

**BVM Engineering College  
(Autonomous Institution)  
Computer Engineering Department**

13<sup>th</sup> July, 2015

Minutes of Board of Studies Meeting

**Day, Date and Time:** Thursday, the 9<sup>th</sup> July, 2015: 11:00am to 1:00pm

**Venue:** Lab-1, B-block, 1<sup>st</sup> floor, BVM Engineering College

Following members were present:

Sr.	Name	Affiliation
1	Prof. (Dr.) Darshak G Thakore	Prof & Head and Chairman BOS, Computer Engineering, BVM
2	Prof. (Dr.) S D Panchal	Assoc Prof, IT Dept, VGEC, Ahmedabad
3	Dr. Samir Patel	Principal, Growmore Faculty of Engineering, Himmatnagar, Gujarat
4	Prof. (Dr.) Mayur M Vegad	Prof. Computer Engineering Dept. BVM
5	Prof. Sunil A Bakhru	Assoc Prof. Computer Engineering Dept. BVM
6	Prof. Prashant B Swadas	Assoc Prof. Computer Engineering Dept. BVM
7	Prof. (Dr.) Narendra M Patel	Assoc. Prof. Computer Engineering Dept. BVM
8	Prof. Mosin I Hasan	Asst Prof. Computer Engineering Dept. BVM
9	Prof. Bhavesh A Tanawala	Asst Prof. Computer Engineering Dept. BVM
10	Prof. Kirti J Sharma	Asst Prof, Computer Engineering Dept. BVM
11	Prof. Udesang K Jalia	Asst Prof. Computer Engineering Dept. BVM
12	Prof. (Mrs) Mahasweta J Joshi	Asst Prof, Computer Engineering Dept. BVM

Following members could not attend the meeting:

Sr.	Name	Affiliation
1	Er. Mehul Patel	Sr. Enginer, IBM India, Bangalore, Karnataka
2	Prof. Hemant D Vasava	Asst Prof. Computer Engineering Dept. BVM

Being a first meeting of Board Studies after getting autonomous status, the Chairman, BoS welcomed and introduced external members, which was followed by self-introduction of internal members of the board.

With respect to the agenda (attached herewith), following points were discussed and decided unanimously:

1. Teaching scheme (structure) for the First Year Computer Engineering (UG) programme (Autonomous) was approved.
2. Syllabi of courses (a) Computer Programming and (b) Computer Workshop, offered by the department for the First Year Computer Engineering (UG) programme (Autonomous) were approved with possible inclusion of suggestions mentioned below:
  - o External members appreciated the idea of including a new course on Computer Workshop and its contents. Following points were suggested to further enhance the course:

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- Inclusion of following book is suggested as a reference:
  - Govindarajalu, "IBM PC & Clones", Tata McGraw-Hill Education, 2<sup>nd</sup> Edition
- A software tool for drawing flow-charts may be included in the contents.
- Introduction to animation tools may be added in the contents.
- Basic concepts of networking and resource sharing in a network should be covered.
- After consultation with the respective committee for 'Communication Skills' course, office software tools (for text, spreadsheet, and presentation documents) may be transferred from Computer Workshop to Communication Skills course.

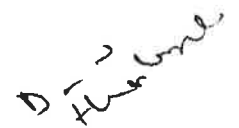
3. Suggestions / Recommendations for courses under the purview of other BOSs:

Sr.	Course	Observations / Recommendations
1	Basic Electronics	<ol style="list-style-type: none"> <li>1. Regarding order of contents: The topic of OpAmp seems to be too early</li> <li>2. Basics of electronic communications (e.g., modulation techniques, radio wave propagation) may be included.</li> </ol>
2	Mathematics courses	<ol style="list-style-type: none"> <li>1. Regarding order of contents in Calculus course: the topic of Curve Tracing may be deferred as one of the latter topics.</li> <li>2. The respective BOS' members are requested to ensure the inclusion of following topics in one of the mathematics courses: limit, differential equations, Laplace &amp; Fourier transforms</li> </ol>
3	Basic Civil Engineering	<ol style="list-style-type: none"> <li>1. Weightage of Surveying should be reduced.</li> <li>2. Weightage of Environmental Studies may be increased.</li> <li>3. The concepts of strength of materials, bending moments, moment of inertia, etc... (i.e., basics of engineering mechanics) may be included here. This becomes particularly important as the course on Engineering Mechanics could not be included in the 1<sup>st</sup> level courses for Computer Engineering discipline.</li> <li>4. 1-2 theory hours may be spared to cover the legislation procedures for domestic (and other) constructions.</li> </ol>
4	Engineering Graphics	<ol style="list-style-type: none"> <li>1. With a view to make the course relatively light for Computer Engineering discipline, the topics numbered 6 and 7 may be merged and weightage thereof may be reduced.</li> <li>2. The notion of 'Autocad' tool should be removed, rather it should mention "... preferably, using available software tools..."</li> </ol>
5	Communication Skills	<ol style="list-style-type: none"> <li>1. Explore the possibility of including office related software tools (e.g., for text / spreadsheet / presentation documents)</li> </ol>

4. Other Recommendations:

1. A course on 'Professional practices and ethics' should be incorporated.
2. Explore the possibility of offering Electives / choices for Humanity Science related courses like SEIU, Constitution of India, etc...

The meeting ended with vote of thanks.

  
 Dr. Darshak G. Thakore  
 (Chairman, BoS, Computer Engg)

To:

- The Principal Sir for records
- Dean, Academics, for records and coordination with other BoS
- All committee members
- Departmental BoS file

**Computer Engineering Department**  
**BVM Engineering College**  
**(An Autonomous Institution)**

17<sup>th</sup> August, 2015

Minutes of Meeting  
Board of Studies (Computer Engineering)

**Day, Date and Time:** Monday, the 10<sup>th</sup> August, 2015; 11:00am to 1:00pm  
**Venue:** Lab-9, F-block, BVM Engineering College

Following members were present:

Sr.	Name	Affiliation
1	Prof. (Dr.) Darshak G Thakore	Prof & Head and Chairman BOS, Computer Engineering, BVM
2	Prof. (Dr.) S D Panchal	Assoc Prof, IT Dept, VGEC, Ahmedabad
3	Dr. Samir Patel	Principal, Growmore Faculty of Engineering, Himmatnagar, Gujarat
4	Prof. (Dr.) Mayur M Vegad	Prof, Computer Engineering Dept, BVM
5	Prof. Sunil A Bakhru	Assoc Prof, Computer Engineering Dept, BVM
6	Prof. Prashant B Swadas	Assoc Prof, Computer Engineering Dept, BVM
7	Prof. (Dr.) Narendra M Patel	Assoc. Prof, Computer Engineering Dept, BVM
8	Prof. Mosin I Hasan	Asst Prof, Computer Engineering Dept, BVM
9	Prof. Bhavesh A Tanawala	Asst Prof, Computer Engineering Dept, BVM
10	Prof. Kirti J Sharma	Asst Prof, Computer Engineering Dept, BVM
11	Prof. Udesang K Jalia	Asst Prof, Computer Engineering Dept, BVM
12	Prof. (Mrs) Mahasweta J Joshi	Asst Prof, Computer Engineering Dept, BVM

Following members could not attend the meeting:

Sr.	Name	Affiliation
1	Dr. N D Jotwani	Visiting Professor, DAIICT and Ganpat University
2	Er. Mehul Patel	Sr. Engineer, IBM India, Bangalore, Karnataka
3	Prof. Hemant D Vasava	Asst Prof, Computer Engineering Dept, BVM

Agenda, draft syllabus and course structure for 1<sup>st</sup> semester of M.E. (Computer Engg.) were circulated to all the members through email earlier.

Following points were discussed and decided unanimously:

1. The minutes of last BoS meeting held on 9<sup>th</sup> July, 2015 were approved by all members present.
2. All the members appreciated the overall teaching scheme and course structure for the 1<sup>st</sup> semester of M.E. Computer Engineering programme.
3. The chairman-BoS announced with pleasure that, Dr. N D Jotwani, a senior, eminent and experienced personality in the Computer Engineering discipline (currently a visiting professor at DAIICT and Ganpat University) has accepted our invitation for being a member of the BoS. In his response to the draft scheme for PG programme, Dr. Jotwani has appreciated overall teaching structure. However, he has suggested to keep separate passing heads for theory and practical

components in all applicable courses. His valuable suggestion is to be passed to Academic Council for their discernment.

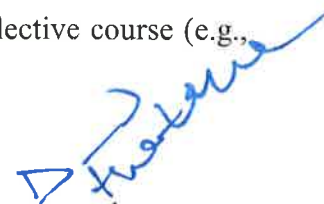
4. Er. Mehul Patel has also conveyed, through email, his words of appreciation for the 1<sup>st</sup> semester course structure for the PG programme. Considering the need of industry, he suggested to include courses (may be as later semester electives) that cover topics on Cloud, Analytics, Mobile, Social and Security (CAMSS) and Internet of Things (IoT).
5. Following points were **re-endorsed** by all the BoS members of Computer Engineering, mentioned as a part of Sr. (3) and (4) of the minutes of last BoS meeting, pertaining to 'Basic Civil Engineering' and 'Engineering Graphics' courses respectively, for 1<sup>st</sup> level UG programme.

Course	Observations / Recommendations
Basic Civil Engineering	<ol style="list-style-type: none"><li>1. Weightage of Surveying should be reduced.</li><li>2. Weightage of Environmental Studies may be increased.</li></ol>
Engineering Graphics	<ol style="list-style-type: none"><li>1. With a view to make the course relatively light for Computer Engineering discipline, the topics numbered 6 and 7 may be merged and weightage thereof may be reduced.</li><li>2. The notion of 'Autocad' tool should be removed, rather it should mention "..., preferably, using available software tools..."</li></ol>

The respective BoSs of above courses and Academic Council are requested to consider above suggestions, keeping in view the guidelines from AICTE and the related course contents from other reputed institutes like NITs.

6. Teaching scheme and syllabi of 1<sup>st</sup> semester PG programme in Computer Engineering were discussed and approved by all members with possible incorporation of following suggestions:
  1. Following book was suggested as a reference for 'Advanced Data Structures and Algorithms' course:  
Ellis Horowitz, Sahani, Rajsekharan, "Fundamentals of Computer Algorithms", University Press
  2. A topic on 'Clustering' should be added in the 'Advanced Computer Architecture and Parallel Processing' course.
  3. The teaching structure of 'Advanced Computer Architecture and Parallel Processing' course should be modified from (L=4, T=0, P=0) to (L=4, T=1, P=0). That is, a one-hour tutorial is to be added. Consequent changes are to be reflected to the evaluation scheme (25 marks to be added) and number of credits (1 credit to be added).
  4. For the course on 'Advanced Programming Laboratory' following should be added to the list of references:  
'Various open E-resources available online'
  5. For the course on 'Advanced Programming Laboratory', the head 'Contents of Laboratory Experiments' may be changed to 'Reference List of Contents'.
  6. A topic on 'Forensics' should be included in a later semester regular / elective course (e.g., Cryptography & Information Security).

The meeting ended with vote of thanks.

  
- sd -

Dr. Darshak G. Thakore  
(Chairman, BoS, Computer Engg)

To:

- The Principal Sir for records
- The Dean, Academics, for records and necessary actions
- All members of the BoS
- Departmental BoS file



**BVM Engineering College (Autonomous Institution)  
Computer Engineering Department**

24<sup>th</sup> November, 2015

Minutes of Board of Studies Meeting  
(held on Tuesday, the 24<sup>th</sup> November, 2015)

**Day, Date and Time:** Tuesday, the 24<sup>th</sup> November, 2015; 12:00am to 1:45pm

**Venue:** Lab-9, F-block, Gnd floor, BVM Engineering College

Following members were present:

Sr.	Name	Affiliation
1	Prof. (Dr.) Darshak G Thakore	Prof & Head and Chairman BOS, Computer Engineering, BVM
2	Prof. (Dr.) Mayur M Vegad	Prof, Computer Engineering Dept, BVM
3	Prof. Sunil A Bakhru	Assoc Prof, Computer Engineering Dept, BVM
4	Prof. Prashant B Swadas	Assoc Prof, Computer Engineering Dept, BVM
5	Prof. (Dr.) Narendra M Patel	Assoc. Prof, Computer Engineering Dept, BVM
6	Prof. Mosin I Hasan	Asst Prof, Computer Engineering Dept, BVM
7	Prof. Bhavesh A Tanawala	Asst Prof, Computer Engineering Dept, BVM
8	Prof. Kirti J Sharma	Asst Prof, Computer Engineering Dept, BVM

Following members could not attend the meeting:

Sr.	Name	Affiliation
1	Dr. N D Jotwani	Visiting Professor, DAIICT and Ganpat University
2	Prof. (Dr.) S D Panchal	Assoc Prof, IT Dept, VGEC, Ahmedabad
3	Er. Mehul Patel	Sr. Engineer, IBM India, Bangalore, Karnataka
4	Dr. Samir Patel	Principal, Growmore Faculty of Engineering, Himmatnagar, Gujarat
5	Prof. Hemant D Vasava	Asst Prof, Computer Engineering Dept, BVM
6	Prof. Udesang K Jalia	Asst Prof, Computer Engineering Dept, BVM
7	Prof. (Mrs) Mahasweta J Joshi	Asst Prof, Computer Engineering Dept, BVM

1. The minutes of last BoS meeting held on 9<sup>th</sup> July, 2015 were approved by all members present.
2. The main agenda of this meeting was to prepare examiners' panels for different Computer Engineering courses offered in 1<sup>st</sup> semesters of UG as well as of PG. Accordingly, such panels were prepared and recommended to the Academic Council.

The meeting ended with vote of thanks.

- sd -

Dr. Darshak G. Thakore  
(Chairman, BoS, Computer Engg)

**To:**

- The Principal Sir for records
- Dean, Academics, for records and coordination with other BoS
- All committee members
- Departmental BoS file

*Delits*

**BVM Engineering College (An Autonomous Institution)**  
**Computer Engineering Department**

13<sup>th</sup> January 2016

Minutes of Meeting - Board of Studies  
(held on Tuesday, the 29<sup>th</sup> December, 2015)

**Day, Date and Time:** Tuesday, the 29<sup>th</sup> December 2015; 11:15am to 1:30pm

**Venue:** Lab-9, F-block, Ground floor, BVM Engineering College

Following members were present:

Sr.	Name	Affiliation
1	Prof. (Dr.) Darshak G Thakore	Prof & Head and Chairman BOS, Computer Engineering, BVM
2	Dr. Samir Patel	Principal, Growmore Faculty of Engineering, Himmatnagar, Gujarat
3	Prof. (Dr.) Mayur M Vegad	Prof, Computer Engineering Dept, BVM
4	Prof. Sunil A Bakhru	Assoc Prof, Computer Engineering Dept, BVM
5	Prof. Prashant B Swadas	Assoc Prof, Computer Engineering Dept, BVM
6	Prof. (Dr.) Narendra M Patel	Assoc. Prof, Computer Engineering Dept, BVM
7	Prof. Hemant D Vasava	Asst Prof, Computer Engineering Dept, BVM
8	Prof. Kirti J Sharma	Asst Prof, Computer Engineering Dept, BVM
9	Prof. Udesang K Jalia	Asst Prof, Computer Engineering Dept, BVM
10	Prof. (Mrs) Mahasweta J Joshi	Asst Prof, Computer Engineering Dept, BVM

Following members could not attend the meeting:

Sr.	Name	Affiliation
1	Dr. N D Jotwani	Visiting Professor, DAIICT and Ganpat University
2	Prof. (Dr.) S D Panchal	Assoc Prof, IT Dept, VGEC, Ahmedabad
3	Prof. (Dr.) M A Zaveri	Assoc Prof., Computer Engineering Department, SVNIT, Surat
4	Prof. (Dr.) Amit Ganatra	Prof. & Head, Computer Engineering Department, CSPIT, Charusat
5	Er. Mehul Patel	Sr. Engineer, IBM India, Bangalore, Karnataka
7	Prof. Mosin I Hasan	Asst Prof, Computer Engineering Dept, BVM
9	Prof. Bhavesh A Tanawala	Asst Prof, Computer Engineering Dept, BVM

Agenda, teaching scheme (structure) and the draft syllabi of 2<sup>nd</sup> Semester PG were circulated to all the members through email earlier.

Following points were discussed and decided unanimously:

- CP.15.4.1 The minutes of last BoS meeting held on 24<sup>th</sup> November, 2015 is approved. Examiners for the Winter-2015 end semester examinations were appointed for the courses offered by Computer Engineering Department in the meeting of Academic Council held on 30<sup>th</sup> November 2015, from the panel of examiners recommended by BoS, Computer Engineering.
- CP.15.4.2 Following sub-committee is constituted to prepare a panel of examiners for end-semester examinations (Ref. Resolution no. 2 of the Academic Council meeting held on 30<sup>th</sup> November 2015):
1. Prof. (Dr.) Darshak G Thakore, Chairman, BoS Computer Engineering – chairman
  2. Prof. Amit Ganatra, Prof. & Head, Computer Engineering Department, CSPIT, Charusat, Changa – external member
  3. Prof. (Dr.) Mayur M Vegad – member
  4. Prof. Sunil A Bakhru – member
  5. Prof. Prashant B Swadas – member
  6. Prof. (Dr.) Narendra M Patel – member
- CP.15.4.3 Syllabus of ME 181 (Computer Programming) offered for PDDC (Mechanical) was approved. Prof. Samir Patel recommended to add following book in the list of 'reference books' for the course:  
M T Savaliya, "Computer Programming & Utilization," Atul Prakashan
- CP.15.4.4 Following points were discussed regarding the teaching scheme (structure) of M.Tech. in  
and Computer Engineering programme:
- CP.15.4.5
1. Dr. N D Jotwani conveyed his views / recommendations by advance email and a telephonic talk during the meeting:
    1. He strongly emphasized on priority of Teaching over that on Research. He suggested that the courses taught in the 1<sup>st</sup> year must cover the basics and fundamentals of the discipline (i.e., teaching 'proven techniques') and must not touch research aspects (i.e., exploring 'unproven techniques'). In 2<sup>nd</sup> year, however a conducive environment may be created to encourage research attitude amongst the students. Different electives may be offered by different faculty members (as per their research areas) and students may pick up one to pursue his dissertation work.
    2. He recommended to include a course covering numerical techniques. Accordingly, a course on numerical techniques will be accommodated with L-T-P structure of 2-0-2.
  2. The PG course structure was revised (enclosed) after deliberations, incorporating the suggestions.
  3. Prof. Samir Patel suggested to accommodate topics on PERT and CPM tools and introduction to Queuing Theory in some courses.
  4. Prof. (Dr.) M A Zaveri has suggested through email that Machine Learning should be separated from the course on Computer Vision while it may be included with AI.
  5. Topic on zigbee protocol should be included in the course 'Wireless Communication and Mobile Computing'. A term paper may also be included in the course in Practical Assessment (PA) component.
  6. In the course of 'Data Warehousing and Mining', open source tools and techniques should be incorporated in Practical Assessment (PA) component.
  7. Topic on Cyber Security is to be included in the syllabus of 'Cryptography and Information Security' course.
  8. Following book is to be added in the reference list of the course 'Cryptography and Information Security':  
Pfleeger and Pfleeger, "Security in Computing", Prentice Hall

CP.15.4.6 Other Items discussed regarding UG Teaching scheme:

1. Capstone course is to be included in the UG scheme, preferably in 5<sup>th</sup> / 6<sup>th</sup> Semester. This course may be of 1 credit and should cover the basics of all fundamental courses of Computer Engineering discipline.
2. One course on Design Engineering should be included in the scheme, may be in Sem V.
3. UG teaching scheme to be preferably finalized in the next BoS meeting.
4. Possibility of a clause for compulsion of "minimum 4 weeks' industrial training" is to be explored.

The meeting ended with vote of thanks.



- sd -

Dr. Darshak G. Thakore  
(Chairman, BoS, Computer Engg)

**To:**

- The Principal Sir for records
- Dean, Academics, for records and coordination with other BoS
- Member Secretary, Academic council for records and necessary actions
- All committee members
- Departmental BoS file



**BVM Engineering College (Autonomous Institution)  
Computer Engineering Department**

10<sup>th</sup> April 2016

Minutes of Board of Studies Meeting  
(held on Thursday, the 7<sup>th</sup> April, 2016)

**Day, Date and Time:** Tuesday, the 7<sup>th</sup> April 2016; 11:30am to 1:30pm

**Venue:** Lab-9, F-block, Gnd floor, BVM Engineering College

Following members were present:

<b>Sr.</b>	<b>Name</b>	<b>Affiliation</b>
1	Prof. (Dr.) Darshak G Thakore	Prof & Head and Chairman BOS, Computer Engineering, BVM
2	Prof. (Dr.) Amit Ganatra	Prof. & Head, Computer Engineering Department, CSPIT, Charusat
3	Dr. Samir Patel	Principal, Growmore Faculty of Engineering, Himmatnagar, Gujarat
4	Prof. (Dr.) Mayur M Vegad	Prof, Computer Engineering Dept, BVM
5	Prof. Prashant B Swadas	Assoc Prof, Computer Engineering Dept, BVM
6	Prof. (Dr.) Narendra M Patel	Assoc. Prof, Computer Engineering Dept, BVM
7	Prof. Mosin I Hasan	Asst Prof, Computer Engineering Dept, BVM
8	Prof. Bhavesh A Tanawala	Asst Prof, Computer Engineering Dept, BVM
9	Prof. Kirti J Sharma	Asst Prof, Computer Engineering Dept, BVM
10	Prof. Udesang K Jalia	Asst Prof, Computer Engineering Dept, BVM

Following members could not attend the meeting:

<b>Sr.</b>	<b>Name</b>	<b>Affiliation</b>
1	Dr. N D Jotwani	Visiting Professor, DAIICT
2	Prof. (Dr.) S D Panchal	Assoc Prof, IT Dept, VGEC, Ahmedabad
3	Prof. (Dr.) M A Zaveri	Assoc Prof., Computer Engineering Department, SVNIT, Surat
4	Er. Mehul Patel	Sr. Engineer, IBM India, Bangalore, Karnataka
5	Prof. Sunil A Bakhru	Assoc Prof, Computer Engineering Dept, BVM
6	Prof. Hemant D Vasava	Asst Prof, Computer Engineering Dept, BVM
7	Prof. (Mrs) Mahasweta J Joshi	Asst Prof, Computer Engineering Dept, BVM

Agenda, the structure and the draft syllabus of 2<sup>nd</sup> Semester PG were circulated to all the members through email earlier.

With respect to the agenda (attached herewith), following points were discussed & decided unanimously in the meeting:

- 15.5.1 The minutes of last BoS meeting held on 29<sup>th</sup> December 2016 was approved.
- 15.5.2 Teaching scheme (structure) for 2<sup>nd</sup> year of B. Tech. (Computer Engineering) programme was approved after revision. (Attached)
- 15.5.3 Following points on 2<sup>nd</sup> Year UG Syllabi were discussed & approved.
  1. About the overall scheme:
    - a) Currently semester-III has two courses related to Mathematics: (1) Maths-III and (2) Numerical Methods and Probability Theory. This may become heavy and possibility of shifting one of these two courses to 4<sup>th</sup> Semester should be explored. It was clarified that Numerical Methods and Probability Theory will be taught by Computer Department and will equally focus on implementation of methods. It was concluded that swapping of one of the courses of 4<sup>th</sup> semester with Numerical Methods and Probability Theory would lead to improper sequence of subject-offering and hence swapping is not preferred.
    - b) To merge the contents of ADBMS and DBMS. In this regards the number of lab contact hours in the Programming Lab course to be changed from 0-0-2 to 0-0-3. Students should be given experiments based on PL-SQL concepts in the Programming Lab (to be offered in 4<sup>th</sup> Semester).
    - c) Tutorial to be avoided in the course of 'Principles of Communication Theory'.
  2. Syllabi of all UG courses were thoroughly discussed and approved:
    - a) Principles of Communication Theory:
      1. Name of the course to be changed to 'Communication Principles and Applications'.
      2. Topics on 'Introduction to communication devices (like hub, switch) should be added.
      3. Topic on 'Introduction to analog systems' and 'Applications in Communication Systems' may be added.
    - b) Digital Logic Design:  
Name to be changed to 'Digital Logic and Design'
    - c) Numerical Methods and Probability Theory:  
Topic on 'Available software tools for probability theory and statistics' may be added.
    - d) Object Oriented Programming using C++:  
2<sup>nd</sup> and 3<sup>rd</sup> modules may be merged.
    - e) Computer Graphics:
      1. Add topic / module of 'Study of recent developments in multi-core graphics processors'.
      2. Also add corresponding reference sources for above added new topic.
    - f) Computer Organization and Architecture:
      1. Name to be changed to 'Computer Organization'
      2. Following book to be added in the reference list: (The videos in the accompanying CD with this book are also suggestible for the Computer Workshop course at 1<sup>st</sup> level.)  
Ron White, "How Computer Works", Pearson Education
    - g) Computer Networks:
      1. The order of list of reference books is to be changed. Swap the 1<sup>st</sup> and the 2<sup>nd</sup> entries.
      2. Add the topic of 'Introduction to network security'. In this course device level security aspects may be covered.

h) Data and File Structures:

1. Include the topic of 'Introduction to Graph' in the module of 'Non-linear data structures'.
2. Include / make separate module for 'Searching'.
3. Include following book in the reference list:  
Sanjeev Sofat, "Data Structures using C & C++", Khanna book publishing Pvt. Ltd.

**15.5.4** Revised teaching scheme for M. Tech. (Computer Engineering) programme was approved. (Attached)

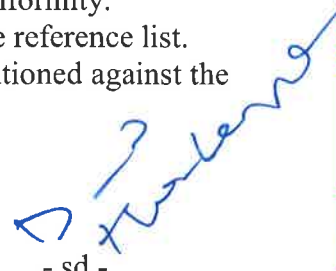
**15.5.5** PG 2<sup>nd</sup> Level Syllabus was discussed and approved:

1. Title of 'Big Data Systems' to be changed to 'Big Data'.
2. Elective on 'Next generation networks' may be considered to be added in the list of electives. The name of this course may also be kept 'Intelligent Networks' or 'Software Defined Networks'.
3. Course on IoT may be considered to be merged with that of WSN or Embedded Systems
4. Internet of Things
  1. Topic of 'Different types of sensors and their interfaces' may be included.
  2. Contents (and weightage) related to protocols may be reduced.

**15.5.6** Dr. Amit Ganatra shared his experience for NBA accreditation process in his institute / department. Following key points were noted:

1. Library, laboratory, and central computing facility should be kept accessible by students beyond college hours.
2. Course outcomes should be measurable and mapping from course outcomes vs programme outcomes (including programme specific outcomes) should be carried out for each course and should be included as a part of the course page for each course.
3. Rationale should be renamed as 'Course Objectives' and 'Learning Outcomes' should be renamed as 'Student Learning Outcomes / Course Outcomes'.
4. Each course page should include mapping table of Course Outcomes vs Programme Outcomes & Programme Specific Outcomes.
5. Every course should have 7 (or 8) modules of course contents for uniformity.
6. NPTEL video lectures / MOOCS / Course era should be added in the reference list.
7. Provision of e-books (wherever applicable) should be explicitly mentioned against the respective reference book.

The meeting ended with vote of thanks.



- sd -

Dr. Darshak G. Thakore  
(Chairman, BoS, Computer Engg)

To:

- o The Principal Sir for records
- o Dean-Academics, for records and necessary actions
- o Member Secretary, Academic council for records and necessary actions
- o All committee members
- o Departmental BoS file



**BVM Engineering College (Autonomous Institution)  
Computer Engineering Department**

15<sup>th</sup> September, 2016

Minutes of Board of Studies Meeting  
(held on Thursday, the 3<sup>rd</sup> September, 2016)

**Day, Date and Time:** Saturday, the 3<sup>rd</sup> September 2016; 11:15am to 2:30pm

**Venue:** Lab-9, F-block, Ground floor, BVM Engineering College

Following members were present:

<b>Sr.</b>	<b>Name</b>	<b>Affiliation</b>
1	Dr. Darshak G. Thakore	Prof & Head and Chairman BoS, Computer Engineering, BVM
2	S. D. Panchal	Head, IT Dept, VGEC, Ahmedabad
3	Dr. Samir Patel	Asst. Prof, PDP, Gujarat
4	Dr. Mayur M. Vegad	Prof., Computer Engineering Dept, BVM
5	Sunil A. Bakhru	Assoc. Prof, Computer Engineering Dept, BVM
6	Prashant B. Swadas	Assoc. Prof, Computer Engineering Dept, BVM
7	Dr. Narendra M. Patel	Assoc. Prof, Computer Engineering Dept, BVM
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11	Udesang K. Jalia	Asst. Prof, Computer Engineering Dept, BVM
12	Mrs. Mahasweta J. Joshi	Asst. Prof, Computer Engineering Dept, BVM

Following members could not attend the meeting:

<b>Sr.</b>	<b>Name</b>	<b>Affiliation</b>
1	Dr. N. D. Jotwani	Visiting Professor, DAIICT
2	Dr. Amit Ganatra	Prof. & Head, Computer Engineering Department, CSPIT, Charusat
3	Dr. M. A. Zaveri	Assoc. Prof., Computer Engineering Department, SVNIT, Surat
4	Er. Mehul Patel	Sr. Engineer, IBM India, Bangalore, Karnataka

Agenda items with enclosures were circulated to all the members through email earlier.

With respect to the agenda, following points were discussed & resolved unanimously in the meeting:

CP.16.1.1 The minutes of last BoS meeting held on 7<sup>th</sup> April, 2016 was approved.

CP.16.1.2 Vision and Mission statements of department were discussed.

1. Vision and Mission statements related suggestions given through email by Dr. M. A. Zaveri and Dr. Amit Ganatra were discussed for revision of Statements.
2. Telephonic discussion was held with Dr. N. D. Jotwani during the BoS meeting. He expressed his view to avoid incorporating phrase "globally employable" and word "global" in Vision and Mission statements if possible. After discussion and deliberation and by considering views of members of BoS, Mission statements were revised. **(Encl. 16.1.2)**  
Departmental Vision statement was decided to be kept in line with the institutional Vision statement by retaining the phrase "globally employable".
3. The suggestions of external members were useful for revising Vision and Mission statements of the department.

CP.16.1.3 PEOs were approved and PSO.13 statement was revised after discussion. **(Encl. 16.1.3)**

CP.16.1.4 There is an existing committee (consisting of first five senior faculty members of the department and one external member, Dr. Amit Ganatra of CSPIT, Charusat), constituted for suggesting the panels of examiners for the end-semester examinations (Constituted vide BoS meeting dated 13th January 2016 at point number CP 15.4.2).

The scope of the function of this committee is extended and approved in BoS. It will also function as an interfacing committee between the department and the BoS, which is to be named as Departmental Academic Committee (Program Assessment Committee and Quality Improvement Committee).

CP.16.1.5 Syllabus of 1<sup>st</sup> and 2<sup>nd</sup> level courses along with COs, and Course Articulation Matrices were discussed and approved. **(Encl. 16.1.5)**

CP.16.1.6 A mechanism for assessment of quality of question papers of written examinations and assignments and Quiz were discussed.

1. Incorporating a table having suggestive distribution of marks for theory examinations to set the basis of guidelines to paper setters.
2. Paper setter will map each question with CO and Bloom's Taxonomy level / name.
3. A form should be designed for quality assessment of question papers.
4. Department Academic Committee (DAC) members (Program Assessment Committee and Quality Improvement Committee) should carry out quality assessment of question papers. Other external members (not limited to external members of the BoS) may be involved for quality assessment, if needed and decided by the DAC.
5. Observations of the assessment should be conveyed to concerned faculty members (along with corrective measures / advice if any).

CP.16.1.7 Teaching Scheme of 3<sup>rd</sup> and 4<sup>th</sup> levels of the UG program were approved with following suggestions: **(Encl. 16.1.7)**

1. Course Articulation Matrix to be reiterated for uniformity across the courses.
2. Name of the course to be changed to 'Microcontroller and Interfacing' in 5<sup>th</sup> semester.
3. It was suggested to explore possibility of making Bridge Course and Industrial Training as credit based courses or mandatory audit courses.  
*The Dean, Academic and Member Secretary Academic Council to do necessary.*
4. It was suggested to make 'Artificial Intelligence' course compulsory instead of an elective course.
5. Exploration of possibility to add full 8<sup>th</sup> semester project so as to enable students doing project at industry or research organization.
6. Course 'Android Programming' to be added into elective list.
7. Exploring incorporation of 'Societal and environmental implication' related topics in selected 3<sup>rd</sup> and 4<sup>th</sup> level courses.
8. Capstone course should address aspects and skills pertaining to employability, further study, entrepreneurship, technical paper publishing and presentation.
9. It was suggested to verify minimum credit required for awarding degree as per NBA guidelines.

CP.16.1.8 Teaching scheme of 1<sup>st</sup> level courses was reviewed and following observations are required further exploration at institute level.

*The Dean of Academics and Member Secretary of Academic Council to do necessary for coordination and approval.*

1. The first year course structure which is presently common for all branches (circuit and non-circuit), wherein, there exists lesser weightage for subjects of circuit branches compared to subjects of non-circuit branches. Basic Electrical, Basic Mechanical and Computer Programming all are of 5 credit subjects. Whereas, Engineering Graphics, Civil & Environmental Engg., and Basic Mechanical Engg. are all of 6 credits each.

Present teaching scheme results into imbalance of first year teaching load.

2. The GTU (and also some other institutes) has two (or multiple) teaching schemes for first year based on the requirements approved by respective BoS.

3. Following changes were unanimously agreed upon by all Chairman – BoS (EE, CP, EL, EC and ET) for First year structure, to be proposed to be implemented from next academic year i.e. 2017-18. The same was endorsed in the meeting.

a. Common structure for **All** circuit branches for the first year courses, which may / may not be same as the structure of non-circuit branches.

b. Computer programming (3+2) should be revised to 4+2 structure. (+1 credit)

c. Basic mechanical Engg (4+2) should be revised to 3+2 structure. (-1 credit)

d. Engineering Graphics (2+4) should be revised to 3+2 structure. (-1 credit)

CP.16.1.9 Course contents and the title of the course 'Numerical Techniques and Probability Theory' and suitability of its offering in other semester were reviewed with a reference to the suggestion given by the Academic Council.

BoS resolution CP.15.5.3 was re-iterated. It was clarified that Numerical Methods and Probability Theory will be taught by Computer Department and will equally focus on implementation of methods. It was concluded that swapping of one of the courses of 4<sup>th</sup> semester with Numerical Methods and Probability Theory would lead to improper sequence of subject-offering and hence swapping is not preferred.

It was also further resolved to approve revised syllabus of the course that includes case studies and application of methods. It was decided not to change the title.

CP.16.1.10 Revised syllabus of the course 'Database Management Systems' was approved.

CP.16.1.11 Following Target Levels for COs attainment level for each course were approved.

#### Measuring Attainment of COs through the End-Sem-Examination

- *Attainment Level 1: 50% students scoring CC or higher grade in the final examination*
- *Attainment Level 2: 60% students scoring CC or higher grade in the final examination*
- *Attainment Level 3: 70% students scoring CC or higher grade in the final examination*

#### Measuring CO attainment through Internal assessments

All corresponding COs addressed by the Continuous Evaluation (CE) of Theory (Mid Sem Tests) are addressed with said levels, if ...

- *Attainment Level 1: 50% students scoring at-least 50% of total marks*
- *Attainment Level 2: 60% students scoring at-least 50% of total marks*
- *Attainment Level 3: 70% students scoring at-least 50% of total marks*

All corresponding COs addressed by the Continuous Evaluation (CE) of Practical (Term Work, Practical Test, Assignment, Presentation, Reports, etc ...) are addressed with said levels, if ...

- *Attainment Level 1: 60% students scoring at-least 60% of total marks.*
- *Attainment Level 2: 70% students scoring at-least 60% of total marks.*
- *Attainment Level 3: 80% students scoring at-least 60% of total marks*

CP.16.1.12 Following target levels for each PO/PSOs were approved.

PO / PSO	Target Level
PO1 to PO12	$\geq 60\%$
PSO13 to PSO15	$\geq 60\%$

CP.16.1.13 Methods and processes to gather the data to measure the attainment of PO/PSOs and the frequency with which this assessment is carried out were stated and discussed. **(Encl.16.1.13)**


CP.16.1.14 Weightage of Direct and Indirect Assessment Tools in Measuring Attainment of Program Outcome [PO] / Program Specific Outcomes [PSO] as follow was approved.

PO / PSO	Weightage of	
	Direct Assessment	Indirect Assessment
PO1 to PO5	80%	20%
PO6 to PO12	50%	50%
PSO13 to PSO15	80%	20%

CP.16.1.15 Name of M. I. Hasan, Asst. Prof., was proposed and approved as member secretary of the BoS.

CP.16.1.16 Suggested equivalence of GTU subjects with Autonomous subjects was approved **(Encl. 16.1.16)**

The meeting ended with vote of thanks.

- sd - 

M. I. Hasan

(Member Secretary, BoS, Computer Engg)

- sd - 

Dr. Darshak G. Thakore

(Chairman, BoS, Computer Engg)

To:

- o The Principal Sir for records
- o Dean-Academics, for records and necessary actions
- o Member Secretary, Academic council, for records and necessary actions
- o All committee members
- o Departmental BoS file

**BVM Engineering College (Autonomous Institution)  
Computer Engineering Department**

18<sup>th</sup> April 2016

Minutes of Meeting of Board of Studies

**Day, Date and Time:** Saturday, the 08<sup>th</sup> April 2017; 11:30am to 1:30pm

**Venue:** Lab-9, F-block, BVM Engineering College

Following members were present:

<b>Sr.</b>	<b>Name</b>	<b>Affiliation</b>
1	Prof. (Dr.) Darshak G Thakore	Prof & Head and Chairman BoS, Computer Engineering, BVM
2	Prof. (Dr.) S D Panchal	Head, IT Dept, VGEC, Ahmedabad
3	Prof. (Dr.) Amit Ganatra	Prof. & Head, Computer Engineering Department, CSPIT, Charusat
4	Dr. Samir Patel	Asst. Prof, PDPU, Gujarat
5	Prof. (Dr.) Mayur M Vegad	Prof, Computer Engineering Dept, BVM
6	Prof. Sunil A Bakhru	Assoc Prof, Computer Engineering Dept, BVM
7	Prof. Prashant B Swadas	Assoc Prof, Computer Engineering Dept, BVM
8	Prof. (Dr.) Narendra M Patel	Assoc. Prof, Computer Engineering Dept, BVM
9	Prof. Mosin I Hasan	Asst Prof, Computer Engineering Dept, BVM
10	Prof. Hemant D Vasava	Asst Prof, Computer Engineering Dept, BVM
11	Prof. Bhavesh A Tanawala	Asst Prof, Computer Engineering Dept, BVM
12	Prof. Kirti J Sharma	Asst Prof, Computer Engineering Dept, BVM
13	Prof. Udesang K Jalia	Asst Prof, Computer Engineering Dept, BVM
14	Prof. (Mrs) Mahasweta J Joshi	Asst Prof, Computer Engineering Dept, BVM

Following members could not attend the meeting:

<b>Sr.</b>	<b>Name</b>	<b>Affiliation</b>
1	Dr. N D Jotwani	Visiting Professor, DAIICT
2	Prof. (Dr.) M A Zaveri	Assoc Prof., Computer Engineering Department, SVNIT, Surat
3	Er. Mehul Patel	Sr. Engineer, IBM India, Bangalore, Karnataka

Agenda, the structure and the draft syllabus, courses offered of UG were circulated earlier to all the members through email.

Following points were discussed & decided unanimously in the meeting:

- CP.16.2.1** The minutes of last BoS meeting held on 3<sup>rd</sup> September, 2016 were approved.
- CP.16.2.2** Revised structure (Teaching Scheme) of B. Tech. in Computer Engineering program were discussed and approved. However, following suggestion were made for considerations: **(Encl.- I)**
1. The external members suggested that the number of credits for the final year Project should be increased. The suggestion will be discussed in subsequent meetings.
  2. The course of 'Distributed Systems' should be kept in place of Advanced Operating Systems. AOS should be kept in program electives.
  3. A unit on 'Introduction to Types of OS' should be incorporated in the course of Operating Systems that should cover following types of OS: Desktop, Mobile, Distributed, Server, open/ proprietary.
  4. Number of practical credits for the course 'Web Technology' should be changed to '2-0-4' instead of '3-0-2'. It was also suggested to increase practical components in the overall teaching scheme.
  5. In the 'Design and Analysis of Algorithms' course, Computer Applications and Real World Applications should be included in the contents.
  6. A course on Microcontroller & Interfacing should be removed and a suitable course should be designed to replace it. A new course on Processor Architectures is designed and included replacing the earlier one.
  7. 'Software Engineering' course should cover: Agile Methodology, Maintenance, Client Server technology, Software Configuration Management. ISO CMM Certification, Six Sigma CBSD, Case tools. Further, following tools may be covered: MS project, Enterprise architecture, QTP, Rational Rose.
  8. Title of course on Advanced Database Management Systems (Semester 7) may be renamed. The suggestion will be considered while framing the syllabus for the same.
  9. 'Cryptography and Information Security' course following book should be added into 'Reference List':
    - a. Atul Kahate, "Cryptography and Network Security", Tata McGraw-Hill
  10. Title of 'Cryptography and Information Security' should be changed to 'Information Security'.
  11. In the course on 'Android Programming', other mobile application development technologies may be added.
- CP.16.2.3** Format of Assessment for Quality of Question paper was discussed and approved by adding marks column beside 'Q. No.'. **(Encl.- II)**
- CP.16.2.4** Syllabi of all 3<sup>rd</sup> level courses along with COs, and Course Articulation Matrices were discussed and approved. **(Encl.- III)**
- CP.16.2.5** Syllabi of Program Elective courses along with COs, and Course Articulation Matrices were discussed and approved. However following suggestion were made. **(Encl.- III)**
1. 'Software Defined Networks' or 'Next Generation Networks' should be included.
  2. Following topics may be included in the course of Artificial Intelligence: Machine Learning, Ant Colony Optimization, Swarm Intelligence etc.

- CP.16.2.6** Syllabi of Open Elective courses along with COs, and Course Articulation Matrices were discussed and approved. Suggestion to define “Open Elective” as Institute Elective. (Following UGC Terms) was given. This point should be suggested to the academic council. **(Encl.- III)**
- CP.16.2.7** Following points were discussed with the permission of the chair:
- A. Suggestion were given for improving teaching scheme by making it more “student centric”.
1. The current teaching scheme does not offer flexibility to students having different learning capabilities. Considering the general industry requirement of full time project in the 8<sup>th</sup> semester and the obvious divide between the fast and slow learners, a mixed mode of teaching scheme having two tracks should be explored for 8<sup>th</sup> semester with following suggestions (to be conveyed to the academic council):
    - a. Fast learners (based on CPI) / already placed students (approved by the DPC) may be allowed to avail full-time industrial training and they will register & qualify in one or more online certification course(s) (e.g., on NPTEL) instead of the scheduled courses as per the scheme in the 8<sup>th</sup> semester. And, the attendance at industry may be consider to fulfill the GTU attendance norms. The report of the availed training along with completion certificate to be submitted to the department.
    - b. Other students not availing fulltime trainings at industries will undergo registration of courses prescribed in the curriculum.
    - c. And also, slow learners may be allowed to opt for less number of credits and fast learners may be allowed to opt for more number of credits than usual.
  2. To instill ‘Life-long learning’ in the students, there should be either some courses offered in ‘Self-learning mode’ or ‘self-learning components’ may be added in courses, wherever applicable.
  3. Explore possibility of giving exposure to alternative open source Platforms to the students. For example, students should be asked to experiment on Scilab/OpenCV as well as on MATLAB in relevant course(s).
  4. All the students should be conveyed the POs and PSOs, may be through emails.
  5. Different categories of assignments should be designed for Fast learners and slow learners. Groups should be formed accordingly.
  6. Innovation in Pedagogy for continuous evaluation should be explored incorporating followings: open book test, online test (e.g., on Moodle)
  7. There should be one presentation in each course. This will enhance written and verbal presentation (soft) skills of students.
- B. The status of the NBA preparation was briefed by the chair and it was conveyed that Computer Engineering department will apply for NBA accreditation in the next phase.
- C. It was brought to the notice of the members that post-graduation in Computer Engineering program was ‘M.E in Computer Engineering’ since its commencement. But, as per the GTU notification dated 02-01-2014, having reference number GTU/Academic/Merging/2013/150 for merging of branches at Master’s and under graduate levels, the PG program of M.E in Computer Engineering has been renamed as Computer Engineering (Software Engineering). It

was discussed that appropriate procedure may be initiated to rename the PG program as M. Tech. in Computer Engineering (by excluding specialization in Software Engg. and M. Tech. in place of M.E. as per resolution of academic council of BVM resolved after achieving UGC autonomy).

The meeting ended with a vote of thanks.

- sd -

Mosin Hasan

(Member Secretary, BoS, Computer Engg.)

- sd -

Dr. Darshak G. Thakore

(Chairman, BoS, Computer Engg)

To:

- o The Principal Sir for records
- o Dean-Academics, for records and necessary actions
- o Member Secretary, Academic council for records and necessary actions
- o All committee members
- o Departmental BoS file

**BVM Engineering College (Autonomous Institution)  
Computer Engineering Department**

24<sup>th</sup> February 2018

Minutes of Meeting of Board of Studies

**Day, Date and Time:** Saturday, the 24<sup>th</sup> February 2018; 11:00am to 1:00pm

**Venue:** Lab-9, F-block, BVM Engineering College

Following members were present:

<b>Sr.</b>	<b>Name</b>	<b>Affiliation</b>
1	Prof. (Dr.) Darshak G Thakore	Prof & Head and Chairman BoS, Computer Engineering, BVM
2	Dr. N D Jotwani	Professor, DAIICT, Gandhinagar
3	Prof. (Dr.) Amit Ganatra	Principal, DEPSTAR, Charotar University of Science & Technology, Changa
4	Prof. (Dr.) Mayur M Vegad	Prof, Computer Engineering Dept, BVM
5	Prof. Sunil A Bakhrui	Assoc Prof, Computer Engineering Dept, BVM
6	Prof. Prashant B Swadas	Assoc Prof, Computer Engineering Dept, BVM
7	Prof. (Dr.) Narendra M Patel	Assoc. Prof, Computer Engineering Dept, BVM
8	Prof. Mosin I Hasan	Asst Prof, Computer Engineering Dept, BVM
9	Prof. Hemant D Vasava	Asst Prof, Computer Engineering Dept, BVM
10	Prof. Bhavesh A Tanawala	Asst Prof, Computer Engineering Dept, BVM
11	Prof. Kirti J Sharma	Asst Prof, Computer Engineering Dept, BVM
12	Prof. Udesang K Jalia	Asst Prof, Computer Engineering Dept, BVM
13	Prof. (Mrs) Mahasweta J Joshi	Asst Prof, Computer Engineering Dept, BVM

Following members could not attend the meeting:

<b>Sr.</b>	<b>Name</b>	<b>Affiliation</b>
1	Prof. (Dr.) S D Panchal	Incharge Registrar Gujarat Technological University, AHMEDABAD. GTU Nominee
2	Prof. (Dr.) M A Zaveri	Assoc Prof, Computer Engineering Department, SVNIT, Surat
3	Er. Mehul Patel	Sr. Engineer, IBM India, Bangalore, Karnataka
4	Dr. Samir Patel	Asst. Prof, PDPU, Gujarat

Agenda, the structure and the draft syllabus, courses offered of UG and other relevant documents were circulated earlier to all the members through email. Er. Mehul Patel, Dr. M A Zaveri, Dr. S. D. Panchal, Dr. Samir Patel & Dr. Amit Ganatra responded with their suggestions / comments for *full time external project* through email and their suggestions were put forward and discussed. All members appreciated proposed enhanced industry interaction of the department through *full time external project*.

Following points were discussed & decided unanimously in the meeting:

- CP.17.1.1** The minutes of last BoS meeting held on 4<sup>th</sup>, August, 2017 were approved.
- CP.17.2.2** Revised Teaching Scheme UG in Computer Engineering program were discussed and approved. However, following suggestions were made for considerations: **(Encl. I)**
1. Courses on Engineering Graphics and Elements of Mechanical Engineering may be made more relevant / lighter for Computer Engineering Program. The similar was suggested earlier to Academic Council for revising first year structure for AY 2017-18. It was further suggested to use software tools in EG for preparing drawings. It is forwarded to Academic Council to consider revising first year teaching scheme & syllabi.
  2. Name of 'Capstone Course' should be changed to 'Foundation Review'. The suggestion may be considered at the time of next revision.
  3. It was recommended that names of courses should not start with 'Advanced' word. Instead, names like 'Course-1' and 'Course-2' are more appropriate.
  4. It was suggested to give credits to (6-week) internship which is carried out by the students. Suggestion is forwarded herewith to the Academic Council for consideration and necessary actions if found appropriate.
  5. It was recommended to further increase the laboratory component.
- CP.17.2.3** Final year syllabi of UG Program and syllabi of new electives were discussed and approved. Following were the modifications / suggestions: **(Encl. II)**
1. Name of 'Digital Image Processing' should be changed to 'Image Processing' but it is kept as it is.
  2. Name of 'Big Data' changed to 'Data Analytics and Visualization'.
  3. Name of 'Wireless Communication and Mobile Computing' changed to 'Wireless and Mobile Communications'.
  4. Name of 'Advanced Database Management Systems' changed to 'Advanced Database Techniques'.
  5. Faculty Advisor will suggest students for Elective Courses depending on relevance and dependency among courses.
- CP.17.1.3.1** Guidelines pertaining to full semester external project for track-2 were discussed and approved with following suggestions. **(Encl. III)**
1. The points related to industry-stipend to be reviewed by Academic Council to permit students to accept it.
  2. The Framework/ Norms pertaining to IPR (intellectual property rights) should be designed by Academic Council.
  3. The plagiarism for final report should be checked using software suggested by the institute and plagiarism for the project should be less than 30% (Same as prescribed by the GTU). The same is forwarded to Academic Council for consideration.
  4. The marks of CE and ESE components for Project-2 and Full Semester External Project may be kept in proportion to credits for better resolution in evaluation. The same is forwarded to Academic Council for consideration.
- CP.17.1.4** Revised syllabus of CP503: Advanced Computer Architecture and Parallel Processing was approved. **(Encl. IV)**
- CP.17.1.5** Revised syllabus of CP505: Advanced Programming laboratory was approved. **(Encl. IV)**

- CP.17.1.6** Rules for NPTEL courses and list of NPTEL courses which may be offered by the department were discussed and approved. **(Encl. V)**
- CP.17.1.7** The two ICCs (Industry Consultation Committees) formed were noted and approved.
- CP.17.1.8** ICCs suggestions were noted and may be considered at the time of next revision of syllabi.
- CP.17.1.9** Target levels for PO-6 to PO-12 are revised as 1.2 (40%) on the scale of 3.0.
- CP.17.1.10** Approval given earlier through email circulation for proposed equivalence among subjects of GTU and Autonomy was noted.
- CP.17.1.11** Model AICTE curriculum in view of Autonomous syllabi discussed.

The meeting ended with a vote of thanks.

- sd -

Mosin Hasan

(Member Secretary, BoS, Computer Engg.)

- sd -

Dr. Darshak G. Thakore

(Chairman, BoS, Computer Engg)

To:

- The Principal Sir for records
- Dean-Academics, for records and necessary actions
- Member Secretary, Academic council for records and necessary actions
- All committee members
- Departmental BoS file

**BVM Engineering College (Autonomous Institution)**  
**Computer Engineering Department**

20<sup>th</sup> April 2019

Minutes of Meeting of Board of Studies

**Day, Date and Time:** Tuesday, the 13<sup>th</sup> April 2019; 10:30am to 1:30pm

**Venue:** Lab-9, F-block, BVM Engineering College

Following members were present:

<b>Sr.</b>	<b>Name</b>	<b>Affiliation</b>
1	Prof. (Dr.) Darshak G Thakore	Prof & Head and Chairman BoS, Computer Engineering, BVM
2	Er. Baldev Ganshani	General Manager, Operations, Sigma Info Solutions.
3	Prof. (Dr.) Mayur M Vegad	Prof, Computer Engineering Dept, BVM
4	Prof. Prashant B Swadas	Assoc Prof, Computer Engineering Dept, BVM
5	Prof. (Dr.) Narendra M Patel	Assoc. Prof, Computer Engineering Dept, BVM
6	Prof. Mosin I Hasan	Asst Prof, Computer Engineering Dept, BVM
7	Prof. Hemant D Vasava	Asst Prof, Computer Engineering Dept, BVM
8	Prof. Bhavesh A Tanawala	Asst Prof, Computer Engineering Dept, BVM
9	Prof. Kirti J Sharma	Asst Prof, Computer Engineering Dept, BVM
10	Prof. Udesang K Jalia	Asst Prof, Computer Engineering Dept, BVM
11	Prof. (Mrs) Mahasweta J Joshi	Asst Prof, Computer Engineering Dept, BVM
12	Prof. Pranay Patel	Asst Prof, Computer Engineering Dept, BVM

Following members could not attend the meeting:

<b>Sr.</b>	<b>Name</b>	<b>Affiliation</b>
1	Prof. (Dr.) S. M. Shah	Professor, L.D. College of Engineering (GTU Nominee)
2	Prof. (Dr.) Amit Ganatra	Principal, DEPSTAR, Charotar University of Science and Technology, Changa
3	Prof. (Dr.) Brijesh Bhatt	Associate Professor, DDU, Nadiad
4	Dr. Samir Patel	Asst. Prof, PDPU, Gandhinagar, Gujarat (BVM CP Alumnus)

Agenda, the structure and the draft syllabus, courses offered of UG and other relevant documents were circulated earlier to all the members through email. Dr. Amit Ganatra responded with his suggestions / comments were put forward and discussed.

Following points were discussed & decided unanimously in the meeting:

- CP.18.1.1** The minutes of last BoS meeting held on 24<sup>th</sup>, February, 2018 were approved.
- CP.18.1.2** Approval of structure and syllabi for first year effective from academic year 18-19 onwards, circulated through email on dated 23<sup>th</sup>, July, 2018 were noted.
- CP.18.1.3** Approval of NPTEL courses which were offered for academic year 2018- 2019, circulated through email on dated Nov 29, 2018 was noted.
- CP.18.1.4** Revised course structure of UG Program based on AICTE Model Curriculum to be effective for AY 2018-19 onward entrants were discussed and approved. **(Encl – I)**
- CP.18.1.5** Syllabi of the second year (UG Program) effective from academic year 2019-2020 were discussed and approved with following points. **(Encl – II)**
  - 1. Dr. Amit Ganatra observed two mathematics related course in 4<sup>th</sup> semester and he suggested to shift either of them to different semester. The point suggested is taken care of by swapping Maths course with Economics and Management.
  - 2. Following subjects for Open Elective-1 were suggested (i) Fundamentals of Computer Networks and (ii) Fundamentals of Operating Systems. The list will be revised / updated based on request from the other departments.
  - 3. Non-Credit course “Ethics and Constitution of India” was made a compulsory course based on AICTE Norms.
- CP.18.1.6** Revised course structure of PG Program effective from Academic year 2019-2020 were discussed and approved. **(Encl – III)**
- CP.18.1.7** Syllabi of the PG Program effective from Academic year 2019-2020 onward entrants were discussed and approved with following suggestions. **(Encl – IV)**
  - 1. Removal of Advance word from Advance Programming Lab 1 and Advance programming lab 2 courses.
  - 2. For 3<sup>rd</sup> semester, one more elective (Elective V) to be offered in-place of compulsory Cloud Computing. And, Cloud Computing course to be added in the pool of Electives.
  - 3. Machine Learning Course should be revised.
  - 4. Syllabi of Programming Lab II may be considered to be revised if needed.
- CP.18.1.8** Two Non Credit Mandatory Internship Course of minimum duration of 2 weeks each in U.G Program which shall be offered (and to be completed) in vacations of 2nd & 3rd year, were discussed and approved.
- CP.18.1.9** The offering of NPTEL courses for academic year 2019-2020 were approved. **(Encl – V)**
- CP.18.1.10** Following changed Target Attainment levels for all POs were discussed and approved.

Sr.	POs	From	To
1	PO-1 to PO-5	1.8 on the scale of 0.0 – 3.0 (same for all the courses)	60% of the maximum attainable as per the Course Articulation Matrix (CAM) of the respective course
2	PO-6 to PO-10	1.2 on the scale of 0.0 – 3.0 (same for all the courses)	
3	PSO-1 to PSO-3 Note: PSOs are not applicable for 1st level courses and open electives	1.8 on the scale of 0.0 – 3.0 (same for all the courses)	

**CP.18.1.11** It was noted that 26 students in Track-2 (Full Semester External Project) were permitted for carrying out their full semester project at industries / organization.

**CP.18.1.12** Additional points discussed and noted:

- Dr. Darshak G Thakore suggested to include feedback in Exit Survey on Gap between Academia and Industry from students deputed for Full Semester External Project.

Er. Baldev Ganshani, expert from industry suggested and commented following:

- Students should be encouraged to contribute in open source technologies.
- Students' soft skill should be improved.
- IPR based thinking should be engraved into students.
- Inclusion of Design pattern should be there in curriculum.
- To invite subject-wise experts if possible, during the semester to get view, relevance and applications from industrial perspectives.
- Joint course offering with the industry should be explored.
- More interaction with industry should be created.

Dr Amit Ganatra suggested following points (through email):

- Courses like Block chain Technology, Modern Networks, Data Science and Modern Networks (Intelligent Networks) need to be introduced either as regular courses or electives.
- AI can be offered as a regular course.
- More practical Exposure need to be provided to the students.
- In B Tech also 10 to 15 % courses on research background need to be added. Research must begin at B Tech level.

The meeting ended with a vote of thanks.

- sd -

Mosin Hasan

(Member Secretary, BoS, Computer Engg.)

- sd -

Dr. Darshak G. Thakore

(Chairman, BoS, Computer Engg)

To:

- The Principal Sir for records
- Dean-Academics, for records and necessary actions
- Member Secretary, Academic council for records and necessary actions
- All committee members
- Departmental BoS file

**BVM Engineering College (Autonomous Institution)  
Computer Engineering Department**

10<sup>th</sup> January, 2020

Minutes of Meeting of Board of Studies

**Day, Date and Time:** Saturday, the 4<sup>th</sup> January 2020; 10:30am to 12:30pm

**Venue:** Lab-9, F-block, BVM Engineering College

Following members were present:

<b>Sr.</b>	<b>Name</b>	<b>Affiliation</b>
1	Prof. (Dr.) Darshak G Thakore	Prof & Head and Chairman BoS, Computer Engineering, BVM
2	Prof. (Dr.) Amit Ganatra	Principal, DEPSTAR, Charotar University of Science & Technology, Changa
3	Prof. (Dr.) Brijesh Bhatt	Professor, DDU, Nadiad
4	Dr. Samir Patel	Head, Department of Computer Science and Engineering, PDPU
5	Prof. (Dr.) Mayur M Vegad	Prof, Computer Engineering Dept, BVM
6	Prof. Prashant B Swadas	Assoc Prof, Computer Engineering Dept, BVM
7	Prof. (Dr.) Narendra M Patel	Assoc. Prof, Computer Engineering Dept, BVM
8	Prof. Mosin I Hasan	Asst Prof, Computer Engineering Dept, BVM
9	Prof. Hemant D Vasava	Asst Prof, Computer Engineering Dept, BVM
10	Prof. Bhavesh A Tanawala	Asst Prof, Computer Engineering Dept, BVM
11	Prof. Kirti J Sharma	Asst Prof, Computer Engineering Dept, BVM
12	Prof. Udesang K Jalia	Asst Prof, Computer Engineering Dept, BVM
13	Prof. (Mrs) Mahasweta J Joshi	Asst Prof, Computer Engineering Dept, BVM
14	Prof. Pranay Patel	Asst Prof, Computer Engineering Dept, BVM

Following members could not attend the meeting:

<b>Sr.</b>	<b>Name</b>	<b>Affiliation</b>
1	Prof. (Dr.) S. M. Shah	Professor & Head, L.D. College of Engineering (GTU Nominee)
2	Er. Baldev Ganshani	Senior Consultant/General Manager- Operations Sigma Infosolution

Agenda with enclosures were circulated earlier to all the members through email.

Following points were discussed & decided unanimously in the meeting:

**CP.19.2.1** The minutes of last BoS meeting held on 13<sup>th</sup>, April, 2019 were approved.

- CP.19.2.2** Revised structure for the teaching scheme effective from AY 2018-19 was approved. **Encl -** Additionally, members suggested the following:
- Comprehensive learning course which cover major subject integration practically should be offered. It may be offered as a Capsule course. Suggested by Dr. Ami Ganatra & Dr. Samir Patel
  - At least 10% portion of the syllabus should be given as Self-learning to motivate life long learning. Content beyond the syllabus should also be incorporated. Suggested by Dr. Amit Ganatra & Dr. Samir Patel
  - Soft Skills, Personality Grooming, ethics related courses should be offered as an audio courses for 1<sup>st</sup> year academics. Suggested by Dr. Amit Ganatra
  - New courses like Nanotechnology, Robotics can also be introduced. Suggested by Dr. Samir Patel
  - Department should set one benchmark for getting excellence in one of the areas of Machine Learning, Computer Vision, Block Chain etc. Suggested by Dr. Samir Patel
  - Computer Organization subject should cover latest processor architectures for desktop, mobile, tablets. Suggested by Dr. Amit Ganatra

The suggestions were noted and appreciated.

BoS approved the replacement of open elective subject "Internet Technology" by "Information Technology Essentials", and also approved revised open elective subject title as "Fundamental of Computer Networks & Security".

- CP.19.2.3** The syllabi of 3rd year courses for new scheme were discussed and approved. **Encl - I** Followings were the suggestions:
1. Departmental Committee may further fine-tune CO / CO-PO mapping if needed.
  2. Mapping of CO with Practical Experiments should be included in the record book. – Suggested by Amit Ganatra
  3. Advance and Latest topics should be covered in Fast track mode via workshop for faculties first and then for students. – Suggested by Dr. Amit Ganatra

**CP.19.2.4** The guidelines for the mandatory non-credit courses Internship-I and Internship-II were discussed and approved. **Encl – II**

In house Industrial internship may also be conducted for students who Internship training is likely to be incomplete by 7th Semester. Suggested by Dr. Samir Patel.

Department guidelines and guidelines of CDB will be considered for the final guidelines for CPIS1 & CPIS2 courses.



**CP.19.2.5** New list of NPTEL courses offering for credit transfer effective from second semester o academic year 19-20 approved. It is resolved that all previous lists of NPTEL course offerin, is no longer valid for offering as credit transfer courses. However, offered NPTEL course permitted & cleared earlier by students will be considered for credit transfer in AY 2019-20 Sem 2. **Encl – IV**

**CP.19.2.6** It is approved that maximum NPTEL courses permitted for credit transfer are 3 in thei undergraduate program. And maximum 2 courses permitted in one semester for credi transfer.

**CP.19.2.7** It was noted that more than 35 students were approved for Full Semester External project at various industries.  
However, it was also suggested that maximum number of students of the 8<sup>th</sup> semester should be encouraged for the full semester external project.

**CP.19.2.8** Suggestions of Previous BoS of Mr. Baldev Ghanshani were discussed and noted.

The meeting ended with a vote of thanks.

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Mosin Hasan & Pranay Patel

(Member Secretary and Jt Member Secretary , BoS, )

- sd - 

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**Head of Department  
Computer Engg. Dept.  
B.V.M. Engg. College  
Vellabh Vidyanagar**