

### Department of Civil Engineering

Sl no	Name of the Course	Course Code
1.	Advanced Concrete Technology	14CVE563
2.	Air Pollution and Control Engineering	14CVE564
3.	Industrial Waste Water Treatment	14CVE654
4.	Finite element methods of analysis	14CVO662
5.	Disaster Management and Mitigation Measures	14CVO664
6.	Environmental Engineering & Pollution control	14CVO665
7.	Ground Water Management	14CVE755
8.	Precast and Prefabricated Structures	14CVE756
9.	Construction Management	14CVE757
10.	Theory of Elasticity	14CVE758
11.	Matrix and Finite Element Method of Analysis	14CVE759
12.	Building Services	14CVO761
13.	Heating Ventilation and Air Conditioning Design-1	14CVO762
14.	Green Technology	14CVO763
15.	Sensor Technology	14CVO764
16.	Environmental and Sustainable Engineering	14CVO765
17.	Theory of Elasticity	14CVO766
18.	Dynamics of Structures and Earthquake Engineering	14CVE821
19.	Design and drawing of RC Bridges	14CVE822
20.	Numerical methods in Civil Engineering	14CVE826
<b>M.Tech Structural Engineering</b>		
1.	Composite And Smart Materials	16SEE205E6
2.	Matrix and Finite Element Method of Analysis	18SE22
3.	Advanced Design of Steel Structures	18SEE241
4.	Sustainable Structures	18SEE242

  
 19/07/2019  
**HOD - Civil Engineering**  
 NMIT, Bengaluru - 560064

# Nitte Meenakshi Institute of Technology, Bangalore

## Department of Civil Engineering

### Board of Studies (BOS) Meeting-2014

(Meeting was held on: 23-06-2014)

#### Agendas of BOS Meeting -2014

1. Review of previous BOS meeting (BOS-2013)
2. Revision and approval of the syllabus of first year Engineering Mechanics Course
3. Review and approval of syllabi III to VIII semester B E Civil Engg
4. Any other matter

*The following external BOS members were attended BOS -2014 Meeting on 23/06/2014*

Dr Balasubramanya(Member external- VTU nominee), Acharya Institute of Technology Bangalore

Dr.S.Raghunath (Member external), Professor of BMS College of Engineering Bangalore

Dr H.N Ramesh (Member external), Professor of UVCE Bangalore- Absent

Er Bhaskar Guha (Member external – Industry), Consulting Engineering Services, Bangalore

A separate attendance sheet of BOS members who have attended BOS Meeting – 2014 is enclosed

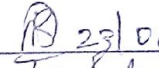
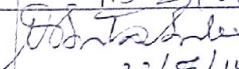
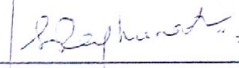

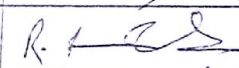

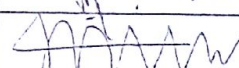
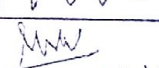
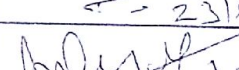

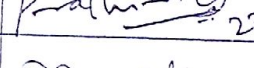



**NITTE MEENAKSHI INSTITUTE OF TECHNOLOGY**  
(An Autonomous Institution under Visvesvaraya Technological University, Belgaum)  
Yelahanka, Bangalore 560064

**Dept of Civil Engineering**

BOS Meeting (BOS – 2014) on 23/06/2014

*Attendance sheet*

SL NO	NAME	SIGNATURE
1	Dr.H.R.Dhananjaya, HOD,Dept of Civil Engg, NMIT Chairperson	 23/06/2014
2	Dr.Balasubramanyam, Professor, AIT, Bangalore VTU-Nominee	 23/6/14
3	Dr.S.Raghunath, Professor,BMSCE,Bangalore External-Member Academic	 23/6/14
4	Dr,H.N.Ramesh, Professor, UVCE,Bangalore External-Member Academic	L
5	Dr.Bhaskar Guha, Civil Consulting Industry External-Member Industry	
6	Dr.Ramachandra Reddy,NMIT,Bangalore Internal Member	
7	Mr.Suresh Sapare,NMIT,Bangalore Internal Member	 23/6/2014
8	Mr Ananthayya M B Internal Member	 23/6/14
9	Mr Vasudev M V Internal Member	 23/6/14
8	Ms.Archana Nayak,NMIT,Bangalore Internal Member	 23/6/14
9	Mrs.Prathima. NMIT,Bangalore Internal Member	 23/6/14
11	Mr.Muralidhar. NMIT,Bangalore Internal Member	 23/6/14

 23/06/2014  
Dr.H.R.Dhananjaya  
Prof & Head  
Dept of Civil Engg

Professor & Head  
Dept.of Civil Engineering,  
NMIT, Bengaluru - 560064

### Proceedings of the BOS Meeting-2014:

HOD welcomed all the members of the BOS committee for the BOS -2014 meeting held on 23/06/2014. Discussed about the Agendas with the members of BOS 2014 Meeting

### *BOS Meeting Outcome:*

1. Previous BOS meeting (2013) was reviewed
2. Reviewed and approved of the syllabus of first year Engineering Mechanics Course
3. Reviewed and approved the syllabi of III to VIII semester B E Civil Engg of 2011 Batch.
4. Suggestions and Comments given by members of BOS are given in the following section.

### Suggestions and Comments

*Following are the Suggestions and Comments given by members of BOS committee during BOS -2014 meeting held on 23/06/2014*


- 1) First year syllabus of Engineering Mechanics is approved and suggested to add some Indian author books in reference section.
- 2) Bridge courses should be conducted frequently.
- 3) At least few guest lecturers should be arranged in a semester from industry.
- 4) Suggested to have mini projects in all the courses
- 5) Suggested to have some handbooks for Civil Engg subjects.
- 6) Suggested to have handsome experience on skill developments in Civil Engg field.
- 7) Suggested to have intensive training in few courses of Civil Engg field.



- 8) Suggested to have minimum number of (2 or 3) course outcomes in every subject.
- 9) Suggested to have MOU with the industries in order to enhance industry institute interaction.
- 10) To the maximum extent, all VII or VIII semester technical seminars should be case- study oriented.
- 11) Sketching to the approximate scale in drawing classes is mandatory before start to draw the diagrams in computers using relevant drawing software.
- 12) Procurement of some more high end instruments ( Total station etc) and autolevels, Theodolites for surveying and accordingly modifying the syllabus of survey theory subjects are essential.
- 13) Use of high end instruments during practical classes of survey practice lab.
- 14) To establish the structural Engineering lab with high end instrument / equipments for research related projects
- 15) Suggested to conduct faculty development programs and curriculum development workshops under TEQIP at regular interval.
- 16) Suggested to conduct workshops on Pedagogy for the subjects with major changes done in the present BOS meeting ( Engineering Mechanics)
- 17) The following points may be considered in updating the syllabus and other academic activities like considering few of them for self study, mini and main projects wherever it is possible
  - a. Hands-on understanding of STAAD-PRO
  - b. Exposure to design and detailing of structures for earthquake.
  - c. Exposure to Autocad drawings, knowledge of drawing standards, general idea of developing drawings for structural components, ability to read and understand drawings correctly.
  - d. Exposure to IS codes

- e. Design of retaining walls and water retaining structures.
- f. Truss design with STAAD-PRO.
- g. **Environmental Engineering**: Storm water discharge, pipe flows, rainwater harvesting and ground water recharging, treatment of sewage, etc.
- h. **Water Resources**: Exposure to use of software for open channel and conduit flows, cross drainage works, selection of alignment.
- i. **Traffic and Transportation**: Traffic density survey and evaluation, junction improvement, rigid and flexible pavement design, grade separated structures, exposure to multi-modal transport systems, bus rapid transport (BRTS), exposure to pavement design software, conditional survey of bridges, etc.
- j. Project Management and Quality Assurance: Exposure to activity sequence, scheduling, MS Project, fast-track construction, pre-engineered buildings, understanding of problems causing cost and time over-runs.
- k. **New Building Materials and Construction Techniques**: Lightweight concrete, Green materials, fiber-reinforced concrete, membrane roofing, concept and importance of green buildings in today's world.
- l. Construction Machinery : Presentations by vendors.
- m. Structural Retro-fitting: New techniques.
- n. Presentations on interesting subjects by industry specialists.

At the end of the BOS Meeting HOD thanked all members of the BOS meeting - 2014

 03/06/2014  
Prof & Head  
Dept of Civil Engg  
Professor & Head  
Dept. of Civil Engineering,  
NMIT, Bengaluru - 560064



# Nitte Meenakshi Institute of Technology, Bangalore

## Department of Civil Engineering

### Board of Studies (BOS) Meeting-2015

(Meeting was held on: 13-03-2015)

### Agendas of BOS Meeting 2015

1. Review of Previous BOS Meeting (BOS-2014)
2. To review and approve the syllabus of III & IV semester Civil Engineering subjects of 2014-2018 batch
3. To review and approve the scheme for the semesters V to VIII of 2014-2018 batch
4. To review and approve the minor changes in the syllabi of V to VIII Semester B.E. Civil Engineering subjects of 2013-2017 batch
5. Any other matters

*The following BOS members external were attended BOS -2015 Meeting on 13/03/2015*

Dr P C Pandey (Member external), Professor Indian Institute of Science Bangalore  
Dr Balasubramanya (Member external- VTU nominee), Acharya Institute of Technology Bangalore

Dr.S.Raghunath (Member external), Professor of BMS College of Engineering Bangalore

Dr H.N Ramesh (Member external), Professor of UVCE Bangalore (Not attended)

Er Bhasker Guha (Member external – Industry), Consulting Engineering Services, Bangalore

**A separate attendance sheet of BOS members who have attended BOS Meeting – 2015 is enclosed**

List of BOS members both internal and external are given in the following Table.

Nitte Meenakshi Institute of Technology, Bangalore  
Department of Civil Engineering  
Panel of BOS Committee (BOS-2015/2016)

<i>Sl no</i>	<i>Name</i>	<i>Details</i>	<i>Designation</i>
1	Dr.H.R.Dhananjaya	Professor & Head,NMIT	Chairperson
2	Prof K A Ranganatha Shetty	Dean Academic-NMIT	Member (Internal)
3	Dr.Ramachandra Reddy	Professor, NMIT	Member (Internal)
	Dr Pranesh	Professor, NMIT	Member (Internal)
4	Dr Ananthayya M B	Professor, NMIT	Member (Internal)
5	Mr Vasudev M V	Asst Professor, NMIT	Member (Internal)
6	Mrs.Prathima.G	Asst Professor, NMIT	Member (Internal)
7	Ms.Archana Nayak	Asst Professor, NMIT	Member (Internal)
8	Mr Muralidhar	Asst Professor, NMIT	Member (Internal)
9		Asst Professor, NMIT	Member (Internal)
10	Dr P C Pandey	Professor, IISc,	Member



11	Dr.S Raghunath	Bangalore	(External)
12	Dr.H.N.Ramesh	Professor, BMSCE, Bangalore	Member (External)
		Professor,UVCE, Bangalore	Member (External)
13	Prof. Balasubramanyam	AIT, Bangalore	VTU Nominee
14	Er Bhaskar Guha	Consulting and Constructing Services	Senior Consultant - Civil

**Proceedings of the BOS Meeting-2015:**

HOD welcomed all the members of the BOS committee for the BOS -2015 meeting held on 13/03/2015. Discussed about the Agendas with the members of BOS 2015 Meeting

**BOS Meeting Outcome:**

1. Previous BOS meeting (2014) reviewed
2. Syllabus of III & IV semester Civil Engineering subjects of 2014-2018 batch approved.
3. Scheme for the semesters V to VIII of 2014-2018 batch approved.
4. The minor changes in the syllabi of V to VIII Semester B.E. Civil Engineering subjects of 2013-2017 batch approved.

**Suggestions and Comments**

**Following are the Suggestions and Comments given by external members of BOS members committee during BOS -2015 meeting held on 13/03/2015**

1. Outcomes of the courses should be reduced to two or three
2. Contents of the syllabus can be kept in short form



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Yelahanka, Bangalore 560064

## Dept of Civil Engineering

BOS Meeting (BOS – 2015) on 13/03/2015

### Attendance sheet

SL NO	NAME	SIGNATURE
1	Dr.H.R.Dhananjaya, HOD,Dept of Civil Engg, NMIT Chairperson	(R)
2	Dr P C Pandey, Professor, IISc Bangalore External-Member Academic	P C Pandey
3	Dr.Balasubramanyam, Professor, AIT, Bangalore VTU-Nominee	Dr. Balasubramanyam 13/3/15
4	Dr.S.Raghunath, Professor,BMSCE,Bangalore External-Member Academic	S. Raghunath
5	Dr.H.N.Ramesh, Professor, UVCE,Bangalore External-Member Academic	H. N. Ramesh
6	Dr.Bhaskar Guha, Civil Consulting Industry External-Member Industry	B. Guha
7	Dr.Ramachandra Reddy,NMIT,Bangalore Internal Member	R. Reddy
8	Dr Pranesh,NMIT,Bangalore Internal Member	P. Pranesh
9	Dr Ananthayya M B Internal Member	A. Ananthayya
10	Mr Vasudev M V Internal Member	V. Vasudev
11	Ms.Archana Nayak,NMIT,Bangalore Internal Member	A. Archana
12	Mrs.Prathima, NMIT,Bangalore Internal Member	P. Prathima
13	Mr.Muralidhar. NMIT,Bangalore Internal Member	M. Muralidhar

(R) 13/03/15  
Dr.H.R.Dhananjaya  
Prof & Head  
Dept of Civil Engg





## Dept of Civil Engineering Nitte Meenakshi Institute of Technology

### Minutes of Meeting - BOS 2016

20<sup>th</sup> June 2016 at 10.30am

Venue – Placement Conference Hall, NMIT

The following are the minutes of meeting of Board of Studies – Department of Civil Engineering, scheduled on 20<sup>th</sup> June 2016 at 10.30 am for discussion on following Agenda.

Members Present			
Sl No	Name	Designation	
1	Dr. Bharathi Ganesh Professor & HOD	Chairperson	
2	Dr.H C Nagaraj, Principal, NMIT	Special Invitee	
3	Dr.Ranganatha Setty, Dean Academics, NMIT	Special Invitee	
4	Col. Ramachandra B V Dean – Civil Dept	Member(I)	
5	Dr.N Balasubramanya Dean – Academics, Acharya Institute of Technology, Bangalore	Member –(External - VTU Nominee)	
6	Dr. Manamohan R kalgal Tech Director, Ultratech Cements Ltd. Bangalore	Member (External - Industry)	
7	Dr. H N Ramesh Professor, UVCE & Director – P & D, Bangalore University	Member (External – Govt University)	
8	Mandeep Pandey Research Scholar, IISc, Bangalore	Member (Alumni)	
9	Dr. Ananthayya M B Professor	Member(I)	
10	Dr. R N Pranesh Professor	Member(I)	
11	Dr. Vidyavathi N Professor	Member(I)	
12	Dr. Ramachandra Reddy Professor	Member(I)	
13	Ms. ArchanaNayak	Member(I)	
14	Ms. Prathima G	Member(I)	
15	Vinay M	Member(I)	
16	Mr. Jairaj	Member(I)	
Members – Leave of Absence			
1	Dr.G S. Srinivasa Reddy Director, KSNDMC, Yelhanka, Bangalore	Member (External)	Leave of Absence
2	Dr. S V Dinesh HOD, Civil Dept, SIT Thumkur	Member(External- Academia)	Leave of Absence

Sl. No	Agenda	Minutes
1	Review of BOS Meeting 2014-15	-Revived
2	Discussions and approval of 2014 Scheme - Syllabus of V – VI Semester & Scheme of VII & VIII Sem Civil Engineering	<p>-The Scheme was discussed &amp; approved for V – VIII Semester Civil Engineering.</p> <p>Detailed discussions on Syllabus of V &amp; VI sem.</p> <ul style="list-style-type: none"> <li>Scheme was discussed in detail and Position of subject like Geotechnical Lab in V sem was debated as the preamble is Geotechnical Engineering I, which is in the same semester. Dr.H N Ramesh suggested to add a foot note in the syllabus itself stating that 'the faculty handling the lab should teach the basics before starting the lab.</li> <li>Experts from academia &amp; industry of different area of specialization namely structural engineering, Geotechnical Engineering, Transportation Engineering, Hydraulics and Water Resource Engineering and Environmental Engineering, provided the inputs to improvise the syllabus of various subjects. The necessary modifications were done and the syllabus was approved.</li> </ul>
3	Discussions and approval of Open electives & Programme Elective Subjects	<ul style="list-style-type: none"> <li>List of Open electives were reviewed and some subjects which have common contents are merged in to a single subject. A unit covering green building concepts is included in 'Alternative Building materials and was approved.</li> <li>List of subjects in Programme Electives were reviewed and Dr. N Balasubramanya proposed electives like Open Channel hydraulics, Design and drawing of Irrigation structures(Sketch &amp; CAD), and Ground water hydraulics(Include rain water harvesting) to be provided in VI, VII and VII Sem suitably.</li> <li>The necessary changes are made in the syllabus of Structural Analysis II based on the inputs of Dr. M R Kalgai.</li> <li>Approval of New Programme and open electives Advanced Concrete Technology, Air Pollution and Control Engineering, Industrial Waste Water Treatment, Finite element methods of analysis, Disaster Management and Mitigation Measures, Environmental Engineering &amp; Pollution control, Ground Water Management, Precast and Prefabricated Structures, Construction Management, Theory of Elasticity, Matrix and Finite Element Method of Analysis, Building Services, Heating Ventilation and Air Conditioning Design-1, Green Technology, Sensor Technology, Environmental and Sustainable Engineering, Theory of Elasticity, Dynamics of Structures and Earthquake Engineering, Design and drawing of RC Bridges, Numerical methods in Civil Engineering</li> </ul>
4	Approval of Vision, Mission, PEOs and PSOs of the Department	- The Vision, Mission, PEOs & PSOs were approved by the board.
5	Approval of Board of Examiners (BOE) – 2015-16	- BOS approved Board of Examiners for the year 2015-16
6	Any other matter with chairperson's permission	- It was suggested to get the panel of examiners approved by BOS.
7	Meeting Concluded.	- Meeting was concluded with Dr.Bharathi Ganesh thanking the Members for their presence and valuable inputs.



- Enclosed: 1. Approved Vision Mission, PEOs & PSOs.  
2. Members of BOE for the Academic Year 2015-16  
3. Scheme of Study – V – VII Sem.  
4. Syllabus – V & VI Sem.



Dr. Bharathi Ganesh  
Chairperson - BOS  
Prof. & Head  
Dept of Civil Engineering  
NMIT, Bangalore - 560064





**NITTE MEENAKSHI INSTITUTE OF TECHNOLOGY**  
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YELAHANKA, BANGALORE - 560 064



Date: 17<sup>th</sup> Dec. 2016

**Minutes of Meeting – Board of PG Studies, M.Tech. in Structural Engineering,**

The Meeting of the Board of Post Graduate Studies – M.Tech Structural Engineering was held on 17<sup>th</sup> Dec 2016 from 10.15 pm – 1.30 pm in the Placement Conference Room to discuss on following agenda.

1. Review of Syllabus & Scheme - M.Tech Structural Engg. (syllabus will be mailed to you in a day or two)
2. Approval of Board of Examiners and Panel of Examiners.
3. Approval of new Programme elective Composite And Smart Materials for 2<sup>nd</sup> Sem.
4. Any other items with the permission of The Chair.

The Meeting started with Dr. Bharathi Ganesh welcoming the members of BOS-PG studies. The updates of informal review of syllabus of I sem. M.Tech through Email was updated and the members again reviewed the scheme and contents of the subjects of first sem. The following are the suggestions by various members of the


SL. No	Sem	Subject Code	pg no.	Review and suggestions by BOS PG members
1	1	16SEC101	5	The following points on Advanced Mathematics should be considered during the next revision of syllabus. <ul style="list-style-type: none"><li>• More appropriate is Applied Mathematics with Units on Numerical Methods, Statistics and Probability theory.</li><li>• The subject should be taught by departmental faculty member in order to orient the mathematics for Civil Engineering application effectively.</li></ul>
2	1	16SEC103	9	<ul style="list-style-type: none"><li>• The topic under Unit 1 - Detailing of earthquake resistant structures can be included in the subject Earth Quake resistant of design of structures to be introduced in second semester..</li><li>• Design of silos and bunkers can be removed and other units are required.</li><li>• Elaborate the contents for clarity of coverage and question paper setting.</li></ul>
3	1	16SEC104	10	Structural Dynamics
4	1	16SEC105 E2	15	<ul style="list-style-type: none"><li>• Content is very elaborate, and can be reduced.</li><li>• Procure the following books to library<ul style="list-style-type: none"><li>- Case studies book on RRRR by Dr.R. Jagadish-procure.</li><li>- CPWD Repair Handbook (for specifications on RCC).</li></ul></li><li>• Conduct 2days workshop inviting industry experts from BBR India, CPTL ( Dr.MSS, SS, Chandramoule, Dr. R Jagadish)</li></ul>
5	1 <sup>st</sup>	16SEC105 E6	40	<ul style="list-style-type: none"><li>• Clearly add Text Books and Reference Books for all the subjects including for 205E6</li><li>• Include ICI- Hand Book on Precast Technology – procure few copies to dept and college library.</li></ul>
6	1	16SEC106 L	22	<ul style="list-style-type: none"><li>• Retitle the subject as 'Self Study on Special Concretes and Laboratory.</li><li>• Structural dynamics experiments can be shifted to lab component 16SEC104 - Structural Dynamics.</li></ul>



				<ul style="list-style-type: none"> <li>Procure Handbook on Recycled Aggregates.</li> </ul>
7	2	16SEC203	30	<ul style="list-style-type: none"> <li>Shift the subject - Design of Tall Structure</li> <li>Introduce most important elective subject - 16SEC205E2- Sustainable Structures (content should include Materials, Design, Construction Maintenance and Energy concept of Building Materials and constructions. )</li> <li>To teach the subject 16SEC205E6 -Composite and Smart Materials, Multidisciplinary approach is needed and should be handled by a teacher who could connect various programmes and enjoy teaching that subject.</li> </ul>
8	2 <sup>nd</sup>	16SEC204	32	<ul style="list-style-type: none"> <li>Subject contents of 16SEC204 – Advanced Design of Steel Structures are appropriate.</li> <li>Please consult Umesh B. Rao, an Industrial Expert for thorough review.</li> <li>Content is more and reduce appropriately.</li> <li>Procure a book on pre-engineered building-AISC.</li> <li>Include comparison of codal provisions of BIS and AISC codes.</li> <li>Books to be procured               <ul style="list-style-type: none"> <li>Unit-3 - Procure a book titled Transmission Towers by Surya Prakash, Design Codes and Handbook.</li> </ul> </li> </ul>
9	2 <sup>nd</sup>	16SEC205 E1	36	<ul style="list-style-type: none"> <li>Include the following               <ul style="list-style-type: none"> <li>Unit 1- forces on bridge structures, Balanced Cantilever Bridge: Introduction and proportioning of components, Design of simply supported portion and design of cantilever portion, design of articulation. Design of box girder(segmental construction). Construction and expansion joints in bridges/ highway constructions, bearing, types, need.</li> </ul> </li> <li>Other units are appropriate.</li> </ul>
10	2 <sup>nd</sup>	16SEC205 E3	35	<ul style="list-style-type: none"> <li>Design of Plates and Shells can be a Core subject.</li> <li>Reference – Include Book by K. Chandrashekar</li> </ul>
11	2 <sup>nd</sup>	16SEC205 E4	38	<p>The subject Construction project Management will be an core elective Subject. Rewrite the syllabus to accommodate equipment management as a part of construction management and valuation. Inclusion of the subject Construction Management with the following topics would be more appropriate.</p> <ul style="list-style-type: none"> <li>Unit-1</li> <li>Unit 2</li> <li>Unit-3</li> <li>Unit-4</li> <li>Unit-5 construction equipment management</li> </ul> <p>Mechanization of construction, industry, need, merits and demerits, detailed classification of equipment, equipment inventory for various stages of works.</p> <p>Equipment management ( interface, field operation, compliance and risk fleet asset management )</p> <p>Equipment for horizontal and vertical constructions and financing.</p> <ul style="list-style-type: none"> <li>Lab component: BIM application Software.</li> </ul>



				<ul style="list-style-type: none"> <li>Collect content of syllabus from BMSCE &amp; SIT Tumkur &amp; modify suitably.</li> </ul>
12	2 <sup>nd</sup>	16SEC205 E5	40	<ul style="list-style-type: none"> <li>Composite and smart materials subject is more appropriate when it is offered as open elective (if there is provision), as it is a subject of multidisciplinary and faculty member who really enjoy teaching this subject should teach this subject.</li> <li>Instead of composite and smart materials introduce "Sustainable Structure" which should include the topics of materials, construction, design, maintenance and embodied energy at various stages of construction.</li> </ul>
13	2 <sup>nd</sup>	16SEC205 E6	42	<ul style="list-style-type: none"> <li>Clearly add Text Books and Reference Books for all the subjects including for 205E6</li> <li>Include ICI- Hand Book on Precast Technology – procure few copies to dept and college library.</li> </ul>
14	4 <sup>th</sup>	16SEC401 P	43	<ul style="list-style-type: none"> <li>Guidelines for one year dissertation should be clearly defined on the be following</li> <li>Duration of internship and guidelines for evaluation - Define</li> <li>Details/ expectations during phase-1 &amp; 2 evaluation.</li> <li>Include research component share where otherwise, students who are deputed to industry may end up in taking an analysis and design problem and chances of missing out research component is high.</li> <li>Literature review in case of Analysis and design project – provide clarity</li> <li>Instructions and guidelines on dissertation work separately to students, internal and external guides, evaluation should be defined for clarity.</li> </ul>

  
 Dr. Bharathi Ganesh  
 Chairperson – BOS – PG  
 M.Tech Structural Engineering  
 Department of Civil Engineering





**Department of Civil Engineering**  
**Nitte Meenakshi Institute of Technology, Bangalore**

Date: 08<sup>th</sup> Apl 2017

**Circular**

The meeting of Board of Studies – Department of Civil Engineering, scheduled on 18th April 2017 at 10.30 am for discussion on following Agenda.

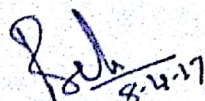
1. Review of Minutes of BOS Meeting 2015 -16.
2. Discussions and approval of 2014 Scheme - Syllabus of VII and VIII Semester Civil Engineering.
3. Discussions and approval of Open electives & Programme Elective Subjects.
4. Approval of Board of Examiners (BOE) – 2016 -17
6. Any other matter with Chairperson's permission.

Date: 18th April 2017

Time: 10.30 am

Venue – Placement Conference Room – Room No 23.

Sd/

  
8.4.17

Dr. Bharathi Ganesh  
Chairperson, BOS  
Professor & Head  
Dept of Civil Engineering  
NMIT, Bangalore- 560064

CC to:

1. Members of BOS
2. Principal
3. Dean Academics

Copy for Information to

1. Director – Prof. N R Shetty
2. Administrator – Prof. Rohit Punja
3. Placement Director

PFA

1. Circular - BOS Meeting
2. List of Members BOS





# NITTE MEENAKSHI INSTITUTE OF TECHNOLOGY



(AN AUTONOMOUS INSTITUTION UNDER VISVESWARAYA TECHNOLOGICAL UNIVERSITY, BELGAUM)

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## Department of Civil Engineering

### Minutes f Meeting – BoS 2017 - 18 –UG

Date: 20<sup>th</sup> Apr 2017

The following are the Minutes of Meeting of Board of Studies – Department of Civil Engineering, scheduled on 18<sup>th</sup> April 2017 at 10.30 am for discussion on following Agenda.

#### Agenda

1. Welcome to Members of Board of Studies
2. Review and Approval of BOS Meeting 2015 -16
3. Discussions and approval of 2014 Scheme - Syllabus of V – VI Semester Civil Engineering
4. Discussions and approval of Open electives & Programme Elective Subjects
5. Approval of Board of Examiners (BOE) – 2016 -17
6. Any other matter with Chairperson's permission

Sl No	Members Present	Members on Leave of Absence
1	Dr. Bharathi Ganesh	
2	Dr.Ranganath Setty	
	Col. Ramachandra B V	
3	Dr.NBalasubramanya	1. Dr.G S. Srinivasa Reddy
4	Dr. Manamohan R kalgal	2.Dr. H N Ramesh
5	Dr.RameshBabu, Director,(Member PG studies)	3. Dr. S V Dinesh
	Special Invitee	4.Mandeep Pandey
6	Dr. R N Pranesh	
7	Dr. Vidyavathi N	
8	Dr. Ramachandra Reddy	
9	ArchanaNayak	
10	Prathima G	
11	Vinay M	
12	Mr. Jairaj	
13	ArchanaNayak	

1.Dr. Ananthayya M B – Member Resigned from services from the Department of Civil Engineering



Following are the minutes of BoS meeting.

Agenda	Minutes
Welcome to Members of Board of Studies, About NITTE Trust & NMIT	<ul style="list-style-type: none"> <li>HOD welcomed all the members of BOS present.</li> </ul>
2. Review and Approval of BOS Meeting 2015 -16	<ul style="list-style-type: none"> <li>MoM of BoS 2015-16 were reviewed and Approved.</li> </ul>
3. Discussions and approval of 2014 Scheme - Syllabus of VII – VIII Semester Civil Engineering	<p>Review and discussion on 2014 Scheme and Syllabus of VII and VII Sem were carried out and the gist of which are presented as follows.</p> <ol style="list-style-type: none"> <li><b>Syllabus of Quantity Surveying and Estimation</b> needs total shift as per the present day requirements under the guidance of Sri.A N Prakash, MD of ANPCPMC Pvt. Ltd. <ul style="list-style-type: none"> <li>Inputs for the subject can also be obtained from RICS requirement.</li> <li>New Text Books other than author B N Dutta should be included.</li> </ul> </li> <li>Design and drawing of bridges should be renamed as <b>Design and drawing of R.C bridges, removing 5th Unit Design of PSC Bridges, as PSC Bridge design is too</b> vast to be learnt/taught under one unit. <ul style="list-style-type: none"> <li>Instead, an Unit on Detailing of bridges should be included (as Unit V) and method of delivery should be modified suitably.</li> </ul> </li> <li><b>The syllabus of Earthquake Resistant Design of structures</b>, an elective subject offered in 8<sup>th</sup> sem. was reviewed and was retitled as 'Dynamics of Structures and Earthquake Engineering to suite the modified content of the subject. <ul style="list-style-type: none"> <li>EIA (environmental Impact Assessment), should include field studies in the areas of air, water and land related topics.</li> </ul> </li> <li>Environmental Engineering laboratory manual should be reviewed to include standard code books in reference. <ol style="list-style-type: none"> <li>Syllabus should be reviewed and repetition of Experiments of first year Chemistry laboratory should be avoided.</li> </ol> </li> </ol>
4. Discussions and approval of Open electives & Programme Elective Subjects	<ol style="list-style-type: none"> <li>The Electives offered under Group D and Group E (i.e Program Elective and Open Elective subjects) were reviewed thoroughly and few suggestions for the inclusion of few more subjects and reshuffling of subjects were made as mentioned under.</li> <li>EIA – can be offered in Group E, Few sub from C can be allotted in E</li> </ol>
Open Electives	The following Open Electives may be requested for the students of



	<p><b>Civil Engineering.</b></p> <ol style="list-style-type: none"> <li>1. Instrumentation Technology and Measurements</li> <li>2. Theory of Vibration should be offered by other departments as open elective.</li> </ol> <p>Open Electives to be offered from Civil Dept.</p> <ol style="list-style-type: none"> <li>3. <b>Photogrammetry and RS</b> - Dr.MRK suggested that the latest technology should replace Photogrammetry unit that has become obsolete now keeping only the bare minimum basics needed to understand Aerial Photogrammetry concept.Remote Sensing needs addition, revision and modification with relevant inputs from Geological survey of India (office in Koramangala)</li> <li>4. It was also suggested to offer Remote Sensing and GIS Applications as an Open Elective.</li> <li>5. Syllabus of <b>Advanced Strength of Materials</b> has to be revised in consultation with HOD of Mechanical and Electrical Depts. As per their requirements removing the repetition of what has been studied in Strength of materials, to justify the title of the subject.</li> <li>6. Rural water supply and sanitation can be offered as an Open Elective.</li> </ol>
5. Approval of Board of Examiners (BOE) -- 2016 -17	Members have approved the members of BoE 2016 - 17
6. Any other matter with Chairperson's permission	<p>The members of BoS provided the following suggestions.</p> <ol style="list-style-type: none"> <li>1 Reading of Field Drawings - A special course conducted by ACCE(I) which provides training for reading of all the important drawings of Civil Engineering Field should be taken up under domain training either as an Audit Course or as a Certification Course.</li> </ol>

*Belh*  
20.6.17

Chairperson – BoS - UG  
Department of Civil Engineering  
NMIT, Bangalore - 560064



## Department of Civil Engineering Minutes of Meeting – BOS 2018 – 19

Date: 23<sup>rd</sup> June 2018

The following are the Minutes of Meeting of Board of Studies – Department of Civil Engineering, scheduled on 20<sup>th</sup> June 2018 at 10.30 am for discussion on the following Agenda.

### Agenda

1. Welcome to the BOS team.
2. Review of Minutes of BOS Meeting 2017-18.
3. Discussions and approval of 2017 Scheme - Syllabus of III to IV Semester Civil Engineering.
4. Discussions and approval of 2018 Scheme - Syllabus of Engineering Mechanics - I and II Sem
5. Discussions and approval of 2018 Scheme - Syllabus of I to IV Sem. M.Tech Structural Engg.
6. Discussions and approval of Open electives & Programme Elective Subjects.
7. Approval of adding new M.Tech subjects: Matrix and Finite Element Method of Analysis, Advanced Design of Steel Structures, Sustainable Structures.
8. Approval of Board of Examiners (BOE) – 2018 -19 for UG and PG studies and POA
9. Any other matter with Chairperson's permission.

Sl.No.	Members Present	Members Leave of Absence
1	Dr. Bharathi Ganesh	Dr.G S. Srinivasa Reddy
2	Col. Ramachandra B V	Dr. H N Ramesh
3	Dr. Manamohan R Kalgai	Dr. S V Dinesh
4	Dr.N Balasubramanya	Dr Ramesh Babu
5	Dr. K.P Nagaraja	Dr. Vidyavathi N
6	Dr. Durga Prasad	Dr Nagendra R
7	Dr. R N Pranesh	Dr Rajkumarpillai
8	Dr. Ramachandra Reddy	Mr. Jairaj
9	Mr. Vasudev M.V.	Mr.Mandeep Raj Pandey
10	Ms. ArchanaNayak	
11	Mrs. Prathima G	
12	Mr. Kiran M.U	

Agenda No.	Minutes
1.	<ul style="list-style-type: none"> <li>HOD welcomed all the members of the BOS and special invitees present.</li> </ul>
2.	<ul style="list-style-type: none"> <li>MoM of BoS 2017-18 were reviewed and Approved.</li> </ul>
3.	<p>Review and discussion on 2017 Scheme and Syllabus of III and IV Sem were carried out and the gist of which are presented as follows.</p> <p>Curriculum of 2017 scheme is modified with major changes with an objective to include <b>hands-on practices</b> and adding few missed laboratories to enhance the employability quotient of NMIT students. The highlights of the Model are presented as follows.</p>

	<p>i. Conventional Laboratories experiments are shifted to respective Theory Courses as Laboratory Component, known as <i>Integrated Courses (I)</i> to be conducted and evaluated as per the guidelines of Learning Assignment 1 and 2 – LA1&amp; LA2 of Integrated Courses mentioned in the Curriculum Hand Book.</p> <p>ii. Course Code should include I in order to differentiate it for other regular Courses. (Example – 17CV33 should be rewritten as 17CVI33)</p> <p>iii. Each semester has Two Laboratories which includes <i>Construction Methods and Practices (CMP) I, II and III</i> (Contents and scheme of evaluation are provided in the Curriculum Hand Book).</p> <p>iv. Cadd Lab is shifted from Theory to Laboratory.</p> <p>v. Design and Drawing of Irrigation Structures and Primavera are included for Laboratory requirement.</p>
	<p>Members of BoS appreciated the Model and also clarifications were sought on</p> <p>vi. Additional burden of Learning responsibilities on students</p> <p>vii. Additional workload to Teachers</p> <p>HoD clarified that the modification can be easily fit in the Time table Frame Work indicating the possibility to accommodate without burdening the faculty members (with additional work load).</p> <p>Also requested the members to guide the Team to modify (addition/deletion) the content of some of the Theory Courses slightly keeping in mind the present need of the Industry.</p> <p>BoS Members expressed that the Model if implemented successfully, would be the best model to be adopted by all other institutions for 2018 scheme.</p>
	<p>Further HoD expressed her inability to circulate due to major modifications and extensive efforts/work towards preparation of 2017 Scheme and content of Courses.</p> <p>Following suggestions are well taken and are implemented in the Curriculum.</p> <p>viii. Course outcomes and Blooms Level (BL) mapping are to be reviewed and revised.</p> <p>ix. Content of some of the Courses, which are becoming obsolete gradually in the Industry are to be removed and replaced with what is relevant for the present day construction materials, Methodology and techniques. Also some of the Derivations which students reproduce and also simple portion of any module which students can read and understand can be /may be given for 'Self Preparation'. The content considered for Self-Preparation should be included for CIE and SEE - examinations. However, Questions on derivations can judiciously be avoided/included in SEE.</p> <p>The objective is to emphasise more on making the students learn fundamental concepts and principles from their employability point of view.</p> <p>And also to see that students are not overloaded with content to be learnt. This makes the Course content more readable, understandable and interesting to learn.</p> <p>The 'Self Preparation' content should be given as assignment to submit and is to be included to LA1 and LA2 (LA2 if it is an Integrated Course).</p> <p>x. All the subjects of 3<sup>rd</sup> and 4<sup>th</sup> semester have been reviewed thoroughly and some of the contents are identified (suitably) for 'Self Preparations' as mentioned in the Curriculum Hand Book.</p> <p>(Examples of Content for Self-Preparation and other suggestions are listed as follows.</p> <p>xi. Shift the Deflection of beams Unit from Strength of Materials to Structural Analysis-I, in</p>



	<p>order to have the continuity and importance of the topic stressing more on Calculating Bending Moment or Shear Forces and plotting diagram.</p> <p>xii. Questions on derivations can judiciously be included / avoided in SEE.</p> <p>xiii. Surveying I and II are modified to include major part of Conventional Surveying in 3<sup>rd</sup> semester under the title 'Fundamentals of Surveying -I'. Other types of Surveying and Total Station is covered in the Course Titled 'Advanced Surveying and Total Station. Few topics (not so relevant) have been removed.</p> <p>xiv. Numerical problems on measurement of Horizontal distances (Unit I) and on reservoir capacity (Unit V) should be included.</p> <p>xv. Few numerical on Water hammer in pipes should be included in Fluid mechanics.</p> <p>xvi. No. of Text books mentioned in the syllabus can be 2 or 3 only and References may be many.</p> <p>xvii. Few topics like deterioration of stones, types of tiles, timber and defects are removed from the syllabus and UPVC &amp; Aluminium are introduced.</p> <p>xviii. 'Shoring and Underpinning' is introduced In Unit-III of Basic materials and Constructions. 'Trusses – materials &amp; Types, weather proof course for RCC roof' is included in UnitV.</p> <p>xix. Building Planning and Drawing has been shifted from Theory to Laboratory as the method of SEE (writing drawing Course Examination in a regular Answer Booklet) was not at all satisfactory and the performance of students was affected. New topic on Hand sketching and plotting on graph sheet (to familiarise the concept of Scale) should be introduced in addition to CAdd Drawings.</p> <p>xx. Some of the topics under the Course HHM - Hydraulics and Hydraulic machines (like Francis Turbine, more relevant to Mechanical Engineering program) has been removed. Books (authored by K.R Arora and R K Bansal) under Reference for HHM should be moved as Text books.</p> <p>xxi. Codal provisions should be introduced in Concrete Technology and in other relevant Courses / topics. Properties of concrete by Neville should be shifted from Text book to reference book.</p> <p>xxii. Engineering Geology Course Contents were reviewed thoroughly and suggested to remove few contents on Rocks and Minerals, which are not used in the field of Civil Engineering. Laboratory syllabus is suggested to be revised making its more oriented towards Civil Engineering applications.</p> <p>xxiii. New Lab on Construction Methods and Practices (CMP-I) Lab- I is introduced in 4<sup>th</sup> semester.</p> <p>xxiv. Introduction of New Program Electives like 'Detailing of RCC structural Elements and Bar bending Schedule' and 'Structural Steel Members and joint Detailing' are appreciated by the members.</p> <p>xxv. Col. Ramachandra and Dr. Kalgai have appreciated the new Model proposed and suggested to execute it effectively.</p>
4.	<p>i. 2018 Curriculum was required to be revised keeping in mind the Total Credits of 175 (as per the Guidelines of VTU &amp; AICTE) for UG program. I sem and II sem Scheme and curriculum was proposed by basic Science Dept and Autonomous Office, in consultation with HoDs of All the Departments. Courses Content relevant to each Program was approved by respective departments.</p> <p>ii. Revised Curriculum of Engineering Mechanics (2018 Scheme) of I and II sem was presented with the major change of removing 'projectile related topic as it is a part of</p>



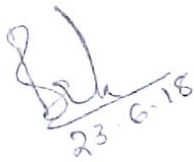
	II PUC/12 <sup>th</sup> . Reorganised the content of Unit-3 under Unit-3 (Trusses) and Unit-4 (Friction) was approved by the Board.
5.	i. 2018 Curriculum was required to be revised keeping in mind the Total Credits of 88 (as per the Guidelines of VTU & AICTE) for PG program. Since the Course position, Course Contents, inclusion of laboratory Component in relevant Courses were made in 2016 scheme itself, major change in Credit allotment to each and every Courses is taken care in the Curriculum of M.Tech Structural Engineering. Emphasis was given on execution of laboratory component under the Theory Courses. Curriculum was presented by HoD, reviewed and approved by the members of the Board.
6.	<p>i. As per the requirement of AICTE and Modified VTU Scheme, it was proposed to include 6 program Electives in the Civil Engineering Program (from 3<sup>rd</sup> Sem to 8<sup>th</sup> Sem) and two Open Electives in 6<sup>th</sup> and 7<sup>th</sup> Sem.</p> <p>ii. Engineering Geology was proposed as Program Elective under Group A to studied by all the students compulsorily keeping the importance of the Course in mind.</p> <p>iii. Introduction of new topic - Vertical distribution of ground water in Structural Geology was suggested. It was also suggested to make the Course more interesting (Ref: VTU Syllabus for any necessary changes) and relevant to Civil Engineering.</p> <p>iv. Major improvement made in the list Program Electives(PE) is that PE Courses are categorized under each specialization (group A to F) semesters, to facilitate orientation of Focus of students in one particular area.</p> <p>v. Nitte School of Architecture is also offering few Courses under PE/OE.</p>
7.	i. Members have approved the members of BoE 2018–19 for UG and PG studies and Panel of Examiners (PoE)
8.	<p>vi. The members of BoS suggested the following</p> <p>vii. It was suggested to establish 'Hands -on Practice laboratories' similar to 'Ramakrishna College of Engineering in Coimbatore. It is a need now for proposed new labs under CMP I,II and III – Construction Methods and practices.</p> <p>viii. National Building Code (NBC) should be introduced as an elective (Part –I). NBC can be added in Town Planning as a PE offered and handled by B-Planning School team, NBC with respect to Fire Safety and Construction safety can be introduced as PE.</p> <p>ix. Members stressed on involvement of faculty members in Research and consultancy Activities with new materials, methodology and softwares. (Further to the suggestion of using the facilities of Nitte Fashion Technology laboratory for Characterisation of fibres, it was suggested by the member that an Institute named 'Attira in Ahmedabad' can be one for characterization of fibers. Col.Ramachandra suggested check the suitability facility in of Nitte Fashion Technology).</p> <p>x. 5th Semester subject 17CVL57 can be replaced with Irrigation Design &amp; Drawing and proper Content and Scheme of Evaluation should be prepared .</p> <p>xi. It was suggested to contact Dr. Jaya, ICI chairman of Chennai Centre for approval of Course content of Precast &amp; Prefabricated Structures.</p> <p>xii. Concept of BIM – Building Information and Modelling to be introduced relevantly in the content of one of the Courses</p> <p>xiii. Proposal of UGC norms on Internship to be carried out in rural areas (compulsory)</p>



	<p>Was discussed and opined that it may not be relevant to Engineering filed as most of the development happens in industrial sectors and developed areas like town and cities. However, societal requirement can be addressed in different forms like road show, Swachchha Bharath Abhiyan program, similar to activities like blood donation camp etc.</p> <p>viii. Introduction of new courses has been done for PG programme Matrix and Finite Element Method of Analysis, Advanced Design of Steel Structures, Sustainable Structures by prior approval of board members.</p> <p>ix. Dr. Kalgai suggested that 'The team Civil Engineering' to work towards 'making NMIT civil Dept. unique' to build up a 'unique identity in the industry' which makes employability of students easier.</p>
9.	Meeting was concluded with HOD thanking all the members for their deliberations and suggestions focused to improve the department as a whole.

Sd/-

Chairperson – BoS  
HoD-Civil Engineering  
NMIT, Bangalore

  
23-6-18