting was attended by:

1. Prof.(Dr.)S.M.Badave, Head Electrical Engg Dept. MIT, Aurangabad	Chairman
2. Following heads of the Electrical and Instrumentations Department of colleges affiliated to BATU	Invitee

At the onset, the Chairman welcomed all the BoS members to the meeting and placed the agenda for deliberation of the members.

**Agenda :**

1. To finalize the online courses available on SWAYAM/NPTEL or any other MOOC platform, that can be mapped upto 75% with even semester courses of B.Tech program, from the year 2020-21.
2. To amend the contents of "Advanced Digital Signal Processing", M.Tech(EDC)

After the discussion, it was unanimously decided

1. the courses are relevant upto 75% to the even semester courses of sem IV and sem VI of B.Tech program.
2. the contents of "Advanced Digital Signal Processing", M.Tech(EDC)

Hon. Dean is requested to present these courses in Academic Council for final approval.

Thanks and Regards.

Encl:

1. Syllabus of "Advanced Digital Signal Processing", M.Tech(EDC)
2. List of online courses of even semester courses of sem IV and sem VI of B.Tech program.



*P*

*B. S. B. S.*

Chairman

Board of Studies- Electrical Engineering.

*A*  
REGISTRAR

Dr. Babasaheb Ambedkar Technological University  
LONERE 402 503  
Tal. Mangaon, Dist. Raigad, (Maharashtra)

**Minutes of meeting of BoS (Electrical Engineering) held on 14 Oct, 2021 at 3.00pm through GOOGLE MEET online platform.**

The BoS (Electrical Engineering) Meeting was held on 14 Oct, 2021 at 3.00 pm through GOOGLE MEET online platform. The Meeting was attended by:

1. Prof.(Dr.)S.M.Badave, Head Electrical Engg Dept. MIT, Aurangabad	Chairman
2. Prof.(Dr.)N.J.Patil, Principal, D.N.Patel CoE, Shahda	Member

The following member was absent for the meeting

- |   |        |
|---|--------|
| 1. Dr. M.A.Chaudhari, Head Electrical Engg Dept. VNIT, Nagpur           | Member |
| 2. Prof. H.Satarkar, Head Electrical Engg Dept., DBATU, Lonere.         | Member |
| 3. Prof. B.Venkatesha Perumal, Head Electrical Engg Dept. NIT, Suratkal | Member |

At the onset, the Chairman welcomed all the BoS members to the meeting and placed the agenda for deliberation of the members.

**Agenda: Syllabus contents of Engineering Mathematics-III**

Chairman has put forth the syllabus of Electrical and allied subjects

And the syllabus common for all branches.

All members have unanimously decided to follow the syllabus common to all branches

The copy of Engineering Mathematics-III is attached for your reference.

**Hon. Dean is requested to present the syllabus in Academic Council for final approval.**

Thanks and Regards.

*Patil*

Chairman

Board of Studies- Electrical Engineering.



*P*

*Patil*  
REGISTRAR  
Dr. Babasaheb Ambedkar Technological University  
LONERE, 431 003  
Tal. Manganj, Dist. Nagpur (Maharashtra)



**Minutes of meeting of BoS (Electrical Engineering) held on 16<sup>th</sup> Jan, 2021 at 3.00pm through GOOGLE MEET online platform.**

The BoS (Electrical Engineering) Meeting was held on 16<sup>th</sup> Jan 2021 at 3.00 pm through GOOGLE MEET online platform. The Meeting was attended by:

1. Prof.(Dr.)S.M.Badave, Head Electrical Engg Dept. MIT, Aurangabad	Chairman
2. Head of the Electrical and Instrumentations Department of colleges affiliated to BATU	Invitee

At the onset, the Chairman welcomed all the BoS members to the meeting and placed the agenda for deliberation of the members.

**Agenda :**

1. *To finalize the online courses available on SWAYAM/NPTEL or any other MOOC platform, that can be mapped upto 75% with even semester courses of B.Tech program, from the year 2020-21.*
2. *To amend the contents of "Advanced Digital Signal Processing", M.Tech(EDC)*

After the discussion, it was unanimously decided

1. *the courses are relevant upto 75% to the even semester courses of sem IV and sem VI of B.Tech program.*
2. *the contents of "Advanced Digital Signal Processing", M.Tech(EDC)*

Hon. Dean is requested to present these courses in Academic Council for final approval.

Thanks and Regards.

Encl:

1. *Syllabus of "Advanced Digital Signal Processing", M.Tech(EDC)*
2. *List of online courses of even semester courses of sem IV and sem VI of B.Tech program.*



*Asite*  
Chairman  
Board of Studies- Electrical Engineering.

*[Signature]*  
REGISTRAR  
Or. Babasaheb Ambedkar Technological University  
LONERE 402 103,  
Tal. Mangaon, Dist. Raigad, (Maharashtra)

**Minutes of meeting of BoS (Electrical Engineering) held on 14 Oct, 2021 at 3.00pm through GOOGLE MEET online platform.**

The BoS (Electrical Engineering) Meeting was held on 14 Oct, 2021 at 3.00 pm through GOOGLE MEET online platform. The Meeting was attended by:

1. Prof.(Dr.)S.M.Badave, Head Electrical Engg Dept. MIT, Aurangabad	Chairman
2. Prof.(Dr.)N.J.Patil, Principal, D.N.Patel CoE, Shahda	Member

The following member was absent for the meeting:

- |   |        |
|---|--------|
| 1. Dr. M.A.Chaudhari, Head Electrical Engg Dept. VNIT, Nagpur           | Member |
| 2. Prof. H.Satarkar, Head Electrical Engg Dept., DBATU, Lonere.         | Member |
| 3. Prof. B.Venkatesha Perumal, Head Electrical Engg Dept. NIT, Suratkal | Member |

At the onset, the Chairman welcomed all the BoS members to the meeting and placed the agenda for deliberation of the members.

**Agenda: Syllabus contents of Engineering Mathematics-III**

Chairman has put forth the syllabus of Electrical and allied subjects

And the syllabus common for all branches.

All members have unanimously decided to follow the syllabus common to all branches

The copy of Engineering Mathematics-III is attached for your reference.

**Hon. Dean is requested to present the syllabus in Academic Council for final approval.**

Thanks and Regards.

*B. S. Patil*

Chairman

Board of Studies- Electrical Engineering.

*[Handwritten signature]*



*[Handwritten signature]*

REGISTRAR

Dr. Babasaheb Ambedkar Technological University  
LONERE 402 103,  
Tal. Mangaon, Dist. Raigad, (Maharashtra)



**Minutes of meeting of BoS (Electrical Engineering) held on August 11, 2020 at 3.00pm through GOOGLE MEET online platform.**

The BoS (Electrical Engineering) Meeting was held on July 20, 2021 at 3.00 pm through GOOGLE MEET online platform. The Meeting was attended by:

1. Prof.(Dr.)S.M.Badave, Head Electrical Engg Dept. MIT, Aurangabad	Chairman
2. Prof.(Dr.)N.J.Patil, Principal, D.N.Patel CoE, Shahda	Member
3. Prof. B.Venkatesha Perumal, Head Electrical Engg Dept. NIT, Suratkal	Member

The following member was absent for the meeting

1. Dr. M.A.Chaudhari, Head Electrical Engg Dept. VNIT, Nagpur Member
2. Prof. H.Satarkar, Head Electrical Engg Dept., DBATU, Lonere. Member

At the onset, the Chairman welcomed all the BoS members to the meeting and placed the agenda for deliberation of the members.

**Agenda:**

1. To finalize the teaching scheme and syllabus for sem-III to sem-VII for following programs under DBATU
  - a. Electrical Engineering / Electrical and Electronics Engineering/ Electrical, Electronics and Power Engineering
  - b. Electrical and Instrumentation Engineering
  - c. Instrumentation Engineering
2. To finalize one NPTEL online course for allotted respective courses of each semester

The Chair presented the teaching scheme and syllabus for sem-III to sem-VII Electrical and allied branches under DBATU to all members for discussion.

After the discussion and corrections, it was unanimously decided to accept the

1. Second Year syllabus for academic year 2021-22
2. Third Year syllabus for academic year 2022-23
3. Final Year syllabus for academic year 2023-24.

The copy of syllabus is attached for your reference.

**Hon. Dean is requested to present the syllabus in Academic Council for final approval.**

Thanks and Regards.

  
**REGISTRAR**  
Dr. Babasaheb Ambedkar Technological University,  
LONERE 402 103,  
Tal. Mangaon, Dist. Raigad, (Maharashtra)



  
Chairman  
Board of Studies- Electrical Engineering.

**Minutes of meeting of BoS (Electrical Engineering) held on 18<sup>th</sup> July, 2022 at 3.00pm through GOOGLE MEET on online platform.**

The BoS (Electrical Engineering) Meeting was held on 18<sup>th</sup> July, 2022 at 3.00 pm through GOOGLE MEET on online platform. The Meeting was attended by:

1. Prof.(Dr.)S.M.Badave, Head Electrical Engg Dept. MIT, Aurangabad	Chairman
2. Prof. B.Venkatesha Perumal, Head Electrical Engg Dept. NIT, Suratkal	Member

The following member were absent for the meeting

Prof.(Dr.)N.J.Patil, Principal, D.N.Patel CoE, Shahda

(He has earlier intimated that he was on LIC visit)

Prof. H.Satarkar, Head Electrical Engg Dept., DBATU, Lonere.

Dr. M.A.Chaudhari, Head Electrical Engg Dept. VNIT, Nagpur

With reference to the letter received from 'Affiliation Section', dated 11 June 2022, regarding suggestions on the syllabus of S.Y.B.Tech (Electrical) and T.Y.B.Tech(Electrical), following points were discussed in the meeting and resolved the queries accordingly.

**S.Y. Electrical**

**Query 1. BTEEC302 Electrical Machines-I**

*Unit 6 Special purpose machines part should include in Electrical machines-II. Please remove from Electrical Machines-I Because as per my knowledge, special purpose machines part included after Induction and Synchronous machines*

Special Machines are quite relevant in this course and in line with rest of the contents. Contents of this unit are not repeated in any other course.

**Query 2. BTEEC403 Electrical Machines-II**

*In each chapter of Electrical Machines-II there is numerical on number of points but in syllabus there is no mention of numerical on any points. So please clearly mention on which point the numerical has to be taken.*

In the course like Electrical Machines, numerical are implied in the bit mentioned in the syllabus. There is no need to mention it explicitly. Still if there is any confusion, query can be solved in person.

**T.Y. Electrical**

**Query 3. BTEEC602 Principles of Electrical Machine Design**

*Name of the subject related to Design but only 1 or 2 chapters are related to design. As per our concern please include design related chapters like Induction motor design and synchronous machines design*



**REGISTRAR**  
Dr. Babasaheb Ambedkar Technological University  
LONERE - 402 103,  
Tal Margaon, Dist. Raigad, (Maharashtra)





harshada jadhav <harshadajadhav32@gmail.com>

**Fwd: Meeting of the BoS**

1 message

Nikita Malore <nik.malore007@gmail.com>  
To: harshadajadhav32@gmail.com

Tue, Mar 15, 2022 at 12:26 PM

----- Forwarded message -----

From: YS Mahajan <ysmahajan@dbatu.ac.in>  
Date: Mon, Mar 14, 2022, 4:34 PM  
Subject: Fwd: Meeting of the BoS  
To: Nikita Malore <nik.malore007@gmail.com>, AR Chavan <archavan@dbatu.ac.in>, YS Mahajan <ysmahajan@dbatu.ac.in>

----- Forwarded message -----

From: PV VijayBabu <pvvijaybabu@dbatu.ac.in>  
Date: Sat, Jan 28, 2017 at 11:43 PM  
Subject: Re: Meeting of the BoS  
To: vrpawardhan <vrpatwardhan@hotmail.com>, VS Sathe <vssathe@dbatu.ac.in>, VP Jawanjai <vpjawanjal@dbatu.ac.in>, YS Mahajan <ysmahajan@dbatu.ac.in>, AR Chavan <archavan@dbatu.ac.in>, <Rajendra.Narkhede@gexcon.com>, SB Bodekar <sbbodekar@dbatu.ac.in>, sonali chaudhari <svchaudhari@dbatu.ac.in>

Dear Members/invitees,

Please find herewith attachments of 2nd, 3rd and final year B.Tech proposed syllabi to be discussed and finalised during the meeting of BoS to be held on 30th January 2017. Members who are unable to attend the meeting may send their comments/suggestions by email.

With regards,

Dr.P.V.Vijay Babu  
DBATU, Lonere

On Fri, Jan 13, 2017 at 4:13 PM, PV VijayBabu <pvvijaybabu@dbatu.ac.in> wrote:  
Dear Members and Invitees,





Meeting of the Board of Studies (BoS) in Chemical and Petrochemical Engineering will be held on 30th January 2017 at 11.30 AM in Analytical Lab of Chemical Engineering Department. You are hereby requested to make it convenient to attend the meeting. The syllabi of B.Tech Chemical and Petrochemical Engineering will be discussed and final proposal will be decided during the meeting. M.Tech Chemical Engineering syllabus will also be reviewed during meeting.

Dr.P.V.Vijay Babu  
Head, Chemical Engineering

Dr. Yogesh S. Mahajan  
Dept. of Chemical Engineering,  
Dr. B. A. Technological University, Lonere  
Tal. Mangaon, Dist. Raigad, Maharashtra - 402 103  
(Mobile - 09421939941 / 9923188748)

---

4 attachments

-  B.Tech Chemical Engineering New Syllabus - 2016-17 (2nd year).docx  
40K
-  B.Tech Chemical Engineering New Syllabus - 2016-17 (3rd year).docx  
57K
-  B.Tech Chemical Engineering New Syllabus - 2016-17 (Final year).docx  
41K
-  M.Tech (Chemical) Course Structure-revised 2016 (for EC).doc  
154K





25.09.2018

**Minutes of the meeting of Board of Studies (BoS) in Chemical Engineering, Petrochemical Engineering, Biochemical Engineering and Biotechnology**

A meeting of the BoS in the Chemical Engineering, Petrochemical Engineering, Biochemical Engineering and Biotechnology was held as detailed below:

- Day and Date: Tuesday, 25th September, 2018
- Venue and Timing: Analytical Laboratory, 11.00 am
- Agenda:
  - The subject codes and
  - list of paper setter, evaluator and moderator for Winter 2018 examination.
  - Any other point with the permission of the chair

The following points were discussed:

1. The subject codes:  
Most of the subject codes are the same as assigned previously, except for a few changes as per the directives from the Examination Section. The same was changed and as such the coding is listed as appendix for reference.
2. List of paper setter, evaluator and moderator for Winter 2018 examination.:  
The list of paper setter, evaluator and moderator for Winter 2018 examination was prepared and the same is attached here for reference as appendix.
3. Certain points were raised by Dr. S. Guhe of JNEC, Aurangabad and these were discussed at length in the meeting as follows:
  - a. By mistake, the course code BTCHL308 was assigned to two labs of different Courses namely "Fluid Flow Operation Lab" and "Mechanical Operations Lab". Each lab has 1 Credit and both courses are important for Chemical Engineering discipline.

BTCHL308	Fluid Flow Operations Lab
BTCHL308	Mechanical Operations Lab
BTCHL309	Field Training / Internship/Industrial Training Evaluations

This mistake is rectified by assigning two different codes to these labs as follows (the changed codes are as follows):

BTCHL308	Fluid Flow Operations Lab
BTCHL309	Mechanical Operations Lab
BTCHL310	Field Training / Internship/Industrial Training Evaluations

Everything else remains the same.

- o Mini Project -II in Semester IV. Is it continuation of Mini Project-I or totally independent activity/head:  
The committee resolved the same as follows: The mini project II can be continuation of the Mini Project I. But this is not necessary, it can be independent as well.
- o End Semester Exam for both Mini Project I & II worth 40 Marks. Is it viva conducted by External Examiner or is it by Internal Assessment.  
The committee resolved the same as follows: The viva can be conducted as per the rules meaning that appropriate examiner may be called for the purpose.
- o How CA worth 60 Marks will be conducted.  
The committee resolved the same as follows: CA for mini project is through the progress of the students throughout the duration i. e., the semester and the assessment can be done through proper records.
- o Could we have previous exam Question Papers on DrBATU web page: The University examination for IIIrd semester is conducted for the first time for the new syllabus and hence previous question papers are not available.

**Appendix I List of Examiners, M. Tech. in Chemical Engineering**

Sr. No.	Subject Code	Name of subject	Name of Examiners
1	MTCH101	Advanced Momentum Transfer	1) Prof. U. S. Patil, PVPIT, 2) Dr. Mahajan Yogesh S.
2	MTCH102	Elective I (Advanced Heat Transfer)	1) Prof. Ravindra Uppin 2) Prof. A. D. Patil, PVPIT,
3	MTCH103	Advanced Reaction Engineering	1) Prof. (Mrs) S. S. Metkar 2) Prof. V. S. Pore, PVPIT,
4	MTCH104	Thermodynamics of Phase Equilibria	1) Prof. Ravindra Uppin 2) Prof. S. Y. Pawar, PVPIT,
5	MTCH105	Process Intensification: Bioprocess Engineering:	Elective II 1) Prof P. B. Dhanke, PVPIT, 1) Prof. A. R. Clavan
6	MTCH106	Communication Skills	1) Prof. A. P. Shesh 2) Prof. Sarjerao Narwade, PVPIT,
7	MTCH107	Computational Lab I	1) Dr. V. S. Sathe



**Appendix II List of Examiners, B. Tech. in  
Chemical / Petrochemical Engineering**

Sr. No.	Subject Code	Name of Subject	Chairman	Papersetter/Evaluator
1	BTCHC301	Engineering Mathematics III	Dr. B. B. Singh	1)Dr. G. C. Lomate 2. Dr. B. B. Singh
2	BTCHC302	Chemical Process Calculations	Prof. V. P. Jawanjal	1)Prof. P. V. Vijay Babu 2)Prof. N. V. Ghasghase 3)Prof. M. V. Pople
3	BTCHC303	Fluid Flow Operations	Prof. A. R. Chavan	1)Prof. P. V. Vijay Babu 2) Prof. U. S. Patil 3) Prof. V. A. Gite
4	BTCHC304	Mechanical Operations	Dr. V. S. Sathe	1)Prof. S. S. Metkar 2)Prof S. U. Dhongade 3)Dr. S. L. Bhagat 4)Prof. M. R. Gaonkar
5	BTBSC305	Advanced Engineering Chemistry	Prof. H. A. Mujawar	1)Dr. P.B. Lokhande 2)Dr. Dipti Patil 3)Dr. L. D. Chavan
6	BTOE306 Elective I			
	BTCHC306 A	Green Technology	Prof P. V. VijayBabu	1)Dr. S. L. Bhagat
	BTCHC306 B	Renewable Energy Sources	Prof P. V. VijayBabu	1)Prof. S. D. Yadav 2)Prof. A. D. Patil 3) Prafulli Mahakal
	BTCHC306 C	Nanotechnology	Not offered presently.	
	BTCHC306 D	Materials for Engineering Applications	Prof P. V. VijayBabu	1)Prof Siddhesh Palande

### Appendix III List of Subjects with Codes

#### Sem. III

1	BTBSC301	Engineering Mathematics -III
2	BTCHC302	Chemical Process Calculations
3	BTCHC303	Fluid Flow Operations
4	BTCHC304	Mechanical Operations
5	BTBSC305	Advanced Engineering Chemistry
6	BTOE306 Elective I	
	BTCHE306A	Green Technology
	BTCHE306B	Renewable Energy Sources
	BTCHE306C	Nanotechnology
	BTCHE306D	Materials for Engineering Applications
7	BTCHM 307	Mini Project I
8	BTCHL 308	Fluid Flow Operations Lab
9	BTCHL 309	Mechanical Operations Lab
10	BTCHF 310	Field Training / Internship/Industrial Training Evaluations

**There is one slight change in the evaluation scheme i. e., in the End Sem Examination (ESE) of**

BTCHF310	Field Training / Internship/Industrial Training Evaluations
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**the previously mentioned marks are 100 and total credits are 1. The same need to be changed to ESE 50 marks and credits remain 1.**



### Sem IV

1	BTCHC401	Numerical Methods in Chemical Engineering
2	BTCHC402	Chemical Engineering Thermodynamics I
3	BTCHC403	Heat Transfer Operations
4	BTHM3401	Basic Human Rights
5	BTID405	Product Design Engineering
6	BTCHC406	Strength of Materials
7	BTCHM407	Mini Project II
8	BTCHL408	Heat Transfer Operations Lab
9	BTCHL409	Programming Languages Lab
10	BTCHL410	Advanced Engineering Chemistry Lab
11	BTCHF411	Field Training / Internship/Industrial Training (minimum 4 weeks which can be completed partially in first semester and second Semester or in at one time.)

There is one slight change in the evaluation scheme i. e., in the End Sem. Examination (ESE) of

BTCHF411	Field Training / Internship/Industrial Training Evaluations
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the previously mentioned marks are 100 and total credits are 1. The same need to be changed to ESE 50 marks and credits remain 1.

**Dr. Babasaheb Ambedkar Technological University, Lonere**  
**Proposed Teaching and Examination Scheme for M. Tech. Chem. Engg. (July 2017 onwards)**

Sr. No.	Subject Code and Name	Scheme			Credits	Examination Scheme				
		L	P	T		Theory		CA	PR/OR	TOTAL
						Theory	Test			
<b>First Semester</b>										
1	MCH 101, Advanced Momentum Transfer	3	-	1	4	60	20	20	-	100
2	MCH 102, Elective - I	3	-	-	3	60	20	20	-	100
3	MCH 103, Advanced Reaction Engineering	3	-	1	4	60	20	20	-	100
4	MCH 104, Thermodynamics of Phase Equilibria	3	-	1	4	60	20	20	-	100
5	MCH 105, Elective - II	3	-	-	3	60	20	20	-	100
6	MCH 106, Communication Skills	2	-	-	2	-	-	25	25	50
7	MCH 107, Computational Lab - I	-	3	-	2	-	-	25	25	50
<b>Total for Semester 1</b>		<b>17</b>	<b>3</b>	<b>3</b>	<b>22</b>	<b>300</b>	<b>100</b>	<b>150</b>	<b>50</b>	<b>600</b>
<b>Second Semester</b>										
1	MCH 201, Advanced Mass Transfer Operations	3	-	1	4	60	20	20	-	100
2	MCH 202, Advanced Separation Techniques	3	-	-	3	60	20	20	-	100
3	MCH 203, Elective - III	3	-	-	3	60	20	20	-	100
4	MCH 204, Elective - IV	3	-	-	3	60	20	20	-	100
5	MCH 205, Seminar	-	4	-	2	-	-	50	50	100
6	MCH 206, Open Elective**	3	-	-	3	60	20	20	-	100
7	MCH 207, Mini Project / Computational Lab. - II	-	4	-	2	-	-	50	50	100
<b>Total for Semester 2</b>		<b>18</b>	<b>6</b>	<b>1</b>	<b>20</b>	<b>300</b>	<b>120</b>	<b>220</b>	<b>100</b>	<b>700</b>

Third Semester										
1	MCH 301, Project Management and Intellectual Property Rights	-	-	-	2	-	-	50	50	100
2	MCH 302, Project Work (Stage-I)	-	-	-	10	-	-	50	50	100
3	Total for Semester 3	-	-	-	12	-	-	100	100	200

Fourth Semester										
1	MCH 401, Project Work (Stage-II)	-	-	-	20	-	-	100	100	200
2	Total for Semester 4	-	-	-	20	-	-	100	100	200

### GRADUATE ATTRIBUTES

The Graduate Attributes are the knowledge, skills and attitudes which the students have at the time of graduation. These attributes are generic and are common to all engineering programs. These Graduate Attributes are identified by National Board of Accreditation.

1. **Scholarship of Knowledge:** Acquire in-depth knowledge of specific discipline or professional area, including wider and global perspective, with an ability to discriminate, evaluate, analyze and synthesize existing and new knowledge, and integration of the same for enhancement of knowledge.
2. **Critical Thinking:** Analyze complex engineering problems critically, apply independent judgment for synthesizing information to make intellectual and/or creative advances for conducting research in a wider theoretical, practical and policy context.
3. **Problem Solving:** Think laterally and originally, conceptualize and solve engineering problems, evaluate a wide range of potential solutions for those problems and arrive at feasible, optimal solutions after considering public health and safety, cultural, societal and environmental factors in the core areas of expertise.
4. **Research Skill:** Extract information pertinent to unfamiliar problems through literature survey and experiments, apply appropriate research methodologies, techniques and tools, design, conduct experiments, analyze and interpret data, demonstrate higher order skill and view things in a broader perspective, contribute individually/in group(s) to the development of scientific/technological knowledge in one or more domains of engineering.
5. **Usage of modern tools:** Create, select, learn and apply appropriate techniques, resources, and modern engineering and IT tools, including prediction and modeling, to complex engineering activities with an understanding of the limitations.
6. **Collaborative and Multidisciplinary work:** Possess knowledge and understanding of group dynamics, recognize opportunities and contribute positively to collaborative-multidisciplinary scientific research, demonstrate a capacity for self-management and teamwork, decision-making based on open-mindedness, objectivity and rational analysis in order to achieve common goals and further the learning of themselves as well as others.
7. **Project Management and Finance:** Demonstrate knowledge and understanding of engineering and management principles and apply the same to one's own work, as a member and leader in a team, manage projects efficiently in respective disciplines and multidisciplinary environments after consideration of economical and financial factors.



8. **Communication:** Communicate with the engineering community, and with society at large, regarding complex engineering activities confidently and effectively, such as, being able to comprehend and write effective reports and design documentation by adhering to appropriate standards, make effective presentations, and give and receive clear instructions.
9. **Life-long Learning:** Recognize the need for, and have the preparation and ability to engage in life-long learning independently, with a high level of enthusiasm and commitment to improve knowledge and competence continuously.
10. **Ethical Practices and Social Responsibility:** Acquire professional and intellectual integrity, professional code of conduct, ethics of research and scholarship, consideration of the impact of research outcomes on professional practices and an understanding of responsibility to contribute to the community for sustainable development of society.
11. **Independent and Reflective Learning:** Observe and examine critically the outcomes of one's actions and make corrective measures subsequently, and learn from mistakes without depending on external feedback.

### PROGRAM EDUCATIONAL OBJECTIVES

PEO1	Pursue successful industrial, academic and research careers in specialized fields of Chemical Engineering.
PEO2	Apply the knowledge of advanced topics in Chemical Engineering to meet contemporary needs of industry and research.
PEO3	Use modern software tools for design of processes and equipment.
PEO4	Identify issues related to ethics, society, safety, energy and environment in the context of Chemical Engineering applications.
PEO5	Pursue self-learning to remain abreast with latest developments for continuous professional growth.

**PROGRAM OUTCOMES:** At the end of the program, the student will be able to:

PO1	Model chemical engineering processes including multi-component mass transfer, multi-phase momentum transfer and multi-mode heat transfer from advanced engineering perspective.
PO2	Apply modern experimental, computational and simulation tools to address the challenges faced in chemical and allied engineering industries.
PO3	Implement techniques for minimizing cost and energy requirements in chemical plants.
PO4	Design measures to take care of environment, health and safety issues pertaining to chemical industries.
PO5	Communicate effectively and demonstrate leadership skills
PO6	Carry out research work independently and innovate novel processes and products
PO7	Practice professional ethics
PO8	Pursue life-long learning as a means of updating knowledge and skills

## Minutes of the meeting of Board of Studies

A meeting of the board of studies for department of Chemical and Petrochemical Engineering was arranged on 14-1-2019. The following members were present.

- 1) Prof. Sudhir Yadav, JNEC, Aurangabad
- 2) Dr. Y. S. Mahajan
- 3) Dr. A. R. Chavan
- 4) Dr. (Mrs) Sonali Mhatre

The following points were discussed in the meeting.

- 1) The first year and second year syllabus structure for Chemical Engineering and Petrochemical Engineering which was already approved was discussed and the corrections were incorporated.
- 2) The third year and fourth year syllabus for both the departments was discussed in detail and the course structure was prepared keeping in mind by the comments received from all the sources. The course was prepared according to the prescribed rules and regulations.
- 3) The discussion was done on various electives to be offered, about the final year project and the newly introduced six month industry project for eighth semester students which is kept as optional for them.

The meeting ended with thanks to Chair.



## **Minutes of the meeting of Board of Studies (BoS) in Chemical Engineering, Petrochemical Engineering, Biochemical Engineering and Biotechnology**

An online meeting (on platform Zoom) of the BoS in the Chemical Engineering, Petrochemical Engineering, Biochemical Engineering and Biotechnology was held as detailed below:

- Day and Date: Tuesday, 26<sup>th</sup> July, 2020
- Agenda:
  - 1) Finalization about proposed syllabus and course structure for new students admitted to Chemical/Petrochemical starting from year 2020-21
  - 2) Finalization of Major and Minor courses
  - 3) Any other relevant point

The following teachers attended the meeting

Faculty from Dr. BATU, Lonere

- 1) Prof. P. V. VijayBabu
- 2) Prof. V. P. Jawanjaj
- 3) Prof. A. R. Chavan
- 4) Prof. (Mrs) S. S. Metkar
- 5) Prof.(Mrs) Sonali Mhatre

Prof. Y. S. Mahajan had network problems to attend meeting but he provided valuable suggestions in offline mode.

Faculty from Affiliated Colleges:

- 1) Prof. Unmesh Patil
- 2) Prof. Sadanand Guhe
- 3) Prof. S. Khot

Leave of absence was granted to all those who could not attend the meeting. Dr. A. R. Chavan, Head, Chemical Engineering welcomed all other faculty members and briefed about the agenda of the meeting.

The following points were discussed:


1. The first agenda point was about finalization of new syllabus and course structure proposed for students taking admission to first year BTech(Chemical) in year 20-21 for all four years. All the members showed satisfaction about most of the things. The discussion was mainly about Major and Minor courses in the Syllabus.
2. Prof Chavan showed the proposed major and minor courses for Chemical Engineering. About minor courses, Prof. VijayBabu suggested Heat Transfer should be in fifth semester instead of seventh semester. The members agreed over this. The correction is done as shown in attached file. Prof. Chavan Showed corrections over the major and minor courses not included in previous BoS meeting. This was done for



odd-even balances for the students. The members agreed over the inclusion of new subjects as shown in attached file. Now the documents can go to AC approval (if needed) in its present form.

3. Prof (Mrs) S. S. Metkar presented the syllabus and course structure for Petrochemical Engineering and as there was no significant changes over the previous BoS meeting (19/6/2020), the members suggested that now the syllabus and course structure should be sent to AC approval (if needed) in its present form.
4. Prof. Sadanand Guhe and Prof. Unmesh Patil suggested some corrections in the syllabus. Prof. Guhe expressed that syllabus of Process flowsheeting laboratory in upcoming final year syllabus needs minor changes in terms of software requirement. Prof. Chavan opined that already final year syllabus has been uploaded after approval from previous BoS meeting. So if possible only, the changes can be done by requesting to Dean academic. The required change is shown in attached file. Prof. Patil suggested that for the new syllabus, seminar and miniproject should be of 2 hours instead of 4 hours. Prof. Chavan opined that the guidelines had already come for this and if possible in future, the corrections can be done.

The meeting ended with thanks to Chair.

  
Dr. A.R. Ghose  
Head  
Dept of Chemical Engg



# Dr. Babasaheb Ambedkar Technological University

(Established by Government of Maharashtra and Governed by  
Dr. Babasaheb Ambedkar Technological University Act No. XXIX of 2014  
[www.dbatu.ac.in](http://www.dbatu.ac.in)

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## **Minutes of the meeting of Board of Studies (BoS) in Chemical Engineering, Petrochemical Engineering, Biochemical Engineering and Biotechnology**

An online meeting (on platform Zoom) of the BoS in the Chemical Engineering, Petrochemical Engineering, Biochemical Engineering and Biotechnology was held as detailed below:

- Day and Date: Thursday, 18<sup>th</sup> January, 2022 Time : 6.30 pm
- Agenda:
  - 1) Online courses for fourth, sixth and eighth semester of BTech(Chemical/Petrochemical ) Engineering
  - 2) Planning for syllabus modification/revision(if any) for AY 2022-23
  - 3) Any other point with the permission of Chair

The following teachers attended the meeting

Faculty from Dr. BATU, Lonere

- 1) Prof. P. V. VijayBabu
- 2) Prof. V. P. Jawanjal
- 3) Prof. A. R. Chavan
- 4) Prof. (Mrs) S. S. Metkar

Faculty from Affiliated Colleges:

- 1) Prof. Unmesh Patil(PVPIT, Sangli)
- 2) Prof. S. L. Bhagat(PVPIT, Sangli)

Prof. V. S. Sathe and Prof. Y. S. Mahajan of Dept of Chemical Engg, Dr. BATU, Lonere could not attend the meeting.

Prof. A. R. Chavan, HoD, Chemical Engineering of Dr. Babasaheb Ambedkar Technological University, Lonere welcomed all other faculty members and briefed about the agenda of the meeting.

The following points were discussed:

1. The first agenda point was about finalization of online courses for even semester of BTech(Chemical/Petrochemical) Engg for fourth, sixth and eighth semester of AY 2021-22 . The courses suggested for this are NPTEL courses mentioned in the course structure and syllabus of both departments. Dr. A. R. Chavan presented online courses for Chemical Engineering department. One course for fourth semester , one course for sixth semester and few courses were suggested for eight semester as per the curriculum. The

students and the respective departments have been given flexibility of choice of courses for eighth semester. All the members showed satisfaction about most of the things.

Prof(Mrs) Sangeeta Metkar similarly presented online courses for BTech(Petrochemical Engg). The members showed satisfaction over this. The details of the online courses are shown in the attached files separately.

2. Prof Chavan opined that the for AY 2022-23, the syllabus modification/revision can be done, if needed, especially for third year BTech(Chemical/Petrochemical) Engineering. For this, the faculty members should find if any modifications are needed and present before next BoS meeting(if possible) before commencement of next academic year. He also opined that the present overall syllabus needs changes e.g. better CO/PO mapping and etc. and it should be done in next few months as a teamwork of all faculty members. All other members agree over this.

The meeting ended with thanks to Chair.

Dr. A. R. Chavan  
Head, Dept of Chemical Engg



BoS Meeting

21/07/17

Session for affiliated colleges was organized to address queries in B.Tech. syllabus. Most queries were related to exam patterns. Few queries related to Engg. Mech & Basic Civil Engg. syllabus were resolved. It is decided to review contents of Engg. Mech. especially to clarify nature of numericals to be handled in examination.

Dr. S. R. Bhagat

Dr. A. R. Kumbekar

21/07/2017

Dr. S. M. Pare

# Board of Studies Meeting

17/01/2019  
10.15 am

Chairman welcomed members & presented agenda following issues were discussed

- 1) PDE contents were discussed and major hurdle was observed to be fresh UG or PG completed faculty recruited without industry exposure.
- 2) As a solution it is necessary for faculty to get involved into industry for 15 days per year as minimum. Faculty shall identify the source for training one or year and maintain consistency.
- 3) Dr. J.R. Bhaugat nominated on FOET committee.
- 4) Contents of Mas, Sem, Sem II are revised.
- 5) Evaluation of 2nd. Train in 1st yr is recommended in 4th sem. to cover DA student who can undergo training after 3rd sem.
- 6) Responsibility of detailed contents Co, PO
- 7) Product Design PPT slides made available by TMH shared with Dr. Dixit & Upadhye for further circulation.
- 8) 1st, & 2nd yr contents reviewed & confirmed in final after necessary changes.
- 9) Overall structure upto 8th semester also discussed in light of framework of theory, practical, seminar, ind. train, proj. etc as also advised by FOET.
- 10) Evaluation scheme revised & included in syllabus.

Dr. Dixit

Prof. Upadhye

Dr. Dixit M.S.  
MIT, A'Bad

Prof. Upadhye V.R.  
MIT, A'Bad

Dr. Kambekar  
SPCE, Mun.

Dr. Bhaugat  
DRATU

Dr. Pore



# B.O.S. Meeting

19<sup>th</sup> July 2019  
11:30 to 5:00 pm

Meeting was specially conveyed to review contents of Design of Steel Structures. Feedback by B.O.S. members & invited members were shared. Elaborate discussion took place. Issue was resolved with minor modifications. Feedback from I.I.T. Prof. & Industry was placed on file. Contents of "Essence of Traditional Indian Knowledge" were drafted in this meeting.

Special invitee members were made aware that affiliated institutes can take up task of detailing of electives & even add new electives.

Dr. Patki & Dr. Sangra agreed to provide revised sequence of contents in Sem. II & Sem I for implementation from next year.

Dr. Patki suggested minor revision in Env. Engg. which was accepted by members.

Feedback by Dr. Prakash, I.I.T.R.J, Sh. Rangude, SE, Design and few affiliated institutions was shared & discussed.

Meeting concluded with vote of thanks.

- ① Dr. J.M. Perre, DBATU, Pune
- ② Dr. S.A. Bhagat
- ③ Dr. A.R. Kambekar

19/07/2019

- |                  |                 |             |
|------------------|-----------------|-------------|
| ① Dr. V.K. Patki | NKOCET          | AKP         |
| ② P.A. Sangra    | NKOCET          | S/PAS       |
| ③ Dr. M.S. Ghim  | MITA            | Handwritten |
| ④ S.T. Patil     | MIT ABW         | S/PAS       |
| ⑤ Atika i Ingole | IDC/SEM. Nymur  | R           |
| ⑥ V.R. Upadhye   | MIT, Aurangabad | Handwritten |



# B.O.S. Meeting

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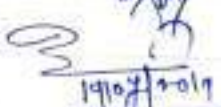
Special invitee members were made aware that affiliated institutes can take up task of detailing of electives & even add new electives.




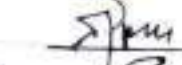
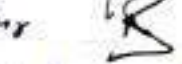

Dr. Patki & Dr. Sangra agreed to provide revised sequence of contents in SM-II & SM-I for implementation from next year.

Dr. Patki suggested minor revision in Env. Engg. which was accepted by members.

Feedback by Dr. Prabash, B.I.T.R.J, Sh. Rangude, SE, Design and few affiliated institutions was shared & discussed.

Meeting concluded with vote of thanks.

- ① Dr. S.M. Pare, DBATU, 
- ② Dr. S.A. Bhagat 
- ③ Dr. A.R. Kambekar 

- ④ Dr. V.K. Patki NKCET 
- ⑤ P.A. Sangra NKCET 
- ⑥ Dr. M.C. Dinkar MITA 
- ⑦ S.T. Patil MIT ABW 
- ⑧ Atika A Ingole JDCEM, Nymbur 
- ⑨ V.R. Upadhye MIT, Aurangabad 

**Dr. Babasaheb Ambedkar Technological University**

**Department of Civil Engineering**

**Minutes of the Meeting (Board of Studies)**

**Date: 07.08.2021**

A meeting of Board of Studies was called on Saturday August 07, 2021 at 11:00 am in online mode with the following agenda:

1. Additional subjects for Major Courses for Structural Engineering
2. Additional subjects for Major Courses for Environmental Engineering

Following members of the BoS have attended the meeting:

1. Dr. S. R. Bhagat, Chairman BoS
2. Dr. A. R. Kambekar, Member
3. Dr. J. B. Dafedar, Member
4. Dr. S. M. Puro, Member


Chairman presented the list of additional courses to be included and is being offered by NPTEL/SWAYAM for the Honors' degree Major Courses for Structural Engineering, and for Environmental Engineering. The members approved the list of additional courses presented before them. It was suggested to include the following courses: Ground Improvement, and Finite Element Method and Computational Structural Dynamics. All members agreed with the suggestion for inclusion of two more courses.

A letter from the affiliated institute and forwarded by the affiliation section of the University has been received to draft the syllabus of M. Tech. in Water Resources Engineering. The approved syllabus of M. Tech. in Water Resources Engineering will be circulated to the concerned institute.

The meeting ended with thanks to all the members by the chair.

  
(Dr. S. R. Bhagat)  
Chairman, BoS

  
Head  
Department of Civil Engineering  
Dr. Babasaheb Ambedkar Technological University  
LONERE 402103 (M.S)

  
REGISTRAR  
Dr. Babasaheb Ambedkar Technological University  
LONERE 402103  
Tal. Mangaon, Dist. Raigad, (Maharashtra)



# BoS meeting

Page No. \_\_\_\_\_  
DATE 07/11/17

The Board of Studies meeting is held on 7/11/17 in the dept. of Computer Engg.



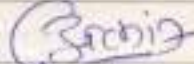
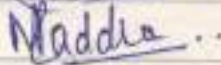
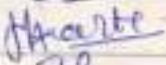

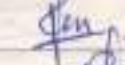



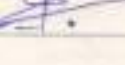
Venue - HoD Cabin

Date - 7/11/17

Time - 10.30 am

The following BoS members and dept faculty attended the meeting.

1. Dr. A. W. Kivalekar
2. Samir Ganu
3. Sachin Kadare
4. M. D. Laddha
5. H. A. Akarte
6. L. D. Nefak
7. H. S. Wankhede
8. L. R. Ketkondaulal
9. Y. M. Kapse
10. H. R. Garkwood
11. Sanil S. Gandhi



BOS/04/8 April 2017.

The meeting of BOS in Computer Engineering was called on 8th April 2017, Saturday at 11.00 AM in Dept. of Computer Engineering.

The following members attended the meeting.

① Dr. A. W. Kivalekar.

② Mr. Samir Ganu.

③ Mr. Sachin Kadam

④ Dr. D. S. Bhosle

⑤ Dr. S. P. Abhang.

⑥ Mrs. M. D. Laddha.

⑦ Dr. L. D. Netam.

⑧ Mr. I. R. Jhetam

⑨ H. R. Gaikwad

⑩ Y. M. Kapse

⑪ Mr. Pankaj V. Phadtare

⑫ Hanaraj S. Wankhede

⑬ Harishchandra Akarte

⑭ Sanil S. Sandke

The Board of studies meeting is held on 10/5/2018 in the Department of computer Engg.

Venue - RS Room.

Date - 10<sup>th</sup> May 2018

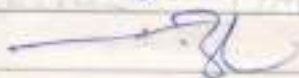
Time - 11:00 a.m

The following BOS members and faculty members attended the meeting

1) Dr. A. W. kiwelekar



2) Dr. L. D. Netak.



3) Dr. S. P. Abhang

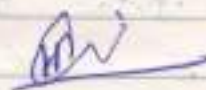


4) Mrs. M. D. Laddha Maddha.

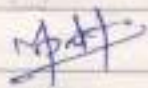
5) Mr. Sanil. S. Gandhi



6) Ms. H. R. Gaikwad



7) Mr. M. P. Patil



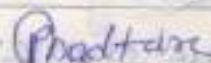
8) Mr. R. kotkondawar



9) Ms. K. C. Ahire



10) Mr. B. V. Phadtare





A meeting of Board of Studies in Computer Engg is held on 26/09/2018 in the Department of Computer Engg.

Venue: R3 Room

Date: Sept 26, 2018


Time: 12:45 am

The following BOS members and faculty members attended the meeting.

(i) Dr. A. W. Kiwelekan



(ii) Dr. L. D. Natak



(iii) Prof. M. D. Laddha

Maddha

(iv) Prof. Vaibhav Narawade




(v) Prof. Jhetam

Jhetam

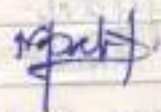
(vi) Prof. Y. N. Patil

YN Patil

(vii) Prof. Sawil Gandhi



(viii) Mohan P. Patil



(ix) Pankaj V. Phadtare

Phadtare

Minutes:

- (1) The list of examiners received from the Examination section has been approved.
- (2) It has been observed that two members on adhoc BOS are from the same college. It has been suggested to withdraw one member.
- (3) The course of AI received from RUSA has been discussed and suggested to include in the course structure.



A meeting of Board of studies  
 in Computer Engineering is called  
 on 1 May 2019.  
 following members attended the  
 meeting.

- 1) A. W. Kasselekar
- 2) M. D. Laddha
- 3) I. R. Jhetani
- 4) S. P. Abhang
- 5) Mrs. Dipali Chhatge
- 6) Heena A. S. Gangrekar
- 7) Rasika. T. Kalyane
- 8) Mr. Prasad Y. Phalle (PVT-6269)
- 9) Mr. Mangesh M. Hajare
10. Mr. R. B. Wagh
11. Mr. S. R. Sanware
12. Mr. A. R. Chinchawade
13. Prof. Sudhir Anjunao Shinde
14. Mr. S. N. Jaiswal JNEC Aurangabad
15. Mr. P. V. Phadtare DBATU, Lonere
16. K. P. Chaudhari MIE Aurangabad
17. Dr. Shobind Sayyed K. B. P. college of Engg. Satara
18. Sayyad Tarannum J. KBPCOE, Satara
19. Mr. GANESH DHONDU DANGAT KBPCOES SATARA
20. Mr. Omkar Chandrashekar Nilakhe DIET, SATARA
- 21) S. R. Tandle MSBCOE, Latur
- 22) Mr. U. M. Mulani, SITCOE, Yadray-Ichalkaranji
- 23) Mr. Irran Y. Inamdar NIMCOE, Peth Sangli
- 24) Mr. Ganesh Bhagwan Patil, NIMCOE, Peth Sangli
- 25) Mr. Sagar Prabhakar Male, AITRC, Vita (Sangli)
- 26) Mr. Ramdas Pandurang Bagawade, PESCOE, Phaltan
27. Mr. Amit Tulshidas Bhosale, PESCOE, Phaltan
28. Mr. Khalid Alfatmi svkm's IOT, Dhule
- 29) L. D. Netake
- 30) Mr. S. B. Kalyankar
- 31) Mr. V. R. Mohi



The changes in the syllabus are enclosed in ppt file & syllabus for approval is enclosed in pdf file format in detail.

The following points were discussed:

- 1) Design thinking behind B-Tech syllabus
- 2) Syllabus comply with AICTE/RUSA
- 3) AICTE recommended courses in emerging areas.  
(i) AI (ii) IOT (iii) Blockchain (iv) Data science etc.

- 4) RUSA recommended courses (i) Geo Spatial Data Analysis (ii) Artificial Intelligence (iii) Machine learning (iv) Big Data

- 5) Credit distribution semester wise

- 6) E-content generation.



10 August 2020

Dear All

I welcome you all for the first Board of Studies meeting of Computer Engineering. This is a New Board Of Studies which is constituted as per the notification of DBATU, dated 27 July 2020.

Meeting Agenda

1) To finalize 7th and 8th semester syllabus of B. Tech. Computer Engineering for the academic year 2020-2021.

So all of you are welcome to attend the meeting as per schedule.

Thanks and Regards

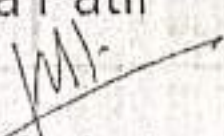
Date: 11th August 2020

Time: 4:00 p.m.

Online app: Zoom

Dr. Hitendra Patil

12:54 pm ✓✓

  
Principal  
S.S.V.P.S's H.S. Deore  
College of Engg. DBATU



**Head**  
Department of Computer Engineering  
Dr. Babasheb Ambekar Technological University  
Loner  
India



17 July 2021

Dear all


On Line ,Computer engineering BOS meeting is scheduled on 19 July 2021, at 3.30 pm

Agenda is

- 1) online courses to be offered in in 3rd, 5th and 7th semester and mandatory online course on AI for all the engineering branches other than CE and I T.
- 2) recommendation of additional minor courses for computer engineering

5:45 pm ✓✓



  
Principal  
S.S.V.P.S's B.S. Deore  
College of Engg. Dhule



10 August 2020

Dear All

I welcome you all for the first Board of Studies meeting of Computer Engineering. This is a New Board Of Studies which is constituted as per the notification of DBATU, dated 27 July 2020.

Meeting Agenda

1) To finalize 7th and 8th semester syllabus of B. Tech. Computer Engineering for the academic year 2020-2021.

So all of you are welcome to attend the meeting as per schedule.

Thanks and Regards

Date: 11th August 2020

Time: 4:00 p.m.

Online app: Zoom

Dr. Hitendra Patil

12:54 pm ✓

Principal  
S.S.V.P.S's B.S. Deore  
College of Engg. Dhule

Department of Computer Engineering  
Babasaheb Ambedkar Technological University  
Lone-402 103 Dhule Maharashtra India



HoS Meeting Minutes  
2019-20



Date 01/05/2019

A meeting of Board of studies in Computer Engineering is called on 1 May 2019. Following members attend the meeting.

- 1) A. W. Kharlekar
- 2) M. D. Laddha
- 3) J. P. Jhetani
- 4) S. P. Abhang
- 5) Mr. Dipak Gehatge
- 6) Heena A S Gangrekar
- 7) Rasika T. Kalyane
- 8) Mr. Prasad V. Phalle (PVPST-6269)
- 9) Mr. Mangesh M. Hajare
- 10) Mr. R. B. Wagh
- 11) Mr. S. R. Sonawane
- 12) Mr. A. R. Chinchawade
- 13) Prof. Sudhir Anjunrao Shinde
- 14) Mr. S. N. Jaiswal JNEC Aurangabad
- 15) Mr. P. V. Phadtare DBATU, Lonere
- 16) K. P. Chaudhari MIT Aurangabad
- 17) Dr. Shobind Sayyed K. B. P. College of Engg. Satara
- 18) Sayyad Tarannum J. KBPCOE, Satara
- 19) Mr. GANESH DHONDU DANGAT KBPCOES SATARA
- 20) Mr. Omkar Chandrashekar Nilakhe DIET, SATARA
- 21) S. R. Tandle MSBCOE, Latur
- 22) Mr. D. M. Mulani, SITCOE, Yadav-Ichalkaranji
- 23) Mr. Jerran Y. Inamdar NIACOE, Peth Sangli
- 24) Mr. Ganesh Bhagwan Patil, TIRCOE, Peth Sangli
- 25) Mr. Sagor Prabhakar Mate, AJTRC, Vite (Sangli)
- 26) Mr. Ramdas Pandurang Bopawade, PESCOE, Phaltan
- 27) Mr. Amit Tulshidas Bhosale, PESCOE, Phaltan
- 28) Mr. Khalid Alfatmi SVKM's IOT, Dhule
- 29) Kalyan Mole
- 30)
- 31)



Department of Computer Engineering  
Dr. Babasaheb Ambedkar Technological University  
Head



The changes in the syllabus are enclosed in ppt file & syllabus for approval is enclosed in pdf file format in detail.

The following points were discussed:

- 1) Design thinking behind B.Tech syllabus
- 2) Syllabus comply with AICTE / RUSA
- 3) AICTE recommended courses in emerging areas  
(i) AI (ii) IoT (iii) Blockchain (iv) Data science etc
- 4) RUSA recommended courses (i) Geo Spatial Data Analysis (ii) Artificial Intelligence (iii) Machine learning (iv) Big data
- 5) Credit distribution: semester wise
- 6) E-content generation.

Here  
Department of Computer Engineering  
Dr. Babasaheb Ambedkar Technological University  
Lonere-402 103 Dist. Raigad (M.S.) India





**Draft Minutes of the Meeting of BoS in E & TC**

BoS meeting of E & TC was held on 17<sup>th</sup> March, 2017 in the department of E & TC Engineering at 11 am. Agenda for the meeting was as follows:

1. Recommendation of Course Structure and Course contents of B.Tech in Biomedical Engineering
2. Recommendation of Course Structure and Contents of B.Tech in Electronics Engineering
3. Changes in Course Structure and Contents of M.Tech in Electronics & Telecommunication Engineering as per guidelines given by PG executive committee
4. Changes in Course structures as per guidelines of UG Executive Committee in earlier curriculum recommended by BoS

**Following Members were present for the meeting:**

1. Dr. S.L. Nalbalwar, Chairman, Board of Studies
2. Dr. S.B. Deosarkar, Professor of E & TC
3. Dr. R.N. Awale, Professor of E & TC & HoD of Electrical Engineering, VJTI Mumbai
4. Dr. A.B. Nandgaonkar, Associate Professor of E & TC
5. Dr. Munir Sayyad, General Manager Reliance Jio, Mumbai.
6. Shri Ravindra Kale, General Manager, Network Audit & Governance SLP, Reliance JIO
7. Dr. Rajesh Ghongade, MIT COE Pune
8. Dr. Y.H. Dandawate, VIIT Pune (Invited)

Dr. D.S. Bormane, Principal JSPM, RSCoE, Pune could not attend the meeting

**1. Finalization of course content of Communions Skills (First M.Tech Year Course)**

Course contents of the First year M.Tech (E & TC) course on **Communions Skills** is discussed and recommended by BoS. Please see the detailed course content in Annexure-I.

**2. Changes in Course Structure and Contents of M.Tech in Electronics & Telecommunication Engineering as per guidelines given by PG executive committee**

BoS has gone through the guidelines given by PG Executive committee and incorporated the changes suggested in the PG curriculum. (Please see Annexure-II)

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### 3. Recommendation of Course Structure and Course contents of B.E./ B.Tech in Biomedical Engineering:

Courses of 3<sup>rd</sup> semester to 8<sup>th</sup> semester are discussed thoroughly in the meeting. While deciding the courses of these semesters, syllabi of Pune, Mumbai University, IITs, UGC guidelines, AICTE model curriculum as well as recent development in technology & requirement of industry is taken into account and course structure up-to final year is finalized in the meeting and course content up to second year is recommended by the BoS. (Please see Annexure-III)

### 4. Recommendation of Course Structure and Contents of B.E/ B.Tech in Electronics Engineering

Courses for 3<sup>rd</sup> semester to 8<sup>th</sup> semester are discussed thoroughly in the meeting. While deciding the courses of these semesters, syllabi of Pune, Mumbai University, IITs, UGC guidelines, AICTE model curriculum as well as recent development in technology & requirement of industry is taken into account and course structure up-to final year is finalized in the meeting and course content up to Final Year is recommended by the BoS. (Please see Annexure-IV)

### 5. Changes in Course Structure and Contents of B.Tech in Electronics & Telecommunication Engineering as per guidelines given by UG executive committee

BoS has gone through the guidelines given by UG Executive committee and incorporated the changes as suggested in the UG curriculum. (Please see Annexure-V)

1. Dr. S.L. Nalbalwar
2. Dr. S.B. Deosarkar
3. Dr. R.N. Awale
4. Dr. A.B. Nandgaonkar
5. Dr. Munir Sayyad
6. Shri Ravindra Kale
7. Dr. Rajesh Ghongade
8. Dr. Y.H. Dandawate

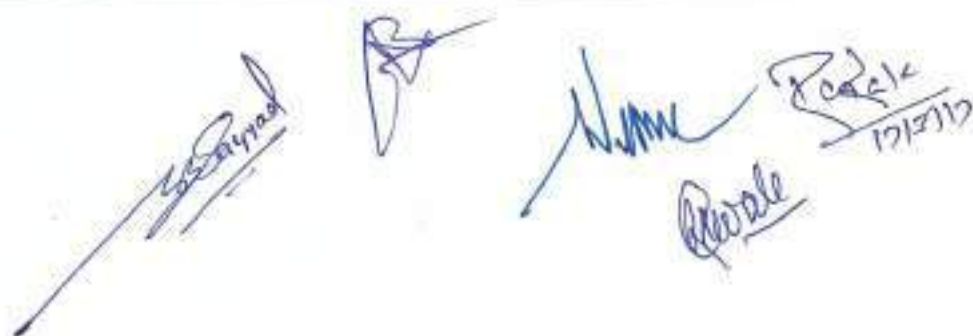
*Nalbalwar*  
*Deosarkar*  
*Awale*  
*17/3/17*  
*Munir Sayyad*  
*Ravindra Kale*  
*17/3*



**B.Tech Course Structure**  
**Biomedical Engineering**

Semester III						
Sr. No.	Subject Code	Subject	Teaching Scheme			
			L	T	P	C
1	BM301	Mathematics for Biomedical Engineering	4	0	0	4
2	BM302	Basics of Human Anatomy and Physiology-I	3	0	0	3
3	BM303	Biomedical Transducers	3	1	0	4
4	BM304	Analog and Digital Circuits	3	0	0	3
5	BM305 (ELE-I)	Communication Circuits and Systems	3	0	0	3
		Biomedical Laser Instrumentation				
		Nuclear Medicine				
6	BML306	Analog and Digital Circuits Lab	0	0	2	1
7	BML307	Biomedical Transducers Lab	0	0	2	1
8	BM308	Skill Set I	0	0	2	1
<b>TOTAL</b>			<b>16</b>	<b>1</b>	<b>6</b>	<b>20</b>

Semester IV						
Sr. No.	Subject Code	Subject	Teaching Scheme			
			L	T	P	C
1	BM401	Numerical Methods in Biomedical Engineering	4	0	0	4
2	BM402	Basics of Human Anatomy and Physiology-II	3	0	0	3
3	BM403	Fundamentals of Signals and Systems	3	1	0	4
4	BM404	Medical Instrumentation	3	0	0	3
5	BH	Basic Human Rights	2	0	0	2
6	BM405 (ELE-II)	Radiotherapy Equipment's	3	0	0	3
		Medical Radiation Safety Engineering				
		Quality Control and Regulatory Aspects in Medical Devices				
7	BML406	Medical Instrumentation Lab	0	0	2	1
8	BM407	Skill Set II	0	0	2	1
<b>TOTAL</b>			<b>18</b>	<b>1</b>	<b>4</b>	<b>21</b>


  
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Semester V						
Sr. No.	Subject Code	Subject	Teaching Scheme			
			L	T	P	C
1	BM501	Mathematics for Medical Imaging	4	0	0	4
2	BM502	Digital Signal Processing	3	1	0	4
3	BM503	Microprocessors and Microcontrollers	3	0	0	3
4	BM504	Biomedical Diagnostic Systems	3	0	0	3
5	BM505	Introduction to Biomedical System Standards and Protocols	3	0	0	3
6	BM506 (ELE-III)	Troubleshooting of Medical Instruments	3	0	0	3
		Hospital Engineering				
		Telemedicine and Picture Archival Communication System (PACS)				
7	BML507	Digital Signal Processing Lab	0	0	2	1
8	BML508	Microprocessors and Microcontrollers Lab	0	0	2	1
9	BM509	Skill Set III	0	0	2	1
<b>TOTAL</b>			<b>19</b>	<b>1</b>	<b>6</b>	<b>23</b>

Semester VI						
Sr. No.	Subject Code	Subject	Teaching Scheme			
			L	T	P	C
1	BM601	Fluid Mechanics	3	1	0	4
2	BM602	Control Systems	3	0	0	3
3	BM603	Healthcare Management	3	0	0	3
4	BM604	Advanced Biomedical System Standards and Protocols	3	0	0	3
5	BM605	Biomaterials and Artificial Organs	3	0	0	3
6	BML606	Fluid Mechanics Lab	0	0	2	1
7	BML607	Control Systems Lab	0	0	2	1
8	BM608	Mini Project	0	0	2	1
9	BM609	Industrial Training-I	0	0	2	1
<b>TOTAL</b>			<b>15</b>	<b>1</b>	<b>8</b>	<b>20</b>










Semester VII						
Sr. No.	Subject Code	Subject	Teaching Scheme			
			L	T	P	C
1	BM701	Biomedical Image Processing System and Analysis	3	1	0	4
2	BM702	Rehabilitation Engineering	3	1	0	4
3	BM703	Embedded Systems and RTOS	3	0	0	3
4	BM704 (ELE-IV)	Advanced Medical Imaging Systems	3	0	0	3
		Advanced Diagnostic and Surgical Equipments				
		Hospital Radiopharmacy				
5	BM705 (ELE-V)	Regulatory Aspects In Biosciences	3	0	0	3
		Home Medicare Technology				
		Design & Development of Medical Devices				
6	BM706	Industrial Training-II (Training to be undergone after VI Semester)	0	0	2	1
<b>TOTAL</b>			<b>15</b>	<b>2</b>	<b>2</b>	<b>18</b>

Semester VIII						
Sr. No.	Subject Code	Subject	Teaching Scheme			
			L	T	P	C
1	BM801 (ELE-VI)	Applied Optoelectronics in Medicine	3	0	0	3
		Biomedical MEMS and Nanotechnology				
		Applied Neural Networks and Fuzzy Logic in Medicine				
2	BM802 (ELE-VII)	Artificial Intelligence and Pattern Recognition in Medicine	3	0	0	3
		Brain-Computer Interface				
		Electro Physiology For Human System				
		Biophotonics				
3	BM803	Major Project	0	0	24	12
<b>TOTAL</b>			<b>6</b>	<b>0</b>	<b>24</b>	<b>18</b>


  
 The signatures are in blue ink. From left to right: a signature that appears to be 'R. Sanyal', another signature, a signature that appears to be 'Anurag', and a signature that appears to be 'Rajal' with the date '12/13/17' written below it.

DEPARTMENTAL ELECTIVES						
Elective-I						
Sr. No.	Subject Code	Subject	Teaching Scheme			
			L	T	P	C
1	ELE-I	Communication Circuits and Systems	3	0	0	3
2		Biomedical Laser Instrumentation	3	0	0	3
3		Nuclear Medicine	3	0	0	3
Elective-II						
4	ELE-II	Radiotherapy Equipment's	3	0	0	3
5		Medical Radiation Safety Engineering	3	0	0	3
6		Quality Control and Regulatory Aspects in Medical Devices	3	0	0	3
Elective-III						
7	ELE-III	Troubleshooting of Medical Instruments	3	0	0	3
8		Hospital Engineering	3	0	0	3
9		Telemedicine and Picture Archival Communication System (PACS)	3	0	0	3
Elective-IV						
10	ELE-IV	Advanced Medical Imaging Systems	3	0	0	3
11		Advanced Diagnostic and Surgical Equipments	3	0	0	3
12		Hospital Radiopharmacy	3	0	0	3
Elective-V						
13	ELE-V	Regulatory Aspects In Biosciences	3	0	0	3
14		Home Medicare Technology	3	0	0	3
15		Design & Development of Medical Devices	3	0	0	3
Open Elective-I						
16	ELE-VI	Applied Optoelectronics in Medicine	3	0	0	3
17		Biomedical MEMS and Nanotechnology	3	0	0	3
18		Applied Neural Networks and Fuzzy Logic in Medicine	3	0	0	3
Open Elective-II						
19	ELE-VII	Artificial Intelligence and Pattern Recognition in Medicine	3	0	0	3
20		Brain-Computer Interface	3	0	0	3
21		Electro Physiology For Human System	3	0	0	3
22		Biophotonics	3	0	0	3
Open Elective-III						
23	ELE-VIII	Biomechanics	3	0	0	3
24		Computational Fluid Dynamics analysis in Medicine	3	0	0	3
25		Physiological Modeling	3	0	0	3
26		Robotics and Automation in Medicine	3	0	0	3

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17/03/12



Date: 5/5/2018

To  
The Registrar,  
Dr. B.A.T.U. Lonere.


Subject: Minutes of BoS in E & TC Engineering held on 5<sup>th</sup> May, 2018

Dear Sir,

Please find attached herewith minutes of Board of Studies (BoS) in Electronics and Telecommunication Engineering held during 5<sup>th</sup> May 2018

You are requested to put-up recommendations of BoS before ensuing meeting of Academic Council for its approval.

Yours sincerely,



(Dr. S.L. Nalbalwar)  
Chairman, BoS in E & TC

## Minutes of the Meeting of BoS in E & TC

BoS meeting of E & TC Engineering was held during on 5<sup>th</sup> May, 2018 in the department of E & TC Engineering at 10.30 am.

### Agenda for the meeting was as follows:

1. Recommendation of Course Structure and Course Curriculum for following UG Programmes

Sr. No.	UG Programme (B.Tech)
1	Electronics & Telecommunication
2	Electronics Engineering
3	Biomedical Engineering

2. Recommendation of PEOs, POs, Course Objectives, Course Outcomes and their mapping
3. Mapping of recommended curriculum with NPTEL, SWAYAM and MOOC courses
4. Recommendation of minor corrections in course contents and addition of Elective courses in the M.Tech programmes
5. Any other point with permission chair

### Following Members were present for the meeting:

1. Dr. S.L. Nalbalwar, Head Dept. of E&TC and Chairman, Board of Studies
2. Dr. S.B. Deosarkar, Professor of E & TC
3. Dr. A.B. Nandgaonkar, Associate Professor of E & TC
4. Dr. Munir Sayyad, Asst.Vice-President, Reliance Jio, Mumbai.
5. Dr. Ulhas B. Shinde, Principal, CSMSS CHH Shahu College of Engineering Aurangabad
6. Dr. R.M. Autee, Deogiri Institute of Engineering & Management Studies, Aurangabad



Following members could not attend the meeting; however they have given concurrence for the said changes in the syllabus over telephonic conversation:

1. Dr. D.S. Bormane, Principal, CoE, AISSM, Pune
2. Dr. R.N. Awale, VJTI Mumbai
3. Dr Ulhas Shiurkar, Director, Deogiri Institute of Engineering & Management Studies, Aurangabad

**1. Recommendation of Course Structure and Course Curriculum for following UG Programmes**

Sr. No.	UG Programme (B.Tech)	Remark
1	Electronics & Telecommunication	BoS recommended Course Structure and Course Contents from 3 <sup>rd</sup> semester-8 <sup>th</sup> Semester. Also recommended the same course contents for Basic Electronics. Please find Annexure-I
2	Electronics Engineering	BoS recommended Course Structure and Course Contents from 3 <sup>rd</sup> semester-8 <sup>th</sup> Semester. Also recommended the same course contents for Basic Electronics. find Annexure-II
3	Biomedical Engineering	BoS recommended no change in the Course Structure and Course Contents for the Biomedical Engineering Programme.

Curriculum for the above mentioned UG programmes from 3<sup>rd</sup> semester to 8<sup>th</sup> semester have been thoroughly discussed and decided in the meeting. While deciding the courses of these semesters, syllabi of Pune University, Mumbai University, IITs, UGC guidelines, AICTE model curriculum & guidelines as well as recent development in technology & requirement of industries are taken into account. Finally course structure and course content up-to final year are prepared and recommended by the BoS in this meeting.

Please see Annexures - I and Annexures -II for details of B.Tech (E & TC) and B.Tech. (Electronics)

**2. Recommendation of PEOs, POs, Course Objectives, Course Outcomes and their mapping**

BoS recommended to continue with the same PEOs, POs, Course Objectives and Course Outcomes. Also recommended that, the Course Objectives and Course Outcomes for the additional courses.

**3. Mapping of recommended curriculum with NPTEL, SWAYAM and MOOC courses**

Recommended the mapping of proposed courses with online courses available with above platform

**4. Recommendation of minor corrections in course contents of following courses and addition of Elective courses in the M.Tech programmes**

Two additional Elective courses namely

**a. Recent Trends and Technologies**

**b. Radio Spectrum Management**

are recommended by BoS as **Elective-I and Elective -IV** and being added in the first and second semester of all PG programmes.

Also curriculums all PG streams of Electronics from 1st semester to 4<sup>th</sup> semester have been thoroughly revisited and minor corrections in the course contents have been recommended by BoS.

Sr. No.	Course Name	Course Code in EXTC	Remark
1	Signal Theory	MTETC101	Minor corrections in the course contents. All these changes in the respective courses will be applicable to all respective M.Tech programmes under BoS in E & TC.
2	Signal Processing Algorithms & Applications	MTETC103	
3	Estimation and Detection Theory	MTETC201	
4	Information Theory & Coding	MTETC202	
5	Multirate Digital Signal Processing	MTETE233	
6	IOT	MTETE255	



It is also recommended that student has to choose Project Management and Intellectual Property Rights course either from NPTEL/MOOC/SWAYAM pool and submission of course completion certificate is mandatory. If single course is not available, students have to submit the certificate of **Project Management and Intellectual Property Rights** separately.

**Please see Annexure-III for the details.**

**5. Any other point**

**a) Recommendation for online courses**

Discussion on mapping of proposed courses with courses from NPTEL/MOOC/SWAYAM/edx pool is carried out. It is observed that, most of the courses are mapped with proposed courses. BoS recommended for online registration of available courses by students from any of the above platform in place of courses proposed in the curriculum. Grades of these online courses will be taken as it is, if certificate is submitted by the candidates.

**b) Powers have been delegated to the Chairman for making the normal changes if needed that is, addition of electives, shifting of courses, addition of courses, course contents etc.**

1. Dr. S.L. Nalbalwar, Head Deptt. of E&TC and Chairman, Board of Studies
2. Dr. S.B. Deosarkar, Professor of E & TC
3. Dr. A.B. Nandgaonkar, Associate Professor of E & TC
4. Dr. Munir Sayyad, Asst. Vice-President, Reliance Jio, Mumbai.
5. Dr. Ulhas B. Shinde, Principal, CSMSS CHH Shahu College of Engineering  
Aurangabad
6. Dr. R.M. Autee, Deogiri Institute of Engineering & Management Studies, Aurangabad

Circular

Meeting of BoS in Electronics & Telecommunication Engineering, Electronics Engineering and Biomedical Engineering is called on 26<sup>th</sup> September, 2018 at 11 am in EDUSAT room.

Agenda for the meeting was as follows:

- A. To finalize the subject codes for core courses, open electives, programme electives, projects, practical, mini-projects, Industrial Training, and Electronics workshop etc
- B. To recommend the list of paper setters, evaluators and moderators for Winter 2018 examination.
- C. To nominate one BoS representative on board of Examination
- D. Review of ordinances of disciplines
- E. Co-opting of Invitees on BoS
- F. Teacher examiner manual for all courses
- G. Adoption of courses recommended by RUSA
- H. Any other point with permission of the Chair.

All are requested to attend the meeting

  
Chairman, BoS

Copy Submitted to: Hon. Vice-Chancellor

Copy to:

1. Dean, Faculty of Engineering & Technology
2. All members of BoS
3. Registrar
4. Controller of Examinations



### Minutes of BoS Meeting

Meeting of BoS in Electronics & Telecommunication Engineering, Electronics Engineering and Biomedical Engineering was held on 26<sup>th</sup> September, 2018 at 11.00 am in EDUSAT room at Dr. B. A. Technological University Campus, Lonere.

Agenda for the meeting was as follows:

- A. To finalize the subject codes for Core courses, Open electives, Programme electives, Projects, Practical, Mini-projects, Industrial Training/Field Training /Internships, and Electronics workshop, etc.
- B. To recommend the list of paper setters, evaluators and moderators for Winter-2018 examination
- C. To nominate one BoS representative on board of Examination
- D. Review of ordinances of disciplines
- E. Co-opting of Invitees on BoS
- F. Teacher reference manual for all courses
- G. Adoption of courses recommended by RUSA
- H. Any other point with permission of the Chair.


The following members were present for the meeting:


Sr. No.	Name of BoS Member	Institute	BoS
1	Dr. S. L. Nalbalwar	Dr. BATU, Lonere	Chairman
2	Dr. R.M. Autee	Deogiri College of Engineering, Aurangabad	Member
3	Dr. S.D. Nawale	N. B. Nawale Sinhgad College of Engineering, Solapur	Member
4	Dr. A.D. Sayyed	MIT, CoE Aurangabad	Member
5	Dr. P.J. Deore	R. C. Patel College of Engineering, Jalgaon	Member


- A. To finalize the subject codes for Core courses, Open electives, Programme electives, Projects, Practical, Mini-projects, Industrial Training/Field Training /Internships, and Electronics workshop, etc.

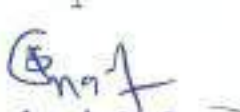
Members of BoS discussed the course/subject/discipline codes proposed by examination section (please refer **Annexure-I**) and recommended codes without any changes for consideration.

After using recommended codes for 3<sup>rd</sup> and 4<sup>th</sup> semester, the final course codes for each course are given in **Annexure-II**.

  
Dr. S.L. Nalbalwar  
BoS Chairman

  
Dr. R.M. Autee  
BoS Member

  
Dr. S.D. Nawale  
BoS Member

  
Dr. A.D. Sayyed  
BoS Member

1

**B. To recommend the list of paper setters, evaluators and moderators for Winter-2018 examination**

Members have gone through database provided by exam section for the said purpose. BoS has discussed and proposed the names of Paper setters, Moderators and Evaluators for the 3<sup>rd</sup> semester courses in Electronics & Telecommunication Engineering, Electronics Engineering and Biomedical Engineering (Please see the **Annexure-III**). Also guidelines for appointment of person as, moderators, paper setters and evaluators have been suggested as follows:

- i. Teachers having experience of above 10 years may be considered to work as a Moderator
- ii. Teachers having experience of more than or equal to 5 years may be considered to work as a Paper Setter
- iii. All teachers may be considered to work as a Evaluators.

**C. To nominate one BoS representative on board of Examination**

BoS Unanimously nominated its member Dr. Munir B. Sayyad, Assistant Vice-President, Reliance JIO, Mumbai on Board of Examination.


**D. Review of ordinances of disciplines NPIU and AICTE Directives:**

BoS member after thorough discussion proposes the adoption of courses offered through SWAYAM/NPTEL/MOOC platform as per willingness of the students. It is also recommended to consider the Grades/Marks given by conducting organization. Number of such courses should not exceed 20% of courses offered by the programme. The courses from said platform should be of at least 8 weeks and 12 weeks duration for earning credits of 2 and 3 respectively.

**E. Co-opting of Invitees on BoS:**

After looking into curriculum developed for 3 UG and 9 PG programmes, BoS decided to co-opt six invitees instead of three. The names of invited members on BoS are as follows:

1. Prof. S.B. Deosarkar, Professor of E & TC Engineering, Dr BATU Lonere
2. Dr. Munir Sayyad, Asst. Vice-President Reliance JIO, Mumbai
3. Dr. A.B. Nandgaonkar, Faculty of BATU Lonere
4. BoS Chairman in Electronics Engineering, AKTU, Lucknow or nominated by him/her.
5. BoS Chairman in Electronics Engineering, Uttaranchal Technical University, Dehradun or nominated by him/her.
6. BoS Chairman in Electronics Engineering, Himachal Pradesh Technical University, Hamipur or nominated by him/her.





**F. Teacher reference manual for all courses :**

BoS recommended Teacher- reference manual for all courses so as to bring Uniformity in conduction of theory and practical courses in all affiliated institutes and University department. Proposed manual is attached as Annexure-IV. BoS is of the opinion that it should be made mandatory for all courses of Electronics Engineering and it's all allied programmes.

**G. Adoption of courses recommended by RUSA:**

RUSA has recommended following courses for the discipline of E & TC/Electronics Engineering.

Looking into the need of the hour and after thorough discussion, it is decided to include these courses from IV<sup>th</sup> semester onwards in the B.Tech curriculum of said courses.

Sr. No.	Name of the Vertical	Name of the Course	Semester	Core /Elective Course
1	Product Design	Product Design Engineering	IV	Core
2	Artificial Intelligence	Artificial Intelligence deep learning	VI	Elective
3	Cyber Security	Cyber Security	VII	Elective
4	Data Analytics	Associate Analytics	VII	Elective
5	Geographical Information System	Geo-informatics and Spatial Computing	VIII	Elective
6	Robotics	E-Yantra	VIII	Elective

**H. Any other points, with permission of Chair:**

- i. As per Ph.D. rules and regulations Research Methodology is a mandatory course, which offered by all disciplines in even semesters. Looking into this requirement it is proposed to keep said course as an Elective course in odd-semester also. BoS proposes to include this course under Elective-I of first semester M.Tech. programme in Electronics and Telecommunication Engineering and all its allied programmes.
- ii. Since course objectives and course outcomes have been well defined in the curriculum of courses of E & TC and Electronics Engineering, therefore BoS recommends to display Course Outcome(CO) along-with each question in question paper of all courses. This will help to know attainment of learning level of each of the students in respective courses. This information will also be useful for NBA/NAAC accreditation purpose.
- iii. Since Industrial Training/Field Training/Internship was not included in the curriculum of 4<sup>th</sup> semester of Biomedical Engineering, hence so as follow the mandate of AICTE BoS recommended Field Training/ Internship/Industrial Training (4-6 weeks which can be completed partially in third semester or fourth semester or in at one time).

Powers has been delegated to BoS Chairman for making normal changes if necessary.

*Prateek*

*A.L.*  
26/9/18

*Chaitanya*

Date: 15/01/2019

### Minutes of BoS Meeting

*Meeting of BoS in Electronics & Telecommunication Engineering, Electronics Engineering and Biomedical Engineering was held on 14<sup>th</sup> -15<sup>th</sup> January, 2019 in EDUSAT room.*

*The following members were present for the meeting:*

- 1 Dr. S.L. Nalbalwar, Dr. BATU, Lonere
- 2 Dr. S.B. Deosarkar, Dr. BATU, Lonere
- 3 Dr. R.M. Autee, Deogiri Institute of Engineering and Management Studies, Aurangabad
- 4 Dr. S.D. Nawale, N B Nawale Sinhgad College of Engineering, Solapur
- 5 Dr. A.D. Sayyad, Marathwada Institute of Technology, Aurangabad

*Following members could not attend the meeting. Leave of absence was granted to them.*

1. Dr. P.J. Deore, RC Patel Institute of Technology, Shirpur
2. Dr. A.B. Nandgaonkar, Dr. BATU Lonere
3. Dr. Munir Sayyed, Reliance Jio, Mumbai
4. Dr. Sachin Singh, AKTU Lucknow
5. Dr. Vinay Kumar, HPTU, Hamirpur

The following points were discussed and finalized during the meeting of BoS held on 14-15 January, 2019.

1. Finalization of the curriculum of 1st and 2nd Year B.Tech programs (all four semesters).

The curriculum structure and detail syllabus for UG programs in Electronics and Telecommunication Engineering, Electronics Engineering and Biomedical Engineering have been finalized and recommended for considerations of Academic Council. The minor changes in credits and course contents in the course "Product Design Engineering" are incorporated as per directives Hon. Vice Chancellor (NO.FoET/2018/01).

2. Recommendation of final structure for the third year and final year UG programs as discussed in the Faculty of Engineering Meeting.

The course structure along-with detail syllabus for the third year and only *course structure* for final year of B.Tech programs in Electronics and Telecommunication Engineering, Electronics Engineering and Biomedical Engineering is recommended by BoS.

3. The BoS Recommended and resolved for nomination of expert on Faculty as per modified statutes (S3.10(d) PP 71).



As per the S3.10 (d), BoS in Electronics & Telecommunication Engineering, Electronics Engineering and Biomedical Engineering there is a provision to nominate one faculty amongst the institutions those are satisfying norms. The BoS has resolved and recommendation following faculty member on the *faculty board* as a nominee

1. Dr. Jagdish Jadhav, RC Patel Institute of Technology, Shirpur

4. The BoS suggested minor corrections in Rules and Regulations and modified Statutes

BoS members discussed over this agenda point and conveyed few suggestions to Dean, Faculty of Engineering.

5. Any other point with permission of chair.

- A. For M.Tech Course on IPR/ Project Management, weightage under TW and PR heads are removed and replaced by only *theory* (TH) head without changing the total marks.
- B. BoS members delegated powers to the BoS Chairman for small corrections like Course Codes, addition Electives, corrections in examination scheme and credits, credit distributions, if necessary.

Meeting ended with thanks to chair.



Date: 30/05/2019

Circular

**Subject: Meeting of BoS on 30<sup>th</sup> May, 2019**

Meeting of BoS in Electronics & Telecommunication Engineering, Electronics Engineering and Biomedical Engineering is called on 30<sup>th</sup> May, 2019 at 11 am in EDUSAT room.

**The Agenda for the meeting is as follows**

1. The curriculum of the Second Year Electronics and Communication Engineering Sandwich Programme
2. Course content of final year Electronics & Telecommunication Engineering and Electronics Engineering
3. Finalization course structure for Electronics & Communication Engineering
4. Credit transfer facility for AKTU/HPTU/UTU Universities
4. Any other point with the permission of the chair.

  
Chairman, BoS in E & TC

To

All BoS Members



### Minutes of BoS Meeting

Meeting of BoS in Electronics & Telecommunication Engineering, Electronics Engineering and Biomedical Engineering was held on 30<sup>th</sup> May, 2019 at 11 am in EDUSAT room.

### The Agenda for the meeting was as follows:

1. To recommend the curriculum for Second Year Electronics and Communication Engineering Sandwich Programme
2. Finalization of course content of final year B.Tech programme in Electronics & Telecommunication Engineering and Electronics Engineering
3. Finalization of course structure and Curriculum for B.Tech programme Electronics & Communication Engineering
4. Discussion credit transfer facility for AKTU/HPTU/UTU Universities
5. Any other point with the permission of the chair.

The following members were present for the meeting:

1. Dr. S.L. Nalbalwar, Dr. BATU, Lonere, Chairman BoS
2. Dr. S.B. Deosarkar, Dr. BATU, Lonere, Member
3. Dr. Sachin Singh, AKTU Lucknow, Invited Member
4. Dr. Vinod Kapoor, HPTU, Hamirpur (Participated on Skype), Invited Member
5. Dr. Ashish Bagwari, UTU, Dehradun (Participated on Skype), Invited Member
6. Dr. R.M. Autee, DIEMS, Aurangabad, Member
7. Prof. Ravindra Gahane, NCER, Talegaon, Invited Member
8. Prof. Neeta P. Karhadkar NCER, Talegaon, Invited Member

Following members could not attend the meeting. Leave of absence was granted to them.

1. Dr. A.B. Nandgaonkar, Dr. BATU Lonere
2. Dr. Munir Sayyed, Reliance Jio, Mumbai
3. Dr. S.D. Nawale, N B Nawale Sinhgad College of Engineering, Solapur
4. Dr. P.J. Deore, RC Patel Institute of Technology, Shirpur
5. Dr. A.D. Sayyad, Marathwada Institute of Technology, Aurangabad

**The following points were discussed and finalized in the meeting of BoS:**

1. The course structure along-with detail syllabus for the second year Sandwich course in Electronics and Communication Engineering is approved & recommended by BoS. (Annexure-I)
2. Course content of final year B.Tech in Electronics & Telecommunication Engineering (E & TC) and Electronics Engineering is finalized by the BoS and recommended for approval of Academic Council. (Annexure-II)
3. As far as course structure and detail syllabus for UG programs in Electronics and Communication Engineering is concerned, it is discussed and decided to keep the same curriculum of second and third year of E & TC Engineering programme to Electronics and Communication Engineering programme.
4. BoS has discussed at a length on credit transfer facility among the Mentees and Mentor Universities. BoS recommended this facility, for the courses which are having same course contents and similarities in the course name which is available in each of these Universities.

BoS members delegated powers to the BoS Chairman for corrections like Course Codes, addition of Electives, corrections in examination scheme and credits, credit distributions, credit transfers if necessary.

Meeting is ended with thanks to the chair.



## Minutes of Meeting

### BOS Electronics and Telecommunication and allied Branches

Date: 16<sup>th</sup> June, 2020, Time: 3.30pm

Mode: Through Video Conferencing

1. First year to final year syllabus for effective from Academic Year 2020-2021 batch in the following disciplines (Starting from FY)

- a. Electronics Engineering
- b. Electronics & Telecommunication Engineering
- c. Electronics & Communication Engineering
- d. Electronics & Communication Engineering (sandwich)
- e. Biomedical Engineering

is recommended to by BOS to academic council for its approval.

2. Modification of 8<sup>th</sup> semester of existing curriculum is done to introduce self-study courses and internship programme for full semester in the following disciplines:

- a. Electronics Engineering
- b. Electronics & Telecommunication Engineering
- c. Electronics & Communication Engineering
- d. Electronics & Communication Engineering (sandwich)
- e. Biomedical Engineering

The revised structure is recommended to academic council for its approval.

3. BOS chairman will decide one online course for each semester for existing syllabus except 1<sup>st</sup>, 3<sup>rd</sup> and 7<sup>th</sup> semester. BOS chairman will decide whether to introduce that course in online mode or off line mode depending upon the situation at that time.

4. If 60 to 80 percentage mapping is available with MOOC platform for the curriculum courses, then such courses shall be introduced for self-study in online mode.

5. Two major NPTEL / SWYAM specialization AI and ML / IOT and Minor in Electronics and Telecommunication with structure and detail syllabus are recommended by BOS. Student shall opt this course in online mode from NPTEL / SWYAM and credit transfer will be done directly by the university.

6. Two major Coursera specialization AI and ML / IOT with structure and detail syllabus are recommended by BOS. For these specialization evaluation scheme will be 60/40. 40 marks will be for continuous assessment and 60 marks for end semester examination conducted by university.



**Draft Minutes of the Meeting of BoS in E & TC**

BoS meeting of E & TC was held on 17<sup>th</sup> March, 2017 in the department of E & TC Engineering at 11 am. Agenda for the meeting was as follows:

1. Recommendation of Course Structure and Course contents of B.Tech in Biomedical Engineering
2. Recommendation of Course Structure and Contents of B.Tech in Electronics Engineering
3. Changes in Course Structure and Contents of M.Tech in Electronics & Telecommunication Engineering as per guidelines given by PG executive committee
4. Changes in Course structures as per guidelines of UG Executive Committee in earlier curriculum recommended by BoS

**Following Members were present for the meeting:**

1. Dr. S.L. Nalbalwar, Chairman, Board of Studies
2. Dr. S.B. Deosarkar, Professor of E & TC
3. Dr. R.N. Awale, Professor of E & TC & HoD of Electrical Engineering, VJTI Mumbai
4. Dr. A.B. Nandgaonkar, Associate Professor of E & TC
5. Dr. Munir Sayyad, General Manager Reliance Jio, Mumbai.
6. Shri Ravindra Kale, General Manager, Network Audit & Governance SLP, Reliance JIO
7. Dr. Rajesh Ghongade, MIT COE Pune
8. Dr. Y.H. Dandawate, VIIT Pune (Invited)

Dr. D.S. Bormane, Principal JSPM, RSCoE, Pune could not attend the meeting

**1. Finalization of course content of Communions Skills (First M.Tech Year Course)**

Course contents of the First year M.Tech (E & TC) course on **Communions Skills** is discussed and recommended by BoS. Please see the detailed course content in Annexure-I.

**2. Changes in Course Structure and Contents of M.Tech in Electronics & Telecommunication Engineering as per guidelines given by PG executive committee**

BoS has gone through the guidelines given by PG Executive committee and incorporated the changes suggested in the PG curriculum. (Please see Annexure-II)

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### 3. Recommendation of Course Structure and Course contents of B.E./ B.Tech in Biomedical Engineering:

Courses of 3<sup>rd</sup> semester to 8<sup>th</sup> semester are discussed thoroughly in the meeting. While deciding the courses of these semesters, syllabi of Pune, Mumbai University, IITs, UGC guidelines, AICTE model curriculum as well as recent development in technology & requirement of industry is taken into account and course structure up-to final year is finalized in the meeting and course content up to second year is recommended by the BoS. (Please see Annexure-III)

### 4. Recommendation of Course Structure and Contents of B.E/ B.Tech in Electronics Engineering

Courses for 3<sup>rd</sup> semester to 8<sup>th</sup> semester are discussed thoroughly in the meeting. While deciding the courses of these semesters, syllabi of Pune, Mumbai University, IITs, UGC guidelines, AICTE model curriculum as well as recent development in technology & requirement of industry is taken into account and course structure up-to final year is finalized in the meeting and course content up to Final Year is recommended by the BoS. (Please see Annexure-IV)

### 5. Changes in Course Structure and Contents of B.Tech in Electronics & Telecommunication Engineering as per guidelines given by UG executive committee

BoS has gone through the guidelines given by UG Executive committee and incorporated the changes as suggested in the UG curriculum. (Please see Annexure-V)

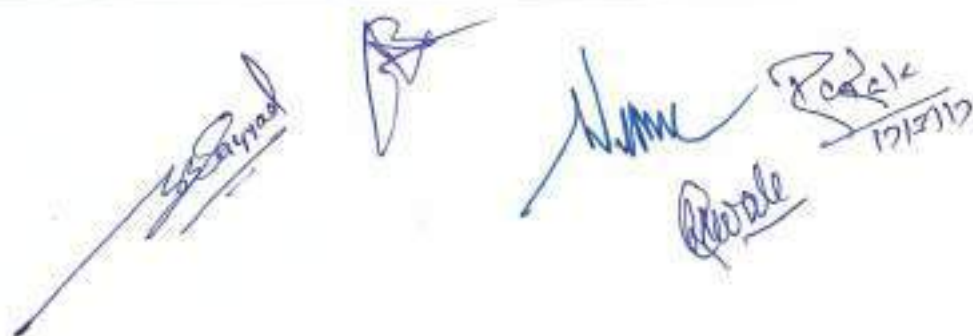
1. Dr. S.L. Nalbalwar
2. Dr. S.B. Deosarkar
3. Dr. R.N. Awale
4. Dr. A.B. Nandgaonkar
5. Dr. Munir Sayyad
6. Shri Ravindra Kale
7. Dr. Rajesh Ghongade
8. Dr. Y.H. Dandawate

*Nalbalwar*  
*Deosarkar*  
*Awale*  
*17/3/17*  
*Munir Sayyad*  
*Ravindra Kale*  
*17/3*

**B.Tech Course Structure**  
**Biomedical Engineering**

Semester III						
Sr. No.	Subject Code	Subject	Teaching Scheme			
			L	T	P	C
1	BM301	Mathematics for Biomedical Engineering	4	0	0	4
2	BM302	Basics of Human Anatomy and Physiology-I	3	0	0	3
3	BM303	Biomedical Transducers	3	1	0	4
4	BM304	Analog and Digital Circuits	3	0	0	3
5	BM305 (ELE-I)	Communication Circuits and Systems	3	0	0	3
		Biomedical Laser Instrumentation				
		Nuclear Medicine				
6	BML306	Analog and Digital Circuits Lab	0	0	2	1
7	BML307	Biomedical Transducers Lab	0	0	2	1
8	BM308	Skill Set I	0	0	2	1
<b>TOTAL</b>			<b>16</b>	<b>1</b>	<b>6</b>	<b>20</b>

Semester IV						
Sr. No.	Subject Code	Subject	Teaching Scheme			
			L	T	P	C
1	BM401	Numerical Methods in Biomedical Engineering	4	0	0	4
2	BM402	Basics of Human Anatomy and Physiology-II	3	0	0	3
3	BM403	Fundamentals of Signals and Systems	3	1	0	4
4	BM404	Medical Instrumentation	3	0	0	3
5	BH	Basic Human Rights	2	0	0	2
6	BM405 (ELE-II)	Radiotherapy Equipment's	3	0	0	3
		Medical Radiation Safety Engineering				
		Quality Control and Regulatory Aspects in Medical Devices				
7	BML406	Medical Instrumentation Lab	0	0	2	1
8	BM407	Skill Set II	0	0	2	1
<b>TOTAL</b>			<b>18</b>	<b>1</b>	<b>4</b>	<b>21</b>


  
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Semester V						
Sr. No.	Subject Code	Subject	Teaching Scheme			
			L	T	P	C
1	BM501	Mathematics for Medical Imaging	4	0	0	4
2	BM502	Digital Signal Processing	3	1	0	4
3	BM503	Microprocessors and Microcontrollers	3	0	0	3
4	BM504	Biomedical Diagnostic Systems	3	0	0	3
5	BM505	Introduction to Biomedical System Standards and Protocols	3	0	0	3
6	BM506 (ELE-III)	Troubleshooting of Medical Instruments	3	0	0	3
		Hospital Engineering				
		Telemedicine and Picture Archival Communication System (PACS)				
7	BML507	Digital Signal Processing Lab	0	0	2	1
8	BML508	Microprocessors and Microcontrollers Lab	0	0	2	1
9	BM509	Skill Set III	0	0	2	1
<b>TOTAL</b>			<b>19</b>	<b>1</b>	<b>6</b>	<b>23</b>

Semester VI						
Sr. No.	Subject Code	Subject	Teaching Scheme			
			L	T	P	C
1	BM601	Fluid Mechanics	3	1	0	4
2	BM602	Control Systems	3	0	0	3
3	BM603	Healthcare Management	3	0	0	3
4	BM604	Advanced Biomedical System Standards and Protocols	3	0	0	3
5	BM605	Biomaterials and Artificial Organs	3	0	0	3
6	BML606	Fluid Mechanics Lab	0	0	2	1
7	BML607	Control Systems Lab	0	0	2	1
8	BM608	Mini Project	0	0	2	1
9	BM609	Industrial Training-I	0	0	2	1
<b>TOTAL</b>			<b>15</b>	<b>1</b>	<b>8</b>	<b>20</b>








Semester VII						
Sr. No.	Subject Code	Subject	Teaching Scheme			
			L	T	P	C
1	BM701	Biomedical Image Processing System and Analysis	3	1	0	4
2	BM702	Rehabilitation Engineering	3	1	0	4
3	BM703	Embedded Systems and RTOS	3	0	0	3
4	BM704 (ELE-IV)	Advanced Medical Imaging Systems	3	0	0	3
		Advanced Diagnostic and Surgical Equipments				
		Hospital Radiopharmacy				
5	BM705 (ELE-V)	Regulatory Aspects In Biosciences	3	0	0	3
		Home Medicare Technology				
		Design & Development of Medical Devices				
6	BM706	Industrial Training-II (Training to be undergone after VI Semester)	0	0	2	1
<b>TOTAL</b>			<b>15</b>	<b>2</b>	<b>2</b>	<b>18</b>

Semester VIII						
Sr. No.	Subject Code	Subject	Teaching Scheme			
			L	T	P	C
1	BM801 (ELE-VI)	Applied Optoelectronics in Medicine	3	0	0	3
		Biomedical MEMS and Nanotechnology				
		Applied Neural Networks and Fuzzy Logic in Medicine				
2	BM802 (ELE-VII)	Artificial Intelligence and Pattern Recognition in Medicine	3	0	0	3
		Brain-Computer Interface				
		Electro Physiology For Human System				
		Biophotonics				
3	BM803	Major Project	0	0	24	12
<b>TOTAL</b>			<b>6</b>	<b>0</b>	<b>24</b>	<b>18</b>




  
 P. J. S. / 12/13/17



DEPARTMENTAL ELECTIVES						
Elective-I						
Sr. No.	Subject Code	Subject	Teaching Scheme			
			L	T	P	C
1	ELE-I	Communication Circuits and Systems	3	0	0	3
2		Biomedical Laser Instrumentation	3	0	0	3
3		Nuclear Medicine	3	0	0	3
Elective-II						
4	ELE-II	Radiotherapy Equipment's	3	0	0	3
5		Medical Radiation Safety Engineering	3	0	0	3
6		Quality Control and Regulatory Aspects in Medical Devices	3	0	0	3
Elective-III						
7	ELE-III	Troubleshooting of Medical Instruments	3	0	0	3
8		Hospital Engineering	3	0	0	3
9		Telemedicine and Picture Archival Communication System (PACS)	3	0	0	3
Elective-IV						
10	ELE-IV	Advanced Medical Imaging Systems	3	0	0	3
11		Advanced Diagnostic and Surgical Equipments	3	0	0	3
12		Hospital Radiopharmacy	3	0	0	3
Elective-V						
13	ELE-V	Regulatory Aspects In Biosciences	3	0	0	3
14		Home Medicare Technology	3	0	0	3
15		Design & Development of Medical Devices	3	0	0	3
Open Elective-I						
16	ELE-VI	Applied Optoelectronics in Medicine	3	0	0	3
17		Biomedical MEMS and Nanotechnology	3	0	0	3
18		Applied Neural Networks and Fuzzy Logic in Medicine	3	0	0	3
Open Elective-II						
19	ELE-VII	Artificial Intelligence and Pattern Recognition in Medicine	3	0	0	3
20		Brain-Computer Interface	3	0	0	3
21		Electro Physiology For Human System	3	0	0	3
22		Biophotonics	3	0	0	3
Open Elective-III						
23	ELE-VIII	Biomechanics	3	0	0	3
24		Computational Fluid Dynamics analysis in Medicine	3	0	0	3
25		Physiological Modeling	3	0	0	3
26		Robotics and Automation in Medicine	3	0	0	3

*Signature*

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17/03/12

Date: 5/5/2018

To  
The Registrar,  
Dr. B.A.T.U. Lonere.

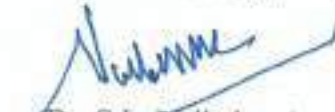
Subject: Minutes of BoS in E & TC Engineering held on 5<sup>th</sup> May, 2018

Dear Sir,

Please find attached herewith minutes of Board of Studies (BoS) in Electronics and Telecommunication Engineering held during 5<sup>th</sup> May 2018

You are requested to put-up recommendations of BoS before ensuing meeting of Academic Council for its approval.

Yours sincerely,



(Dr. S.L. Nalbalwar)  
Chairman, BoS in E & TC



## Minutes of the Meeting of BoS in E & TC

BoS meeting of E & TC Engineering was held during on 5<sup>th</sup> May, 2018 in the department of E & TC Engineering at 10.30 am.

### Agenda for the meeting was as follows:

1. Recommendation of Course Structure and Course Curriculum for following UG Programmes

Sr. No.	UG Programme (B.Tech)
1	Electronics & Telecommunication
2	Electronics Engineering
3	Biomedical Engineering

2. Recommendation of PEOs, POs, Course Objectives, Course Outcomes and their mapping
3. Mapping of recommended curriculum with NPTEL, SWAYAM and MOOC courses
4. Recommendation of minor corrections in course contents and addition of Elective courses in the M.Tech programmes
5. Any other point with permission chair

### Following Members were present for the meeting:

1. Dr. S.L. Nalbalwar, Head Dept. of E&TC and Chairman, Board of Studies
2. Dr. S.B. Deosarkar, Professor of E & TC
3. Dr. A.B. Nandgaonkar, Associate Professor of E & TC
4. Dr. Munir Sayyad, Asst.Vice-President, Reliance Jio, Mumbai.
5. Dr. Ulhas B. Shinde, Principal, CSMSS CHH Shahu College of Engineering Aurangabad
6. Dr. R.M. Autee, Deogiri Institute of Engineering & Management Studies, Aurangabad

Following members could not attend the meeting; however they have given concurrence for the said changes in the syllabus over telephonic conversation:

1. Dr. D.S. Bormane, Principal, CoE, AISSM, Pune
2. Dr. R.N. Awale, VJTI Mumbai
3. Dr Ulhas Shiurkar, Director, Deogiri Institute of Engineering & Management Studies, Aurangabad

**1. Recommendation of Course Structure and Course Curriculum for following UG Programmes**

Sr. No.	UG Programme (B.Tech)	Remark
1	Electronics & Telecommunication	BoS recommended Course Structure and Course Contents from 3 <sup>rd</sup> semester-8 <sup>th</sup> Semester. Also recommended the same course contents for Basic Electronics. Please find Annexure-I
2	Electronics Engineering	BoS recommended Course Structure and Course Contents from 3 <sup>rd</sup> semester-8 <sup>th</sup> Semester. Also recommended the same course contents for Basic Electronics. find Annexure-II
3	Biomedical Engineering	BoS recommended no change in the Course Structure and Course Contents for the Biomedical Engineering Programme.

Curriculum for the above mentioned UG programmes from 3<sup>rd</sup> semester to 8<sup>th</sup> semester have been thoroughly discussed and decided in the meeting. While deciding the courses of these semesters, syllabi of Pune University, Mumbai University, IITs, UGC guidelines, AICTE model curriculum & guidelines as well as recent development in technology & requirement of industries are taken into account. Finally course structure and course content up-to final year are prepared and recommended by the BoS in this meeting.



Please see Annexures - I and Annexures -II for details of B.Tech (E & TC) and B.Tech. (Electronics)

**2. Recommendation of PEOs, POs, Course Objectives, Course Outcomes and their mapping**

BoS recommended to continue with the same PEOs, POs, Course Objectives and Course Outcomes. Also recommended that, the Course Objectives and Course Outcomes for the additional courses.

**3. Mapping of recommended curriculum with NPTEL, SWAYAM and MOOC courses**

Recommended the mapping of proposed courses with online courses available with above platform

**4. Recommendation of minor corrections in course contents of following courses and addition of Elective courses in the M.Tech programmes**

Two additional Elective courses namely

**a. Recent Trends and Technologies**

**b. Radio Spectrum Management**

are recommended by BoS as **Elective-I and Elective -IV** and being added in the first and second semester of all PG programmes.

Also curriculums all PG streams of Electronics from 1st semester to 4<sup>th</sup> semester have been thoroughly revisited and minor corrections in the course contents have been recommended by BoS.

Sr. No.	Course Name	Course Code in EXTC	Remark
1	Signal Theory	MTETC101	Minor corrections in the course contents. All these changes in the respective courses will be applicable to all respective M.Tech programmes under BoS in E & TC.
2	Signal Processing Algorithms & Applications	MTETC103	
3	Estimation and Detection Theory	MTETC201	
4	Information Theory & Coding	MTETC202	
5	Multirate Digital Signal Processing	MTETE233	
6	IOT	MTETE255	

It is also recommended that student has to choose Project Management and Intellectual Property Rights course either from NPTEL/MOOC/SWAYAM pool and submission of course completion certificate is mandatory. If single course is not available, students have to submit the certificate of **Project Management and Intellectual Property Rights** separately.

**Please see Annexure-III for the details.**

**5. Any other point**

**a) Recommendation for online courses**

Discussion on mapping of proposed courses with courses from NPTEL/MOOC/SWAYAM/edx pool is carried out. It is observed that, most of the courses are mapped with proposed courses. BoS recommended for online registration of available courses by students from any of the above platform in place of courses proposed in the curriculum. Grades of these online courses will be taken as it is, if certificate is submitted by the candidates.

**b) Powers have been delegated to the Chairman for making the normal changes if needed that is, addition of electives, shifting of courses, addition of courses, course contents etc.**

1. Dr. S.L. Nalbalwar, Head Deptt. of E&TC and Chairman, Board of Studies
2. Dr. S.B. Deosarkar, Professor of E & TC
3. Dr. A.B. Nandgaonkar, Associate Professor of E & TC
4. Dr. Munir Sayyad, Asst. Vice-President, Reliance Jio, Mumbai.
5. Dr. Ulhas B. Shinde, Principal, CSMSS CHH Shahu College of Engineering  
Aurangabad
6. Dr. R.M. Autee, Deogiri Institute of Engineering & Management Studies, Aurangabad



Circular

Meeting of BoS in Electronics & Telecommunication Engineering, Electronics Engineering and Biomedical Engineering is called on 26<sup>th</sup> September, 2018 at 11 am in EDUSAT room.

Agenda for the meeting was as follows:

- A. To finalize the subject codes for core courses, open electives, programme electives, projects, practical, mini-projects, Industrial Training, and Electronics workshop etc
- B. To recommend the list of paper setters, evaluators and moderators for Winter 2018 examination.
- C. To nominate one BoS representative on board of Examination
- D. Review of ordinances of disciplines
- E. Co-opting of Invitees on BoS
- F. Teacher examiner manual for all courses
- G. Adoption of courses recommended by RUSA
- H. Any other point with permission of the Chair.

All are requested to attend the meeting

  
Chairman, BoS

Copy Submitted to: Hon. Vice-Chancellor

Copy to:

1. Dean, Faculty of Engineering & Technology
2. All members of BoS
3. Registrar
4. Controller of Examinations

### Minutes of BoS Meeting

Meeting of BoS in Electronics & Telecommunication Engineering, Electronics Engineering and Biomedical Engineering was held on 26<sup>th</sup> September, 2018 at 11.00 am in EDUSAT room at Dr. B. A. Technological University Campus, Lonere.

Agenda for the meeting was as follows:

- A. To finalize the subject codes for Core courses, Open electives, Programme electives, Projects, Practical, Mini-projects, Industrial Training/Field Training /Internships, and Electronics workshop, etc.
- B. To recommend the list of paper setters, evaluators and moderators for Winter-2018 examination
- C. To nominate one BoS representative on board of Examination
- D. Review of ordinances of disciplines
- E. Co-opting of Invitees on BoS
- F. Teacher reference manual for all courses
- G. Adoption of courses recommended by RUSA
- H. Any other point with permission of the Chair.


The following members were present for the meeting:


Sr. No.	Name of BoS Member	Institute	BoS
1	Dr. S. L. Nalbalwar	Dr. BATU, Lonere	Chairman
2	Dr. R.M. Autee	Deogiri College of Engineering, Aurangabad	Member
3	Dr. S.D. Nawale	N. B. Nawale Sinhgad College of Engineering, Solapur	Member
4	Dr. A.D. Sayyed	MIT, CoE Aurangabad	Member
5	Dr. P.J. Deore	R. C. Patel College of Engineering, Jalgaon	Member


- A. To finalize the subject codes for Core courses, Open electives, Programme electives, Projects, Practical, Mini-projects, Industrial Training/Field Training /Internships, and Electronics workshop, etc.

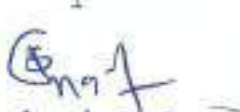
Members of BoS discussed the course/subject/discipline codes proposed by examination section (please refer **Annexure-I**) and recommended codes without any changes for consideration.

After using recommended codes for 3<sup>rd</sup> and 4<sup>th</sup> semester, the final course codes for each course are given in **Annexure-II**.

  
Dr. S.L. Nalbalwar  
BoS Chairman

  
Dr. R.M. Autee  
BoS Member

  
Dr. S.D. Nawale  
BoS Member

  
Dr. A.D. Sayyed  
BoS Member



**B. To recommend the list of paper setters, evaluators and moderators for Winter-2018 examination**

Members have gone through database provided by exam section for the said purpose. BoS has discussed and proposed the names of Paper setters, Moderators and Evaluators for the 3<sup>rd</sup> semester courses in Electronics & Telecommunication Engineering, Electronics Engineering and Biomedical Engineering (Please see the **Annexure-III**). Also guidelines for appointment of person as, moderators, paper setters and evaluators have been suggested as follows:

- i. Teachers having experience of above 10 years may be considered to work as a Moderator
- ii. Teachers having experience of more than or equal to 5 years may be considered to work as a Paper Setter
- iii. All teachers may be considered to work as a Evaluators.

**C. To nominate one BoS representative on board of Examination**

BoS Unanimously nominated its member Dr. Munir B. Sayyad, Assistant Vice-President, Reliance JIO, Mumbai on Board of Examination.

**D. Review of ordinances of disciplines NPIU and AICTE Directives:**

BoS member after thorough discussion proposes the adoption of courses offered through SWAYAM/NPTEL/MOOC platform as per willingness of the students. It is also recommended to consider the Grades/Marks given by conducting organization. Number of such courses should not exceed 20% of courses offered by the programme. The courses from said platform should be of at least 8 weeks and 12 weeks duration for earning credits of 2 and 3 respectively.

**E. Co-opting of Invitees on BoS:**

After looking into curriculum developed for 3 UG and 9 PG programmes, BoS decided to co-opt six invitees instead of three. The names of invited members on BoS are as follows:

1. Prof. S.B. Deosarkar, Professor of E & TC Engineering, Dr BATU Lonere
2. Dr. Munir Sayyad, Asst. Vice-President Reliance JIO, Mumbai
3. Dr. A.B. Nandgaonkar, Faculty of BATU Lonere
4. BoS Chairman in Electronics Engineering, AKTU, Lucknow or nominated by him/her.
5. BoS Chairman in Electronics Engineering, Uttaranchal Technical University, Dehradun or nominated by him/her.
6. BoS Chairman in Electronics Engineering, Himachal Pradesh Technical University, Hamipur or nominated by him/her.





**F. Teacher reference manual for all courses :**

BoS recommended Teacher- reference manual for all courses so as to bring Uniformity in conduction of theory and practical courses in all affiliated institutes and University department. Proposed manual is attached as Annexure-IV. BoS is of the opinion that it should be made mandatory for all courses of Electronics Engineering and it's all allied programmes.

**G. Adoption of courses recommended by RUSA:**

RUSA has recommended following courses for the discipline of E & TC/Electronics Engineering.

Looking into the need of the hour and after thorough discussion, it is decided to include these courses from IV<sup>th</sup> semester onwards in the B.Tech curriculum of said courses.

Sr. No.	Name of the Vertical	Name of the Course	Semester	Core /Elective Course
1	Product Design	Product Design Engineering	IV	Core
2	Artificial Intelligence	Artificial Intelligence deep learning	VI	Elective
3	Cyber Security	Cyber Security	VII	Elective
4	Data Analytics	Associate Analytics	VII	Elective
5	Geographical Information System	Geo-informatics and Spatial Computing	VIII	Elective
6	Robotics	E-Yantra	VIII	Elective

**H. Any other points, with permission of Chair:**

- i. As per Ph.D. rules and regulations Research Methodology is a mandatory course, which offered by all disciplines in even semesters. Looking into this requirement it is proposed to keep said course as an Elective course in odd-semester also. BoS proposes to include this course under Elective-I of first semester M.Tech. programme in Electronics and Telecommunication Engineering and all its allied programmes.
- ii. Since course objectives and course outcomes have been well defined in the curriculum of courses of E & TC and Electronics Engineering, therefore BoS recommends to display Course Outcome(CO) along-with each question in question paper of all courses. This will help to know attainment of learning level of each of the students in respective courses. This information will also be useful for NBA/NAAC accreditation purpose.
- iii. Since Industrial Training/Field Training/Internship was not included in the curriculum of 4<sup>th</sup> semester of Biomedical Engineering, hence so as follow the mandate of AICTE BoS recommended Field Training/ Internship/Industrial Training (4-6 weeks which can be completed partially in third semester or fourth semester or in at one time).

Powers has been delegated to BoS Chairman for making normal changes if necessary.

*Prateek*

*26/9/18*

*Chair*



Date: 15/01/2019

### Minutes of BoS Meeting

*Meeting of BoS in Electronics & Telecommunication Engineering, Electronics Engineering and Biomedical Engineering was held on 14<sup>th</sup> -15<sup>th</sup> January, 2019 in EDUSAT room.*

*The following members were present for the meeting:*

- 1 Dr. S.L. Nalbalwar, Dr. BATU, Lonere
- 2 Dr. S.B. Deosarkar, Dr. BATU, Lonere
- 3 Dr. R.M. Autee, Deogiri Institute of Engineering and Management Studies, Aurangabad
- 4 Dr. S.D. Nawale, N B Nawale Sinhgad College of Engineering, Solapur
- 5 Dr. A.D. Sayyad, Marathwada Institute of Technology, Aurangabad

*Following members could not attend the meeting. Leave of absence was granted to them.*

1. Dr. P.J. Deore, RC Patel Institute of Technology, Shirpur
2. Dr. A.B. Nandgaonkar, Dr. BATU Lonere
3. Dr. Munir Sayyed, Reliance Jio, Mumbai
4. Dr. Sachin Singh, AKTU Lucknow
5. Dr. Vinay Kumar, HPTU, Hamirpur

The following points were discussed and finalized during the meeting of BoS held on 14-15 January, 2019.

1. Finalization of the curriculum of 1st and 2nd Year B.Tech programs (all four semesters).

The curriculum structure and detail syllabus for UG programs in Electronics and Telecommunication Engineering, Electronics Engineering and Biomedical Engineering have been finalized and recommended for considerations of Academic Council. The minor changes in credits and course contents in the course "Product Design Engineering" are incorporated as per directives Hon. Vice Chancellor (NO.FoET/2018/01).

2. Recommendation of final structure for the third year and final year UG programs as discussed in the Faculty of Engineering Meeting.

The course structure along-with detail syllabus for the third year and only *course structure* for final year of B.Tech programs in Electronics and Telecommunication Engineering, Electronics Engineering and Biomedical Engineering is recommended by BoS.

3. The BoS Recommended and resolved for nomination of expert on Faculty as per modified statutes (S3.10(d) PP 71).

As per the S3.10 (d), BoS in Electronics & Telecommunication Engineering, Electronics Engineering and Biomedical Engineering there is a provision to nominate one faculty amongst the institutions those are satisfying norms. The BoS has resolved and recommendation following faculty member on the *faculty board* as a nominee

1. Dr. Jagdish Jadhav, RC Patel Institute of Technology, Shirpur

4. The BoS suggested minor corrections in Rules and Regulations and modified Statutes

BoS members discussed over this agenda point and conveyed few suggestions to Dean, Faculty of Engineering.

5. Any other point with permission of chair.

- A. For M.Tech Course on IPR/ Project Management, weightage under TW and PR heads are removed and replaced by only *theory* (TH) head without changing the total marks.
- B. BoS members delegated powers to the BoS Chairman for small corrections like Course Codes, addition Electives, corrections in examination scheme and credits, credit distributions, if necessary.

Meeting ended with thanks to chair.





Date: 30/05/2019

Circular

**Subject: Meeting of BoS on 30<sup>th</sup> May, 2019**

Meeting of BoS in Electronics & Telecommunication Engineering, Electronics Engineering and Biomedical Engineering is called on 30<sup>th</sup> May, 2019 at 11 am in EDUSAT room.

**The Agenda for the meeting is as follows**

1. The curriculum of the Second Year Electronics and Communication Engineering Sandwich Programme
2. Course content of final year Electronics & Telecommunication Engineering and Electronics Engineering
3. Finalization course structure for Electronics & Communication Engineering
4. Credit transfer facility for AKTU/HPTU/UTU Universities
4. Any other point with the permission of the chair.

  
Chairman, BoS in E & TC

To

All BoS Members

### Minutes of BoS Meeting

Meeting of BoS in Electronics & Telecommunication Engineering, Electronics Engineering and Biomedical Engineering was held on 30<sup>th</sup> May, 2019 at 11 am in EDUSAT room.

### The Agenda for the meeting was as follows:

1. To recommend the curriculum for Second Year Electronics and Communication Engineering Sandwich Programme
2. Finalization of course content of final year B.Tech programme in Electronics & Telecommunication Engineering and Electronics Engineering
3. Finalization of course structure and Curriculum for B.Tech programme Electronics & Communication Engineering
4. Discussion credit transfer facility for AKTU/HPTU/UTU Universities
5. Any other point with the permission of the chair.

The following members were present for the meeting:

1. Dr. S.L. Nalbalwar, Dr. BATU, Lonere, Chairman BoS
2. Dr. S.B. Deosarkar, Dr. BATU, Lonere, Member
3. Dr. Sachin Singh, AKTU Lucknow, Invited Member
4. Dr. Vinod Kapoor, HPTU, Hamirpur (Participated on Skype), Invited Member
5. Dr. Ashish Bagwari, UTU, Dehradun (Participated on Skype), Invited Member
6. Dr. R.M. Autee, DIEMS, Aurangabad, Member
7. Prof. Ravindra Gahane, NCER, Talegaon, Invited Member
8. Prof. Neeta P. Karhadkar NCER, Talegaon, Invited Member

Following members could not attend the meeting. Leave of absence was granted to them.

1. Dr. A.B. Nandgaonkar, Dr. BATU Lonere
2. Dr. Munir Sayyed, Reliance Jio, Mumbai
3. Dr. S.D. Nawale, N B Nawale Sinhgad College of Engineering, Solapur
4. Dr. P.J. Deore, RC Patel Institute of Technology, Shirpur
5. Dr. A.D. Sayyad, Marathwada Institute of Technology, Aurangabad



**The following points were discussed and finalized in the meeting of BoS:**

1. The course structure along-with detail syllabus for the second year Sandwich course in Electronics and Communication Engineering is approved & recommended by BoS. (Annexure-I)
2. Course content of final year B.Tech in Electronics & Telecommunication Engineering (E & TC) and Electronics Engineering is finalized by the BoS and recommended for approval of Academic Council. (Annexure-II)
3. As far as course structure and detail syllabus for UG programs in Electronics and Communication Engineering is concerned, it is discussed and decided to keep the same curriculum of second and third year of E & TC Engineering programme to Electronics and Communication Engineering programme.
4. BoS has discussed at a length on credit transfer facility among the Mentees and Mentor Universities. BoS recommended this facility, for the courses which are having same course contents and similarities in the course name which is available in each of these Universities.

BoS members delegated powers to the BoS Chairman for corrections like Course Codes, addition of Electives, corrections in examination scheme and credits, credit distributions, credit transfers if necessary.

Meeting is ended with thanks to the chair.

## Minutes of Meeting

### BOS Electronics and Telecommunication and allied Branches

Date: 16<sup>th</sup> June, 2020, Time: 3.30pm

Mode: Through Video Conferencing

1. First year to final year syllabus for effective from Academic Year 2020-2021 batch in the following disciplines (Starting from FY)

- a. Electronics Engineering
- b. Electronics & Telecommunication Engineering
- c. Electronics & Communication Engineering
- d. Electronics & Communication Engineering (sandwich)
- e. Biomedical Engineering

is recommended to by BOS to academic council for its approval.

2. Modification of 8<sup>th</sup> semester of existing curriculum is done to introduce self-study courses and internship programme for full semester in the following disciplines:

- a. Electronics Engineering
- b. Electronics & Telecommunication Engineering
- c. Electronics & Communication Engineering
- d. Electronics & Communication Engineering (sandwich)
- e. Biomedical Engineering

The revised structure is recommended to academic council for its approval.

3. BOS chairman will decide one online course for each semester for existing syllabus except 1<sup>st</sup>, 3<sup>rd</sup> and 7<sup>th</sup> semester. BOS chairman will decide whether to introduce that course in online mode or off line mode depending upon the situation at that time.

4. If 60 to 80 percentage mapping is available with MOOC platform for the curriculum courses, then such courses shall be introduced for self-study in online mode.

5. Two major NPTEL / SWYAM specialization AI and ML / IOT and Minor in Electronics and Telecommunication with structure and detail syllabus are recommended by BOS. Student shall opt this course in online mode from NPTEL / SWYAM and credit transfer will be done directly by the university.

6. Two major Coursera specialization AI and ML / IOT with structure and detail syllabus are recommended by BOS. For these specialization evaluation scheme will be 60/40. 40 marks will be for continuous assessment and 60 marks for end semester examination conducted by university.





**Dr. Babasaheb Ambedkar Technological University Lonere**  
**Department of Mechanical Engineering**  
**Board of Studies**  
**Minutes of Meeting-4**

Date: May 3, 2018

The fourth meeting of BoS was held on May 3, 2018 at 11.00 am in the Conference Hall of DBATU Lonere. Following members attended the meeting:

1. Dr. M. Sadaiah, Chairman
2. Mr. Anand Chapekar, Member
3. Dr. M. S. Tandale, Member
4. Dr. V. G. Sargade, Member
5. Prof. R. S. Pawade, Co-opted Member
6. Prof. H. N. Warhatkar, Co-opted Member
7. Dr. Sanjeev Suryawanshi, Invitee
8. Mr. Aninash V. Patil, Invitee
9. Dr. H. A. Mandave, Invitee
10. Mr. V.L. Mundhe, Invitee
11. Dr. S. V. Lahane, Invitee
12. Mr. Prakash G. Taur, Invitee
13. Dr. P. U. Zine, Invitee

Following members could not attend the meeting:

1. Dr. V.K. Suri
2. Dr. M.S. Kale
3. Shri R.P. Javale

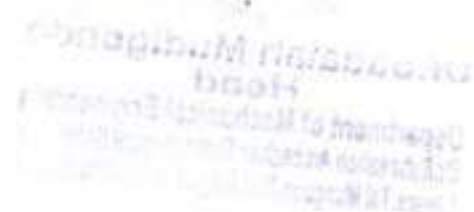
Following points were discussed:

**Item No. 1 To finalize the course structures for the following U.G. Programmes**

- i. B. Tech. Mechanical Engineering
- ii. B. Tech. Production Engineering
- iii. B. Tech. Automobile Engineering

The course structures for the U.G. programmes viz. B. Tech. Mechanical Engineering (*Annexure-I*), B. Tech. Production Engineering (*Annexure-II*), and B. Tech. Automobile Engineering (*Annexure-III*), were put up for the approval of BoS.

BoS approved the same and recommended for the final approval of the Academic Council of the University.





**Item No. 2 To approve the syllabi for the first and second year courses of the following B. Tech. programmes:**

- a. B. Tech. Mechanical Engineering
- b. B. Tech. Production Engineering
- c. B. Tech. Automobile Engineering

The syllabi for all the courses in the First and Second year B. Tech. programmes in Mechanical Engineering (*Annexure-IV*), Production Engineering (*Annexure-V*), and Automobile Engineering (*Annexure-VI*), were put up for the approval of BoS.

BoS approved the same and recommended for the final approval of the Academic Council of the University.

**Item No. 3 To approve minor changes in the curriculum of M. Tech. programmes**

- The course structures and syllabi for following Thermal Engineering related P.G. Programmes (*Annexure-VII*) were combined and made uniform:
  - a. M. Tech. Thermal Engg.
  - b. M. Tech. Thermal and Fluids Engg.
  - c. M. Tech. Heat Power Engg.
  - d. M. Tech. Thermal and Heat Power Engg.
- The course structures and syllabi for following Manufacturing Engineering related P.G. Programmes (*Annexure-VIII*) were combined and made uniform:
  - a. M. Tech. Manufacturing Engg.
  - b. M. Tech. Manufacturing Engg. Processes
  - c. M. Tech. Manufacturing Process Engg.
  - d. M. Tech. Mechanical Production Engg.
- The elective courses were divided into four different groups as Electives-I & II (Semester-I) and Electives-III & IV (Semester-II)
- The number of elective courses was reduced in each group.
- The course codes were updated appropriately.

The revised course structures of remaining P. G. programmes viz. M. Tech. in Design Engg. (*Annexure-IX*), M. Tech. in CAD/CAM (*Annexure-X*), M. Tech. in Automation Engg. (*Annexure XI*), M. Tech. in Computer-aided Analysis and Design (*Annexure-XII*), and M. Tech. in Mechanical Engineering (*Annexure XIII*) along with the M. Tech. programmes under Thermal and Manufacturing Engineering were put up for the approval of BoS.

BoS approved the same and recommended for the final approval of the Academic Council of the University.

The meeting ended with thanks to the Chair.

  
Dr. V. G. Sargade  
Member Secretary

  
03/05/2018  
Dr. Sadaiah Mudigonda  
Head  
Department of Mechanical Engineering  
Dr. Babasaheb Ambedkar Technological University  
Lonere, Tal. Mangaon, Dist. Raigad, Maharashtra



**Dr. Babasaheb Ambedkar Technological University Lonere**  
**Department of Mechanical Engineering**  
**Board of Studies**  
**Minutes of Meeting-2**

Date: February 4, 2019

The second meeting of BoS was held on February 4, 2019 at 11.30 am in the office of Vice-Chancellor of DBATU Lonere.

Following members attended the meeting:

1. Dr. M. Sadaiah, Chairman
2. Dr. V. G. Sargade, Member
3. Dr. A. Kumaraswamy, Member
4. Dr. A. N. Chappaon, Member

Following invitees attended the meeting:

1. Dr. Rahul Barjibhe, Invitee
2. Dr. Sanjeev Suryawanshi, Invitee
3. Dr. Dilip Pangavhane, Invitee
4. Dr. R. D. Patil, Invitee

Following member could not attend the meeting and leave of absence was granted:

1. Dr. P. B. Maheshwary, Member

Following points were discussed and decisions were taken:

**Item No. 1 To recommend the curriculum of first and second year B. Tech. Programs (for all four semesters) in its final form**

The curriculum of the first and second year B. Tech. programs in Mechanical Engg., Production Engg., and Automobile Engg. was already approved and is in force.

However, following points were brought to the notice:

- In the second semester, there is a course called Mini Project. The detailed guidelines for this course are not available. Hence, it was resolved that following guidelines should be followed for this course:
  - There should be a group of 2 – 3 students in one Mini Project.
  - Students should make a working model of a small engineering device and demonstrate its functioning.
  - Students may take help from the useful web sources like 'Do it yourself' for getting the ideas.

- Students should write a brief report on the Mini Project consisting of 5 – 6 pages and submit in a file.
- It was brought to the notice that the teaching load of the course on Engg. Mathematics need to be balanced in two semesters. This is required to ensure that the teaching load for the faculty is available in both the semesters. It was resolved that any change in the course structure is possible only in the next cycle of revision of the syllabi, since the current structure is already being implemented.
- In the fourth and fifth semesters, the theory and laboratory courses on Product Design Engg have been included. Also, the contents have been elaborated. Hence, it was decided that the latest version of the curriculum of the above programs must be uploaded on the website for the information and necessary action by all the concerned.

The final form of curriculum of first and second year B. Tech. Programs in Mechanical Engg. (*Annexure-I*), Production Engg. (*Annexure-II*), and Automobile Engg. (*Annexure-III*) was approved and recommended for the final approval to the Academic Council.

**Item No. 2 To recommend the course structure and syllabi for third year B. Tech. Programs**

The proposed course structures and syllabi for third year B. Tech. programs in Mechanical Engg., Production Engg., and Automobile Engg. were discussed.

Following points were brought to the notice:

- There are two courses related to thermal engineering in the fifth semester of B. Tech. Program in Mech. Engg. The courses on different specializations in Mech. Engg. should be evenly distributed in different semesters to ensure that teaching load is also evenly balanced. However, it was resolved that such balancing can be done only in the next cycle of revision of syllabi.
- The evaluation of audit courses should be clearly defined. It was decided that the evaluation will be carried out by the concerned teacher in the same way of evaluation of credit courses. However, there will not be University-level examinations. But, the concerned teachers must evaluate the course exactly like a credit course with more emphasis on student presentations on various topics of the relevant course.

The course structure and syllabi for third year B. Tech. Programs in Mechanical Engg. (*Annexure-IV*), Production Engg. (*Annexure-V*), and Automobile Engg. (*Annexure-VI*) were approved and recommended for the final approval of Academic Council.

**Item No. 3 To recommend the course structure and syllabi for final year B. Tech. Programs**

The proposed course structures and syllabi for final year B. Tech. programs in Mechanical Engg., Production Engg., and Automobile Engg. were discussed.

Following points were brought to the notice:



- Prof. Dr. Dilip Pangavhane suggested that Elective course of 'Vehicle Architecture and Packaging' should be included in the seventh semester of B. Tech. Program in Automobile Engg.
- In the context of internship in the eighth semester, there should be clear guidelines related to following points:
  - Is the student required to complete only the Internship in the industry or s/he is also required to take all the courses as Audit courses in that semester?
  - What should be the nature of the project in the industry to fulfill the requirements of B. Tech. project in lieu of the theory courses in the eighth semester?
  - What should be the criteria to permit the students for completing the internship in the industry?
  - What about the evaluation pattern for the students who are opting for industrial internship? The students who are not opting for the internship will be evaluated at the end of seventh and eighth semesters in two stages.

Hence, it was decided that the course structure and syllabi for final year B. Tech. Programs will be finalized in the next meeting of BoS.

**Item No. 4 To nominate one representative of BoS as expert on Faculty as per modified statutes [S3.10 (d) PP 71]**

Dr. V. G. Sargade was recommended by BoS in Mechanical/Production/Automobile Engineering to be considered for the nomination on Faculty of Engg. and Technology.

**Item No. 5 To review the University Rules and Regulations and modified Statutes for providing suggestions**

It was opined that there are no suggestions in the University Rules and modified statutes to be forwarded to Academic Council.

The meeting ended with thanks to the Chair.

  
 Dr. V. G. Sargade  
 Member secretary

  
 Dr. Sadaiah Mudigonda  
 Head  
 Department of Mechanical Engineering  
 Dr. Babasaheb Ambedkar Technological University  
 Lonere, Tal. Mangaon, Dist. Raigad-422103, Maharashtra

**Dr. Babasaheb Ambedkar Technological University Lonere**  
**Department of Mechanical Engineering**  
**Board of Studies**  
**Minutes of Meeting-2**

Date: March 24, 2017

The second meeting of BoS was held on March 24, 2017 at 11.00 am at DBATU Lonere. Following members attended the meeting:

1. Dr. M. Sadaiah, Chairman
2. Mr. Anand Chapekar, Member
3. Dr. M. S. Tandale, Member
4. Dr. V. G. Sargade, Member

Following members could not attend the meeting:

1. Dr. V.K. Suri
2. Dr. M.S. Kale
3. Shri R.P. Javale

Following points were discussed:

**Item No. 1 To approve the structure and syllabus for B. Tech. programme in Mechanical Engineering**

- The structure and syllabus for all the courses in the Second, Third, and Final year B. Tech. programme in Mechanical Engineering (*Annexure-I*) including COs and their mapping with POs were put up for the approval of BoS.
- BoS approved the same and recommended for the final approval of the Academic Council of the University.

**Item No. 2 To approve the structure and syllabus for M. Tech. programmes in Manufacturing Engineering and Thermal & Fluids Engineering**

- The structure and syllabus for all the courses in the First and Second year M. Tech. programme in Manufacturing Engineering (*Annexure-II*) and M. Tech. programme in Thermal & Fluids Engineering (*Annexure-III*) including COs and their mapping with POs were put up for the approval of BoS.
- BoS approved the same and recommended for the final approval of the Academic Council of the University.

Dr. Babasaheb Ambedkar Technological University  
Lonere  
Department of Mechanical Engineering  
Board of Studies




**Item No. 3 To approve the structure and syllabus for UG programmes in allied branches**

- The structures for B. Tech. programmes in Automobile Engineering and Production Engineering were presented.
- It was decided that the expert members in the respective disciplines should be co-opted and with their help the structure and syllabi for all the allied branches should be finalized.

**Item No. 4 To co-opt additional members**

- It was decided to co-opt the following members from academia and industry to finalize the structure and syllabi for all the allied branches:

Sr. No.	Programme	Member from Academia	Member from Industry/Research Organization
1	B. Tech. in Production Engg.	Dr. R. S. Pawade, DBATU	Mr. Ram Deshpande, Senior General Manager & Head, Engineering and R&D, KSPG Automotive, Pune
2	B. Tech. in Automobile Engg.	Prof. S. G. Pawar, Adjunct Professor in Automobile Engg., CoE, Pune	1. Mr. V. S. Gogate, Pune 2. Prof. K. P. Wani, ARAI Pune
3	M. Tech. in Design Engg.	Dr. H. N. Warhatkar, DBATU	---

**Item No. 5 Any other point**


- To suggest amendments in the structure and syllabi of the First year B. Tech. Programmes:

It is noticed that the Laboratory courses are not shown separately in the structure of the first year B Tech Programmes. Also, the COs and their mapping with POs of the respective programmes are not available for any course. Hence, it was decided to suggest the amendments to be made in the existing syllabi of the First year B. Tech. Programmes.

BoS recommended these amendments for the final approval of the Academic Council of the University.

The next meeting of the BoS will be held on April 7, 2017 at DBATU Lonere.

The meeting ended with thanks to the Chair.

  
Dr. V. G. Sarigade  
Member secretary

  
24/03/2017  
Dr. Sadaiah Mudigonda  
Head  
Department of Mechanical Engineering  
Dr. Babasaheb Ambedkar Technological University  
Lonere, Tal. Margaon, Dist. Raigad 422101

**Dr. Babasaheb Ambedkar Technological University Lonere**  
**Department of Mechanical Engineering**  
**Board of Studies**  
**Minutes of Meeting-1**

Date: September 27, 2018

The first meeting of BoS was held on September 27, 2018 at 11.00 am in the Conference Hall of DBATU Lonere. Following members attended the meeting:

1. Dr. M. Sadaiah, Chairman
2. Dr. V. G. Sargade, Member
3. Dr. A. Kumaraswamy, Member
4. Dr. A. N. Chapgaon, Member
5. Dr. P. B. Maheshwary, Member

Following persons were nominated as invitees and also attended the meeting:

1. Dr. Rahul Barjibhe, Invitee
2. Dr. Sanjeev Suryawanshi, Invitee

Following person nominated as invitee but could not attend the meeting and leave of absence was granted:

1. Dr. R. D. Patil

Following points were discussed and decisions were taken:

**Item No. 1 To prepare the list of Chairman and Paper setters for each course in the following U.G. and P.G. Programmes for the first and second year.**

- i. B. Tech. Mechanical Engineering
- ii. B. Tech. Production Engineering
- iii. B. Tech. Automobile Engineering
- iv. M. Tech. programmes in Manufacturing Engg., Design Engg., CAD/CAM, Thermal Engg. groups

A committee of following members was constituted for this purpose:

- Dr. M. Sadaiah, Chairman of BoS
- Dr. V. G. Sargade
- Dr. P. B. Maheshwary

The list of Chairman and Paper Setters, Moderators, and Evaluators for the above U.G. programmes (*Annexure-I*), and P.G. programmes (*Annexure-II*), was put up for the finalization by BoS.



BoS finalized the same and recommended for the approval of the Board of Examinations of the University.

**Item No. 2 To nominate one representative of BoS on the Board of Examinations (BoE):**

Dr. V. G. Sargade was recommended by BoS in Mechanical/Production/Automobile Engineering to be considered for the nomination on BoE.

**Item No. 3 To review the University Ordinances for providing suggestions**

It was decided that all the members and invitees will study the Ordinances and come up with suggestions in the next meeting.

**Item No. 4 To finalize the course code and credits for Ph D courses**

- Research Methodology: Course Code: PH RM 001, No. of Credits: 3
- PhD Seminar: Course Code: PH 00 2S, No. of Credits: 4

BoS approved the above course codes and credits.


**Item No. 5 To recommend a Textbook written by Dr R. S. Pawade on "Energy and Environmental Engineering" Synergy Publications**

It was suggested that the Textbook may please be placed before the BoS in the next meeting for the consideration. A complimentary copy of the book should be sent to all the members so that they can go through the contents and take the final decision.

**Item No. 6 To discuss about the Teacher-Students-Examiner Manual**

The members discussed the contents of the proposed Teacher-Students-Examiner Manual and it was opined that the same may be recommended for the further approval. It was suggested that there should also include Course Outcomes and Programme Outcomes. Moreover, it should be modified every year by incorporating the suggestions received from the teachers.

The meeting ended with thanks to the Chair.

  
Dr. V. G. Sargade  
Member Secretary

  
27/09/2018  
Dr. Sadash Mudig  
Head  
Department of Mechanical Engineering  
Dr. Babasaheb Ambedkar Technological University  
Lonere, Tal. Mangron, Dist. Raigad 42101, Maharashtra

**Dr. Babasaheb Ambedkar Technological University, Lonere**  
**Board of Studies in Civil Engineering**

Date: 17-06-2020

A meeting of Board of Studies in Civil Engineering was called on Wednesday June 17<sup>th</sup>, 2022 at 12:00 noon in **Online mode**. The Chairman (BoS) welcomed all the members and presented the meeting agenda. Following points were discussed:

- i. Content of Infrastructure Engineering syllabus was revised and restructured.
- ii. Content of Docks and harbour, and Airport engineering modules was merged in a single module.
- iii. As per the suggestions received from the BoS members in the earlier meeting, the module on Bridge Engineering was split in to two modules, namely Substructure, and Superstructure. Also the content of these modules are kept as introductory.

All the members approved the revised syllabus and the modifications in the modules.


Meeting concluded with vote of thanks to the Chairman.

Dr. M.S. Dixit  
MIT, Aurangabad  
(Member)

Dr. A.R. Kambekar  
SPCE, Mumbai  
(Member)

Dr. J. B. Dafedar  
N K Orchid CoE, Solapur  
(Member)

Dr. S.M. Pore  
DBATU, Lonere  
(Member)

  
Dr.S.R. Bhagat  
DBATU, Lonere  
(Chairman)

**Copy to:**

- 1) Hon. Vice-Chancellor, DBATU ..... for information
- 2) Dean (Academics), DBATU ..... for information



**Dr. Babasaheb Ambedkar Technological University, Lonere**  
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